

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

CASE 14-M-0101 – Proceeding on Motion of the Commission in Regard to Reforming  
the Energy Vision.

ORDER ADOPTING REGULATORY POLICY FRAMEWORK  
AND IMPLEMENTATION PLAN

Issued and Effective: February 26, 2015

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APPENDICES

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

At a session of the Public Service  
Commission held in the City of  
Albany on February 26, 2015

COMMISSIONERS PRESENT:

Audrey Zibelman, Chair  
Patricia L. Acampora  
Gregg C. Sayre

COMMISSIONER EXCUSED:

Diane X. Burman

CASE 14-M-0101 – Proceeding on Motion of the Commission in Regard to Reforming  
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(Issued and Effective February 26, 2015)

BY THE COMMISSION:

I. INTRODUCTION

The electric industry is in a period of momentous change. The innovative potential of the digital economy has not yet been accommodated within the electric distribution system. Information technology, electronic controls, distributed generation, and energy storage are advancing faster than the ability of utilities and regulators to adopt them, or to adapt to them. At the same time, electricity demands of the digital economy are increasingly expressed in terms of reliability, choice, value, and security.

Cost, as always, is a driving concern. Aging infrastructure, declining system efficiency, and flat sales growth place pressure on rates, and imply increases

under a business-as-usual approach. Meanwhile, the trend toward affordability of self-generation threatens to create an unacceptable gap between those who can choose to leave the grid and those who cannot, with implications for the obligation to ensure reasonably priced and reliable service.

Climate change also compels reform. Forward planning in the electric industry must include carbon reduction, building to withstand severe weather, and dynamic system management to accommodate the needs of a low-carbon generation fleet.

The State of New York is responding to these challenges. Governor Andrew Cuomo's 2015 State of the State address documented the substantial efforts underway in New York, which are "reforming the energy vision" for the State, many of which are actions taken by this Commission. They include the creation of the nation's largest Green Bank, the launch of the NY-Sun solar initiative, the multi-agency Charge NY initiative to support electric vehicle deployment, BuildSmart NY to retrofit public buildings across the State, and the multi-state Regional Greenhouse Gas Initiative.<sup>1</sup> Following Superstorm Sandy, billions of dollars are being invested to harden infrastructure, including by utilities, to prepare for the increasing frequency of severe storms. In 2014, the Legislature passed, and Governor Cuomo enacted, the Community Risk and Resiliency Act to strengthen New York State's preparedness for the effects of climate change.<sup>2</sup>

While much has been accomplished in recent years, the Commission's mandate to ensure safe and adequate service at just and reasonable rates, coupled with the statutory charge to promote efficient planning and use of resources, compels further regulatory action to secure fulfillment of the State's energy needs. The challenges that stimulate action also reveal tremendous opportunities to improve our century-old regulatory system. The regulatory initiative launched in this proceeding, Reforming the

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<sup>1</sup> Governor Andrew M. Cuomo, 2015 Opportunity Agenda, State of the State, pages 131-153.

<sup>2</sup> Chapter 355 of the Laws of 2014.

Energy Vision (REV), aims to reorient both the electric industry and the ratemaking paradigm toward a consumer-centered approach that harnesses technology and markets. Distributed energy resources (DER)<sup>3</sup> will be integrated into the planning and operation of electric distribution systems, to achieve optimal system efficiencies, secure universal, affordable service, and enable the development of a resilient, climate-friendly energy system.

This new direction is consistent with the 2014 Draft State Energy Plan, which calls for the use of markets and reformed regulatory techniques to achieve increased system efficiency, carbon reductions, and customer empowerment.<sup>4</sup> The reforms and innovation that are contemplated in this proceeding will be done in conjunction with the independent but related actions of the New York State Energy Research and Development Authority (NYSERDA), the New York Power Authority (NYPA), the Long Island Power Authority (LIPA) and the New York Independent System Operator (NYISO), with the overall objective of ensuring that New York meets and exceeds its targeted goals to reduce carbon emissions through energy efficiency and clean power development in a manner that ensures grid reliability and resiliency while enhancing the value of the system for consumers.

The goals of REV are ambitious. However, the extent of party activity and widespread support for the objectives of this proceeding indicate that the industry and the public are ready to meet this challenge. The Commission will not be alone in the design and development of the reformed electric system. This will occur over a period of years through the mutual efforts of industry, customers, non-governmental advocates, and regulatory partners.

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<sup>3</sup> Throughout this order, "DER" is used to describe a wide variety of distributed energy resources, including end-use energy efficiency, demand response, distributed storage, and distributed generation. DER will principally be located on customer premises, but may also be located on distribution system facilities.

<sup>4</sup> Shaping the Future of Energy, New York State Energy Planning Board, 2014.

In this Order, we adopt a policy framework for a reformed retail electric industry. We decide those issues that need resolution at this stage, discuss numerous issues that need further development, and specify a process for moving forward. A companion to this Order, under Track Two of this initial phase of REV, will adopt ratemaking reforms to secure equitable allocation of benefits and costs among customers and to align utilities' financial interests with the objectives of reform.

## II. PUBLIC PROCESS AND COMMISSION AUTHORITY

Prior to the institution of this proceeding, we directed New York State Department of Public Service Staff (Staff) to begin a process to reconsider our regulatory paradigms and markets.<sup>5</sup> After a period of inquiry and a Staff Report and Proposal,<sup>6</sup> we issued an Order Instituting Proceeding on April 25, 2014.<sup>7</sup> Our Order stated six objectives for the current initiative:

- Enhanced customer knowledge and tools that will support effective management of the total energy bill;
- Market animation and leverage of customer contributions;
- System wide efficiency;
- Fuel and resource diversity;
- System reliability and resiliency; and
- Reduction of carbon emissions.

Building on the Commission's guidance, Staff has articulated the REV vision in two documents. The April 24, 2014 Staff Report and Proposal formed the basis

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<sup>5</sup> Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, Order Approving EEPS Program Changes, issued December 26, 2013.

<sup>6</sup> Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, DPS Staff Report and Proposal, April 24, 2014.

<sup>7</sup> Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, Order Instituting Proceeding (issued April 25, 2014).

for the initiation of this proceeding.<sup>8</sup> The proceeding was separated into two tracks, with Track One focused on developing distributed resource markets, and Track Two focused on reforming utility ratemaking practices. On August 22, Staff issued a Straw Proposal for Track One which, in addition to party comments and further refinements identified here, articulates the basis for this policy decision.<sup>9</sup>

In the period between the Staff Report and the Straw Proposal, parties engaged in collaborative efforts and offered informal guidance on major policy issues. Nearly three hundred parties participated in these efforts. Under the leadership of two Administrative Law Judges, the parties formed two working groups charged with gathering data that broke into five committees (Markets; Customer Engagement; Platform Technology; Microgrids; and Wholesale Markets). The working groups filed reports on July 8, 2014 and presented their results in a July 10, 2014 technical conference before the Commission. Parties were also invited to submit preliminary comments on a number of policy issues, to guide the development of Staff's proposal, and 68 comments were submitted on July 18, 2014.<sup>10</sup>

Following the issuance of the Straw Proposal, a Notice of Proposed Rulemaking was published in the State Register on September 10, 2014, pursuant to the State Administrative Procedure Act.<sup>11</sup> Eighty-one initial comments were filed on September 22, 2014 and thirty-seven replies on October 24, 2014. Due to the volume of party comments, it is not feasible to summarize all party comments within the text of this Order. Comments are summarized by interest group, and individual comments are cited

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<sup>8</sup> The extensive bibliography attached to the Staff Report illustrates the extent of Staff's research and the level of work on these issues that has already been undertaken among thought leaders in the electric industry.

<sup>9</sup> Staff will issue a straw proposal on Track Two issues by June 1, 2015.

<sup>10</sup> Parties were also invited to submit preliminary comments on Track Two ratemaking issues, which were received on July 18, 2014.

<sup>11</sup> SAPA 14-M-0101SP8.



as either representative or particularly applicable. A summary of key topics addressed in party comments filed in response to the Straw Proposal is attached as Appendix A.

A second technical conference was held on November 6, 2014, in which policy issues were discussed among parties and Commissioners.

On October 24, 2014, the Commission issued the Draft Generic Environmental Impact Statement for comment. Fifteen comments were received, and on February 6, 2015 the Commission adopted the Final Generic Environmental Impact Statement. A Findings Statement prepared by the Commission as lead agency in this action in accordance with the State Environmental Quality Review Act, is attached to this Order as Appendix B.

In addition to party comments, over one thousand public comments have been filed on the Commission website.<sup>12</sup> The majority of these comments express general support for the REV concept, but identify various concerns. Comments covered a broad range of topics, including climate change, renewable resources, energy efficiency programs, net metering, the need for customer protections, and concerns about the speed and accessibility of the REV process.

The Commission also conducted public statement hearings in Buffalo, Syracuse, Albany, Kingston, Binghamton, Rochester, Yonkers, and New York City. Each hearing was preceded by an information session. Statewide, over 750 people attended the hearings and 240 individuals made statements. A large majority of speakers were supportive of REV goals to deploy greater distributed energy resources, energy efficiency, and renewable energy generation, addressing climate change and advocating that the Commission set benchmarks to wean New York off nuclear and all fossil fuels in the near future. Individuals also addressed the future of net metering, requested that incentive programs for renewable deployment be expanded, and discussed the benefits of geothermal technologies. Many speakers expressed concern that REV could increase the

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<sup>12</sup> Over six hundred commenters were affiliated with Environmental Advocates and over one hundred commenters were affiliated with People United for Sustainable Housing.

role and power of utilities, to the detriment of customers. Speakers called for greater transparency and oversight to protect customers. Many speakers also addressed the need for more public outreach, energy education, and increased opportunities for public involvement. Strong support was voiced for community based organizations that could enable customers to manage their energy use and cost. Concerns were expressed for low income communities, including the impact of the costs of implementing REV and the need to ensure that benefits of REV accrue to low income and environmental justice communities. In several hearings, individuals expressed apprehension about the health impacts of installing smart meters in homes.

A large number of participants in the public statement hearings argued for increased spending on renewable generation. Staff noted in its Straw Proposal that this issue might best be addressed on a separate procedural track. The procurement of grid-scale renewables will not be resolved in this order; rather, a separate process is established as discussed below in the Implementation section.

This proceeding is in continuity with numerous Commission actions that have been undertaken in recent years. These include: the Competitive Opportunities proceeding in which competitive electricity markets were first established in New York;<sup>13</sup> the Renewable Portfolio Standard (RPS) and Energy Efficiency Portfolio Standard (EEPS) proceedings in which clean energy and efficiency targets, and the means to achieve them, were established;<sup>14</sup> a series of proceedings establishing a regulatory

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<sup>13</sup> Case 94-E-0952, et al, In the Matter of Competitive Opportunities Regarding Electric Service, Opinion and Order Regarding Competitive Opportunities for Electric Service, issued May 20, 1996.

<sup>14</sup> Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard; Case 03-E-0188, Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard.

framework for distributed generation;<sup>15</sup> inquiries into smart meters and smart grid systems;<sup>16</sup> and new directions related to distribution infrastructure established in the most recently decided Consolidated Edison rate case.<sup>17</sup>

Pursuant to Public Service Law Section 65(1), the Commission is responsible for ensuring that electric corporations “furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and in all respects just and reasonable.” PSL Section 5(2) further requires that the Commission “encourage persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources.”

The Commission has the responsibility to adjust its regulatory framework in response to evolving circumstances and foreseeable trends, in order to meet customers' needs. These adjustments may include innovative, market-based tools and the formation of new business models. In 1996, the Commission directed New York's investor-owned electric utilities to develop and file proposed plans for restructuring to introduce

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<sup>15</sup> Case 99-E-1470, Proceeding on Motion of the Commission to Initiate an Inquiry into the Reasonableness of the Rates, Terms and Conditions for the Provision of Electric Standby Service; Case 02-M-0515, Establish Gas Transportation Rates for Distributed Generation Technologies; New York State Standardized Interconnection Requirements and Application Process for New Distributed Generators 2 MW or Less Connected in Parallel with Utility Distribution Systems.

<sup>16</sup> Case 09-M-0074, In the Matter of Advanced Metering Infrastructure; Case 10-E-0285, Proceeding on Motion of the Commission to Consider Regulatory Policies Regarding Smart Grid Systems and the Modernization of the Electric Grid.

<sup>17</sup> Case 13-E-0030, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service, Order Approving Electric, Gas, and Steam Rate Plans in Accord with Joint Proposal, issued February 21, 2014.

competition.<sup>18</sup> This action was held to be consistent with the Public Service Law<sup>19</sup> and supported by determinations in the Appellate Division that the Commission's authority extended to a decision to "introduce 'competition into a monopolistic marketplace and thus lower prices to consumers,'"<sup>20</sup> and that it was entirely appropriate for the Commission to "adapt to the changing patterns in the industry" in fulfilling its statutory mandates.<sup>21</sup>

The Commission's authority to require energy efficiency and demand management programs has been upheld on similar grounds. An Appellate Division court held that requiring demand-side management programs fell within the statutory mandate in PSL Section 5(2) to ensure economy, efficiency, and conservation of natural resources.<sup>22</sup> The court recognized the Commission's broad discretion and judgment in choosing the means of achieving legislative objectives.<sup>23</sup>

Judicial deference has been applied in numerous contexts where the Commission exercised judgment as to the best method of fulfilling its obligations. The Commission has latitude under established case law to adopt different methodologies or combination of methodologies in balancing ratepayer and investor interests.<sup>24</sup> This

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<sup>18</sup> Cases 94-E-0952 et al., Competitive Opportunities Regarding Electric Service, Opinion and Order Regarding Competitive Opportunities for Electric Service (issued May 20, 1996).

<sup>19</sup> Energy Ass'n of New York State v. Public Serv. Comm'n of the State of New York, 169 Misc. 2d 924 (Albany County Sup. Ct. 1996).

<sup>20</sup> Id. at 936 (citing CNG Transmission Corp. v. New York State Public Serv. Comm'n, 185 A.D.2d 671 (4th Dept. 1992)).

<sup>21</sup> Id. at 936 (citing Rochester Gas and Electric Corp. v. Public Service Commission of the State of New York, 117 A.D.2d 156 (3d Dept. 1986)).

<sup>22</sup> Multiple Intervenors v. Public Service Commission of the State of New York, 154 A.D.2d 76 (3d Dept. 1991).

<sup>23</sup> Id.

<sup>24</sup> Abrams v. Pub. Serv. Comm'n of the State of New York, 67 N.Y.2d 205, 214-15 (1986); New York State Council of Retail Merchants v. Pub. Serv. Comm'n of the State of New York, 45 N.Y.2d 661, 668 (1978).

includes crafting measures to address competitive and potentially disruptive trends,<sup>25</sup> and adopting proactive responses to the problems of, and opportunities created by, new technologies that might otherwise create stranded utility assets under conventional regulatory methods.<sup>26</sup>

Additional process and stakeholder engagement are contemplated in this proceeding, and in related proceedings. Most of the decisions made in this Order are not self-implementing. In many cases they will require further collaborative effort. Just as important, the future direction of REV will need to be responsive to market developments, and to developments in federal jurisdictions including carbon reduction rules.

### III. REV POLICY FRAMEWORK

#### A. Summary of the Vision

There are many possible regulatory approaches, business models, and market designs for electricity, but each must deal with the inalterable physical properties that make electricity a unique commodity and service. Electricity is a real-time product, produced and consumed almost simultaneously. Contract paths do not determine the flow of power, and supply and usage must be in continuous balance across the entire system. For this reason, the power grid is best thought of as a single machine. Moreover, affordable and reliable electric service is essential to a healthy and growing economy. Regulation and markets are constrained by these basic economic and physical facts and must develop rules to achieve system balance that are economically and environmentally sustainable while maintaining constant and reliable supply.

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<sup>25</sup> County of Westchester v. Helmer, 296 A.D.2d 68, 74 (3d Dept. 2002); Multiple Intervenors v. Pub. Serv. Comm'n of the State of New York, 154 A.D.2d 76, 80 (3d Dept. 1990).

<sup>26</sup> Kessel v. Pub. Serv. Comm'n of the State of New York, 136 A.D.2d 86, 97, 99-100 (3d Dept. 1987).

Viewing the electric grid as a single machine also means that each customer premise and every power consuming device is, in actuality, a part of the grid. Today, the customer side of the grid represents an enormous and largely untapped resource to improve the value of the system.

REV will establish markets so that customers and third parties can be active participants, to achieve dynamic load management on a system-wide scale, resulting in a more efficient and secure electric system including better utilization of bulk generation and transmission resources. As a result of this market animation, distributed energy resources will become integral tools in the planning, management and operation of the electric system. The system values of distributed resources will be monetized in a market, placing DER on a competitive par with centralized options. Customers, by exercising choices within an improved electricity pricing structure and vibrant market, will create new value opportunities and at the same time drive system efficiencies and help to create a more cost-effective and secure integrated grid.

The more efficient system will be designed and operated to make optimal use of cleaner and more efficient generation technologies. Weather-variable renewable resources will be made more economically efficient by increased use of load control, smart devices, and storage. The values of customer-sited generation – both reliability and environmental – will be recognized in markets. The system will encourage substantial increases in deployment of these technologies.

Enabling these markets will require modernization of infrastructure and operations, particularly communication and data management capabilities. The result will be an increase in the efficiency, responsiveness, and resilience of the system, with reductions in costs and carbon emissions, and increases in customer value.

The framework developed here will define good utility practice for the new century. In response to developments in technology, markets, and the environmental, the responsibility to ensure clean and reliable service at just and reasonable prices requires changes in the way the electric system is planned and operated.

The reformed electric system will be driven by consumers and non-utility providers, and it will be enabled by utilities acting as Distributed System Platform (DSP) providers. Utilities are responsible for reliability, and the functions needed to enable distributed markets are integrally bound to the functions needed to ensure reliability. Technology innovators and third party aggregators (energy service companies, retail suppliers and demand-management companies) will develop products and services that enable full customer engagement. The utilities acting in concert will constitute a statewide platform that will provide uniform market access to customers and DER providers. Each utility will serve as the platform for interface among its customers, aggregators, and the distribution system. Utilities will respond to new trends by adding value, thereby retaining customer base and the ability to raise capital on reasonable terms.

Simultaneously the utility will serve as a seamless interface between aggregated customers and the NYISO. The NYISO will be able to reflect the impact of active load management in grid planning and operations, and the wholesale supply markets will evolve to properly value dynamic load management. The objective of system optimization extends beyond the physical integration of distributed resources. Central generation, large-scale renewable resources, and transmission are critical system components. Efficient integration of DER will require consistent treatment of market dynamics and values across all segments of the grid.

Reforming the Commission's ratemaking practices will be critical to the success of the REV vision. Under current ratemaking, utilities have little or no incentive to enable markets and third parties in creating value for customers. Rather, utilities' earnings are tied primarily to their ability to increase their own capital investments, and secondarily to their ability to cut operating costs, even at the expense of customer value. Utility earnings should depend more on creating value for customers and achieving policy objectives. Rather than simply building infrastructure, utilities could find earning opportunities in enhanced performance and in transactional revenues. We intend to

address these issues in detail in a “Track Two” order and in subsequent rate proceedings.<sup>27</sup>

The REV vision is strongly supported by parties. Of 81 comments received on the Straw Proposal, a large majority approved the Commission’s general goals. Many of the supportive comments represent numerous parties collected into coalitions to provide more effective participation in stakeholder efforts. Most parties have specific concerns; these are discussed below in the context of individual issues.

The subjects addressed in REV are not unique to New York. It would be impossible to list all of the related developments in other jurisdictions, but prominent examples include integration of distributed resources in California and Hawaii,<sup>28</sup> consumer markets and emerging technologies in Texas,<sup>29</sup> grid modernization in Massachusetts,<sup>30</sup> and performance ratemaking in Minnesota and the United Kingdom.<sup>31</sup> National laboratories also play an important role providing research, practical demonstrations, and dissemination of information and expertise. The Electric Power Research Institute has begun an initiative to develop information and tools to encourage

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<sup>27</sup> Ratemaking issues are discussed in more detail in the April 2014 Staff Report and Proposal. Without predetermining any particular results at this time, we underscore the critical tie between the reforms authorized in this Order and ratemaking reforms.

<sup>28</sup> See, e.g., Public Utilities Commission of the State of California, Rulemaking 14-08-013, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769; Hawaii Public Utilities Commission, Case 2014-0192, Proceeding to Investigate Distributed Energy Resource Policies.

<sup>29</sup> See, e.g., Public Utility Commission of Texas, Project 39764, Issues Relating to Energy Storage and Emerging Technologies, Project 40372, 2013 Scope of Competition Report in Texas Electric Markets.

<sup>30</sup> D.P.U. 12-76-B, Investigation by the Department of Public Utilities on its own Motion into Modernization of the Electric Grid.

<sup>31</sup> E21 Initiative, Phase 1 Report, Charting a Path to a 21<sup>st</sup> Century Energy System in Minnesota, December 2014; Office of Gas and Electricity Markets, RIIO: A New Way to Regulate Energy Networks, Final Decision, October 2010.



collaboration in developing an integrated grid. The implementation of REV<sup>32</sup> will occur with reference to, and informed by, related initiatives throughout the industry.

B. Challenges and Opportunities

The Public Service Law entrusts the Commission with responsibility to ensure that utility service is safe and reliable, at just and reasonable rates, with care for the natural environment. The challenges and opportunities now facing the electric industry and electric customers, taken in the aggregate, lead to a conclusion that conventional utility and regulatory practices no longer represent the best approach to satisfying our responsibilities. The confluence of cost, reliability and environmental concerns cannot be satisfactorily resolved under a business as usual approach. In order to fulfill its statutory duty, the Commission must consider new approaches.

As noted above, thought leaders throughout the energy industry have discussed these problems in recent years. Many have actively participated in this proceeding, as parties and as advisors.<sup>33</sup> The challenges and opportunities summarized below are detailed in the two Staff reports, in party comments, and in the numerous sources cited in the Bibliography to the April 24 Staff report as well as in this Order.

The following discussion identifies and analyzes the trends driving our regulatory reforms. For convenience, these trends are broken into four categories: regulatory models and economic efficiency; system modernization for a digital economy; clean energy and environmental responsibility; and universal service. We employ these distinctions for the sake of clarity; however, there is a great deal of overlap and cross-reference among the categories. A principal purpose of REV is to bridge artificial gaps

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<sup>32</sup> As used throughout this order, “REV” refers not to any single action of the Commission but rather to a series of interrelated initiatives and opportunities, as described in the REV Policy Framework and as tied to similar related initiatives of the State.

<sup>33</sup> In particular, the Rocky Mountain Institute, the Regulatory Assistance Project, PointProspect Consulting, and the New York State Energy Research and Development Authority (NYSERDA) have provided invaluable consulting assistance.

created by our regulatory structure, and to account for values and costs that range across conventional categories. Examples of potential opportunities provided here are illustrative, not exhaustive.

1. Regulatory Models and Economic Efficiency

Challenges:

*System, design, development and utilization.* The existing electric system was designed and developed at a time when consumer demand was growing and viewed as inelastic. Economies of scale and limits in control and computing technology meant that central station power plants were deemed superior to distributed energy resources. These factors led to the development of an integrated system during the twentieth century that produced power that was reliable and economically efficient.<sup>34</sup>

The regulatory system that was used to set prices for electric service reflected the centralized model of the industry. For most of the last century, electric utilities were regulated as integrated monopolies that generated, transmitted and delivered power. In exchange for an obligation to serve all consumers at reasonable rates, regulators provide utilities with the ability to recover expenses used to provide service and a fair return of and on capital. The regulatory framework was designed to ensure that utilities were not charging monopolistic rents and at the same time to provide these companies with the ability to raise the significant capital required for the system at a low cost. In the last decade of the century, New York and many states found that for many reasons, the supply sector of the industry no longer should be considered a natural monopoly, and restructured the industry to support competition both in the source of supply and access to consumers. At the same time, the delivery elements of the system, transmission and distribution were retained under traditional regulation.

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<sup>34</sup> Adjusted for inflation, the national average residential retail price of electricity fell from 20.8 cents per kwh in 1960 to 11.32 cents per kwh in 2000, as costs were spread across a sales base that increased its usage by 422% over that time period.

The physical makeup of the grid means that the cost of electricity reflects the need to have resources on hand that are only required a few hours per year. Since electricity has not been amenable to storage in large amounts, the obligation to serve has required that the system be designed to meet the integrated peak usage and to have sufficient reserves in generation and delivery to retain reliability in the face of unanticipated unit losses. The introduction of air conditioning and changes in our economic base led to the development of a system in New York and elsewhere that consumes on average 18,600 MW of power during much of the year but can rise to nearly 34,000 MW during hot summer days.<sup>35</sup> This necessarily means that for many hours of the year, large portions of the generation and delivery systems are not used to meet consumer demand. Significant reserve margins and spinning reserves as well as redundant delivery systems are needed to enable the dispatch of generation to meet instantaneous consumption. The utilization rate of New York's electric system averages under 60 percent, and the trend is negative. Peak loads are growing five times faster than base sales. A centralized system also requires power to flow over long distances, with corresponding losses due to the inefficiency of electric conduction. From power plant to customer, approximately 7-8% of generated power is lost in the process of being transmitted and distributed, although the percentage may be much higher during peak loading. Energy losses in the generation of power from combustion are very large, ranging from 65% losses for older fossil plants to 50% for newer plants.<sup>36</sup>

*Aging infrastructure and flat sales.* The post-WWII era saw a great expansion of electric generating and delivery system capabilities in New York.<sup>37</sup> While

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<sup>35</sup> Numerical descriptions of system characteristics, unless otherwise noted, are provided by Staff analysis.

<sup>36</sup> National Renewable Energy Laboratory, Cost and Performance Assumptions for Modeling Electricity Generating Technologies, November 2010. For a comprehensive overview of energy production and usage flows, see Lawrence Livermore National Laboratory, US Energy Flows 2012.

<sup>37</sup> Consolidated Edison, for example, built 32 substations and switching stations from 1950 to 1960, compared with 4 between 1990 and 2000.

this infrastructure has been maintained and repaired over the years, much is now at or beyond its optimal service life. Based on planning reports filed by the state's utilities and the NYISO, approximately \$30 billion will need to be spent over the next decade to maintain current capabilities, compared with \$17 billion over the past ten years. The need for these investments will place pressure on utility rates.

Not only will replacing the infrastructure be more expensive than the existing system, shrinking energy sales and a poor load factor means the recovery of the investment will be made over a smaller consumer base. Growth rates in electric utilities' sales have declined steadily over the past five decades, and sales are currently projected to grow at a pace of only 0.16 percent per year through 2024.<sup>38</sup> To some extent this reflects the success of the state's energy efficiency policies which have reduced customer bills and air emissions. From the standpoint of utility rates, however, a flat sales base means that increased costs from replacing infrastructure cannot be spread across a growing sales base and must instead be absorbed by existing customers.

The need for investment also presents an opportunity to develop alternatives; a substantial portion of the infrastructure used in today's system was designed and built prior to the existence of the internet. But the longer the delay in identifying alternatives, the more risk of locking in inefficient investments.

*Fuel diversity.* Overdependence on any fuel that may become scarce makes the system vulnerable, both for price and for reliability. Driven by economic and emission concerns, the state's reliance on natural gas for electric generation increased 96% from 2004 to 2012. This is a positive trend in the near term, but in the long term dependence on gas needs to be moderated. The price of natural gas now establishes the market price for electricity more than 50% of the time. Relatively low gas prices have resulted in net savings to consumers over recent years, but vulnerability to price fluctuation and periodic spikes remains. Average monthly day-ahead electricity prices

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<sup>38</sup> Statewide electric sales growth averaged 3.8% from 1966-1976, 1.5% from 1976-1986, 1.4% from 1986-1996, 0.9% from 1996-2006, and 0.3% from 2003-2013.

regularly fluctuate in ranges exceeding 20% relative to the prior month. Occasional extreme events can create even larger spikes; gas transportation constraints caused price spikes in the winter of 2013-2014, with an estimated total cost to New York customers of over \$1.0 billion. Because local natural gas prices, at times, can be dramatically affected by gas pipeline bottlenecks, reliance on gas also means that New York can be adversely affected by price consumption spikes in neighboring markets.

*System Benefits Charge.* When it was initiated in 1996, the System Benefits Charge (SBC) was intended to maintain certain public benefits in a time of transition.<sup>39</sup> The SBC has subsequently grown into the primary vehicle for achieving the State's efficiency and clean energy goals. Although a great deal has been accomplished through the SBC,<sup>40</sup> achieving the carbon reduction goals proposed in the Draft State Energy Plan<sup>41</sup> through existing SBC approaches would require large increases in the surcharge which already represents a substantial portion of some customers' bills. Existing SBC approaches do not, for the most part, address the root inefficiencies in the electric system; nor do they do enough to build a lasting market structure to support investment in, and adoption of, clean energy at scale. Rather than simply addressing the ongoing symptoms of the problems, our efforts must be more focused on systematic solutions. More importantly, the regulatory system must begin to properly value the attributes that the SBC has been used to promote, and ensure that clean energy is integrated in core electric system operations.

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<sup>39</sup> Case 94-E-0952, *supra*, at 62.

<sup>40</sup> As of the end of 2014, SBC programs have produced approximately 13 million MWh of renewable generation and electric efficiency savings and over 14 million MMBtu in heating savings.

<sup>41</sup> The Draft Plan proposes a 50% reduction in carbon by 2030, placing the State on a pathway toward an 80% reduction by 2050.

Opportunities:

*Modernized Regulation and Markets.* From the perspective of the utility investor, the current regulatory system places a premium on capital deployment. In contrast to competitive firms that are damaged by low rates of capacity utilization, utilities under traditional rate of return regulation are indifferent as to whether the rate of capital utilization is efficient. We do not have to look far from the electric delivery system, however, to identify the efficiency improvements that competition can provide to an historically regulated monopoly service. One of the benefits of wholesale power competition has been the improved efficiency of electric generation. In New York and other regions that restructured their industry, the introduction of competition led to the retirement of older and uneconomic plants, reduced outage periods, and improved capacity factors, all of which led to consumer benefit.<sup>42</sup>

It does not follow that competition could also provide standard electric delivery services. Under the present regulatory model, however, distributed energy competes with the standard methods of supplying *and* delivering power. The opportunity before us is to set forth a regulatory and business model for the traditional utility and its investors that prompts encouragement of this form of competition, rather than opposition. In doing so we can avoid the inefficient use of capital that occurs when government and monopolists refuse to remove barriers to the benefits that occur from innovation and competition. In Track Two of this proceeding we will undertake the ratemaking changes that are needed to support the economic expansion and use of DER in the industry. In

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<sup>42</sup> See, The New York Independent System Operator: A Ten Year Review, April 12, 2010. While wholesale supply competition has demonstrable benefits, power markets are not yet fully competitive and continue to evolve. The development of price sensitive demand through DER investment will continue to improve competitiveness of the wholesale markets. At the same time, it will be important that the wholesale markets make any appropriate changes to adapt to new forms of competition in a changed regulatory framework, to ensure that these competitive benefits occur. Indeed, the Commission has been requested by Governor Cuomo to undertake such an analysis as part of the State's reform efforts (see 2015 New York State of the State Address).

this Order, we focus on the changed business model for the distribution utility that can support such growth.

*Intelligent infrastructure investment.* While much of the aging infrastructure will need to be replaced, dynamic load management and other forms of DER can reduce near term needs in targeted areas and long term needs throughout the system. The viability of intermodal competition provided by DER means that the monopoly function of power delivery is now more tied to ensuring reliability than it is to building delivery infrastructure. The forecasted size of conventional utility investments indicates a need to develop optimal planning around new models as soon as possible. Where utility system investments cannot be avoided or deferred, they can be turned to the development and service of a modernized grid. Investments needed to build a more intelligent network will be substantial and, in the near term, may be comparable in size to investments that would otherwise be made under a business as usual scenario. In the long term, these investments will allow more system needs to be fulfilled by third parties without placing the full burden on utility consumers, while improving the reliability, costs and resiliency of the overall system.

*Stabilizing customer bills.* The pressure on rates that will be caused by aging infrastructure replacement, reliability and security needs, carbon rules, and other factors can be mitigated by the cost reductions that are available through increased system efficiency achieved through markets and improved regulation. Increasing the responsiveness of demand will reduce price volatility in the near term and price inefficiency in the long term. If, for example, the 100 hours of greatest peak demand were flattened, long term avoided capacity and energy savings would range between \$1.2 billion and \$1.7 billion per year. Avoided line losses achieved by distributed generation can further improve system efficiency. Total line losses cost approximately \$200-400 million per year. Beyond these examples of direct cost reductions, markets established under REV will enable a range of options that will reward customers for participating in system optimization, and assist in control of customer bills.

*Optimizing fuel diversity.* Responsive demand management, combined with more diverse generation options, can reduce the volatility consequences of gas dependence while retaining the benefits of using gas as a primary fuel source. Beyond that immediate advantage, the integration of a wide array of distributed resources, including dynamic load management, can establish a flexible system that is immune from dominance of any particular generation source.

*Realizing the potential of storage and innovative technologies.* The instantaneous nature of electricity places a premium on storage while, at the same time, making storage capabilities difficult to achieve. Historically, storage on a large scale has been accomplished by large reservoirs of water. Other than stored hydro, the chief way of balancing system load has been to convert stored fossil fuels, through combustion, into electricity.<sup>43</sup> In recent years, the cost of various storage technologies has declined, and their capabilities have increased.<sup>44</sup> In addition to various forms of battery storage, building based thermal storage allows business and residential consumers to reduce bills through use of sophisticated sensors, thermostats and building control systems.<sup>45</sup> This ability to use information to obtain the advantage of thermal storage, as well as deployment of batteries and other forms of storage located on customer premises or at key locations in the distribution system, has the potential to greatly decrease system costs, including active and reactive power control and load balancing.<sup>46</sup> While storage is

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<sup>43</sup> Capacitors are also used to balance the system but have a very short discharge duration.

<sup>44</sup> See, e.g., Sandia National Laboratories, DOE/EPRI 2013 Electricity Storage Handbook in Collaboration with NRECA; Advanced Battery Forecast, Materials and Next Generation Chemistries, GE Research Battery Conference, December 5, 2014.

<sup>45</sup> Similar techniques can be applied to utilize domestic water heating as a storage medium.

<sup>46</sup> U.S. DOE Electricity Advisory Committee 2014 Storage Plan Assessment Recommendations; U.S. DOE Electricity Advisory Committee 2012 Storage Report: Progress and Prospects; and The Value of Distributed Electricity Storage in Texas, Brattle Group, November 2014.



given as an example here, opening markets to enhance system value will create similar opportunities for other technologies as well.

## 2. System Modernization for a Digital Economy

### Challenges:

*Information Technology.* The modern economy is increasingly dependent on electricity. The power needs of the digital economy increase the need for reliability, power quality, and resilience in the power supply.<sup>47</sup> The massive increases in efficiencies of the digital economy, however, have not yet been enjoyed within the electric industry. Real-time interoperability is commonplace in most service industries, while information flow in electric distribution networks remains undeveloped.<sup>48</sup> The rise of information technology creates a need for change in the electric system but also provides the tools to accomplish that change.

*Cyber security.* The centralized power distribution system is vulnerable to a real and ongoing threat of massive failure caused by cyber attack. No static set of protective measures can be defined, due to the constantly evolving nature of the threat. As communication technology grows in sophistication and points of entry to utility systems increase, risk of harmful entry increases also.

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<sup>47</sup> As a consequence of this development, the cost to the economy of power outages is an increasing concern. An older study estimated the annual national cost of grid outages at \$79 billion. LaCommare and Eto, *Understanding the Cost of Power Interruptions to U.S. Electricity Consumers*, Lawrence Berkeley National Laboratory, September 2004.

<sup>48</sup> Communication functionality of customer-sited DER does not currently extend to distribution system operators, which limits its potential to provide system value. See, e.g., *Advanced Inverter Functions to Support High Levels of Distributed Solar*, National Renewable Energy Laboratory, November 2014.

Opportunities:

*Customer choice and animating markets.* The electric system is increasingly anachronistic in the limited choices offered to customers and limited interoperability between customers and providers. Public comment in this proceeding has been clear in the demand for more control over energy choices. The intent of REV is to enable electric customers to drive markets in a productive and efficient way.

*Reliability and power quality.* The digital economy depends on highly reliable electric supply. The cost of maintaining reliability across a centralized system becomes unacceptably high where the system is built to serve unmanaged peak demands. Dynamic load management will reduce the cost of providing reliability on a systemwide basis, while DSP markets will also enable enhanced service to commercial and industrial customers with unique power quality needs.

*Resilience.* A less centralized and more automated system, which may include microgrids, will have greater operational visibility, and ability to isolate circuit faults, resulting in reduced damage and improved recovery times following outages from weather events or other causes. Distribution automation devices such as intelligent switches and reclosers add flexibility and the ability to react, isolate and respond to system conditions in real time. Upgraded design, installation and maintenance standards for electrical infrastructure also help prevent electrical damage before it occurs and improve performance in conjunction with advanced technologies and practices.

*System security.* There is no permanent solution to the problem of cyber security other than constant reevaluation and response to emerging threats and trends. Increasing points of entry has the potential to increase risk. A decentralized system, however, that is capable of segmentation and contains self-sufficient microgrids or similar configurations with appropriate firewalls, may be more resilient against the impacts of a wide scale cyber attack.

3. Clean Energy and Environmental Responsibility

Challenges:

*Climate.* Climate change poses several different types of challenge to the electric industry. First, and most obvious, is the need to reduce carbon emissions. This need extends beyond the current electric generation fleet, because a serious effort to meet carbon reduction goals will also require a shift toward electric transportation and building heating with an accompanying expansion of electric generating capacity. Second, reliability and resilience concerns driven by severe weather will increase infrastructure costs and may also impel more customers to seek self-generation solutions. Third, increasingly severe weather trends will eventually force a wider range of load forecast planning scenarios, which would exacerbate the inefficiency of planning to meet uncontrolled system peaks. Fourth, the shift toward greater reliance on natural gas, which has been a first-stage carbon reduction measure, has led to fuel diversity concerns and poses a challenge to meeting long-term carbon goals. Finally, the economic value of a weather-variable non-combustion generation fleet can be greatly enhanced by the demand-side flexibilities envisioned in REV.<sup>49</sup>

*Plug-in electric vehicles.* As mentioned above, achievement of carbon reduction goals will likely require electrifying transportation, including a substantial shift to electric vehicles. A large penetration of electric vehicles has potential to strain distribution infrastructure, as recharging may occur during evening hours which are already a summer peak time on many residential distribution circuits.<sup>50</sup>

*Combined heat and power.* The largest-scale distributed generation (DG) tends to be combined heat and power, including gas-fired cogeneration and fuel cells, which generally makes a more efficient use of fuel than centralized generation and avoids

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<sup>49</sup> See, e.g., Mills and Wiser Changes in the Economic Value of Variable Generation at High Penetration Levels: A Pilot Case Study of California, Ernest Orlando Lawrence Berkeley National Laboratory, June 2012.

<sup>50</sup> U.S. DOE, Evaluating Electric Vehicle Charging Impacts and Customer Charging Behaviors, December 2014.

the line losses that result from power transmission. For distribution systems to accommodate much greater penetration of combined heat and power, changes to pricing, physical interconnection procedures, backup-power rates, and system controls will be needed.

*Integrating distributed renewable generation.* In recent years the cost of photovoltaic power (PV) has reduced dramatically,<sup>51</sup> and the trend toward increased penetration of PV is expected to continue.<sup>52</sup> This is generally a very positive development, but it presents challenges. The distribution system, as traditionally configured, could limit the penetration of distributed generation; a very high penetration of distributed generation has the potential to disturb the operation of distribution circuits unless intelligent controls are used.<sup>53</sup> Even where this problem does not exist, the perception of a reliability concern can inhibit new projects. Second, PV is currently enabled by net metering, which is an imprecise measure of the value of PV to the system and, at high percentages of total load, could place an inequitable burden on customers that are not able to own or install PV.<sup>54</sup>

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<sup>51</sup> Installed PV prices fell by an average of 6-8% per year during the period from 1998 to 2013. Lawrence Berkeley Lab, Tracking the Sun VII, The Installed Price of Photovoltaics in the United States from 1998 to 2013, p. 13-14. See also, Lazard's Levelized Cost of Energy Analysis – Version 8.0, September 2014.

<sup>52</sup> From 2003 to 2012, total PV installed under NYSERDA's incentive program increased from 0.37 MW to 62 MW.

<sup>53</sup> Hawaii Public Utilities Commission, Case 2011-0206, Proceeding to Investigate the Implementation of Reliability Standards, Order 32053, at 35 ff.

<sup>54</sup> Net metering penetration is currently capped at 6% of each utility's load; at these levels the Commission has determined that disparate rate impacts are not substantial. Case 14-E-0151 et al, supra.

Opportunities:

*Reduced emissions and system heat rate.* Although distributed generation is not inherently lower in emissions, or greater in efficiency, than centralized generation, a system biased steeply toward centralized generation prevents the cleanest and most efficient mix of generation from being developed. Combined heat and power at the distributed level can be a highly efficient way to meet energy needs;<sup>55</sup> many high-usage customers already rely on some form of distributed generation. Through tariffs and markets that fairly price and value these resources, customers will be able to optimize their size for both individual use and system value. Increased PV, wind, fuel cells, geothermal systems, and energy efficiency will reduce emissions. Creating viable markets for distributed resources and monetizing their values will enable development of distributed resources to complement central generation to optimize the emission and fuel efficiency profile of the total generation fleet. Systems and technology improvements at the wholesale level will lead to efficiency improvements throughout the grid.

*Energy efficiency.* Energy efficiency, the kilowatt-hour not consumed, remains among the most cost effective ways to reduce emissions. Experience with efficiency programs in New York and elsewhere has demonstrated that improved pricing and markets for efficient products yield substantial savings for customers. There is a large potential for further efficiency gains, to reduce emissions and customer bills that are not being effectively captured by current approaches. Where subsidy programs with budget-driven participation caps have the effect of displacing market development, the potential for efficiency gains is limited. Meeting the goals described in the Draft State Energy Plan will require more efficiency than can be accomplished using only surcharge-funded programs. Market transformation strategies will leverage more customer investment to accomplish greater efficiency than is currently contemplated in state program targets.

*Accommodate low-carbon generation.* Aside from the direct effect of enabling more options in clean generation, the dynamic load management contemplated

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<sup>55</sup> See, e.g., U.S. EPA, Catalog of CHP Technologies, September 2014.

by REV will also make it functionally feasible to operate a very-low-carbon generation system. Most foreseeable generation scenarios that might accomplish an 80% by 2050 reduction involve a mix of weather-variable generation such as wind and solar, and invariable base load generation.<sup>56</sup> A system consisting of weather variable and invariable generation will require a highly responsive demand side and/or the ability to store electricity on a large scale.<sup>57</sup> The dynamic load management of REV would make this possible.

*Electrification of transportation systems.* DSP markets can assist a transition to electric vehicles by turning what could be a strain on distribution systems into a valued asset. Electric vehicles present great opportunity if coordinated with grid functions to provide storage and voltage support. Electric vehicles can also increase utility sales and reduce rate pressure caused by infrastructure needs.

*Geothermal heating systems.* Achieving long range carbon goals will likely require a transition away from fossil fuels in building heating systems as well as transportation. As many participants in public hearings pointed out, ground-source heat pumps powered by electricity are commercially available and economically feasible for many customers.<sup>58</sup> Dynamic load management markets will provide additional value opportunities for customers employing ground-source heat pumps, as units can be cycled to optimize system loads.

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<sup>56</sup> New York Climate Action Council, Interim Report, Chapter Four.

<sup>57</sup> See, e.g., Sorknaes, Maeng, Weiss, and Anderson, Overview of the Danish Power System and RES Integration, July 2013.

<sup>58</sup> Heat Pumps Potential for Energy Savings in New York State, NYSERDA, July 2014; Updated Buildings Sector Appliance and Equipment Costs and Efficiency, United States Energy Information Administration, 2013; Ground-Source Heat Pumps: Overview of Market Status, Barriers to Adoption, and Options for Overcoming Barriers, U.S. Department of Energy Energy Efficiency and Renewable Energy Geothermal Technologies Program, Feb. 3, 2009.

4. Universal Service

Challenges:

*Affordability.* Competitive markets and other New York initiatives have worked to bring the state's average industrial rates below the national average. Many customers in New York, however, face affordability challenges. On average, approximately one in eight residential customers is in arrears for over 60 days, and over 250,000 customers per year experience involuntary shut-offs.

*Contraction of Utilities' Customer Base.* Customers will drive markets, and if the existing regulated markets do not provide choices that customers want or need, customers will eventually find alternatives. Under a conventional regulatory regime, the trends toward declining cost of self-generation, and increasing need for reliability, combined with price pressure on regulated utilities, present the risk of an eroding customer base that could increase the utilities' cost of capital and require those costs to be collected from a shrinking pool of customers.<sup>59</sup> One concern under the status quo is that only businesses and more affluent residential consumers might have the capability of gaining the benefits of DER. Without the reforms we are enacting, the current trajectory of DER deployment could create unintended harm to lower income consumers, creating an unacceptable gap in the quality and price of electric service.

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<sup>59</sup> See, e.g., Kind, "Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business", January 2013; McKinsey & Company, "The Disruptive Potential of Solar Power", McKinsey Quarterly, April 2014; Graffy and Kihm, Does Disruptive Competition Mean a Death Spiral for Electric Utilities?, Energy Law Journal, Vol. 31, No. 1 (2014): 1-44; Rocky Mountain Institute, "The Economics of Grid Defection: When and Where Distributed Solar Generation Plus Storage Competes with Traditional Utility Service", (2014); Lawrence Berkeley National Laboratory, "Utility Business Models in a Low Load Growth/High DG Future: *Gazing into the Crystal Ball?*" April 2013; Barron's Income Investing: Barclay's Downgrades Electric Utility Bonds, Sees Viable Solar Competition, May 23, 2014.

Opportunities:

*Maintain universal affordable service.* Customers' demand for reliable, clean, and economic power will drive markets. As options in self-generation and storage become more viable, utilities that cannot provide comparable value will experience an erosion of their customer base, resulting in risk to customers with fewer options. The Commission has begun to address this challenge through separate proceedings, including ones that are specifically focused on the needs of low-income consumers and the introduction of community aggregation and community net metering. The comprehensive reforms we initiate here will complement these efforts. DSP markets can harness distributed resources to the service of the broader system and forestall the creation of a gap, by allowing customers to achieve the mutual economic and reliability benefits of remaining interconnected.

*Secure utilities' financial stability.* Universal service requires financially viable utilities, securing capital at reasonable cost to support a grid that serves the entire public. Affordability of rates is balanced against the need for utilities to earn a reasonable return on investments. These are familiar themes that have been at the heart of ratemaking practices for a century. The trends identified here, however, add a new factor to this balancing. The maintenance of both universal service and financial stability will depend on integrating customer choice and technology into utility practices. Under REV, utilities will respond to disruptive trends by adding value to various activities in the evolved power economy, with the concomitant opportunity to earn revenues from new service offerings and the ability to raise capital on reasonable terms.<sup>60</sup>

C. Conclusion

Utilities, and this Commission, could respond to these challenges by clinging to the traditional business model for as long as possible, relying on protective

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<sup>60</sup> For a discussion of the difference between cost-recovery and value-creation responses to disruptive threats, see Graffy and Kihm, supra.



tariffs, regulatory delay, and other defenses against innovation. A variation on this approach would be to assume a reactive posture, addressing issues only when they have grown into critical or highly visible problems. Alternatively, we can identify and build regulatory, utility and market models that create new value for consumers and support market entrants and this new form of intermodal competition – in other words, embrace the changes that are shaking the traditional system and turn them to New York’s economic and environmental advantage.

We decisively take the latter approach. For a century, policy goals were adequately served by regulatory methods that encouraged a static and unidirectional model of utility service. In the modern economy, the goals of reliable, affordable and clean electric service will not change; but the methods of achieving them must. REV is both an opportunity to improve greatly on the status quo, and a response to a convergence of trends that make business as usual unsustainable in the long run. The challenges that force us to question traditional methods and assumptions also reveal a pathway toward a more efficient, customer-friendly and sustainable model.

#### IV. ANIMATING MARKETS FOR DISTRIBUTED ENERGY RESOURCES

The policy framework described above will be the lens through which the Commission views individual policy and market development issues. Transforming the electric distribution industry entails a complex set of issues that will be developed over time by interested parties, including customers and industry, through market participation. Ultimate responsibility resides with the Commission in fulfillment of its statutory duties. The Commission will provide policy initiative and guidance, while participants will provide initiative in the development of products and market practices.

A. The REV Market Framework

1. Staff Proposal for a Distributed System Platform Provider

The functional center of the REV framework is the distributed system platform provider or DSP. The following DSP definition was developed by the Platform Technology Working Group:

The DSP is an intelligent network platform that will provide safe, reliable and efficient electric services by integrating diverse resources to meet customers' and society's evolving needs. The DSP fosters broad market activity that monetizes system and social values, by enabling active customer and third party engagement that is aligned with the wholesale market and bulk power system.

Under Staff's proposal, the DSP will be regulated by the Commission, both in its new capacity as a market maker and system coordinator, and in its traditional function as distribution utility. The Commission's chief concerns with respect to DSP regulation will be to enable markets, ensure fair market practices, fair and transparent information, data and services to all providers and their customers, impose standards for business practices and other protections necessary to protect consumer interests, and ensure the continued reliability of the system.

The functions of the DSP fall into three general categories: i) integrated system planning, ii) grid operations, and iii) market operations.

i. Integrated System Planning

Currently, utility system planning is performed in the context of capital plans. The Commission regularly reviews these plans, including in rate proceedings, and considers whether they are sufficient to meet the utility's regulatory obligation. As a market enabler, the utility/DSP will continue to have responsibility for distribution system planning and construction. However, the planning process must also be sufficiently transparent to support the development of DER alternatives that meet current and future system requirements. The modernization of distribution systems must be accomplished in a way that meets and balances a variety of policy objectives, including

system reliability and resiliency, customer empowerment, emission reduction, consumer protection, system efficiencies, cost-effectiveness, competitive markets, energy efficiency, power quality, and fuel diversity. In order for this to occur, providers and customers must have access to information that allows them to make economically informed investments. Integrated plans will include supply/demand planning, transmission and distribution (T&D) upgrades, and T&D maintenance. The NYISO will continue planning for bulk system upgrades, bulk generation forecasts, and transmission-level ancillary service needs. The retail regulatory correlate of the DSP planning function will be the Distributed System Implementation Plan (DSIP) which will be a multi-year plan filed with the Commission, subject to public comment, and updated regularly. The DSIP will contain (among other things) a proposal for capital and operating expenditures to build and maintain DSP functions, as well as the system information needed by third parties to plan for effective market participation.<sup>61</sup>

ii. Grid Operations

The DSP, situated between NYISO wholesale markets, DSP market participants, and end-users, will integrate DER into the current electricity delivery system. Utility grid operations will incorporate DSP market commitment and performance data into utility planning and operations to allow for an optimized, secure and more flexible power system, balancing supply and dynamically controllable demand-side resources including distribution-level ancillary services. It is anticipated that over time, DSPs will increasingly rely on DER to maintain reliable system operations during both “blue sky” days and significant system events. DSP operational functions also include real-time load monitoring, real-time network monitoring, enhanced fault detection/location, automated feeder and line switching, and automated voltage and VAR control. The DSP will commit and dispatch market-based DER and integrate net load impact information with utility grid operations, thereby providing greater visibility and

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<sup>61</sup> DSIPs are discussed further in the Implementation section of this Order.

control of the grid. The monitoring and dispatch of DERs will complement the increased use of intelligent grid-facing equipment such as sensors, reclosers, switched capacitors, and voltage monitors.

iii. Market Operations, Structure and Products

The modernization of New York's electric system will involve a variety of products and services that will be developed and transacted through market initiatives. Products, rules, and entrants will develop in the market over time, and markets will value the attributes and capabilities of all types of technologies. As DSP capabilities evolve, procurement of DER attributes will develop as well, from a near-term approach based on RFPs and load modifying tariffs, towards a potentially more sophisticated auction approach. It is also anticipated that apart from DER procurement, improved price transparency will result in more competitive markets for energy efficiency and other bill saving resources.

The structure of the market will be a function of the needs defined by the DSP and customers, the products available in the market and procurement mechanisms for those products, the identity and capabilities of market participants and their interactions among each other and with the DSP, and policy guidance of the Commission. Customers will realize the greatest benefits from open, animated markets that provide clear signals – both long and short term - for benefits and costs of participants' market activity.

Near term products procured by the DSP will include grid services such as peak load modifications, non-bulk ancillary services, and load management to enable investment deferral and more secure system operations. DSPs will offer services and pricing that support greater penetration of both DER and grid-scale renewable supply resources. Initially DER can be procured through RFPs to meet particular system needs, or enabled by tariffs and programs designed to value investments that support price responsive load management and/or energy efficiency. Service providers will also be free to develop new offerings based on their assessment of customer needs and products

offered by or to the DSP. Service products can include value-added electricity services, such as fixed commodity pricing, demand response and efficiency programs, or contracts for DER maintenance and operations. The market must also support alternative supply models such as community aggregation, microgrids and community based solar and/or storage. The products will not be described or enumerated exhaustively at this time. As one result of the working group process, the Markets Committee developed an inventory of DER products and services.<sup>62</sup> This inventory illustrates not only the range of potential DER solutions, but also the scope of the industry that already exists to provide these products and services.

The DSP will also provide or sell a set of products and services to customers and service providers. Those might include transaction or usage fees, platform access, analytic services, interconnection services, pricing and billing, metering information services and data sharing and DER maintenance, operation, and financing.

DSPs will need to establish a standardized market across the state. From the viewpoint of customers and service providers, there should be a single and uniform market platform. Prices and other geographically unique products can vary, both among utilities and within individual utility territories, but the conditions for market participation and even fundamental product terms must be uniform. This requirement extends beyond the “common look and feel” of customer orientation, into the technical protocols and market rules to which aggregators and service providers must conform.<sup>63</sup> Standardization reduces the cost of entry to providers and multi-site customers. It also supports increased

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<sup>62</sup> Case 14-M-0101, Working Group 1 DSPP Markets, Final Report & Attachments, July 8, 2014.

<sup>63</sup> Customers that operate facilities in multiple service territories present a unique problem, but it is not clear why their problem is exacerbated by the existence of multiple DSPs so long as market rules are uniform. Assuming that prices and other value terms will vary by location and time in any event, load reductions among a customers’ multiple facilities will not be interchangeable. We will direct the Market Design group to address this issue.

best practice transfer and the development of products that can be introduced across multiple utility territories.

The DSP should also facilitate retail interactions with the wholesale market, in addition to operation of retail DER markets. Retail and wholesale operations should be coordinated to optimize system efficiency and full realization of the values of DER. The NYISO could accept demand reduction bids directly from DER providers, dispatching demand side reductions in competition with supply side resources. Alternatively, the NYISO could accept bids from the DSP acting as an “aggregator of aggregators.” A third possibility is that the utility as DSP could rely on the contracted DER resources to help modify its load shape when it bids into the wholesale market to serve its own load. These mechanisms are not mutually exclusive; all can be pursued to achieve maximum efficiency. Concerted action of the NYISO, DSPs, regulators and market participants will be needed to achieve optimally efficient interoperability.

## 2. Party Comments<sup>64</sup>

In general, parties support Staff’s proposal that a DSP should be utilized to coordinate and integrate DER into system operations and planning. AEEI<sup>65</sup> and the Joint Utilities<sup>66</sup> note support for Staff’s characterization of three distribution level functions -- market operations, grid operations and integrated system planning -- that must be performed to provide reliable electricity service and animate retail markets to achieve the REV policy goals. Some parties, including National Energy Marketers Association (NEM), National Electrical Manufacturers Association (NEMA) and Utility Intervention

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<sup>64</sup> For an index of party acronyms, see Appendix A.

<sup>65</sup> AEEI filed comments on behalf of Advanced Energy Economy, the Alliance for Clean Energy New York, and the New England Clean Energy Council; hereinafter, collectively referred to as AEEI.

<sup>66</sup> Central Hudson Gas and Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation submitted joint comments.

Unit of the New York State Department of State (UIU), ask the Commission to more clearly delineate between "DSP" functions and "utility" functions, as well as between "basic" and "value-added" products and services. IBM Corporation (IBM) urges the Commission to focus on articulating the core functionalities of the DSP in the marketplace instead of identifying specific technologies. National Fuel Gas Distribution Corporation (NFG) asserts that the effective method of developing the REV market would be for the Commission to establish broad-based policy objectives for the industry, and let utilities and market actors develop innovative ideas, strategies and techniques to work toward the fulfillment of those objectives.

The American Association of Retired Persons with the Public Utility Law Project (AARP/PULP) argue that the Commission should adopt principles to reflect the current statutory guidance and not reinvent the role of the utility or mandate new obligations on customers without a clear understanding and discussion of the costs and benefits associated with any new obligations and programs. AARP and PULP assert that DER resources can be integrated without turning the existing electric grid into an intelligent network platform.

With respect to the market design principles articulated by Staff,<sup>67</sup> Consumer Power Advocates (CPA) argues that the proliferation of market principles must not distract from the focus on efficiency, reliability and cost control. Ecology & Environment, Inc. (ENE) recommends adding a DSP market design principle of "customer convenience" to Staff's principles, adding that simplicity of access to the marketplace should be paramount. ENE thus seeks clarification that the new DSP market should minimize the barriers to entry that consumers face with respect to adopting efficiency, new technologies, and innovation. Multiple Intervenors (MI) states that the Staff principle of customer benefit in the form of reducing volatility and promoting bill management is misdirected, because the primary customer benefit that should be targeted by the REV process is reduced costs and lower electric rates. MI also takes issue with

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<sup>67</sup> Straw Proposal, pp. 16-17.

Staff's inclusion of social cost analysis and portfolio-level assessments in its principle regarding fair valuation of resources.

The need for standardized market rules across DSPs was acknowledged by many parties, with GridWise Alliance (GWA) and NEMA also proposing the use of a uniform communications framework. The Clean Energy Advocates<sup>68</sup> ask the Commission to establish a frequent review schedule during the early years of the market, maintaining a strong presence and a heavy influence on the development of DSPs and the market. SolarCity Corporation (SolarCity) asserts that the Commission should establish procedures for dispute resolution, and appropriate ramifications for any practices by the DSP that distort the market for its financial gain. Many parties, including ENE, NYPA and Exelon Corp. (Exelon), support a stakeholder process for the development of market rules. The New York State Smart Grid Consortium (NYSSGC) and NEMA add that market design, platform design and the identification and development of uniform functions and capabilities are interrelated, and as such, should be addressed in a single integrated stakeholder process. Earthjustice adds that the stakeholder process should also cover distribution system investment planning.

SolarCity, New York Battery and Energy Storage Technology Consortium (NY-BEST), Environmental Defense Fund (EDF) and AEEI emphasize the need for transparency and open planning by the DSP, whereas the Joint Utilities believe that many of the contemplated planning processes described in the DSIP will address concerns regarding information transparency and open planning. UIU states transparency at all times must be the hallmark of each phase of every market sanctioned by the Commission, not just the end-state market.

With respect to DSP dispatch, The Alliance for Solar Choice (TASC) states that the DSP should not dispatch behind-the-meter distributed generation systems -- the

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<sup>68</sup> Columbia University's Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Group, the Pace Energy and Climate Center, the Sierra Club and the Vermont Energy Investment Corporation filed comments jointly as "The Clean Energy Advocates."



utility should treat behind-the-meter generation as a form of load modification and make whatever changes are needed on the distribution system to accommodate higher levels of customer-sited generation. TASC also asserts that REV should avoid burdensome scheduling, reporting, monitoring, verification or dispatch obligations or the imposition of equipment requirements that increase cost to customers who choose to self-generate some or all of their power requirements. NRG Energy, Inc. (NRG) states that third party service providers should be able to retain control over commitment and dispatch decisions in order to optimize the benefits they provide to their customers by managing their assets and load on an aggregated basis. NY-BEST, NRG and CALM Energy, Inc. (CALM Energy) urge the Commission to ensure that DER providers, in addition to selling services directly to the DSP, are able to sell services directly to customers. MI states that demand should be managed primarily – if not exclusively – through the deployment of economically accurate, time-sensitive, and cost-based price signals to customers.

Many parties express concerns about whether utilities should be permitted to provide value-added services, suggesting that such services can and should be provided by third party suppliers. New York City (NYC) states that third parties should be permitted to compete against utilities for offering services so long as customers are not required to subsidize their operations, services, or products. MI states that any customer-funded utility incentives to develop competitive services should be linked to those customers electing to purchase the competitive service from the utility and, to the extent competitive services are enabled by a utility's monopoly status, the utility should not be permitted to provide those services on a competitive basis or should be required to compensate all customers for the right to develop and offer such services competitively given that the utility's monopoly status was funded by customers. NEMA argues that customers should never be forced to purchase value-added DER products or services through the DSP. SolarCity states that the DSP should not provide these services on customer-sited DER, in front or behind the meter, and should not be able to rate-base any such investments.

PULP and AARP assert that utilities must take on the primary role of planning and integrating cost-effective basic DER programs that can be monitored to ensure that the promised benefits will occur at a reasonable cost. They also state that ratepayers should not be required to subsidize competitive market activities, and assert that the market should not supplant the role of the distribution utility in providing safe, reasonable, and reliability utility services, including a stable and least cost default service.

With regard to wholesale markets, many parties express significant concerns regarding the coordination between the NYISO and the DSP markets. Independent Power Producers of New York, Inc. (IPPNY) argues that a study needs to be done on the potential adverse impacts of DER on wholesale market and reliability before moving forward. AES Energy Storage, LLC (AES) and Energy Technology Savings LLC (ETS) emphasize that the DSP should be required to establish transparent tariffs and rates that are consistent across all market providers. Northeast Clean Heat and Power Initiative (NECHPI) the Joint Utilities and the Natural Resources Defense Council (NRDC) urge the Commission to utilize a stakeholder process to resolve wholesale issues related to ensuring reliability, interconnection, and resource aggregation across jurisdictions.

NRDC also asserts that when the DSP is selecting optimal combinations, the pricing and valuing of resources at both the wholesale market and local distributed levels needs to be consistent, and that the Commission should ensure that the DSP appropriately compensates energy efficiency DERs in their market product designs. Exelon adds that the Commission and the NYISO will have to manage price suppression, to prevent, for example, the danger of premature retirements. Many parties -- including Wal-Mart Stores, Inc. and Sam's East, Inc. (Wal-Mart), Texas Retail Energy, John Wellinohoff, Stoel Rives, LLC with Katherine Hamilton and Jeffrey Kramer, 38 North Solutions, LLC (Stoel Rives/38 North), CALM Energy, AES, AEEI, TASC and SolarCity -- state that providers should not have to work through the DSP but should have the ability to deal directly in the wholesale market; that DER to DER transactions

with DSP settlement (i.e. bilateral contracts) should be part of the vision. The NYISO and AEEI stress the need for NYISO to have visibility of DER resources, whether connected through the DSP or through an aggregator, and that energy efficiency must be better integrated into the wholesale market.

Nucor Steel Auburn, Inc. (Nucor), AARP/PULP, NYC and the Joint Utilities express jurisdictional concerns regarding whether sales of energy, capacity and ancillary services by DER providers through the DSP or an aggregator may be subject to FERC jurisdiction. NRG and ETS express reluctance at having the DSP independently operate load reduction, the stated concern being that such a decision would effectively cede both DER program control and servicing responsibility for retail load to incumbent utilities. NRDC notes that duplication of structures at the wholesale and retail levels could create inefficient redundancies.

### 3. Discussion

We adopt the model of the Distributed System Platform Provider, with further elaboration. Under the current regulatory regime, the deployment of DER can be viewed as intermodal competition to the grid itself, threatening to undermine and strand investments made in the traditional system. Under the policy and regulatory principles of REV, DER becomes a tool to reduce system investment needs, and the investments that are made will be consistent with the extensive deployment of DER and therefore much less susceptible to being stranded by market developments. Utilities will have both the obligation and the incentive to support the use of DER as an instrument that will help fulfill their obligations to end use customers while supporting the economic vitality of

their new business model. Thus, under our definition of the DSP, DER providers will be viewed as customers and partners, rather than competitors, of traditional grid service.<sup>69</sup>

The recognition that DER providers are customers and economic partners with the DSP represents a significant change to the structure of the retail market. The DSP will have the responsibility to offer services whether in the form of information, interconnection or dispatch services at prices and under terms allowed by the Commission. At the same time, because of the value that they provide to the grid, DER providers and their customers are entitled to compensation from the DSP. This transactive relationship expands the value of the system and is central to a changing relationship wherein the traditional utility and end use customers welcome DER as a mechanism to enhance economic and environmental value through a fully integrated grid.

In order to ensure that beneficial electric system investment and performance are economically and physically optimized, the DSP market structure must monetize and exchange enhanced DER services in fair and open transactive markets. One of the hallmarks of a monopolistic market structure is the absence of information transparency. For competition to flourish, the market must be transparent and provide DER providers and end use consumers with the system need and price information as well as sufficient regulatory certainty so that all may invest and participate with confidence.

The DSP construct is an effective way to develop DER markets and integrate DER into system operations and planning. Much detailed work remains to be done to establish uniform technology standards and market rules. Staff has convened a stakeholder effort (Market Design and Platform Technology or MDPT) to identify the

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<sup>69</sup> The Commission recognizes that the DER business model can take many forms and will evolve over time. For the purpose of this proceeding we are adopting the view that a DER provider could be a traditional demand response aggregator, retail marketer or ESCO or technology vendor and operator. We also note that security companies and cable companies are also beginning to enter the retail power markets.

necessary functional and business architecture for the DSP and DSP markets, and we direct Staff to continue this process.<sup>70</sup>

The stakeholder effort will build on the work that was already done in the collaborative process. Given the number of parties in the proceeding, continuing an all-party collaborative is not a feasible way to develop more detailed standards. A process framework for developing system transparency, market and technology rules must be both functional and inclusive. In order to accomplish this, two overlapping working groups, on market rules and technical standards, will comprise a mix of stakeholders that are able to dedicate extensive time and resources to the effort. The working group effort will keep parties informed and will be responsive to party comments. Part of the work plan will be to develop use cases illustrating how specific products or services would interact with the DSP. Use cases will facilitate parties' review and comment. The working groups will also be informed by expert advisors.

The technology group will address the development of communication signaling and protocols, interoperability, and conjunction with ISO standards. Consistent with our discussion of benefits and costs, below, one task of the technology group will be to identify incremental technology developments that will serve near-term system needs while also building DSP capabilities.

The market group will address a range of issues including: near, middle and long term market mechanisms; planning and real-time data and information needed by DER providers and by DSPs; scheduling requirements; measurement and verification; settlement protocols (with a goal of progressing toward daily settlement); data security; services to be provided by DERs and DSPs; ISO interface; and standardization.

Two additional working groups will be formed based on the preliminary efforts of the MDPT. The first will be a market and tariff development group, and the

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<sup>70</sup> Staff has enlisted the New York Smart Grid Consortium and the Rocky Mountain Institute to serve as co-leads in this process, and we appreciate the extensive time they will dedicate to this effort.

second will be a contract group. The first of these will provide continuation of market design efforts with a specific orientation toward the development of DSP offerings. The second will have a primarily legal function of advising on the formation of standardized contracts for DSP markets and interconnections.

The MDPT group will file a detailed work plan by March 26, 2015, and will issue its first report or reports by July 1, 2015. To provide for party input on preliminary findings and/or recommendations, the MDPT group must engage in an outreach effort to interested stakeholders including representatives of low income customers.

The original collaborative working group on market design debated whether DSPs would purchase power from customer-generators, in addition to purchasing other DER attributes such as load reduction and distribution-level ancillary services. In written comments, New York City and others cautioned that products purchased by DSPs that are either repackaged for sale in ISO markets, or resold directly to utility customers, could trigger jurisdiction of the Federal Energy Regulatory Commission (FERC) over DSP activities. It is important for us to be clear on this issue at the outset, so that it does not disrupt the efforts of the MDPT working group. To avoid overlapping jurisdiction over DSP activities, utilities will not purchase power that would constitute a sale for resale under the Federal Power Act, except for purchases that are otherwise required by law (e.g. the Public Utilities Regulatory Policies Act and PSL Section 66-c).

Environmental parties, including environmental justice advocates, express concern over the potential for proliferation of combustion sources in urban areas as a result of REV markets. Encouraging distributed generation, including combined heat and power, is one of our stated goals. As discussed in the Environmental Impact Statement, filed and accepted in this proceeding on February 6, 2015, this positive goal has the potential side effect of localized concentration of emissions or other impacts, which must be avoided or mitigated. The Department of Environmental Conservation (DEC) has worked with stakeholders to develop a proposal to govern air emissions from distributed

generation sources.<sup>71</sup> As a condition of our policy action, we direct Staff to cooperate with DEC to develop rules that avoid or mitigate the potential for harmful local emissions. If necessary we will consider further mitigation measures which may include: eligibility criteria to prohibit potentially harmful generation sources from participating in non-emergency economic markets; geographic restrictions on emissions based on environmental justice criteria; and pricing in DSP-run markets to reflect emission values. We direct Staff to report to the Commission by September 1, 2015 regarding the status of emission regulations applicable to distributed generation, including any recommendations for further action needed.

Without predetermining outcomes, we expect that DSP markets in initial stages will consist primarily of open access tariffs as opposed to auctions. Development of auction-based markets must be undertaken with care to avoid potential exercise of market power by DSPs, DSP affiliates, or dominant DER providers.

We adopt the following guidelines, consistent with the policy framework developed above, to govern market design:<sup>72</sup>

1. Transparency – timely and consistent access to relevant information by market actors, as well as public visibility into market design and performance;
2. Uniformity – market rules and technology standards will be uniform statewide to encourage liquidity and participation;
3. Customer protection – balance market innovation and participation with customer protections;
4. Customer benefit – reduce volatility and system costs and promote bill management and choice;
5. Minimize market power – develop DSP procurement tariffs to minimize the potential for market power;
6. Reliable service – maintain and improve service quality, including reduced frequency and duration of outages;

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<sup>71</sup> New York State Department of Environmental Conservation, Regulatory Agenda January 2015, 6 NYCRR Part 222.

<sup>72</sup> The ordering of these guidelines is not intended to convey priority.

7. Resilient system – enhance system ability to withstand unforeseen shocks—including physical-, climate-, or market-induced—without major detriment to social needs;
8. Fair and open competition – design “level playing field” incentives and access policies to promote fair and open competition;
9. Minimum barriers to entry – reduce data, physical, financial, and regulatory barriers to participation;
10. Flexibility, diversity of choice, and innovation – promote diverse product and program options in a competitive market including financing mechanisms to increase the value of those options;
11. Fair valuation of benefits and costs – include portfolio-level assessments and societal analysis with credible monitoring and verification;
12. Coordination with wholesale markets – align DSP market operations and products with wholesale market operations to reflect full value of services;
13. Economic and system efficiency – promote investments and market activity that provide the greatest value to society, with consideration to identified externalities;
14. Avoidance or mitigation of emissions – incorporate emission regulations and PSC policy determinations regarding local impacts of distributed generation; and
15. Consistency with regulatory objectives and requirements – function within Public Service Law jurisdiction to the maximum extent possible in order to avoid overlapping regulatory regimes and provide products consistent with any applicable regulatory requirements.

B. Utilities as DSPs<sup>73</sup>

Staff Proposal

Staff concluded that because the DSP core functions would be highly integrated with utility planning and system operations, assigning them to an independent party would be redundant, inefficient and unnecessarily costly.

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<sup>73</sup> For purposes of this order, references to utilities are limited to the six major electric utilities identified in Ordering Clause One, unless otherwise indicated.



Staff also acknowledges that an independent DSP design could facilitate statewide uniformity, reduce market power concerns and increase the rapidity of innovation, but believes these issues can be addressed without having to bear the significant financial cost associated with creating an independent DSP. Staff suggests that the utility role as DSP should be conditioned on performance reviews. Further, considering that the issue of who should serve as the DSP is separate from the question of whether a utility should own distributed resources, strong mechanisms for preventing the exercise of market power must be developed and enforced.

### Party Comments

The Joint Utilities agree that they should serve as the DSP and state a willingness to take on the position. Most parties conditionally support utilities serving as DSPs. AEEI believes that having the incumbent utilities serve as DSPs avoids operational redundancies and takes advantage of existing regulatory practices. Many supporters of the idea argue that it simplifies maintaining reliability by keeping the existing utilities solely responsible, with some arguing that the particular corporate entity dubbed “DSP” is less important than ensuring structural separation from the traditional regulated “wires company.” Environmental Defense Fund points out that in whatever form, the DSP will be a regulated monopoly utility; it is more important to consider the relative merits of having the DSP embedded in the wires company versus an independent DSP structure. Most parties encourage requirements for effective separation between market functions on the one side and planning and system operation functions on the other. The comments present a variety of conditions intended to provide the desired separation including divestiture of operational assets (or at least functional control of those assets); increased regulatory oversight; an open interconnection process; separate market operations from other aspects of company; and detailed transparent metrics.

Some ESCO and DER providers oppose utility involvement, arguing that the utilities will inevitably stifle market development and innovation by exercising their market power. 38 North Solutions, LLC suggests that the Commission commence a

separate proceeding to consider an independent DSP, and require each utility to submit a plan for transferring their operational assets to the DSP.

Some consumer groups including Citizens for Local Power (CLP) also oppose the utility as DSP, arguing that the utilities lack the capacity for innovation that will be needed to realize the REV vision. Hudson River Sloop Clearwater, Inc. (Clearwater) recommends establishment of a statewide DSP, independent of the investor owned utilities and comprised of experienced energy system experts and engineers, as well as stakeholders representing third party DER providers, consumers, and labor unions. Alliance for a Green Economy (AGREE) argues that a for-profit corporation will not be properly motivated to perform the public interest functions of a DSP and that an independent not-for-profit entity should be empowered by the Commission. Skepticism about the designation of the utilities as DSPs was shared by many speakers at the statewide public statement hearings.

The Federal Trade Commission (FTC) cautions that an administrative determination of the DSP role precludes other entities from demonstrating that they could provide the same services on better terms. Infinite Energy d/b/a Intelligent Energy (Infinite Energy) posits that an independent DSP would more readily establish a uniform market across the state and avoid market power issues and the public and private costs associated with regulating to avoid those issues. Infinite Energy argues that if the Commission settles for a utility-operated DSP, it will likely be an irreversible policy choice.

Many of the parties opposing the utilities as DSP also argue that the cost and difficulty of changing course – should the utilities prove inadequate in the role – are of more concern than the costs associated with establishing an independent DSP at the outset. Many also argue that utility-centric DSPs would risk fragmented markets that stop and start at the utility service territory.

New York City and the NYISO argue that clear rules and equal opportunity for competitors are vital to success and rules and regulations to avoid market power issues must be established from the outset. Similarly, many parties suggest that in order

to avoid the utilities becoming “too entrenched to fail” it is imperative that transparent performance standards and a well-defined succession plan must be established from the outset. Other parties stressed that the DSP, independent or not, should not be the exclusive access to the NYISO’s wholesale markets.

### Discussion

The Commission’s primary objective in this proceeding is to modify the regulatory model to support, rather than defend against, the numerous technological and market trends that promise consumer and environmental benefits. As noted, we are undertaking these changes under the backdrop of a Public Service Law that compels us to ensure that the utilities we regulate provide reliable, cost effective and environmentally sustainable electric service. For a number of reasons, including the observations made by Staff and others, it is our conclusion that requiring the utilities to serve as DSPs under our regulatory authority and supervision is in the best interests of New York consumers.

Under the construct we are establishing in this policy Order, the development and support of DER becomes a core component of traditional utility service. Indeed, one of the foundational elements of REV is to make clean energy and energy efficiency integral rather than ancillary to basic system planning and operations. For this to occur in a timely fashion, we need to change our regulatory paradigm to have regulated utilities expand their capabilities to plan and operate an integrated, distributed grid. Even if it could be practically done, separating out grid planning and operation functions would not achieve our fundamental goal of changing utilities’ motivations and business value proposition. Many parties and commenters argue that utilities have historically been reluctant to embrace DER initiatives and solutions. Utilities’ behavior with respect to DER has been responsive to the regulatory structure under which they have operated, including financial incentives and performance expectations imposed by the Commission. Reforming the regulatory model, and by extension utility behavior, is a critical component of the REV initiative.

Having the utility expand its responsibility to include DSP functionality enhances the opportunity for integrated operation of the distribution system and for realizing the economic value of DER investment. Dependence on a wide range of distributed resources for system reliability will increase the complexity and importance of distribution planning and operation. Today, the traditional distribution system is a one-way system with fairly predictable but non-responsive demand. The introduction of DER, as well as intelligence on the grid, supports a much more dynamic and efficient system. In order to operate the system securely, the utility must have the ability to support rapid changes in the topology of the system in a manner that does not compromise service reliability. Utilities do not currently have experience in operating an integrated grid on a large scale; grid operators may naturally be skeptical of the value of DER as a resource to secure reliable operations. By expanding the role of the utilities to include DSP functions, utilities will have the regulatory obligation, operational capability, and economic incentive to optimize the use of DER. Separating the DSP into a distinct entity eliminates all three of these components and, instead, reinforces the utilities' skepticism and operational resistance to a more distributed model.

The arguments asserted by NRG and others overlook the changed regulatory and economic dynamic that REV contemplates, the structure of the retail markets and the flaws in the industry market design and dispatch model that REV has the opportunity to correct. Under the current regulatory dynamic, distribution utilities have very little opportunity and virtually no economic incentive to promote DER to secure reliability. Further, while under the wholesale market design, the supply profile is premised on the anticipated load within each distribution utility's operational footprint, neither the utility nor any other entity within the market has an economic incentive or regulatory task to optimize the load profile which can in turn reduce the reserve requirement, locational costs and emissions. Under the REV market construct, DER owners and operators will have the ability to contract to participate as resources on the grid based upon their own needs and assessment of economic value. In the absence of such a transactional agreement, the utility is not able to rely on the resource as a

controllable element on the system which makes it of correspondingly less value to the system. The most efficient way to execute a dynamic system is to have a single entity oversee planning, grid operations and market operations. We see no evidence or compelling rationale to conclude that separation of these functions at a distribution level will yield improved results.

Unlike the wholesale market, the markets that will be enabled and potentially operated by the DSP will not establish commodity prices. Commodity prices, the prices for capacity, energy and bulk ancillary services will be set by the NYISO. Under the market design envisioned in this proceeding, the evolving role of the utility will be to reduce the investment and operating costs of delivery functions, improve system reliability and security through shared information and tariffs that monetize the value of DER to the system, support achievement of the State's energy efficiency and clean energy goals, reduce peak demand and improve the overall system load factor. Through coordination with the NYISO, the utility as DSP must be in the position to design and offer tariffs that allow it to monetize the value of DER as a mechanism to modify load and thereby support greater system efficiency. Thus, even if somehow the supervisory operations of the DSP over participating DER could be separated from the grid operations, the utility as the physical grid operator must have the real time ability to dispatch the entire system, including DER. Due to this practical reality, the utility will always retain superior knowledge of real time system conditions necessary for it to oversee safe and reliable operations.

Even if separation of the DSP function from utilities could be practically accomplished, the current state of the retail markets provides no equitable mechanism to pay for the investment and operating costs of an independent DSP. The additional costs of providing these services – many of which are already performed by utilities – would necessarily have to be passed through to end use customers. We see no value in adding to consumer burdens by either creating or imposing these costs on customers.

In addition to these practical considerations, many of which were advanced by Staff and others, our decision here is informed by a long term outlook regarding

universal electric service. One of the challenges of implementing REV is to improve the system through choice, innovation, and decentralization while maintaining an integrated electric system that benefits all customers. Experience from the deregulation of the telecommunications industry has taught us that the nature of “basic service” evolves along with the industry and the economy. The innovation resulting from deregulation can cause the nature of essential service to evolve very rapidly. Minimum needs in telecommunications are now more than mere access to a telephone landline. As the electric industry changes, it is our responsibility to ensure that the evolving essential services remain available and beneficial to all customers. Assigning the entities that already have responsibility for universal service with the responsibility for coordinating market activity will make it easier to meet this important objective.

The proof of utilities’ suitability for the DSP role will be in their performance. In the initial stages of the REV reform process, New York's utilities have demonstrated support for, and active cooperation with, our efforts.<sup>74</sup> This forward-looking posture of the utilities, combined with the practical and policy reasons described above, supports our decision here. While we have concluded that the utilities should expand their obligations to incorporate the functionality of a DSP, we are also alert to the legitimate concerns that utilities as traditional delivery companies will need to undergo fundamental changes, and DER markets may not prosper unless the Commission establishes clear expectations and monitors performance.

To obtain sufficient confidence, it is necessary to address the concern expressed both in written comments and by many individuals at the public statement hearings, that utilities in the role of DSP will exercise market power in their own interests, and suppress innovation, at the expense of customers and market participants. We address this concern with the following required market structures.

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<sup>74</sup> See, Creating a 21<sup>st</sup> Century Electricity System for New York State, an Energy Industry Working Group Position Paper, Advanced Energy Economy, February 26, 2014, and subsequent comments in this proceeding.

First, as the platform provider, utilities will not participate as owners of DER where a market participant can and will provide these services. Thus, with the few exceptions discussed, *infra*, DER will remain a non-utility service provided by the competitive market.

Second, basic ratemaking reforms that we are considering in Track Two of this proceeding will be designed to reward utilities for outcomes that benefit customers and achieve our objectives. Utilities' earning opportunities will center on the success of REV markets rather than on building a larger investment base themselves.

Third, utilities' performance as DSPs will be closely monitored by the Commission. The Commission has numerous tools for monitoring and enforcing our requirements with respect to DSP functions. These include the DSIP process, rate cases, and outcome metrics established in the ratemaking context. Outcome metrics may include, for example, improved performance in approving interconnection applications. Staff will be in regular contact with market participants, consumer advocates, and other stakeholders.

Fourth, we will develop a dispute resolution mechanism that expedites review and action on activities that deter DER investments. We will invite further comments on how we may modify this function to model best practices offered by other State and Federal agencies charged with similar market enabling activities.

Fifth, we will consider the recommendations that suggest functional separation of the DSP functions from standard utility operations. We will not, however, do this in a manner that impairs effective performance of the integrated functions of utility and DSP or imposes unnecessary costs. More analysis is required, and more refinement of the market and technical functions of the DSP in order for this to be accomplished. The Market Design group should examine whether there are specific functions of the DSP that could or should be subject to separation from other utility

operations.<sup>75</sup> Utility implementation filings will also be required to describe how internal organization of functions will be delineated and incented to ensure achievement of REV's objectives.

Finally, if DSPs are failing to meet the objectives of REV, we will consider options to allow other entities to serve that function. Several parties correctly point out that this means little unless a credible succession alternative exists. That alternative will be provided by the planning and analysis framework that we have described here. The standardization and interoperability of a uniform DSP platform and market rules will enable consideration of another DSP, or a qualified third party, to assume the responsibilities of a DSP that has materially failed to meet performance expectations.<sup>76</sup> Separation of the utility and the DSP will be possible if necessary, although at this time it is neither the preferred nor most economic approach.

### C. DSP Issues

#### 1. Information and Customer Engagement

##### Staff Proposal

The Staff proposal recognizes that system and customer data represent important resources to spur DER investment. Staff proposes significant changes to increase the accessibility of both types of data with the intent of better realizing the value of those resources.

*Customer data.* Staff points out that individual customer usage data is not readily available to ESCOs or DER providers without customer consent due to privacy concerns, technology limitations, and acquisition and hosting costs. Staff asserts that DER providers require standardized, time-stamped energy usage information in order to

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<sup>75</sup> This is not intended to promote a DSP design that can easily be separated. The Market Design group should propose the optimal set of DSP functions, then perform a potential separation analysis, rather than designing the DSP with a goal of separation.

<sup>76</sup> This analysis extends beyond market power and applies to a utility's performance in meeting all of the responsibilities of a DSP.



develop business cases and to quickly develop market-based DER products and services. To fulfill this need, Staff recommends a data exchange to include monthly usage data and certain other customer information on an opt-out basis. Staff further recommends that to the extent it is available, customer-specific data that is more granular than total monthly consumption would be provided on an opt-in basis only. The proposal would address customer privacy and security issues by requiring customer opt-in to share granular data such as daily or hourly usage, when available, and by allowing customers to opt out of sharing monthly usage information.

Under Staff's proposal, market participants seeking to access data on the exchange would need to register with the exchange operator and provide DER asset and commitment information with protections provided for competitive market information. Staff posits that for the exchange to be successful it must be operated uniformly statewide. The proposal suggests that ownership and management of the exchange could be opened to a competitive process.

*System data.* Staff states that DER providers must be provided some degree of open access to available system data in order to make informed business decisions – both short and long term. Animated markets require enhanced, standard format, time-stamped distribution system data in real time to develop detailed business cases. According to Staff, this information is vital for shorter term decision making related to dynamic load management including load reductions and load shifting, operation of DG, and other DER products and services. Staff also highlights the importance of system data for longer term business decisions including infrastructure investments, service agreements and technology development. Staff indicates that the current asymmetry regarding system information if continued will result in a barrier to new market entry by third parties and ultimately impede innovation and customer choice. Utility proprietary information regarding infrastructure assets may raise concerns regarding cyber security, public safety and reliability, which must be addressed.

Staff proposes that the Commission require utilities to develop and expand universal and transparent access to system data through a system information exchange.

Available information would include capital investment and network maintenance plans; seasonal reports with detailed information for which feeders and transformers were most heavily loaded during peak load hours, including specific location and timestamp data; and, possibly, SCADA-level real-time operational data allowing DER providers to design and optimize products that provide the most value to the grid as well as customers.

*Customer engagement.* Staff notes that the majority of customers in New York currently lack the information, products, technologies, and incentives to fully participate in energy markets and take control of their monthly electricity bills. Staff also states that DER technology providers lack sufficient access to customers and their energy usage data to develop technologies and services that optimize customer energy use automatically, without need for extensive direct customer actions. Staff cites evidence that, while many customers place a high value on easy access to information regarding their energy usage and how to manage their own usage, few customers indicate that they are knowledgeable about how to accomplish this. Staff suggests that this demonstrates a likelihood that customer engagement would increase if ease of access to and awareness of customer usage data and related products and services increase.

*Billing.* Recognizing that the utility bill is an important tool for customer engagement, Staff notes that the content and format of utility bills represent significant barriers to full DER animation and recommended exploration of these issues through a collaborative effort. Staff also noted that consolidated ESCO billing (CEB) is expected to enhance the ability of ESCOs to communicate directly with their customers, and that additional efforts to evaluate CEB will be undertaken in Case 12-M-0476.<sup>77</sup> Staff proposed that while those issues are being explored, enhancements should be made to consolidated utility billing (CUB) including requiring that utilities make available approximately 1000 characters on their bills for ESCO bill messages concerning the

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<sup>77</sup> Case 12-M-0476 - Proceeding on Motion of the Commission to Assess Certain Aspects of the Residential and Small Non-residential Retail Energy Markets in New York State.

ESCO's DER products, and perhaps, customer-specific messages regarding those products.

Party Comments

The Joint Utilities, many commenting customers, customer groups and some ESCOs are opposed to an opt-out requirement regarding customers' personally identifiable information and for individual customer usage with some suggesting that such a mechanism is contrary to the Commission's objective of increasing customer choice. Other comments raise concerns related to the added cost of establishing and maintaining the data exchange particularly when its primary purpose appears to be lowering marketing and other customer acquisition costs for private third-party DER providers. Others comment that the data exchange should be part of basic utility service, operated by a third-party and serve as delivery channel for consumers and authorized providers.

More generally, ESCOs and DER providers encourage expanded use of advanced meter infrastructure (AMI) or other solutions that can collect more granular data than is currently being collected from most customers' meters. Many also comment that third-party providers require access to raw customer data in order to maximize the value of the information for their customers.

Utilities express concern over providing open access to system data and suggest that implementation of a competitive procurement of alternative solutions for system needs would foreclose the need for more granular, open access information. The utilities recommend that the appropriate system data and the appropriate sharing mechanism should be explored during the DSIP stakeholder process. Utilities oppose the use of a data exchange citing security issues and recommend that they continue to manage the data internally.

DER providers and ESCOs strongly support the idea of more open access to system data and believe the Commission should require utilities to provide feeder-level data in standardized format, without charge, for their own business planning purposes.

Many suggest that anything short of a robust flow of information, would allow utilities to exercise market power sufficient to stifle third-party entry. Many ESCO and DER providers suggest that the data exchange would add unneeded expense and would heighten security issues. Many consumer groups express similar concerns.

According to NuCor Steel, the most important aspect of customer engagement for either large customers or mass market entities is effectively demonstrating value propositions that are transparent and meaningful. NuCor notes that customers have not sought out time-of-use rates where they perceive those rates to increase price volatility, uncertainty and potentially higher rates and bills. To that end, NuCor suggests that providing enhanced customer access to their own data, market conditions and timely price signals are critical elements for the REV model to gain the traction required to be effective.

AARP/PULP suggests the greatest single barrier to increased customer engagement is household income and lack of sufficient time or other resources to focus on a modest reduction in energy usage when the benefits are not clearly felt or seen by the customer. AARP/PULP states that revenue decoupling mechanisms and other rate tools that do not properly reward reductions or shifts in usage need to be reevaluated and replaced with properly incentivizing rate structures. Citizens' Environmental Coalition (CEC) and many speakers at public statement hearings believe that Community Choice Aggregation is an important tool to engage mass market customers and that the Commission should support the concept. Solar Energy Industries Association (SEIA) also supports community-based renewable programs including shared solar.

CPA states that although customer engagement is extremely important to the success of REV, many options for engaging customers were not discussed in Staff's proposal. Along with Clean Energy Advocates, CPA suggests that in order to design REV in a way that maximizes customer engagement it is important to improve public engagement in the REV proceeding. Individuals who spoke at public statement hearings echoed this sentiment.

With respect to billing, several parties including EDF explain the importance of energy bills to customer engagement, and urge a review to ensure that bills are maximizing value. ESCOs including Direct Energy Services LLC and Direct Energy Business, LLC (Direct Energy), Infinite Energy, and NRG suggest that the absence of CEB is the single greatest barrier to customer engagement, and urge the Commission to advance CEB. The National Energy Markets Association and other ESCOs confirm that customer-specific messages on utility bills would substantially facilitate DER offerings to current ESCO customers. AARP/PULP assert that allowing ESCOs to use a portion of utility bills to promote DER products would amount to ratepayer subsidization of ESCOs and raise unfair competition concerns. Joint Utilities urge that only the ESCO(s) currently serving the customer should be permitted to provide messages on that customer's CUB, and that utility oversight of the messages is required to ensure that they conform with the Commission's requirements. Joint Utilities also caution that adoption of this proposal may trigger application of certain federal regulations and ultimately impair a utility's ability to communicate with its customers. The utilities estimate that it would require up to seven months and a total for all electric utilities of less than \$1 million to accommodate customer specific ESCO bill messages of up to 1,000 characters.

### Discussion

Information, price and product transparency and consistency are vital to the success of markets, and maximizing the availability of information, with reasonable transaction costs, is a high priority in the development of REV. Staff's proposal for an independently operated data exchange was deemed premature by many parties including ESCOs and DER providers. While an independent data exchange remains a goal to be explored as markets reach maturity, in this order we will focus on near-term measures to encourage the growth of DER markets.

*System data.* Utility system information will be provided to the markets in two contexts. The multi-year implementation plans (DSIPs) filed by utilities and updated on an annual basis will contain system planning information sufficient to allow service

providers and customers to develop products and marketing plans to meet system needs with DER services. In addition, the DSP must make available system data at a degree of granularity consistent with the market that it operates, in a manner that is timely to facilitate market participation. A day-ahead auction, for example, will require one type of data while a tariff may require another. Details regarding types of system data, and on what timetables they must be made available, should be developed by the Market Design and Platform Technology working groups. Raw data as well as planning documents should be made publicly available at no charge to market participants. Utilities may be allowed, however, to charge fees for value-added analysis.

Release of system data must be consistent with the utilities' obligation to maintain security and protect critical infrastructure. To the extent there are existing standards, such as those of the National Institute of Standards and Technology or the North America Electric Reliability Corporation, they must be followed as discussed below in this order. Any utility, however, that withholds information beyond what is required by such guidelines must immediately file that information with the Department's Records Access Officer (RAO), accompanied by a justification for treating the information as confidential infrastructure information, pursuant to the Commission's regulations at 16 NYCRR §6-1.3 for requesting confidentiality protection. If any utility believes there is a question of general applicability on the extent of confidentiality protection, the utility may seek appropriate relief from Commission.

*Customer requirements, product and price information.* In almost every aspect of the retail economy, consumers have access to information that provide them the ability to easily locate products and services of interest and to compare and contrast providers. From airline tickets, to cars, to housing, clothing, restaurants, and potential spouses, the digital economy is resplendent with platforms that provide consumers with transparency and choice. Platforms and web-based markets provide customers and vendors ample opportunity to transact with confidence. These platforms also provide vendors with the ability to access consumers who have expressed an interest in their product and sufficient information to allow them to tailor their service offerings to meet

those interests. In the energy industry, much of this competition for retail sales is still accomplished by door-to-door sales or marketing techniques that too frequently annoy rather than serve consumers. There are no specific standards for product definition, such as what constitutes a fixed versus variable or green product. As a result, and as the Commission has found, the mass market for value-added energy services in New York is far from developed or serviceable. Indeed, even if a customer is interested, the time that it requires to inform, contract and switch is far greater than should be needed. Further, unlike the wholesale portion of the service industry, customer contracts for energy are not necessarily uniform, which can complicate the transactions and undermine consumer confidence.

Building effective retail markets for DER will require a much smarter and technology enabled platform for mass market consumers to gain knowledge of the services available to them in the market. It is also essential, as Staff notes, to have a means to facilitate transactions and delivery of data necessary to secure a sale by a potential DER and commodity vendor to a customer. Such a platform can also serve as a vehicle to ensure product definition discipline that is essential for customers to be able to compare various service offerings as well as simplify and expedite the transaction between the customer and potential vendor. Finally, a single uniform platform for retail market access throughout New York can also serve as an important mechanism to create a statewide market for REV enabled products and services. The use of a single platform for data collection and dissemination is not inconsistent with vendors and utilities maintaining individual sales media that are linked to the uniform platform.

We recognize that there are several services available to consumers to compare energy providers and potential services. However, to the extent that the actual transaction for these services remains encumbered by the challenges articulated above, their success may be limited. Accordingly, as part of the development of the retail commodity and DER market in New York, it will be valuable to have a uniform digital marketplace to facilitate market development. We are mindful of the fact that the design components and necessary requirements for this resource should be left to individuals

experienced in developing these tools. Because we are convinced of the potential value of such a vehicle to the development of the market, we will require Staff to consult with the utilities, ESCOs, DER providers and experts in this field, to explore how such a platform could be designed, owned and operated to achieve the desired impact of instilling market confidence, facilitating transactions that help customers reduce their energy bills and lead to the further development of robust and market based DER deployments.

*Billing.* Energy bills remain one of the primary vehicles by which customers obtain information about their energy usage and costs, and one of the main ways to facilitate greater customer engagement in energy decisions. A thorough review of the content and format of energy bills is consistent with our goal of maximizing the availability of information to energy consumers with minimal transactions costs. We therefore direct Staff to develop a proposal to increase the informational value of energy bills with the goal of enhancing customer engagement in energy purchase and usage decisions. Staff should use a consultative process with representatives of utilities, ESCOs, DER providers and consumer advocates, in developing its proposal.

Similarly, CEB appears to address one of the most significant barriers to customer engagement particularly with providers of DER products, and should be assessed. Staff should lead a collaborative of utilities, ESCOs, and other interested parties to investigate and evaluate operational issues required for CEB including how CEB can be constructed to be consistent with Commission rules and regulations including those governing termination of service for non-payment. Staff shall report on the progress of these two billing initiatives by September 1, 2015.

Staff and several parties recommended that we also proceed with enhancements to the CUB, such as accommodating customer specific ESCO bill messages. We acknowledge these interests, but are also mindful of the parties' finite resources. We decline to require enhancements to CUB, and instead focus efforts on the review of CEB and bill content and format issues identified above.



## 2. Utility Engagement in DER

### Staff Proposal

Staff recognizes the potential for market power represented by the utility function as DSP. The Staff Proposal recommends that activities of regulated utilities should be limited to sponsorship and management of energy efficiency programs; generation or storage of electricity on utility distribution property; and other proposals for engagement specified in utility DSIPs. Staff asserts that such proposals should be required to address a substantial system need; demonstrate a net benefit resulting from utility engagement considering a range of variables including market power concerns; and, if the proposal involves utility ownership, it must include a competitive solicitation for construction and operation – absent compelling circumstances.

Staff also makes specific recommendations regarding unregulated utility affiliates' participation in the utility's service territory including that code of conduct rules governing interaction with the regulated utility must be observed. Staff also recommends the creation of an ombudsman for DER providers and for the Department to monitor interconnection complaints. If an affiliated entity bids into utility DER procurements, the Commission should require an independent entity to select winning bids. Staff proposes that a cap be placed on total market share held by the affiliate within the service territory and a cap on market share by the affiliate within distribution circuits (or the smallest planning level), and recommends that the Commission assess interconnection policies, dispatch rules and distribution system data access rules.

In the Staff Straw Proposal, parties were encouraged to propose alternative mechanisms for achieving separation and allaying market power concerns. Staff advised that their proposed market power mitigation approach should be reviewed, as the transition into DSP markets becomes more fully developed. Further, Staff states that utility financial incentives should be structured, in Track Two of this proceeding, to reward utilities for the efficient development of DER on their systems in a manner that either makes them indifferent to ownership, or favors ownership by third parties.

Party Comments

Most comments suggest a need for appropriate measures to combat market power. Many commenters support Staff's approach to utility ownership as realistic, agreeing that under the proper circumstances utility engagement in DER support is in the public interest and may be necessary in order for the market to develop within a reasonable timeframe. ChargePoint, Inc. (ChargePoint) suggests that utility participation be directed toward areas within the utilities' core competencies and where a clearly identified need can be met with utility involvement. The Association for Energy Affordability (AEA) generally agrees with Staff's proposal and believes that utilities should have open and transparent advance planning processes that will enable markets to act in response to identified needs. AEEI states that utility involvement in DER could assist with programs addressing underserved markets and such involvement should be targeted specifically at the barriers impeding development of robust markets in these segments. AEEI also suggests that utility ownership of DG, particularly DG demonstration projects, should be part of a broader research and development effort directed at innovative solutions for increasing the penetration of DG resources while maintaining reliability and power quality.

Bloom Energy (Bloom Energy) recommends development of a distributed generation service tariff for utility owned generation service that requires third-party access to opt-in customers. Such a tariff-based DG service should be available for any customer that requests a resilient on-site power supply. Because customers taking such service would pay the entire cost associated with it, other ratepayers would not subsidize the offer.

Other commenters oppose utility ownership of DER. IPPNY opposes utility ownership of DER claiming that Staff's proposed mitigation measures will fail to curb utility vertical market power and will have a chilling effect on private investment in New York. IPPNY charges that Staff's assertion that utility ownership may be necessary for rapid deployment of DER is unsupported and that private investors, if provided an open and fair field to play on, are capable of rapid deployment. IPPNY argues that the

Commission's Vertical Market Power policy establishes a presumption that utility ownership of generation has anti-competitive consequences, and that the Commission should apply that policy in this context. Multiple Intervenors agree that utility ownership of DER risks crowding out private investment and that private investment will increase significantly if the Commission addresses existing barriers to DER rather than directing utilities to deploy DER under specific circumstances. Multiple Intervenors also oppose unregulated affiliate engagement in DER, arguing that market power concerns related to utility ownership of DER would remain or even be exacerbated by unregulated ownership within the utility's service territory. Citizens for Local Power suggest that utilities will inevitably exploit their monopoly advantages to limit competition – with or without mitigation measures. Infinite Energy argues that any short-term advantages will create a long-term weakness in the market by giving control of the emerging market to a select group of ratepayer-supported market participants with the ability to compete against private capital.

Technology Savings LLC, as well as other commenters, have concerns that utility ownership may result in stifling competition and innovation but recognizes the complexities of the situation and suggests that Staff's approach may be practical and reasonable. Hudson River Sloop Clearwater also highlights the complexity of the situation by pointing to the paradoxical tension between the urgency to maximize the implementation of distributed resources versus market equity and consumer protections. They suggest, if the utility is DSP, limiting utility involvement in DG to providing financing and/or serving as an owner of last resort.

The Joint Utilities believe that their existing assets, particularly their relationship with their customers, will help to catalyze DER markets. The utilities favor a balanced and pragmatic approach to ownership and suggest that customers should be able to choose their DER provider and should be given the option of meeting all of their energy related needs through their utility bill. The utilities recommend expanding utility DER participation to the customer side of the meter, stating that the utilities can partner with third-parties to provide DER to customers providing a pathway to a competitive

marketplace. This approach will yield the double benefits of price-limiting effects of robust markets and the convenience of managing their energy services in one place.

The Joint Utilities believe that market power concerns can be addressed through regulatory measures including regulated cost of service recovery mechanisms for utility owned DER (designed to limit incentive to dispatch its own assets) and leveraging existing organization structures to properly isolate DER market functions from DER ownership functions. The Joint Utilities also agree with Staff that third party ownership itself does not eliminate market power issues. They emphasize that DER ownership by regulated utilities inherently provides for more control based on the Commission's jurisdiction over the utility.

The Joint Utilities further argue that unregulated affiliates should be allowed to conduct business within the utility's territory. However, they recognize that transparency is vital to public confidence and the ultimate success of the market and the utilities' role as DSP and support Staff's proposal for an independent evaluator and encourage the development of specific rules regarding an independent review process. The utilities believe a code of conduct governing DSP interactions in conjunction with established cost allocation and affiliate transaction rules should allay any concerns regarding self-dealing or other exercise of market power.

More generally, the Joint Utilities argue against the presumption that ownership of generation by an affiliate of a utility would unacceptably exacerbate vertical market power (VMP Policy Statement). They argue that the Commission's VMP Policy Statement was intended to apply to major generation resources during an earlier era when large utility-owned central generation facilities met the majority of the State's electricity requirements. The Joint Utilities argue that market power issues related to increasing utilization of DERs and development of a competitive retail market for DERs require their own set of rules and regulations.

Discussion

DER ownership is one of the most contentious issues in the REV proceeding. At the outset we agree with Staff's analytic framework, that because the objective of REV is to create a marketplace for DER based upon consumer information and choice, the issue of ownership structure must be considered in the context of what can best accelerate market creation consistent with the public interest. However, while we agree with the construct, we do not fully agree with Staff's resolution, for the reasons set forth below.

As a threshold matter, our concern here is limited to distributed generation, storage used for economic purposes, and customer-side demand management.<sup>78</sup> Also, as a preliminary matter, we agree with Staff that the Vertical Market Power Policy is not applicable in this context.

Vertical market power concerns in the wholesale market arose because (1) there is monopoly ownership and maintenance of, and investment in, transmission assets; (2) at the bulk level there are large generation assets whose value depends significantly on those transmission assets; and, most importantly (3) the market restructuring in the 1990s involved a conversion from cost-based compensation to a bid-based market for these bulk generators. This resulted in significant incentives for monopoly transmission owners to exercise vertical market power, whether through action or inaction. The current situation is distinguished in several ways. First and foremost, for the reasons set forth below, utility ownership of DER will be the exception rather than the rule. In the limited situation that utilities will be allowed to own DER as a regulated asset, they will be restricted to recovery of their actual costs. Additionally, under the market construct we are envisioning, utilities will be paying for DER to support local reliability under pre-set tariffs approved by this Commission. At the outset, the market will not deploy bid-

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<sup>78</sup> Ratepayer-funded utility energy efficiency programs do not invoke market power concerns at this time, as they are authorized by the Commission and costs are recovered as expenses. We place no restrictions on them in this discussion.

based auctions. Until the markets are more established and there is sufficient asset development, the use of tariffs based on system value rather than a bid-based format will prevent both the utility and third parties from exercising market power and provide protection to consumers against market power abuses. Moreover, in order to ensure transparency, we are directing Staff and the market design committee to develop guidelines for transaction and price disclosure to ensure that there is no information asymmetry in the market. For all of these reasons, the vertical market power concerns from the time of wholesale market restructuring are not present here. If, however, as the market matures and changes, the Commission is open to revisiting these issues and imposing appropriate changes to the ownership rules.

Although the Vertical Market Power Policy Statement is not applicable here, we do not generally favor utility ownership of DER assets. We are persuaded that unrestricted utility participation in DER markets presents a risk of undermining markets more than a potential for accelerating market growth. The ability of utilities to increase the State's DER asset base is not definitive here. The strong level of interest in REV markets expressed by independent providers demonstrates that we are not dependent on utility investment to build asset base. When that factor is given less weight, the balancing becomes relatively simple. A basic tenet underlying REV is to use competitive markets and risk based capital as opposed to ratepayer funding as the source of asset development. On an *ex ante* basis, utility ownership of DER conflicts with this objective and for that reason alone is problematic. Our concerns are compounded by the observation made by Staff and others that, because of their incumbent advantages, even the potential for utility ownership risks discouraging potential investment from competitive providers. Markets will thrive best where there is both the perception and the reality of a level playing field, and that is best accomplished by restricting the ability of utilities to participate. Finally, REV provides utilities the opportunity to be both the "wires" company and the platform that enables a market for DER resources. The planning, investments, products and services required to develop this new capability will present a challenge both to the industry and the utilities. As a practical matter, we are

concerned that development, investment and maintenance of DER resources will prove a distraction from what should be the main focus and value proposition for utilities.

Having established this basic presumption, we next turn to whether there are limited circumstances where utility ownership of DER will benefit consumers. As a general rule, utility ownership of DER will not be allowed unless markets have had an opportunity to provide a service and have failed to do so in a cost-effective manner.

This rule is generally applicable to REV markets and DER investments. There will be circumstances where the utility identifies a resource need for new transmission or a distribution plant that could be met by greater penetration of DER. To the extent that competitive procurement does not support cost effective third party investments to meet the need, the utility can present to the Commission an alternative that will support some level of utility investment. In these circumstances, the costs and benefits of both the traditional system addition and the DER alternative can be estimated and compared. Since procurement costs made in these particular circumstances will be paid for on a regulated basis by consumers, the utility and its customers have a legitimate interest in ensuring that the installed base provides consumer benefit. Because we anticipate that such situations will be rare, case by case decision-making by the Commission will not be burdensome.

We note, however, that this scenario presumes a procurement methodology, including contractual provisions that provides market participants a fair opportunity, that is consistent throughout the State, and that facilitates dispute resolution. Staff, in consultation with both the market design group and the contract group will develop guidelines and standard contractual terms. Bloom Energy recommends that we develop a standard tariff for DER investment. Without prejudging the ultimate merits, this construct warrants further investigation, and Staff is directed to add it to the ongoing discussions on tariff development.

We will establish three exceptions to the general rule. First, Staff proposed an exemption for energy storage and generation located on utility property. Storage technologies integrated into grid architecture can be used for reliability and to enable the

optimal deployment of other distributed resources, and we agree with Staff that this application of storage technology should be permitted without the need for a market power analysis. REV will support a greater understanding of how storage strategically used on the grid can support greater penetration of intermittent renewable resources without compromise to system reliability. It will be advantageous for utilities to gain this experience and, as part of their DSIP plans and rate plans, utilities should develop information on optimal locations and levels of storage either on the system or behind the customer's meter. Staff's proposed exemption, as presented in the Straw Proposal, is too broad because it contemplates location on any utility property. Utility investment should not be exempt merely because it occurs on utility-owned property; rather, it will be exempt if it is directly integrated into distribution service. For those resources that are on the utility's system and will be used to support and enhance reliable system operations, utility ownership and operation is reasonable. With respect to resources at the customer location, utility ownership should not be necessary. Rather, it is our expectation that this market will develop through tariffs that identify the fair and full value of reliable and fast responding storage. Staff's proposal would encompass generation as well as storage. This is also too broad, and generation will be covered by the general rule.

The second exception will be where there does not appear to be a developing market for DER and the public interest warrants utility investment that will support such development. One segment that warrants this allowance is low or moderate income customers that can use DER to moderate their energy bills and take advantage of the REV market. Customer advocates have expressed concern that low and middle income customers will not be able to participate in REV benefits, for a variety of reasons including location, premises constraints, and access to capital. This potential is particularly acute in the case of rental customers that cannot control improvements to premises. Where system benefits and/or substantial customer benefits can be achieved with DER projects, in areas that are not being served by markets, utilities will be able to propose programs to achieve them. With that objective in mind, we will instruct the Commission's Consumer Advocate staff to work with low income advocates, utilities and



other interested stakeholders to develop these programs for introduction by utilities as part of ongoing REV development. Program details will be filed within DSIPs.

The third exception is in the context of demonstration projects. As described, *infra*, we recognize that demonstration partnerships with utilities and third parties can accelerate market understanding and the development of sustainable business models. In limited circumstances, utility investment and ownership of assets to support such demonstrations is warranted.

To summarize, utility ownership<sup>79</sup> of DER will only be allowed under the following circumstances:

- 1) procurement of DER has been solicited to meet a system need, and a utility has demonstrated that competitive alternatives proposed by non-utility parties are clearly inadequate or more costly than a traditional utility infrastructure alternative;
- 2) a project consists of energy storage integrated into distribution system architecture;
- 3) a project will enable low or moderate income residential customers to benefit from DER where markets are not likely to satisfy the need; or
- 4) a project is being sponsored for demonstration purposes.

Using information provided in utility implementation plans and compliance filings, as well as from DER providers, Staff will report to the Commission annually regarding DER penetration rates and trends. We intend to be responsive to market developments and will take corrective actions as necessary to promote our objectives.

DER owned by a utility affiliate presents a different set of issues. Affiliate ownership outside of a utility service territory is not a concern, but participation by utility affiliates within the service territory does present the risk of discriminatory treatment by the utility.

Affiliate participation will not have the discouraging effect on market entry that direct utility ownership might have, and consequently affiliate ownership may be

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<sup>79</sup> For these purposes, “ownership” is broadly construed to include owning, leasing, contracting, or other forms of direct sponsorship.

allowed under a less stringent set of conditions than direct ownership. An additional and important concern is that many customers have preexisting relationships with utility affiliates operating as ESCOs. To prohibit these affiliates from offering DER services would limit the choices available to customers and might have the effect of dampening customer engagement in DER markets.

We will, however, require protections to ensure that affiliates' participation in DSP markets do not represent market power abuses. Staff's proposed restrictions were generally well received in party comments, and they provide an effective starting point. The type of protection needed is directly related to the type of procurement being conducted.

For RFI/RFP procurements, Staff proposed that a third party must determine results where a utility affiliate participates. Considering that utilities have the best insight into the particular needs of their system and how various measures can best be integrated, we will not remove decision-making from the utilities but rather will require independent monitoring of those types of procurement. In our consideration of Con Edison's Brooklyn Queens Demand Management initiative,<sup>80</sup> we required that the utility hire an independent expert reporting to Staff to ensure an unbiased selection process. We adopt that requirement in this proceeding as well.

Procurements based on open tariffs do not present significant market power concerns, except for the possible misuse of inside information. To address that risk, codes of conduct will be required. Auction-based procurements, of the type contemplated in mature REV markets, present a higher degree of market power concern. We will consider not only codes of conduct but also, potentially, caps on market share. Market share caps might be appropriate for any type of service provider including, but not limited to, utility affiliates. Detailed comments on this issue were scarce, and we

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<sup>80</sup> Case 14-E-0302, Petition of Consolidated Edison Company of New York, Inc. for Approval of Brooklyn/Queens Demand Management Program, Order Establishing Brooklyn/Queens Demand Management Program, issued December 12, 2014.

would prefer to hear more from parties before deciding issues related to codes of conduct. We direct Staff to initiate, by April 1, 2015, a process to address and refine utility and affiliate codes of conduct. With respect to potential market share caps, we will monitor developments to determine whether they need to be considered.

### 3. Utility Energy Efficiency Programs

#### Staff Position

The Straw Proposal recognizes that increased penetration of energy efficiency measures must play an important role in achieving the State's carbon reduction goals, and that, at least during the transition to REV markets, investment in such programs will need to come both from ratepayers and private investors. Staff recommends that, in the absence of a mature market to offer competitive options, the utilities continue to provide energy efficiency measures, but under a new framework designed to provide the utilities with more flexibility to achieve their targets in innovative and cost-effective ways. Staff's role will involve less direct supervision and authorization, and more emphasis on the regulator's traditional role of reporting and oversight. Staff envisions that utilities will have more flexibility, as well as responsibility, in designing and managing their portfolios. Each utility would create and maintain tools to assess and monitor the effectiveness of their programs, including a benefit cost analysis (BCA), program cycle, and evaluation plan, and a technical resource manual. It is anticipated that eventually, through utility performance measures, targets could be replaced by an alternative measure.

Recognizing that the transition to the regulatory and market reforms envisioned by REV will take place over time, while the current clean energy programs will expire at the end of this year, Staff recommends that the utilities be directed to submit energy efficiency transition implementation plans (ETIPs) by March 31, 2015. The ETIPs would include those energy efficiency programs that each utility intends to implement in 2016, with the understanding that such programs would be continued or supplanted by alternative or expanded approaches presented in each utility's DSIP.

Utilities would be expected to have a portfolio of energy efficiency programs that maintains, as a minimum, their current assigned annual energy savings goal under the Energy Efficiency Portfolio Standard. Longer-term goals should exceed existing targets as utilities consider innovative means of utilizing energy efficiency, such as whole-building fuel-neutral approaches, load and building management controls and demand response measures. Instead of funding the proposed programs through a surcharge, they will be recovered through rates as an operating expense. Staff also proposes additional reporting requirements to ensure that the utilities' planning assumptions and program activities are transparent to Staff and stakeholders.

#### Party Comments

Environmental advocates, in general, support Staff's proposal but seek more clarity. Most question whether utilities will also assume NYSERDA programs and insist that, if so, NYSERDA targets, as well as the utility targets, should be included in the required minimum targets. AEEI, AEA and ACENY/NECEC also argue that funding for existing programs should be continued until there is evidence demonstrating that the new framework for programs will succeed, suggesting a minimum ten-year funding period at current levels. Some parties add that the ETIP timeline be adhered to and that utilities should be permitted to recover costs in advance of a full rate case for ETIP investments to incent utility investments in energy efficiency. The Clean Energy Advocates, among others, suggest specific, higher, annual incremental savings targets to comport with the state's current energy efficiency goal (15% by 2015), express skepticism over whether the market will ever effectively drive cost-effective energy savings without ratepayer-funded incentives and rebates, and urge the Commission to direct coordination among the utilities in delivering efficiency programs.

CPA states that successful NYSERDA programs should not be re-assigned to the utilities and that the ETIPs should not require the cancellation or abrogation of any current NYSERDA contract. New York Oil Heating Association, Inc. with the Oil Heat Institute of Long Island, Inc. (NYOHA/OHILI) also oppose moving energy efficiency

programs away from NYSERDA. MI argues that moving programs off the SBC does not save money unless there are corresponding (and larger) cuts in the SBC, points out that charges should be consistent with cost causation, and asks that existing exemptions to the surcharges applicable to NYPA allocations be continued. MI argues that only cost-effective programs should be maintained and that programs should not be transferred to the utilities unless there is a demonstration that they can improve results and cost-effectiveness. Wal-Mart emphasizes the success of customer-funded programs and asks the Commission to consider an opt-out of contributions to ratepayer-funded programs for those customers that self-fund efficiency efforts.

AARP and PULP do not object, in principle, to the development of a more integrated approach to energy efficiency programs but state that such a dramatic policy change requires resolution of many controversial issues (funding stream, performance measures, etc.) and thus should not be implemented in REV in the suggested timeframe. UIU seeks clarity in whether NYSERDA will continue to provide energy efficiency programs to LMI customers. Energy Efficiency for All (EEA)<sup>81</sup> cites the need to enhance multifamily efficiency programs and address the concerns of environmental justice communities.

Direct Energy, Exelon, Interstate Gas Supply, Inc. d/b/a IGS Energy (IGS), NRG, Retail Energy Supply Association (RESA) and Lochinvar, LLC (Lochinvar) all oppose reliance on programs run by the utilities, arguing that incorporating programs into base rates is inconsistent with REV and would discourage private investment in these products. ENE and the Vermont Energy Investment Corporation (ENE/VEIC) take the opposite view and argue that the market can never entirely replace the need for ratepayer-based program funding for efficiency programs. NFG and Nucor Steel oppose the proposed move away from the SBC, arguing that such charges should be transparent.

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<sup>81</sup> Energy Efficiency for All filed comments on behalf of Center for Working Families, WE ACT for Environmental Justice, Enterprise Community Partners and the Green and Healthy Homes Initiative.

NFG and New York Geothermal Energy Organization (NY-GEO) express concern about the use of non-uniform utility specific technical resource manuals.

The Joint Utilities generally support the Staff proposal. They propose that the content of the ETIP filings be worked out in the existing E2 Working Group and support the March 31, 2015 filing deadline. The utilities envision the 2016 programs to be similar to those currently offered, but more aligned with REV concepts in the future. They state that it is not possible to increase emissions reduction goals without increasing funding and that the Commission should make unencumbered clean energy funds available to support the utilities adoption of incremental clean energy programs.

### Discussion

The EEPS program is in its seventh year, and authorization of program renewal is being considered for the period beyond 2015. This coincides with the REV initiative in a timely way. New approaches under REV will strongly influence our decisions regarding the utility energy efficiency programs and the NYSERDA Clean Energy Fund (CEF).

At the outset, it must be clear that current 2015 efficiency targets represent a minimum for what we will achieve going forward. For 2016, existing budgets and targets will be maintained (see Appendix C) to avoid market disruption and backsliding. Beginning in 2016, utilities will begin designing new energy efficiency programs using market based approaches to drive greater value for customers. The utilities' post-2016 portfolio of energy efficiency programs will gradually evolve to align with REV approaches and the market transformation focus of NYSERDA programs. Funding levels after 2016 must be sufficient to meet existing targets and support a transition to more market based approaches. Utilities will annually propose budgets and metrics, as well as their program portfolio on a three year rolling cycle (see Appendix C) thereby achieving a balance of market certainty and nimbleness. This requires the utilities be provided the flexibility, as well as the responsibility, to develop their energy efficiency programs and initiatives to meet the needs and values of their customers while also driving toward more

market-based approaches. These collective changes are needed to achieve more and targeted energy efficiency in support of New York’s energy and environmental goals.

Utility efficiency programs under EEPS have been oriented toward direct rebates and subsidies, to encourage individual customers to employ more efficient end-use equipment and systems, thereby acquiring energy savings as a resource. This “resource acquisition” approach to efficiency has been contrasted with a “market transformation” approach in which the benefits of the program are defined in terms of wide-scale penetration and market acceptance of efficiency measures. The approach to utility efficiency programs initiated here will introduce market mechanisms that combine resource acquisition with third party activities to increase market penetration of efficiency measures.<sup>82</sup> This will achieve greater market-wide efficiency savings with less need for direct ratepayer support.

A principal advantage of the direct rebate approach is that it is simpler to measure the costs and benefits and hold program administrators accountable. This has been an important priority, particularly during the early years of our EEPS programs.

There are, however, distinct disadvantages to an approach that relies solely on rebates. A rebate program can have the unintended effect of displacing markets and inhibiting market transformation. Where a program that subsidizes well-established technologies and practices is maintained indefinitely, market activity outside of the program is at a disadvantage. Subsidy programs create a surrogate market, which is effectively capped by the budgets and targets of the programs. Aside from dampening the market for otherwise cost-effective measures, this has the further effect of denying efficiency program funds to new technologies that are more in need of development. In contrast, a successful market transformation program can leverage far more customer investment than a direct rebate program can. The end goal of a market transformation

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<sup>82</sup> The American Council for an Energy Efficient Economy (ACEEE) defines “market transformation” as “the strategic process of intervening in a market to create lasting change in market behavior by removing identified barriers or exploiting opportunities to accelerate the adoption of all cost-effective energy efficiency....”

program for any particular measure is to eliminate further need for customer-funded subsidies of that measure.

The State's greenhouse gas reduction goals demand that we achieve significantly more efficiency than is practical to achieve through current ratepayer-funded direct subsidy programs.<sup>83</sup> Achieving greater efficiency gains will require more private capital, not only in the form of sharing contributions under efficiency programs, but in the form of unsubsidized market activity. Energy efficiency already presents attractive economic returns in many instances; our approach to removing barriers to scale must be enhanced and diversified. Some parties express concern that overall efficiency may suffer if current approaches are changed. In order to achieve more, however, change is required.

Utility efficiency programs must be situated within a market transformation curve and complement the other activities underway and envisioned as part of the State's overall clean energy approach, including the NYSERDA CEF. This does not preclude the use of direct rebates, but the value of a rebate must be measured by more than only the immediate usage reduction caused by the measure. The value of a rebate program must also be found in its contribution to a wider market transformation.<sup>84</sup> This can occur by increasing scale for a measure, in terms of cost and market acceptance, and ultimately by the measure becoming required by code or accepted as a new industry standard. Strategic intervention expedites the progress of an energy efficient measure as it moves from research and development through early adoption toward market acceptance, and ultimately toward becoming an industry standard. The place for a rebate program within a market transformation curve is limited. If rebates continue after a measure has

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<sup>83</sup> Draft State Energy Plan and New York State Climate Action Council Interim Plan, supra.

<sup>84</sup> Direct resource acquisition programs may also serve near-term goals when targeted to system needs.



achieved scale, they may serve to inhibit rather than encourage further market development.

Consequently, we will not simply allocate to utilities the responsibility of “resource acquisition” and to NYSERDA the role of “market transformation.” All customer-funded programs should serve the ultimate goal of increasing market penetration of efficient technologies and processes. Utility direct resource acquisition and rebate programs must be coordinated with NYSERDA programs and periodically reviewed so that each utility program is properly situated on the market transformation curve.

Under an approach that integrates utilities, NYSERDA, and market participants into a coherent strategy to increase penetration of efficient technologies, utilities will be incentivized to pursue new methods of achieving efficiency outcomes. Utility outcomes will not be limited to (MWh) savings directly attributable to utility rebates, but rather will be measured with reference to the overall success of the strategy. Utilities should engage and leverage the efforts of third party providers, community organizations, local governments, and employers to increase the reach of programs. This is consistent with our approach to DER in general, in which utilities will be situated to encourage third-party investment in DER rather than treat it as a competitive threat. The platform developed by the DSP will provide greater access to customers and service providers, as well as monetization of system values. NYSERDA, utilities, Staff, and stakeholders must begin to develop new strategies to catalyze a mature, well-functioning, and self-sustaining energy efficiency market.

The new framework for energy efficiency we begin to develop here will provide utilities with more flexibility to achieve energy efficiency objectives in support of overall REV outcomes. Utilities will be encouraged to develop more innovative approaches to efficiency programs. These approaches may include rebates, but with enhanced value either through targeting to specific system needs, coordination with a larger market transformation plan, or deployment of technology, tools and information that not only achieve energy efficiency but can also facilitate customer load management.

Utility programs should also become more oriented toward demand reduction. Efficiency measures that produce demand reduction less expensive than equivalent capacity purchases should be pursued where possible. We note here that although REV concentrates on the electric industry, it is our expectation that utilities also continue and evolve their gas energy efficiency efforts.

Although we will allow the utilities the flexibility to design and implement their efficiency portfolios, we direct Staff to initiate the development of a REV Energy Efficiency Best Practices Guide to ensure shared learning and the evolution of programs across service territories. In addition, we will require utilities to implement a Self-Direct Program for large commercial and industrial customers that allows large customers to self-direct funds that would otherwise support the utility's portfolio of energy efficiency programs. Appendix C contains further details.

Rather than funding programs through a surcharge, programs will be integrated into utilities' businesses and costs will be recovered through rates like other ordinary components of the revenue requirement.<sup>85</sup> During the transitional period, the Commission will maintain approval of utility energy efficiency portfolio budgets and metrics outside of rate proceedings. Approval of portfolio budgets and metrics as opposed to specific program by program approvals further supports our interest in requiring utilities to take additional responsibility for their portfolio's performance while not hindering their ability to integrate innovative approaches based on the environment in which they are operating. In accordance with this responsibility, utilities, as a unified group, will maintain their own planning, evaluation, Technical Resource Manual, and benefit/cost analysis tools which should be uniform across the state to the extent possible, so that efficiency vendors can more easily operate across service territories and efficiency performance can be more easily benchmarked. With regard to planning, we direct the establishment of a three-year rolling cycle, whereby on an annual basis, we will approve

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<sup>85</sup> The precise mechanism for cost recovery will be determined in rate proceedings and in Track Two of this proceeding.

the addition of a third year of energy efficiency funding and metrics well in advance of the final year of authorization, thereby avoiding “cliff” years such as 2015, while providing at least two years of certainty for various actors. In order to transition the responsibility for these tools to the utilities, we direct Staff, the utilities and NYSERDA to follow the processes, as well as the specific filing dates for the first cycle’s Energy Efficiency Budget and Metrics Plan and ETIP as outlined in Appendix C. The role of Staff and the Commission will transition toward a monitoring and guidance role, away from a program approval role.

Reduction of overall customer bills remains a principal measure of success. Measuring the success of a market transformation program, however, requires an approach different from that used for direct subsidies. Success will depend on third-party participation and other market factors beyond the direct control of the program administrator, and attribution of outcomes to program inputs cannot be done on a dollar-for-dollar basis. Limiting efficiency programs only to direct “resource acquisition” measures places unacceptable restraints on what can be accomplished, as discussed above, and a new approach must be developed to measure the success of the new framework. Utilities, in consultation with Staff and NYSERDA, should develop and propose metrics applicable to market transformation strategies.<sup>86</sup> Megawatt and megawatt-hour targets may still be useful in evaluating the immediate effectiveness of programs, but market penetration rates and other indices of market transformation should be considered to measure the true value of customer-funded efficiency efforts. Many party comments are focused on maintenance of efficiency targets that are directly linked to resource acquisition efforts. This is the approach that the Commission has taken in the early years of EEPS; however, for the reasons explained here, it is neither a sustainable

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<sup>86</sup> See, e.g., the discussion of alternative metrics in America’s Power Plan, Efficiency: Can We Accept Less Stringent Oversight if it Means Better Outcomes? February 2015.

approach for achieving higher goals, nor is it an optimal approach for evaluating the real market outcomes of energy efficiency programs.

In transitioning away from our current approach, we are committed not only to achieving current energy reduction goals, but accomplishing higher goals consistent with State energy policy and, potentially, federal carbon reduction rules. For 2016, existing budgets and targets<sup>87</sup> will be maintained, not by program but on an overall portfolio basis (see Appendix C). Efficiency programs and measures may be selected on the basis of targeted system needs and program effectiveness, with consideration given to changes in NYSERDA's programs. This will require reallocating priorities among programs and among customer groups, to achieve the portfolio of programs that is most effective, both in achieving near term targets and in promoting market transformation in the longer term. In order to support a smooth and effective transition to the new regulatory framework for utility energy efficiency programs beyond 2015, we authorize additional flexibility and guidance during the final year of EEPS as described in Appendix C.

Parties question whether NYSERDA's targets will be added to utility targets and whether utilities will be adopting NYSERDA programs. Utility targets will not be increased for 2016; rather, we expect that the utility targets established here in addition to NYSERDA metrics established in the CEF proceeding will equal or exceed the current aggregate of utility and NYSERDA energy savings.

Several parties urge that the Commission should make a ten-year funding commitment to energy efficiency funding levels. This would be inconsistent with our approach of introducing market mechanisms to achieve more efficiency with a greater level of private market activity. The three-year rolling planning cycle that we establish

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<sup>87</sup> For 2016, we will use the 2015 MWh and Dth targets for utility efficiency programs. However, as discussed previously, utilities are expected to propose metrics that better measure market transformation. In addition, it is our expectation that Track Two will involve the development of metrics for REV-aligned activities.

here will allow us to monitor progress and make adjustments as needed to maintain our commitment to increased efficiency achievement.

With respect to low income efficiency programs in this new framework, we remain committed to funding these programs where market participation is not a viable option. NYSERDA efficiency programs will be addressed in detail in the Clean Energy Fund proceeding. While NYSERDA remains the default provider of low income programs, utilities will be encouraged to develop innovative programs to expand the reach of measures that include energy efficiency within low income communities, in concert with and not in competition with efforts of NYSERDA.

#### 4. Large-Scale Renewable Resources

Among the Commission objectives in this proceeding is the reduction of greenhouse gas emissions from New York's energy sector. A significant increase in the penetration of renewable resources is essential to meeting our objectives, state goals, and proposed federal requirements. The Renewable Portfolio Standard has increased renewable procurement, but far more investment is needed – investment beyond ratepayer contributions. While customer-side solar investment is growing globally, nationally and in New York, grid-scale renewable resources must be strategically developed to diversify the energy supply mix, hedge the volatility of fossil fuel prices and decrease greenhouse gas and other harmful emissions.

REV creates the opportunity to attract private investment if the prices and incentives are properly aligned. In addition, a market structure must be designed to increase renewable resource penetration while also meeting the other REV objectives.

The Staff Straw Proposal suggested that the renewable energy credit-only program approach should transition to bundled contracts for energy and RECs between the utilities and competitively selected projects, but noted that the issue was not yet ripe for decision as parties had not had an opportunity to comment. It also suggested that the issue might best be addressed on a separate procedural track.

Stakeholder comments suggested various forms of additional process before reaching a decision on main-tier renewable resources. Many urged starting a new proceeding on the main tier or instituting a new track in REV dedicated to this issue. Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc., and New England Clean Energy Council (AEEI) supported this approach, as did NYSERDA and the Clean Coalition (Clean Coalition), Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, The Nature Conservancy, New York Public Research Interest Group, the Pace Energy and Climate Center and the Solar Energy Industries Association (Clean Energy Organizations Collaborative). The Joint Utilities sought a separate proceeding to consider this issue.

IPPNY opposed the approach offered in the Straw Proposal, raising issues and suggesting a more detailed Staff white paper as the basis for further discussion. New York City also expressed concern with potential abandonment of the RPS platform without an appropriate record and urged a separate process. MI believed that the recommendation that utilities assume the responsibility for procuring large scale renewable resources by entering into bundled contracts for renewable attributes and energy constitutes a completely new proposal and should be treated as such, suggesting further process. Other parties, for example Retail Energy Supply Association, are satisfied with the current RPS.

In addition, concern about the future of renewable energy in New York was the most consistent theme among the hundreds of participants in the recent eight-city REV information sessions and public statement hearings.

Accordingly, in response to these party and public comments, we institute a REV large-scale renewables (LSR) track. To begin this LSR track, Staff is directed to work with NYSERDA to prepare an LSR options paper to be issued for public comment no later than June 1, 2015. The Administrative Law Judge and Staff will solicit and schedule additional process and comment opportunity to develop a fulsome record regarding the key features of each substantive proposal. While we have already directed

NYSERDA to conduct a solicitation in 2015 and expect that to occur in the near-term,<sup>88</sup> we realize it will become necessary to direct NYSERDA to conduct an additional main-tier solicitation in 2016 while we deliberate on these important LSR issues. Therefore NYSERDA's Clean Energy Fund supplemental filing should identify funding for a 2016 solicitation.

#### 5. Low and Moderate Income Customers

##### Staff Position

Staff emphasizes that the creation of an effective marketplace for DER products and services will increase system efficiency and thereby reduce costs for all ratepayers. REV should create system benefits that make investments cost effective even for those who do not participate directly in the DER market. Staff also points out that increased targeting of DER options toward system needs will provide low-usage and low income customers greater opportunity to participate. To enable this participation, Staff proposes that the utilities' implementation plans should identify measures to engage and enable participation by low and moderate income customers. These plans may include basic service plans, bill relief options, and incentive programs, as available.

Staff also recommends that the Commission affirm commitment to universal affordable service and that affordability should be a priority as rate design and bill impacts are considered in Track Two. While REV is implemented, existing utility bill relief goals and customer protections must be maintained.

##### Party Comments

Customer advocates point out that arrears and termination numbers show there is an affordability crisis now, and urge the Commission to make affordability a primary focus of the proceeding. The struggle of low income customers to pay their electricity bills was particularly addressed at the public statement hearings held in

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<sup>88</sup> Case 03-E-0188, Retail Renewable Portfolio Standard (RPS), Order Authorizing Modifications to the Main Tier Solicitation contract Term (July 2, 2014).

Buffalo, Syracuse and New York City. AARP and PULP are concerned that low income customers will not be able to participate in the markets envisioned by REV, and that non-participants will bear costs. UIU urges the Commission to do something immediately to address low income concerns, such as implementing a state-wide discount, rather than waiting for the utilities to file REV implementation plans. In addition, UIU argues that REV should be evaluated by metrics that include a measure for affordability for residential customers. Hudson River Sloop Clearwater, Inc. asserts that low income customers need to be adequately represented at all stages of REV and suggest that community-based organizations be utilized to do outreach.

AEA and CLP suggest that energy efficiency programs should be a component of basic service, that existing consumer protections remain intact, and that multifamily buildings and low income neighborhoods should be targeted for DER, especially efficiency measures. EDF asserts that the implementation of advanced metering and time-variant pricing can provide savings opportunities for low income customers. Solar providers such as PosiGen Solar Solutions (PosiGen) and Solar Energy Industries Association, ask that the Commission create solar programs with funding specifically earmarked for low income households and that such programs should offer either on-bill financing or on-bill recovery. The Joint Utilities assert that they will continue to facilitate and promote existing low income programs. Several parties also propose measures to protect low income customers from the price fluctuations that a market may produce. For example, NY-GEO proposes that incentives be created for low income customers to access heat pumps and E2 advocates for the adoption of some "shock absorption" measure, such as a set-aside of reserve funds.

### Discussion

As described above, our statutory responsibility to maintain universal, affordable service is a critical driver of the REV initiative. REV markets will result in more efficient system utilization, with savings that accrue to all utility customers. Also, as Staff notes, valuing DER based on system needs will open opportunities for



participation for all types of customers.<sup>89</sup> Moreover, under a passive regulatory approach, technology developments in self-generation could lead in time to a fragmentation of the public utility system, with an ensuing gap in the price and quality of electric service that would place lower income customers at a severe disadvantage. REV markets will encourage and reward technology deployment in a manner that works for the long term continuity of the system as a whole, and reduces or mitigates system costs paid by all customers.

In addition to these general principles, we are taking numerous steps to promote affordability of electric service, opportunity for medium and low income customers to participate in DER, and protection from potential adverse impacts.

On January 9, 2015, we initiated a proceeding to examine energy affordability programs.<sup>90</sup> Staff in consultation with parties will examine the design and implementation of utility low income affordability programs, examine best practices, and recommend improvements toward a more uniform and effective approach to affordability programs across the State.

On April 24, 2014, the reauthorization of funding for the NY Sun photovoltaic program included an allocation of up to \$13 million to support penetration of solar technology into low and moderate income markets.<sup>91</sup>

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<sup>89</sup> As DER markets develop, we will require utilities to assess the level of participation of low and moderate income customers.

<sup>90</sup> Case 14-M-0565 – Proceeding on Motion of the Commission to Examine Programs to Address Energy Affordability for Low Income Utility Customers, Order Instituting Proceeding, issued January 9, 2015.

<sup>91</sup> Case 03-E-0188 – Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard. Order Authorizing Funding and Implementation of the Solar Photovoltaic MW Block Programs, issued April 24, 2014.

On December 15, 2014, we ordered Staff in consultation with NYSERDA to begin a stakeholder process to consider community net metering.<sup>92</sup> Community net metering allows customers that do not otherwise have access to on-site generation, e.g. rental customers, to build and own net metered projects such as solar photovoltaic.

On December 15, 2014 we initiated a proceeding to consider Community Choice Aggregation.<sup>93</sup> Community Choice Aggregation offers the potential not only for customers to achieve lower bills through more effective commodity purchases, but also the opportunity to participate in DER activities and markets to reduce bills and emissions.

On February 5, 2015, we ordered that energy service companies serving customers who receive low income assistance must guarantee those customers pay no more on an annual basis than they would have paid as full-service customers of the utility or, in the alternative, the ESCO must provide value-added services in a manner that does not dilute the effectiveness of the financial assistance programs.<sup>94</sup>

In addition to these actions already taken, this Order takes several other steps to provide LMI customers a fair opportunity to benefit in REV markets:

1. Utilities will be allowed to partner with community groups and/or invest directly in distributed resource projects on premises of low and moderate income customers, to target system needs and enhance the participation of low and moderate income customers.

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<sup>92</sup> Case 14-E-0151 - Petition of Hudson Valley Clean Energy, Inc. for an Increase to the Net Metering Minimum Limitation at Central Hudson Gas & Electric Corporation and Case 14-E-0422 – Petition of Solar Energy Industries Association, Alliance for Clean Energy New York, the Vote Solar Initiative, the National Resources Defense Council and The Alliance for Solar Choice to Clarify the Process for Utilities to Seek Relief from Net Metering Caps, Order Raising Net Metering Minimum Caps, Requiring Tariff Revisions, Making Other Findings, and Establishing Further Procedures, issued December 15, 2014.

<sup>93</sup> Case 14-M-0224, In the Matter of Enabling Community Choice Aggregation Programs.

<sup>94</sup> Case 12-M-0476, Proceeding on Motion of the Commission to Assess Certain Aspects of the Residential and Small Non-residential Retail Energy Markets in New York State, et al., Order Granting and Denying Petitions for Rehearing in Part, issued February 5, 2015.

2. Providers of DER, if they are participating in data access platforms or DSP markets, will be subject to consumer protection rules to prevent abuses. Operators of microgrids will be subject to the Home Energy Fair Practices Act.
3. In the Energy Efficiency section of this order, we declare a policy of maintaining energy efficiency programs for low income customers where market participation is not an option.
4. We require measures to avoid or mitigate potentially harmful emission concentrations from distributed generation or demand response in environmental justice areas.
5. We direct our Office of Consumer Services to coordinate the Consumer Advisory Council to provide direct input related to REV implementation, integrated with other regulatory matters pertaining to low and moderate income customers in particular and mass market customers in general.

These measures demonstrate our commitment to ensuring both affordability and a fair, comprehensive implementation of REV. One of our criteria in reviewing utility implementation plans will be the opportunity for participation by low and moderate income customers. We will not, at this time, mandate specific exceptions to market rules, but we will monitor participation levels of all types of customers.

#### 6. Interconnection

##### Staff Proposal

Staff recognizes that burdensome, costly and time consuming interconnection requirements or procedures are a barrier to penetration of DER. The proposal also recognizes that safety and system reliability require appropriate interconnection requirements and that an appropriate balance between streamlining and protecting safety and reliability must be found. Staff recommends that greater transparency be built into the interconnection process including improved information sharing via a publically maintained queue. When interconnection requests are denied or delayed on the grounds of concerns for non-compliance, the reasoning for the denial should be available publicly and subject to scrutiny. Utilities must improve their

response time regarding requests for interconnection including increasing staff available to review interconnection applications.

Staff points out that the Commission already has established the New York Standardized Interconnection Requirements (NY SIR) for Distributed Generation projects 2MW and below to ensure safety, reliability, and prevent operations failures and electrical hazards caused by faults and improper islanding or reconnection.

Interconnection projects in New York above 2MW are governed by FERC, the NYISO, the Commission and the utilities. The Commission has also established a mechanism in the NY SIR to track interconnection approval times to ensure appropriate and timely responses to applications, which will increase in volume as distributed energy resources proliferate. There is a gap, however, for those systems that are above 2 MW. The SIR threshold be increased to 5 MW in order to better streamline interconnection of these facilities. In the absence of standard procedures, these larger systems can be subject to burdensome technical review that can slow or prevent projects that would be beneficial to the grid.

Staff recommends that the Commission consider a periodic interconnection review and reform process to expedite interconnection processes and minimize costs, in order to facilitate the expected increased adoption of DER that require interconnection.

#### Party Comments

Many comments also stated the need for an open and transparent interconnection process with many providing concrete suggestions or examples. Stoel Rives/38 North suggests that FERC's Open Access Transmission Tariff (OATT) can supply a good model for ensuring nondiscriminatory terms of service to third parties. A number of commenters including AEEI support Staff's proposal to raise the NY SIR maximum applicable rating to 5 MW and recommend tying performance ratemaking mechanisms to deadlines for meeting interconnection process milestones for each stage of the interconnection process. American Biogas Council (ABC), among others, suggests that changes should be made to the cost/benefit allocation for system upgrades necessary

for interconnection of a particular project, stating that the interconnecting party must pay for the upgrades but the utility reaps the economic benefits of ownership including depreciation, tax credits, income generated by other users of the upgrade. Citizens for Local Power notes that interconnection costs are a particular barrier for many municipal landfill areas which, but for the cost of interconnection, would be prime areas for solar PV deployment. Hudson River Sloop Clearwater suggests that interconnection costs should be waived (or funded through NYPA) for municipalities proposing large scale projects on property within reasonable distance to power lines capable of handling the proposed project.

The Joint Utilities acknowledge that the interconnection process may take longer than applicants would like but that adherence to utility procedures is fundamental to maintaining safety and reliability. The Joint Utilities also suggest that although size of the proposed facility does matter, it is not always the driving force for the rigor of the interconnection study or the system upgrades needed. The Joint Utilities state a readiness to work with the DER community to improve the interconnection process and support periodic reviews of the SIR to identify opportunities for cost reductions and process improvements through standardization. The Joint Utilities would additionally be willing to consider the expansion of the SIR to DG installations greater than 2 MW in capacity, inclusive of CHP technologies, provided appropriate timelines. However, the Joint Utilities argue that the complex nature of some microgrids may warrant a distinct interconnection process. The Joint Utilities further argue that plug-and-play technologies should not be allowed to bypass the current interconnection process until appropriate standards and protections are in place that ensure the equipment is safe, will not negatively affect reliability and will provide the locational information relative to the distribution system that is determined to be necessary. Finally, the Joint Utilities support the possibility for screening certain DER, less than 100 kW capacity for example, but caution that additional analysis may be required in certain circumstances.

Northeast Clean Heat and Power Initiative recommends that the Commission make interconnection a near-term action item and establish a working group

to address interconnection issues for all DERs, most particularly for CHP and microgrids, and recommends exploring sharing of upgrade costs among and between DER developers. NECHPI further recommends quick upgrades to interconnection procedures before utilities become overwhelmed with applications.

PSEG Long Island LLC (PSEG Long Island) states that increasing the SIR to 5 MW is a significant change in the fast track process and recommends that the Commission direct a thorough evaluation to ensure that the proper protections are considered. PSEG Long Island is currently reviewing its DG screening criteria to evaluate potential impediments with the items that DG developers consider impediments to the DG interconnection process; the goal being to enable greater fast tracking and greater megawatt level projects.

The NYISO agrees that greater transparency and less burdensome interconnection rules help remove barriers to entry. They clarify that the NYISO's interconnection procedures apply to all FERC-jurisdictional interconnections and that they receive very few requests for FERC-jurisdictional Small Generating Facilities with a capacity of 5 MW or less. The NYISO has continued to work with stakeholders to improve its procedures and recently filed tariff revisions with FERC that include expanding eligibility for the Fast Track Study process, previously only available to facilities under 2 MW.

### Discussion

In order for distributed generation to compete on an equal footing, interconnection with the grid must be enabled through technical rules and processes that are not only safe but also efficient and expeditious. New York has been a leader in this area, initially adopting Standardized Interconnection Requirements in 1999. Much progress remains to be made, however. Small projects that should be expedited on a "plug and play" basis are often delayed. Larger projects that require individual engineering analysis can encounter delay as well as high costs due to requirements that may be overly protective. At the same time, there are important engineering concerns

related to physical interconnection, and distribution utilities have the responsibility to protect the integrity of the system.

At present, utilities have a financial disincentive to provide efficient and timely interconnection approvals. There is little or no earning potential for utilities in the development of distributed generation by third parties, and there are substantial downside risks in the event of a system problem. Slow or overly protective requirements could be addressed by a Commission complaint process, but the Commission cannot oversee every interconnection request, and by the time a project has proceeded to the point of a complaint it will already be time-consuming and costly.

Our approach to improvement is to ensure that utilities are employing the best available analytic processes, and to align utilities' financial interests with our objective of cost-effective and expeditious interconnections. Standardization of interconnection products and testing protocols is achieved through national bodies; where an applicant has satisfied these standards the process of utility approval should be as swift as possible, consistent with safe operation.

Analytical tools are available that can greatly enhance utilities' ability to process applications and to perform load flow analyses and other technical analyses. We will require improvement in utilities' capabilities in two phases: phase one will be oriented toward streamlining approval processes for smaller distributed generation projects such as residential solar, and phase two will be oriented toward a comprehensive ability to integrate interconnection processes into system planning and operation.

For phase one capabilities, the customer should be able to apply through an online portal, with management and screening, including any needed impact studies such as load flow and fault potential based on DER penetration levels, occurring automatically with a decision issued to the customer in a timely manner. Each utility will be required to have these functionalities in operation by the time of their initial DSIP filing. Progress reports must be filed by July 1, 2015, and completion demonstrated in each utility's DSIP filed on December 15, 2015.

For phase two capabilities, the automated application and management process should be integrated with grid optimization planning. This will expand on simple measurement of DER penetration, to include modeling of potential system impacts of DER (both beneficial and adverse) on load flows and system protection at the feeder or more granular level. This should include risk assessment of the potential for DER to reduce system congestion, and for DER with ride-through capabilities to assist with a resilient response to system events. Phase two capabilities should result in economically desirable DER projects having ready access to interconnection approval, and potential market participants having ready access to information to assess the viability of a project from a system interconnection standpoint. Progress toward achieving phase two capabilities should be reported in each utility's initial DSIP.

Uniform contract terms and procedures will also expedite the processing of interconnection agreements and provide certainty to DER developers. The contract group will be charged with developing standardized contract terms for projects that do not presently have them.

The standardization of interconnection requirements must be developed as a complement to the market structures discussed above. Products available through the customer engagement web platform, for example, must have ready access to a standardized interconnection process.

We also agree with Staff that the threshold for the Standardized Interconnection Requirements should be increased to 5 MW. We direct Staff to initiate a process to implement that change, in consultation with utilities and interested parties.

We further intend that the earning potential of utilities will be directly linked to the timeliness and frequency of successful interconnections. This will be taken up in more detail in Track Two and in rate proceedings. Utilities will also be able to obtain revenues by offering locational system analysis to potential vendors of distributed generation, as discussed above in relation to Information and Customer Engagement.

Staff will continue to monitor interconnection experience and respond to customer concerns, as well as further development of industry standards. Following the



implementation of the reforms ordered here, we will institute a formal review to determine what additional measures are needed to achieve standardized, predictable and efficient interconnection practices.

## 7. Platform, Communication, and Metering Technology

### Staff Proposal

Staff relies on the report of the Platform Technology Working Group and attached a significant portion of the report as an appendix to the Straw Proposal. The report found that the development of DSP functionalities is achievable with technologies that are generally in use today, although they have not been developed for the specific application of a DSP. The report includes a preliminary list of DSP market functionalities to guide the development of technology protocols, and states the importance of a clear line of sight from policy goals to functionalities to technology investments.

### Party Comments

Parties offer a large number of detailed suggestions regarding platform technology requirements. No party challenges the finding of the Working Group that the platform technology is achievable, although New York City reserved judgment until further work is performed, and Multiple Intervenors cautioned that more detailed cost estimates are needed before customer money is invested. AEEI observes that control and dispatch of DER must be integrated with grid modernization functions; NECHPI notes that while uniformity is essential, this will be difficult to achieve building up from multiple utilities' existing systems; and IBM cautions that cyber security must be a front-line issue, and also notes that interoperability and open sourcing are not identical functionalities. NEMA and others present a wide range of technical suggestions. Several parties opined that platform technology issues should be the basis of a further stakeholder effort.

Numerous parties discussed whether there is a need for Advanced Metering Infrastructure (AMI) - specifically whether AMI must be adopted universally as a precondition for the operation of REV markets. Many DER providers and energy service providers opine that some type of advanced metering will be necessary. For example, AEEI, NEMA, Gridwise Alliance, Mission:Data, FirstFuel Software (FirstFuel), NFG and Direct Energy all assert that AMI or advanced metering functionality (AMF) are necessary additions to enhance customer knowledge, stimulate innovation and animate the market. Several utilities share this view. Some environmental advocates, including EDF and EarthJustice, agree, emphasizing the importance of metering for accurate time of use rates. EDF adds that customers should not bear the entire cost of advanced meters. Many consumer groups, on the other hand, such as CPA, MI, PULP & AARP, express concern and caution against any substantial investment in technology absent a BCA. CPA warns against rushing to endorse a particular platform technology before the various products offered by the DSP are identified. MI asserts that cost allocations of technology expenses should be consistent with cost causation principles. PULP and AARP suggest the development of non-AMI dependent demand response programs. Speakers at several of the public statement hearings expressed concerns about the health impacts of placing advanced meters in homes.

## Discussion

### a. General considerations

The implementation of REV in general, and DSP capabilities in particular, will allow the industry to progress from the traditional approach of centralized command and control to a distributed, intelligent system. Such a transition will require system architecture beyond what is currently in common use in the electric industry, but well within reach based on common practices in other industries. Implementation of advanced grid systems will provide for a greater ability to visualize and control the system and more fully integrate distributed energy resources into system operations. This will likely include communication backbones, communication nodes, distributed energy resource

management systems, and advanced metering. Without predetermining any particular result, we generally endorse the list of functionalities developed by the Working Group as a foundation for further development. We also, as discussed above, direct the continuation of the market design and platform technology working groups established by Staff.

The challenges are numerous. A single interoperable platform must be integrated with a set of unique incumbent systems. Selecting a distinct set of functionalities and associated platform protocols will involve judgment and cooperation. The sheer number of capabilities already available in the marketplace complicates the task. Demonstration projects, discussed below, will be helpful in tailoring a set of protocols to the needs of REV markets.

The extensive nature of the party comments confirms the approach we adopt here. It is clear from party comments and working group efforts that the technical capabilities needed to establish DER markets already exist. The work that needs to be done is to clarify the required functionalities and a development approach which supports timely and uniform market and product development. We note this work has begun, with active participation of directly involved and expert stakeholders.

The market design and technology platform (MDTP) working groups have been created for the purpose of providing guidance for utility Distributed System Implementation Plans (DSIPs) on near- and mid-term market design and platform technology issues, and any other recommendations to the Commission for actions needed to facilitate near- and mid-term implementation of the DSP market. Such direction will recommend pathways for transition; develop grid architecture and market models; identify data needs, including addressing issues around transparency and privacy; and develop market rules and technical specifications, including how to keep the system secure.

b. Advanced Metering

While the issue of advanced metering deployment is not new to us, we now consider the issue in the context of REV policy objectives and in recognition that circumstances are evolving with regard to costs, capabilities, and most importantly potential benefits of advanced metering infrastructure (AMI). REV markets will supply multiple value streams to make demand-side activities more feasible and economically attractive to customers. Usage data collected via advanced metering functionality will be important to the development of market opportunities. Whether or to what extent AMI is needed to achieve those benefits, and at what cost, must be determined in the context of the desired functionality.

In evaluating AMI, we are primarily concerned with the functionality needs of REV, and the most efficient way of meeting them. Several parties identified AMF (advanced metering functionality) as an alternative way to analyze the issue, and we concur. It is possible that the desired functionalities can be met more effectively or less expensively than by universal adoption of AMI. AMF, as opposed to AMI, might be met with a variety of technologies, some of them already in common usage (e.g. wireless internet). Equally important, products and systems to provide AMF may be more readily supplied by competitive providers, avoiding the need for a ratepayer-funded rollout of AMI across a large group of customers.

It is also likely that the desired functionalities will differ with different market sectors (i.e. the functionalities needed for products and services in the large commercial/industrial market are likely to differ from those needed for residential and small commercial/industrial sectors). For that reason, at this time we defer articulating a single list of desired functionalities.

Adoption of an advanced utility infrastructure across large groups of customers raises the question of how costs should be allocated. To the extent that benefits consist of operational savings or reliability enhancement for utilities, allocation to ratepayers may be appropriate. To the extent that the value of AMI or AMF consists in enabling market participation, it may be more reasonable to require market participants to

bear the initial costs or, alternatively, to allow utilities to offset costs by recovering usage fees. An AMF approach could resolve this issue by spreading investment risk across market participants, versus leaving it entirely with utility ratepayers.

It is clear that some form of advanced metering will be needed to implement REV. Dynamic pricing will require signals both to and from end-use equipment. Settlement of transactions will often require time-stamped usage data. At a minimum, each utility DSIP will need to include a plan for dealing with advanced metering needs; however, plans that involve third party investment may be preferred over sweeping ratepayer funded investments. AMI/AMF is an implementation issue, and we will consider AMI/AMF proposals with factual records developed on a case-by-case basis, taking into account, among other factors, functionality, claimed costs and benefits, the potential for market animation by the provision of an open platform, the opportunity to mitigate costs to the utility by its ability to collect fees, and the recommendations of the Market Design Platform Technology group.

Further, our public statement hearings showed that some customers are skeptical of the need for AMI, and some are concerned about potential health effects. Customer optionality is preferred where possible in a REV approach. The installation and use of AMI may be an example where customers could choose to pay for an alternative method of serving the function, or could choose to forego the benefits of participation.

The MDPT group's work plan will provide for a detailed description of advanced metering functionality features necessary for enabling DSP markets. Staff will evaluate and incorporate this effort into its August 3 guidance for the development of Distributed System Implementation Plans.

## 8. Security

### Staff Proposal

Staff states that security will remain a major concern and is a fundamental consideration to the electric industry in planning and operations as well as

implementation of new products and systems. While embedded in the standards and protocols necessary to build the platform, cyber security must be considered and addressed when using open protocols to connect to new end use technologies and when evaluating new products and systems.

### Party Comments

The Joint Utilities state that the Commission should ensure that cyber security rules are consistent with emerging industry-wide codes, and appropriate for the degree of data exchange that is required by REV. Consumer Power Advocates caution against mass deployment of DER until customers can be assured that cyber security will be rigorous to protect customers.

IBM Corporation states that it is imperative to make cyber security a first tier requirement. IBM states that confronting the technical, cultural, and legal issues regarding the security of critical assets on the system should be done early in design. IBM recommends that the Commission should establish a set of common cyber-security metrics for the DSP to orient around during modification of existing system.

### Discussion

Securing and protecting critical infrastructure from cyber threats has become a familiar issue for the Commission and utilities. Cyber security is highly important for reasons of privacy, reliability, resiliency and market confidence. It needs to be designed and built into utility systems including the DSP. Securing SCADA has been identified as one of the most important technical initiatives for making the nation safer across all critical infrastructures. It is expected that the frequency and severity of cyber incidents related to critical infrastructure including the power system will continue to increase.<sup>95</sup>

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<sup>95</sup> Report: Cyber Attacks Likely to Increase, Rainie, Lee; Anderson, Janna; and Connolly, Jennifer, Pew Research Internet Project, October 29, 2014.

The bulk transmission system has been the focus of most cyber security attention to date. As communication systems and DER connection points expand to encompass more of the electric sector's processes and controls, the potential for harmful access to the electric system can be expected to increase as well.

There is no single set of security standards that we can simply direct utilities to comply with. It is unlikely that any definitive set of standards will ever exist, given the dynamic nature of the threat. As we have learned from the evolving and expanded use of the internet, security methods, systems and protocols will always require constant vigilance and reassessment, with new vulnerabilities being discovered and exploited, and new countermeasures developed and implemented.

In the context of the modern electric grid, organizational, operational and technical guidance has been developed. The National Institute of Standards and Technology (NIST) has produced an extensive body of guidelines for smart grid cyber security that is the most fully developed and broadly considered treatment of smart grid cyber security issues to date.<sup>96</sup> The numerous security recommended requirements identified and explained in the NIST guidelines should be the primary reference for utilities in securing their systems.

We agree with the recommendation that each utility should prioritize enterprise-wide cyber security by appointing and empowering one accountable individual within the executive structure. Each of the state's major utilities has already done this.

At this time we will not direct the adoption or development of a New York specific set of cyber security standards, in part because of the many other efforts going on within the industry and in part due to our recognition of the constantly evolving nature of both the system and the threats. Rather than adopting a fixed set of standards, we will continue our practice of requiring utilities to demonstrate that they have sufficient staff

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<sup>96</sup> NIST Framework and Roadmap for Smart Grid Interoperability standards, Release 3.0, September 2014, and Interagency Report 7628, revision 1, Guidelines for Smart Grid Cybersecurity (NIST-IR 7628).

and organizational structures, including clearly defined responsibility and chain of command, as well as processes, systems and procedures commensurate with the nature of the threat, as expressed here and in other Commission orders, and in NIST-IR 7628.

Utilities will have primary responsibility for ensuring that DER providers selling services into the DSP are in compliance with all applicable standards. To the extent that national bodies may not have established standards or guidelines adequate to protect utility systems and customer data in the operation of advanced DER markets, we have jurisdiction over DER providers and ESCOs to adopt any measures that are necessary.

#### D. Consumer Protections

##### Staff Proposal

Staff observes that while providers of commodity service (ESCOs) are subject to Commission supervision, REV will create new markets for other energy services beyond commodity (DERs) and the Commission should consider exercising jurisdiction over DER providers to ensure customers are protected.

##### Party Comments

Many parties including the Joint Utilities, NFG, RESA, AEA, AGREE, and the NYISO express support for Staff's contention that DER providers participating in DSP markets should be subject to oversight akin to that exercised over ESCOs. New York Energy Consumers Council (NYECC) and AARP/PULP question whether statutory changes will need to be made to give the Commission jurisdiction over DER providers who are not otherwise ESCOs. UIU seeks clarification that Department Staff did not intend to recommend any relaxation of existing customer protections. The Joint Utilities and RESA suggest that in order to apply a standard set of rules to functionally similar entities, the Uniform Business Practices that currently apply to ESCOs be amended as necessary and applied to DER providers. In addition, the utilities urge the Commission to ensure that cyber security rules are consistent with emerging industry-wide codes, and appropriate for the degree of data exchange that is required by REV.



IREC, AEEI, ETS, EDF and SolarCity note that DER providers are already subject to a wide array of federal, state, and local regulations and conditions on participation in state incentive programs and wholesale markets, and duplicating existing protections could be highly inefficient and financially burdensome. EDF qualifies its position, adding that given the diversity among DER providers, some of them may be appropriate targets for regulation by the Commission for particular, narrow reasons. The NYISO notes that to the extent that DERs participate in wholesale markets, they, and/or the programs in which they participate, will also be subject to FERC regulation. UIU seeks further explanation on how DER oversight would be accomplished so that the parties can better understand if the recommended paradigm is similar to that of the relationships among the FERC, the Board of Directors of the NYISO, wholesale market participants and members of the NYISO's governance structure. Wal-Mart and TASC express jurisdictional concerns regarding the Commission's regulation of DER providers and ESCOs in the envisioned REV market. NEMA recommends that the Commission address this issue through a collaborative stakeholder process that includes ESCOs and other third-party providers.

### Discussion

Some degree of supervision over DER providers will be necessary, in order to ensure both consumer protection and fair competition. Where markets are created by order of the Commission, and managed by a DSP that is regulated by the Commission, the Commission has responsibility to ensure that customers and service providers can participate in those markets with confidence. Equally important, as DER becomes integrated into system planning and operations, utilities will need to rely on market participants to provide the DER that is promised as well as observe security protocols to protect against cyber security threats.

This exercise of the Commission's jurisdiction is an application of the Commission's authority to regulate activities that fall squarely within its jurisdiction. Pursuant to PSL§ 2(13), an electric corporation is any corporation that owns, operates, or

manages “any electric plant . . . except where electricity is generated or distributed by the producer solely on or through private property . . . for its own use or the use of its tenants and not for sale to others.”

As defined in PSL § 2(12), the term “electric plant” includes “all real estate, fixtures and personal property operated, owned, used or to be used for or in connection with or to facilitate the generation, transmission, distribution, sale or furnishing of electricity for light, heat or power . . .” As a result, when DER providers “furnish” electricity or “facilitate” the furnishing of electricity by providing services to DSP markets or systems, their facilities and property devoted to that task constitute electric plant, while when they do not “furnish” electricity, their facilities and property are not electric plant. The “furnishing” of electricity is established through reference to PSL §2(13), where it indicates that electricity is not “furnished” when it is produced solely on or through private property for the use of the producer or its tenants and not for sale to others. For those reasons, DER providers are electric corporations subject to the jurisdiction of the Commission under Article 1 of the Public Service Law to the extent they “furnish” electricity.

However, DER providers will not be subjected to rate regulation or other requirements set forth in Article 4 of the Public Service Law. As the Commission recognized when it exercised jurisdiction over ESCOs, Article 4 regulation does not apply to all electric corporations, but only those that, as described in Section 66(1), have “authority . . . to lay down, erect or maintain wires, pipes, conduits, ducts or other fixtures in, over or under the streets, highways and public places . . .”<sup>97</sup> DER providers do not fall within this category. For that reason, they will be subjected to the more

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<sup>97</sup> Case 94-E-0952, Competitive Opportunities Regarding Electric Service, Order and Opinion Deciding Petitions for Clarification and Rehearing at 29-35 (issued November 18, 1997); see also Case 94-E-0952, supra, Opinion and Order Establishing Regulatory Policies for the Provision of Retail Energy Services (issued May 19, 1997).

limited form of oversight intended for the protection of customers as that oversight already adheres to ESCOs.

Similarly, though DER providers are electric corporations to the extent they “furnish” electricity, the Commission will not regulate all transactions involving DER providers. The Commission has long recognized that not every action taken by every electric corporation is subject to its jurisdiction. As described more fully below, the Commission will determine what transactions by DER providers will be subject to Commission oversight based on their engagement with DSP markets. That engagement will determine if plant is used to “furnish” electricity and so is subject to jurisdiction or is not used to “furnish” electricity and so is not subject to jurisdiction.

DSP market rules and technical standards will be the best vehicle to ensure adequacy of DER services for purposes of system reliability. We do not anticipate the need to exercise direct supervision over DER providers for this purpose, although this could become necessary.

The Commission will take an active role in establishing and enforcing consumer protections related to DER providers, as it has with ESCOs in the provision of commodity service.<sup>98</sup> Establishing consumer protection rules for DER providers raises three sets of questions: how to distinguish those services that are subject to Commission supervision from those that are not; how to avoid unnecessary overlap with other consumer protection regimes; and by what mechanism the supervision will be exercised.

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<sup>98</sup> The Commission has adopted the Uniform Business Practices to ensure a consistent set of operating practices for retail energy competition and to afford customers appropriate protection in their dealings with ESCOs. Case 98-M-1343, In the Matter of Retail Access Business Rules, Order Adopting Uniform Business Practices and Requiring Tariff Amendments (issued January 22, 1999). In addition, the Commission continues to assess retail energy markets for residential and small commercial customers, and direct improvements as appropriate. Case 12-M-0476, Proceeding on Motion of the Commission to Assess Certain Aspects of the Residential and Small Non-residential Retail Energy Markets in New York State.

The definition of DER services is potentially broad enough to cover a wide range of home energy services that have not traditionally been subject to Commission oversight. This includes, for example, solar installers, home performance contractors, and building management system operators. A clear criterion of applicability is needed, in order to avoid an overly broad and unworkable extension of regulatory authority over private transactions. We are also mindful of the risk of duplicative or overlapping regulation and oversight, and will restrict our oversight to avoid such risks. In the case of ESCOs, there is a clear existing criterion: a customer purchases energy from the ESCO. In the case of DER providers, there will be two distinct criteria, once DSP market tools have been developed, used to establish when a service is the “furnishing” of electricity subject to jurisdiction. First is the acquisition of customer data by any means established under the Commission’s authority. Second is the sale of DER services into DSP markets; these could result from customer solicitations outside of the platform. The first criterion is information-related, the second is transaction-related. We will employ both: provision of DER products and services that meets either one or both of these criteria will be subject to our rules.

Supervision of DER providers will, at a minimum, include certification of any provider that requests consumer data, or that furnishes services via DSP or other utility functions. Warranty and disclosure requirements will also be considered. Applying relevant portions of existing provisions of the Uniform Business Practices is the most likely course for accomplishing these goals; however, we are not confined to existing provisions. Modification of the UBP to reflect needs of REV markets may also be considered. We direct Staff to develop these rules in consultation with Stakeholders and propose a rule for public comment by July 1, 2015. As in all cases with the development of REV, the Commission is mindful that the markets will evolve and the rules we establish at the outset of these developments will need to be continuously reviewed to make certain that they are achieving their intended objectives.

E. Microgrids

Staff Proposal

Staff recommends that DSP market design, including the valuation of DER, should be applicable to microgrids, and that the DSPs should incorporate microgrids into system planning when advantageous and cost effective. At this stage, Staff proposes that consideration should be given to all ownership models for microgrids (i.e., single or multi-customer owned, community grids, utility owned, etc.). The Straw Proposal identified existing barriers to microgrid development, such as lack of a regulatory framework, standby rates, inadequate valuation of benefits, interconnection procedures, wholesale market treatment and customer engagement. Staff opines that these barriers may be addressed in REV through regulatory reform and DSP market development.

Party Comments

Parties demonstrate a strong interest in microgrid options and a wide range of positions regarding approaches to microgrids under REV. ENE/VEIC and NRG urge the Commission to address the barriers to microgrids soon, without waiting for final development of the DSPs. Many parties, including The Nature Conservancy (TNC), AEEI, CPA and ChargePoint, point out the need for transparency, such that the DSP will inform developers where microgrids can provide the greatest value. ChargePoint also suggests that the Commission support development of pilot microgrid projects at locations such as university and industrial campuses, and include EV infrastructure in such pilot proposals. PSEG Long Island asserts that microgrids should not be given a priority over other DER technologies. The NYSSGC suggests that the Commission should engage customers and communities with utilities early in the design and implementation of microgrids.

On the issue of ownership, the Joint Utilities argue that when a microgrid serves multiple customers and operates within the surrounding electric distribution infrastructure, utilities are in the best position to own and operate such distribution infrastructure when it involves systems within the utility franchise area. They assert a

superior ability to operate and maintain distribution infrastructure due to their trained workforce, procedures, emergency response plans, and the obligation to supply customers as providers of last resort; they do not believe that Staff has given full consideration to these requirements when it suggests that developers could own their own distribution infrastructure and billing systems. Utility Workers Union of America (UWUA) supports the utilities' position in this regard. PSEG Long Island also agrees that, where the microgrid equipment is located on public streets and rights of way, the utilities, rather than developers, should own and operate microgrids to ensure public safety. GWA urges the Commission to give thought to the implications for the utilities' and the microgrid owners' obligations to serve. RESA supports independent (non-utility) multi-customer microgrids. AEEI opines that utility ownership of microgrids should not be entirely excluded, and supports collaborative microgrids that explore various technical and business arrangements. NEMA agrees that microgrids and community DG systems lend themselves to collaboration between third-party providers and utility operators, and that to take advantage of these collaborative opportunities, innovative business models should be encouraged.

Standby tariffs stand out as the most cited obstacle to microgrid development. Parties that operate microgrids, such as Mutual Redevelopment Houses, Inc. (Penn South) and RiverBay Corporation (Co-op City), assert their potential to even further benefit the grid, but cite excessive stand-by charges, restricted opportunities to sell back to the grid and interconnection difficulties as barriers. NECHPI agrees that standby rates should be reformed, and offers detailed suggestions.

ENE/VEIC assert that the ability of a microgrid to island from the grid is fundamental. The Joint Utilities agree, pointing out that permitting development of microgrids that do not have the ability to island would allow microgrid developers to aggregate certain loads and DERs that are always connected to the distribution system and effectively authorize such microgrids to encroach on a utility's monopoly franchise rights and operate as a utility selectively, without the broader responsibilities of a regulated utility. EDF disagrees that removing the requirement that microgrids must be

able to island will encroach on a utility's franchise rights, and argue that such a determination should be made as part of a comprehensive examination of regulatory structures and values of microgrid features.

Disparate opinions are proffered by the parties as to how microgrids should be financed. The Joint Utilities believe that where a utility-owned microgrid provides a lower cost alternative to a traditional utility solution or where extraordinary public benefits are provided such as continuity of public services during times of natural disaster, such microgrid costs should be recovered through rates and should be supported by an effective BCA process. EnergyNext, Inc. (EnergyNext) suggests that a microgrid tariff similar to the Remote Net Metering tariff could provide the financial incentives to induce widespread deployment with local initiative and participation, allowing communities to seek clean energy generation options and harden facilities that support public safety and health. NRG asserts that only the competitive market should provide the value of microgrids. PSEG Long Island states that investment, operation and maintenance costs for microgrids should be borne by the customers directly benefiting and not socialized to other customers, and MI argues that microgrids should neither be subsidized, nor mandated. NYPA notes that the Commission should consider how to facilitate financing of microgrids.

EnergyNext asks the Commission to require a process of community engagement to assure acceptance of both the physical boundaries and the cost-sharing proposition of any proposed microgrid, pointing out that the boundaries of a microgrid can be controversial, inducing delays and even failure of proposals. ABC points out that biogas plants provide opportunities for microgrids, as they frequently are the hub for organics processing from several local farms, businesses or entire communities and could provide a natural reliable, resilient, affordable, base load renewable energy. CALM Energy, Inc., states that the highest priority in REV from a DER/microgrid perspective should be towards creating a stakeholder approved, scalable, automated demand response capability. AEEI states that the same rules that apply broadly to DER ownership and

market power should apply to microgrids, with a specific exception for multi-customer microgrids with utility/third party provider collaborations.

### Discussion

The United States Department of Energy defines a microgrid as “[a] group of interconnected loads and distributed energy resources (DER) with clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid [and can] connect and disconnect from the grid to enable it to operate in both grid connected or island mode.”

We adopt this definition for our purposes as well. Microgrids have great potential value, not only for the obvious purpose of providing resilience in the case of grid outages but also as a means of integrating clean distributed resources and offering grid services such as demand reduction and ancillary services.

As Staff has described, and NYSERDA has outlined extensively, there are many potential types and configurations of microgrids.<sup>99</sup> In the context of Commission regulation, there are currently two approaches that have an established regulatory path. The first is powered by a cogenerating, small hydro or alternative energy production facility, serving tenants located at or near the generation source, and exempt by law from most aspects of Commission regulation.<sup>100</sup> There are numerous examples of such microgrids in New York. Most operate in parallel (interconnected) with the utility distribution system, although some are isolated.<sup>101</sup> The second is a microgrid serving multiple business customers that is granted “light regulation” by the Commission, in

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<sup>99</sup> NYSERDA has catalogued the ownership and operational typology of microgrids in detail. See NYSERDA, Report No. 14-36, *Microgrids for Critical Facility Resiliency in New York State*, December 2014, p. 109; NYSERDA, Report No. 10-35, *Microgrids: An Assessment of the Value, Opportunities and Barriers to Deployment in New York State*, September 2010.

<sup>100</sup> Public Service Law Section 2(13).

<sup>101</sup> See, e.g., Case 14-M-0508, [Petition of Halletts Vendee LLC - Petition for a Declaratory Ruling Regarding Commission Jurisdiction](#).



recognition of the voluntary contractual relationship between the business customers and the provider.<sup>102</sup>

A third model, frequently known as the “community microgrid” model,<sup>103</sup> involves multiple customers that may range from large institutions to single dwellings, operates in parallel with the grid but is capable of operating as an island during a grid outage,<sup>104</sup> and is powered by one or more distributed generation sources supplemented by storage and/or a load management system that provides resilience in case of grid outage and optimal efficiency during normal operations. Within this model, there are numerous alternative configurations for ownership and operation of generation, distribution, and system management facilities.

Maintaining grid interconnection of microgrids (versus complete isolation) is a high priority where economic and operational benefits can flow both to microgrid participants and to utility customers. Parties have identified interconnection requirements and standby rates as obstacles to integrated microgrids. Interconnection standards are addressed herein, and standby rates will be addressed in Track Two of this proceeding as well as individual utility proceedings.

Each of the microgrid types identified above has potential to provide benefits that meet REV objectives. Community microgrids offer great potential for

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<sup>102</sup> See, e.g., Case 13-M-0028, Petition of RED-Rochester, LLC and Eastman Kodak Company for Approval to Transfer Regulated Utility Assets at Eastman Kodak Park, Approval to Transfer Certificates of Public Convenience and Necessity, Providing for Continued Lightened and Incidental Regulation, Approval of Financing and Authorization, to the Extent Necessary, for Submetering.

<sup>103</sup> For our purposes, a “community microgrid” need not be defined by a municipal boundary or a not-for-profit community group status, but can be any group of customers served by a microgrid, including a for-profit microgrid service provider.

<sup>104</sup> It is possible to have many of the functions of a microgrid without the capability of islanding. Given the importance of resilience and the storm-recovery benefit of islanding capability, our efforts to encourage microgrids will focus on those that have this capability.

innovation,<sup>105</sup> and parties have identified the lack of a clear regulatory path as a barrier for this type of microgrid. There are a number of potential configurations of community microgrids. For example, a utility might own the distribution facilities but not the generation facilities. Distribution facilities might be owned by a municipality or a third-party provider but managed by a utility on a fee basis. System management might be performed by a third party microgrid operator, by a municipality, or by a utility on a fee basis. The entire microgrid might be owned and managed by a third-party operator.

Where a microgrid serves electricity to separate customer accounts and is not otherwise exempt under law, it will be an electric corporation under the Public Service Law. This presents several issues: How can the Commission ensure that microgrid customers receive reliable service at just and reasonable rates? How can the Commission ensure that the microgrid/utility is advancing the objectives of REV? What is the relationship, if any, between outcomes produced by the microgrid and system-wide outcomes for which DSP/utilities may be held accountable?<sup>106</sup>

Because a microgrid can effectively act as a resource in a DSP market, the role of utilities in microgrids is closely tied to the issue of utility engagement in DERs. And because a microgrid serving residential or critical customers must provide reliable power with all applicable consumer protections, a third party operator takes on utility obligations.

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<sup>105</sup> NYSERDA is conducting a NY Prize competition that will provide assistance in the formation of several microgrids of the community microgrid variety.

<sup>106</sup> Assuming that incentives to achieve system-wide outcomes become part of each utility's rate plan under Track Two, the question of how microgrid results are incorporated into the analysis of system-wide outcomes will be important. Compliance with federal carbon rules and state carbon reduction targets may also require integration of microgrid results with system outcomes. In the immediate future, however, microgrids are likely to represent a very small portion of total system loads; for that reason we will address this issue after further policy issues have been made.

Taking into account broader REV objectives such as empowering customers and animating markets, our specific policy toward microgrids will be centered on five attributes:

1. ability to optimize system efficiency within the microgrid and advance REV objectives such as integration of clean distributed generation and addressing grid constraints;
2. interconnection with the larger utility system, assuming a DSP market that allows mutual benefits and services to be monetized;
3. resilience and the ability to island in the event of system outage, particularly where critical customer facilities are involved;
4. the obligation to provide reliable power at just and reasonable rates within the microgrid; and
5. consumer protections for residential customers as required by the Home Energy Fair Practices Act.

Development of microgrid plans will be facilitated if the Commission has provided clear guidance as to the configurations that will gain approval. The prospect of an extended regulatory process will deter smaller projects, and uncertain regulatory provisions may impair financing of larger projects. On the other hand, we do not want to constrain innovation by prescribing the exclusive pathways that microgrid development can take. To accommodate both of these interests, our intention is to establish and define several configurations that will be presumptively permissible, without excluding other types of proposed microgrids from consideration.

Due to the complexity of the issues, the importance of establishing clear rules for potential market participants, and the lack of detailed party comments on the specific approach described here, we will not identify specific configurations for presumptive approval until more party comments have been received. We invite comment from parties regarding the framework described above until May 1, 2015; Staff will then issue a more detailed proposal for additional comment.

Our discussion of interconnection standards, above, did not specifically address microgrids. Because the various ownership and operational configurations of

microgrids will affect interconnection approval processes, we will address interconnection for microgrids within the framework established here, developing a process and/or standards appropriate to each type of microgrid configuration.

Another issue to be addressed here is the way in which PSL Article 2 (Home Energy Fair Practices Act, or “HEFPA”) and the rules for the submetering of electricity to residential tenants set forth at 16 NYCRR Part 96, should be applied to microgrids that serve residential customers. The comments invited here may discuss any features of regulation under those provisions that might unnecessarily pose barriers to installations or innovation, and that could be modified without reducing consumer protections to residential customers.

#### F. Demonstration Projects

##### Staff Proposal

Staff states that the development of mature DSP functionalities will involve technology and programmatic choices that can be better informed by selective demonstration projects. Demonstrations can also serve to measure and predict customer responses to programs and prices associated with future DSP markets.

Staff’s proposal generally defines demonstration projects as those focused on beta-testing DER provider and utility DER services with a limited group of customers. Staff proposed a detailed set of criteria to be used in guiding demonstration project development. The most important criterion is the requirement for utilities to leverage public and private partnership opportunities, particularly where utilities can gain experience from partnerships with third party DER providers. Staff also proposed, as part of an implementation schedule, that publication of non-wire-alternative candidates should be a near-term measure.

##### Party Comments

Most of the comments support the concept of demonstration projects, some suggesting various conditions for Commission consideration. The Clean Coalition suggests that utilities quickly implement community based microgrid demonstrations.

The Advanced Energy Community argues that demonstration projects should test or demonstrate technologies as well as business concepts, regulatory processes and new services. They also opine that clarity regarding cost recovery of demonstration projects may encourage deployment. Direct Energy Services, LLC requests establishment of a more formal structure for proposing and vetting demonstration projects and Exelon believes that no demonstration projects should go forward until the foundational REV issues have been addressed formally, including a method for ensuring fair compensation and confirming the role of existing, clean, base load resources. NRG Companies suggest that demonstration projects should be administered on a competitive basis and projects should include those aimed at evaluating the need and value of a complex centralized market functions. ChargePoint asserts that demonstration projects should include submetering, vehicle integration and billing integration tariffs.

AARP and PULP suggest that demonstration projects are necessary to obtain data about customer participation and behavior prior to larger-scale programs that involve rate recovery from captive ratepayers. They add that demonstrations and larger scale programs should not require low income households to purchase or otherwise pay for additional equipment in order to better manage their bills and lower costs. The Center for Climate Law at Columbia University asserts that early implementation plans and demonstration projects should be used to confirm whether the utility DSP model is technically feasible. Consumer Power Advocates suggests that a cautious approach proven out by small scale demonstration projects should be adopted before requiring fundamental changes in utility operating procedures. MI recommends that the Commission refrain from committing significant resources, particularly customer funds, on initiatives or concepts that are the subject of demonstration projects until those projects are fully implemented and evaluated.

The Joint Utilities state that Staff's list of criteria could be overly restrictive and discourage innovation and suggest a more flexible approach that will allow projects to keep pace with changes in technology and consumer demand. The Joint Utilities suggest that they should be able to propose demonstration projects on their own or in

conjunction with third-parties and propose that well-conceived and executed demonstration projects should receive cost-recovery irrespective of the actual results.

### Discussion

On December 12, 2014 we adopted a Resolution encouraging utilities and energy entrepreneurs to partner in demonstration projects in order to inform the continuing development of markets and policies in REV.<sup>107</sup> A primary objective of these projects is to demonstrate new business models, i.e. new revenue stream opportunities for third parties and utilities.<sup>108</sup> Demonstration projects will inform decisions with respect to developing DSP functionalities, measuring customer response to programs and prices associated with REV markets, and determining the most effective implementation of DER. Demonstration projects will test new technology approaches to assess value before going to scale. Data collected from these projects will inform regulatory changes, rate design, and the most effective means to integrate DER on a larger scale. Demonstration projects will also help to identify the kinds of price signal, tariff, data and consumer protection regulations necessary to bring products to scale.

The Resolution provided guidance for the development of demonstration projects. We adopt the guidance and principles stated in the Resolution, which is attached as Appendix D. In particular we emphasize the priority of demonstration projects involving third party market participants and demonstrating business models and customer engagement.

Each utility is directed to engage third parties and develop concepts for demonstration projects, and file initial demonstration projects consistent with the guidelines developed in the December Resolution, not later than July 1, 2015, unless

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<sup>107</sup> Case 14-M-0101, supra, Memorandum and Resolution on Demonstration Projects, issued December 12, 2014.

<sup>108</sup> Examples could include charges for providing data, analytics, interconnection, financing, or platform access services, or savings from lesser-cost alternatives to traditional infrastructure investments.

demonstration projects have already been proposed within a rate filing. Utility compliance filings must include a detailed demonstration of outreach that has been performed in any community directly affected by the project. The July 1, 2015 date does not preclude additional projects from being filed at later dates; as discussed below, we expect ongoing development of demonstration projects. Staff will review compliance filings for consistency with our guidelines, and a reasonable relationship between costs and estimated benefits including demonstration value.

Utilities will be permitted to defer the revenue requirement impacts of the incremental costs<sup>109</sup> of demonstration projects, until their next rate plan.<sup>110</sup> Mechanisms other than deferral may be proposed, in consultation with Staff. Proposals may include recovery within existing net plant reconciliation mechanisms, or surcharges. Ratepayer support for all demonstration projects of a utility, including those authorized in rate plans, will not exceed 0.5 percent of its delivery service revenue requirement<sup>111</sup> or the revenue requirement associated with capital expenditures of \$10 million, whichever is greater, unless a higher amount is specifically approved by the Commission. Staff will review utility filings to ensure that the deferral or other mechanism(s) provides proper recovery and complies with the accounting and ratemaking principles embodied in the current rate orders. In addition, tariff changes shall be filed and will be reviewed to ensure proper application of any proposed surcharge mechanism.

A quarterly reporting requirement will be required until the costs of the projects are incorporated into a rate order. Such reports will include all relevant details including: revenue requirement amounts, project details such as descriptions and in-

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<sup>109</sup> Utilities will be allowed to collect only the incremental project costs, net of tax benefits, other benefits (such as incremental revenues or operational benefits) and grants, revenues, or third party contributions.

<sup>110</sup> Deferrals under this provision will not be subject to our otherwise applicable requirements that costs be allowed for recovery if they represent material unforeseen costs and the utility is not earning its allowed return.

<sup>111</sup> Estimated by assuming ten year recovery period and a return on unrecovered costs at the utility's current authorized weighted average pre-tax cost of capital.

service dates, incremental costs incurred, operational savings, tax benefits, grants (including in-kind or matching grants) and all other benefits. Incremental capital and operating expenses associated with these projects will be accumulated in separate sub-accounts. Grants will be credited against the incremental capital costs at the time they are received.

Because it is our intent that demonstration projects should involve third party participation not only at an operational level but also financially, utilities may propose a performance incentive (funded within the 0.5% cap) which is linked to tangible reductions in the proportion of direct utility investment and increases in the proportion of third party investment in a demonstration project.

Demonstration projects will be a continuing effort as the implementation of REV develops. Performance-based ratemaking reforms will incentivize utilities to pursue constant improvement in business practices and models, to achieve greater penetration of DER and other Commission objectives. As REV markets mature, we expect that some projects that might today be treated as demonstrations will be able to participate directly in market offerings. The need for demonstrations will continue, and we will examine methods for utilities to develop a common platform for sharing of information regarding needs and potential offerings by third parties. We will require that results of demonstration projects undertaken pursuant to this section be filed as publicly available information.

## V. BENEFITS AND COSTS

### A. Benefit Cost Considerations in the Adoption of the REV Policy Framework Staff Proposal

Staff's proposal to pursue the regulatory policy changes in REV is based on the premise that, considering the trends, challenges and opportunities facing the industry, a business-as-usual approach to the future is not a tenable way for the Commission to perform its duties under the law. The business model, market, and regulatory changes



initiated in REV will place New York's electric industry on a sustainable path to controlling customer bills and increasing system efficiency.

Based on the working group reports and Staff's independent efforts, Staff reported that there is large potential for the integration of distributed resources into the New York electricity market, via a Distributed System Platform framework. A substantial amount of the party working groups' effort was devoted to the topics of platform technology and DER products and markets. The Technical Working Group established that the functionalities of the DSP as currently envisioned are achievable with existing technology and new software developed to adapt technologies to these purposes. Although system development and standardization are needed to adapt technologies to DSP functions, these developments are definable and well within the range of existing technologies and capabilities. This confirms one of the central premises of REV that the utility industry has yet to incorporate technology developments that are commonplace in other service industries.

The inventory of DER products and services attached to the report of the Markets Committee illustrates not only the range of potential DER solutions, but also the scope of the industry that already exists to provide these products and services. Comments received from parties indicate that DER providers and ESCOs are prepared to participate in emerging DSP markets. Costs to achieve DER measures are demonstrated in part by existing programs for energy efficiency, demand response, renewables and distributed generation. These costs will be reduced as REV is implemented, by the monetization of value streams, streamlining of delivery systems, reduction of technology costs and barriers to customer participation, and economies of scale.

#### Party Comments

A large majority of parties support the REV goals and agree that they are reasonable and achievable, and will further the objectives of achieving system resiliency, efficiency, reliability and sustainability. Several parties representing customer interests, including AARP/PULP, New York City, and Multiple Intervenors, caution that the

Commission should not commit to large utility expenditures without a more detailed quantification of benefits and costs. Consumer Power Advocates urges that pilot programs should be utilized before large investments are made. Nucor observes that some of the driving trends identified by Staff are not uniform across the State. The NYSSGC argues that it is essential for the Commission to align the benefit cost approaches used to make policy decisions with those used in the future to make actual program, pricing and investment decisions.

Other parties including the Joint Utilities, the Gridwise Alliance, and the utility workers unions support Staff's analysis. The Joint Utilities state that the potential benefits of REV have been demonstrated sufficiently to justify a policy decision to move forward; they urge that the focus should be on a benefit-cost framework applicable to the implementation phases of REV.

### Discussion

The articulation of Challenges and Opportunities in Section III illustrates the benefits of REV, both in their potential to improve on the status quo and in response to the demands now facing the system. A business-as-usual approach carries great costs and uncertainties, and would represent a waste of the resources and opportunities offered by current technology and markets. REV will allow the benefits offered by these opportunities to reach consumers, unimpeded by defensive regulatory and business models that are resistant to improvement. The alternative urged by some - that uncertainty should compel inaction - is unacceptable, where inaction itself carries great risk.<sup>112</sup> For purposes of adopting the policy framework detailed here, the considerations discussed in this Order are more than sufficient; indeed they are compelling.

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<sup>112</sup> For example, the exact cost of inaction on climate change is uncertain, but is likely to be enormous. See, Rhodium Group, American Climate Prospectus: Economic Risks in the United States, June 24, 2014.

The identified benefits will guide the development of REV markets and implementation policy. The central vision of REV is achievable and offers substantial customer benefits. Some customer advocates argue that a quantitative cost-benefit study should precede any Commission action related to REV. These parties' arguments do not substantially contradict the findings of Staff and the working groups. Rather, they dispute the adequacy of those findings to support Commission action at this time.

REV is a long-term, far-reaching initiative that will eventually touch most parts of the utilities' infrastructure and business practices. An attempt to project a quantified analysis onto the wide-ranging set of potential benefits in a REV approach, against hypothetical future cost scenarios under both REV and conventional approaches, would be artificial and counter-productive. Such an effort would distract from the far more important task of carefully phasing the implementation of REV so that actual expenditures, when they occur, are considered intelligently in light of potential benefits.

This policy order is not an end point; it is a decision to move forward into more detailed phases of the process. The implementation period will include both rate cases and REV-specific filings, which will come before the Commission for further decision prior to substantial investment commitments by utilities. The comprehensive, complex, and transformative nature of REV will require years of iterative planning and increasingly granular design determination. In this multi-phased implementation process, benefits and costs will be considered with increasing specificity. Our approach is to thoughtfully phase the implementation and development of utility and market capabilities, exercising judgment at each step while taking necessary measures to ensure the maintenance of just and reasonable rates well into the future.

Although a predetermined BCA for the entire REV framework is not practical, active monitoring and review will be performed. Ongoing evaluation of the progress in achieving REV priorities will be important in guiding implementation decisions and measuring success. Metrics for evaluating REV in general will be closely related to metrics used for performance-based ratemaking of utilities, which will be developed in subsequent phases of this proceeding as well as in rate proceedings.

B. Benefit-Cost Considerations in the Implementation of the REV Policy Framework  
Staff Proposal

Staff proposed that a consistent benefit cost analysis (BCA) framework should be developed, but should be applied differently depending on the specific application (e.g., Commission policy decisions, utility infrastructure investments, and DSP market pricing).<sup>113</sup> This BCA framework would not only be applicable in the context of this proceeding, but would also be used in rate cases implementing REV and in other REV-related proceedings.

Staff recommended that further process was needed, including stakeholder input, to produce specific recommendations regarding what benefits and costs to include, methodologies used to value those benefits and costs, input assumptions to be used and the means of applying the BCA framework. Staff proffered a list of benefits and costs to be used as a starting point to develop the BCA framework.<sup>114</sup>

Party Comments

Wide support exists for the development of a BCA framework. There is, however, significant disagreement on the particulars. For example, the comments produced debate regarding the inclusion and valuations of social and environmental externalities in the BCA framework. DEC and Environmental advocates, including, among others, Columbia, ENE, EDF, and NRDC, stress their inclusion, many adding that consideration should not be limited to carbon, but also include other avoided impacts, such as, for example, health effects, criteria pollutants, water quality and land use. MI, CPA, AARP and PULP, the Joint Utilities, and the utility workers' union disagree with the inclusion of externalities, citing concerns about bill impacts and uneconomic decision criteria.

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<sup>113</sup> Straw Proposal, pp. 42-49.

<sup>114</sup> Straw Proposal, p. 46, Table 4.

Environmental groups also take issue with Staff's indication that it would be appropriate to rely, in part, on the Rate Impact Measure (RIM) test in creating the BCA framework. MI and UIU, in contrast, urge the Commission to rely exclusively, or at least primarily, on the RIM test. The Advanced Energy Economy Institute, ACENY and NECEC, produced a consulting study that argues the RIM test should not be used, and also propose that study as a starting point for a stakeholder process.<sup>115</sup>

Many parties support Staff's recommendation to use portfolio-based, rather than measure-based analysis. MI and NFG disagree, pointing out that that a portfolio-based analysis runs the risk of authorizing individual investments that are not cost effective, while rejecting other individual investments that are cost effective. MI suggests that our approval of such methodology would constitute a dereliction of our duty to protect customers. The Interstate Renewable Energy Council, Inc. (IREC) and Northeast Clean Heat and Power Initiative urge the Commission to utilize an independent organization to arbitrate or oversee the appropriate BCA framework across DSP territories. CALM Energy and NRG point out that any BCA analysis regarding the pricing of DER must include location and time components.

NRG argues that reliance on a BCA framework is misguided with respect to attracting private investment in DER because the competitive market should determine the success of any product or service offered.

### Discussion

Every policy action involves an evaluation of benefits and costs of some kind. The nature of the evaluation is highly dependent on the context and type of action being considered. A quantified benefit/cost analysis, for example, depends on the accuracy of its data inputs. If there is a wide range of inputs, and each input reflects a wide range of possible outcomes, the margin of error expands exponentially and a quantitative study may accomplish little more than providing a false sense of certainty.

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<sup>115</sup> Advanced Energy Economy Institute, Benefit-Cost Analysis for Distributed Energy Resources, September 22, 2014.

Conversely, lack of data associated with inputs, or the inability to quantify particular outcomes, does not mean that these do not represent real costs or real benefits. Where the range of possibilities does not support a confident quantified analysis, but there are important potential costs and benefits at stake, then informed judgment must be exercised.<sup>116</sup> This is a well-established regulatory approach. Economic development programs and low income assistance programs, for example, are authorized by the Commission based on judgment that includes a generalized analysis of policy benefits.

The focus of our BCA framework development will be on four categories of utility expenditures: (i) utility investments to build DSP capabilities; (ii) procurements of DER via selective processes; (iii) procurement of DER via tariffs; and (iv) energy efficiency programs. The extent to which BCA can be formulaically applied will depend on the type of activity and the range and time frame of potential benefits and costs.

(i) Investments to build DSP capabilities will need to be weighed by considering the potential to facilitate realization of REV benefits along with the risks of inaction that have already been identified. The intention of REV is to promote new products, processes, and technologies, and to grow economies of scale. It is particularly difficult to analyze future benefits of actions designed to promote innovative developments. Appraising costs against the range of potential benefits will continue to require the exercise of informed judgment. For this reason, these types of large-scale expenditures will require approval from the Commission either via the DSIP process or in rate proceedings.<sup>117</sup>

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<sup>116</sup> The Commission's decision to restructure and introduce competition into the industry is an example of a broad policy action that did not lend itself to a quantified BCA. The analysis of benefits and costs in that proceeding was qualitative. Case 94-E-0952, *supra*.

<sup>117</sup> One of the tasks of the Platform Technology development group is to identify incremental infrastructure investments that will serve system needs while also building DSP capabilities.

(ii) Specific utility procurements to meet system needs are more amenable to a formalized BCA. The baseline case for such an analysis is the conventional cost of building T&D infrastructure. Alternatives proposed by market participants must compete against each other as well as against the baseline alternative.

This is not to say, however, that a formalized BCA will be definitive in every instance. There may be more long term values associated with one approach than another, and these can be taken into account subject to the Commission's oversight. Departure from a BCA conclusion may require explanation, but BCA remains only one among a variety of potential inputs.

(iii) Tariff development is likely to make the most use of a formalized BCA. We expect that the norm for DER development will be open tariffs. While the development of a tariff may be informed by policy judgment, the execution and settlement of transactions under a tariff should require no judgment on the part of the DSP.

(iv) Energy efficiency programs managed directly by utilities have been subject to the Total Resource Cost (TRC) test. There has been much controversy about the application of benefit-cost analysis in the context of energy efficiency programs. Evaluation of efficiency programs is discussed above, and in Appendix C.

Staff identified a variety of ways in which benefits and costs of DER have been analyzed, and proposed principles as well as an outline of 22 factors that it considers to be the most relevant and useful. With few exceptions, parties did not object to the factors identified by Staff in Table 4 of the Straw Proposal, and we adopt them as the basis for further development of a framework. The considerations discussed above, as well as the discussion of Challenges and Opportunities, should serve as strong guidance to Staff and parties in developing a framework for our approval.

The chief issue of contention among parties has been the incorporation of societal factors into the BCA, especially environmental impacts. Accounting for environmental factors in analyzing investment decisions, and internalizing them into market transactions, are priorities of REV and are a logical continuation of past Commission policies, as well as being consistent with the State Environmental Quality

Review Act and the Draft State Energy Plan. The manner in which this is accomplished, however, is open to debate. In the context of a BCA, taking environmental factors into account does not necessarily entail an “externality adder” in every transaction.

So long as the regulatory process is perceived as a zero sum game, where the best that can be achieved is a rough balance of conflicting and mutually exclusive interests, the value of environmental protection will be in tension with the values of cost reduction and reliability enhancement. REV will establish markets to reward resources that integrate these value streams, in contrast to current practices where these values are too often set in conflict with each other. As beneficial technologies and market opportunities continue to develop, it may often be the case that the most socially desirable outcome and the least cost outcome are the same. Where they are not, a BCA will inform the development of tariffs and other transactions to achieve the best result for the public.

Staff proposed a stakeholder effort to develop a BCA framework. In order to provide timely guidance for the development of initial DSIPs by utilities, we direct Staff to issue a BCA White Paper by May 1, 2015. Staff will then conduct a comment process, with the objective of proposing to the Commission a common framework that can be applied consistent with the above discussion. We underscore that the application of the framework will vary greatly depending on context, and will more often be used to inform judgment decisions than it is used to dictate results.

## VI. IMPLEMENTATION

### Staff Proposal

Staff recommended a phased approach to implementation, distinguishing among “near term no-regrets” actions, transitional steps, and the planning and design of mature REV markets. Near term actions to be implemented immediately would include:

- Identification of early REV projects
- Efficiency Transition Implementation Plans (ETIPs)



- Demand response tariffs
- Development of web-based tools, and
- Measures to enable ESCOs to provide value-added services.

Transitional measures would include:

- Utility proposals for interim actions
- DSIP methodology with BCA developed with stakeholders
- DSIPs
- Plans for integrating Main Tier resources
- Rules for customer information/data exchange, and
- Demonstration projects.

Planning toward mature distribution markets would include:

- A platform technology stakeholder process
- A market design stakeholder process
- A uniform DSP plan, and
- Development of market oversight strategies.

Staff proposed that all three categories of activities should begin immediately and proceed in parallel.

### Party Comments

Parties overwhelmingly support a phased approach to implementation of REV policies. The chief concerns expressed by parties are (1) most phases of implementation are contingent on the development of a benefit/cost analytical framework; (2) Track One issues should not be resolved in advance of Track Two ratemaking issues; and (3) numerous simultaneous implementation processes, including utility rate cases, will strain the resources of most parties and limit ability to participate. Several parties recommended that the proposed stakeholder groups be integrated into a single process, an idea that the Joint Utilities oppose.

The Joint Utilities provided a matrix for implementation, differing from Staff's proposal in that the utilities recommended that certain tasks (e.g. demand response promotion and customer web-based tools) be characterized as transition activities, rather than immediate; ETIPs be considered a long-term goal instead of immediate; and other work (Main Tier, DSIP methodology stakeholder process and DSIP plans) be considered long-term rather than transitional, as proposed by Staff. The utilities agree with other parties that a benefit/cost framework should inform many steps of the implementation.

### Discussion

Taking all the comments into account, we agree that a carefully phased approach is essential. We differ from both Staff and the utilities as to the precise staging of actions, as illustrated below, but we do not differ in the general approach.

Implementation of REV will take years and will involve substantial party participation. Rate cases will be decided while this is happening. Coordinating these processes will be a challenge, but this is unavoidable if the changes contemplated here are to be accomplished in a reasoned manner that responds to the challenges and trends already identified. From the beginning of the process, the ALJs and Staff encouraged parties to form cooperative groups of mutual interest, in order to more efficiently and effectively participate. Many parties have done this. We encourage parties to continue working in coalitions as the case proceeds. We further direct Staff to make efforts to accommodate advocacy groups to the extent possible to maximize the effectiveness of their participation.

REV is not proceeding in a vacuum; the pace of the REV initiative reflects the challenges and circumstances that we face. The speed of technology development, the threat of climate change, and the need to replace infrastructure will not slow down to wait for us. Where a convergence of problems is clearly foreseeable, and the solution will be years in the making, it is our responsibility to begin without delay. Moreover, the interrelated nature of the many issues involved in REV requires simultaneous treatment

of a wide range of issues. A fragmented approach would run a much greater risk of creating unintended consequences from partially informed decisions. Our approach is to view the issues as comprehensively as possible, then to sequence the implementation in a manner that allows further progress to be informed by lessons learned.<sup>118</sup>

Several of the activities identified by Staff have already begun. On December 11, 2014, we ordered each utility to develop a demand response tariff and to participate in ongoing collaborative efforts to develop dynamic load management measures.<sup>119</sup> We also issued a Resolution providing guidance for demonstration projects.<sup>120</sup> As discussed above, a stakeholder effort to develop market rules and technology platform standards has been initiated by Staff and will be continued pursuant to guidance in this order. We have also initiated processes to examine long term alternatives that will accomplish the purposes of net metering in a more efficient manner,<sup>121</sup> and the potential development of community choice aggregation rules.<sup>122</sup> On February 5, 2015, we issued an order related to energy service company practices.<sup>123</sup>

The distinction between near-term, transitional, and long term issues is useful for framing discussion of implementation plans. As these items are developed, however, the distinctions become less meaningful; some near-term efforts are needed to establish long-term direction, while “line of sight” to long-term directions is needed to guide immediate and intermediate measures. REV is a comprehensive initiative that

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<sup>118</sup> The only significant division we have performed, for administrative and party convenience, is to separate the utility ratemaking issues into a separate track.

<sup>119</sup> Case 14-E-0423, In the Matter of Developing Demand Response for Electric Distribution Utilities.

<sup>120</sup> Case 14-M-0101, supra, Memorandum and Resolution on Demonstration Projects, Issued December 12, 2014.

<sup>121</sup> Case 14-E-0151, supra.

<sup>122</sup> Case 14-M-0224, supra.

<sup>123</sup> Case 12-M-0476, supra.

must be developed in an iterative, reflective manner in which progress on any given topic is always measured with reference to the progress of the whole.

A central component of REV implementation is the Distributed System Implementation Plan or DSIP. Each utility already files with the Commission, annually, a five-year capital plan detailing system needs and the utility's plans to meet them. The DSIP will build on this process, adding information related to the development and effectuation of its role as DSP, and integrating DSP plans into system plans.

The DSIP will serve numerous purposes. It will serve as a source of public information regarding DSP plans and objectives, including specific system needs allowing market participants to identify opportunities. It will also serve as the template for utilities to develop and articulate an integrated approach to planning, investment and operations. And it will enable the Commission to supervise the implementation of REV in the context of system operations.

The contents of a DSIP will be subject to Staff guidance and will also reflect the work of the Market Design and Platform Technology (MDPT) stakeholder effort. The DSIP and the MDPT will be mutually dependent processes. The technology and market needs identified by the MDPT will inform the development of the DSIP and the utility-specific details developed in the DSIPs will influence further refinements of the MDPT. The DSIP will also be consistent with, and evaluated with reference to, the Benefit Cost framework established by the Commission.

At a minimum, the DSIP will include: actual and forecast system loads and capital spending projections, at a level of specificity sufficient to inform market planning and participation by third parties; actual and forecast levels of DER including detailed analysis of system needs amenable to being met by DER; plans for encouraging market development of DER; plans for increasing DER deployment in underserved markets; specific plans including cost estimates for building DSP capabilities; and a description of internal organization of DSP and traditional utility functions. The assumptions and methodologies of the DSIP must be transparent and the results will be public, subject to any protections needed for purposes of system security.

We direct Staff, in consultation with utilities and other interested parties, to issue detailed guidance regarding the contents of DSIPs by August 3, 2015, or 30 days following a report of the MDPT group, whichever is later. Initial DSIPs will be filed by each utility not later than December 15, 2015; the Secretary will then establish a period for review and comment by interested parties.<sup>124</sup> Subsequent DSIPs will include increased detail and will reflect developments in markets and technology capabilities.

Staff recommended as a near-term implementation item that utilities should publish information regarding portions of their system that need upgrades but are amenable to non-wires alternatives. As an interim filing prior to the initial DSIP, each utility should identify at least one such potential project, including the nature, scale, and timing of the need and the geographic area affected, with enough specificity for potential market participants to develop proposals. These filings will be made not later than May 1, 2015, and may be used to inform future demonstration projects and/or to allow market participants to begin planning for projects that may follow initial DSIPs.

The implementation of REV will require constant oversight and adjustments to implementation schedules and policies where necessary. The policy framework described in this Order will serve as criteria for evaluating proposals and measuring success. In addition, we expect that performance incentives established in Track Two for utility ratemaking will be closely associated with the achievement of general REV policies, and the metrics established for those incentives will be useful not only for ratemaking but for evaluating the overall progress of REV. We also expect that related activities in other jurisdictions, noted above, will develop into best practices that will inform our ongoing evaluation of REV.

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<sup>124</sup> For purposes of initial DSIPs the utility's most recently filed capital plan may be used as a basis and need not be updated except as necessary to accommodate REV-related provisions.

The following schedule will apply to REV implementation matters addressed in this Order:<sup>125</sup>

- March 26, 2015: The Market Design Platform Technology group files its work plan.
- April 1, 2015: Staff initiates process to refine utility codes of conduct.
- May 1, 2015: Each utility identifies one or more potential non-wires-alternative projects.
- May 1, 2015: Parties file comments related to microgrids.
- May 1, 2015: Staff files guidance for ETIPs.
- May 1, 2015: Staff issues a proposed Benefit Cost framework.
- June 1, 2015: Staff issues a Straw Proposal related to Track Two ratemaking issues.
- June 1, 2015: Staff issues a large scale renewable options paper.
- July 1, 2015: Staff issues a Consumer Protection proposal.
- July 1, 2015: Each utility files a status report regarding interconnection process improvements.
- July 1, 2015: Each utility files demonstration projects.
- July 1, 2015: The Market Design Platform Technology group reports.
- July 15, 2015: Each utility files an ETIP.
- August 3, 2015: Staff issues guidance for Distributed System Implementation Plans.
- September 1, 2015: Staff reports to the Commission regarding distributed generation emission rules.
- September 1, 2015: Staff reports to the Commission regarding billing initiatives.
- December 15, 2015: Each utility files an initial Distributed System Implementation Plan.

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<sup>125</sup> Several additional implementation deadlines pertaining to energy efficiency programs are reflected in Appendix C to this Order.

- February 1, 2016: Staff files a REV Energy Efficiency Best Practices Guide.

## VII. CONCLUSION

For the reasons stated above, a policy framework is hereby adopted, to develop markets for distributed energy resources in order to achieve the objectives described in this Order. This Order reflects the efforts of Staff, hundreds of parties, public commenters, and outside experts. As implementation of REV progresses, inputs from these groups will increasingly be supplemented by experience gained through active market participation as well as developments in other jurisdictions. The Commission will monitor market developments, technology and cost trends, and customer engagement and will be responsive to these developments in framing future implementation and policy decisions.

### The Commission orders:

1. Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc. and Rochester Gas and Electric Corporation are each directed to file a Distributed System Implementation Plan, not later than December 15, 2015, consistent with all discussion in this Order applicable to Distributed System Platform providers.

2. Each utility listed in Ordering Clause No. 1 is directed to file within its Distributed System Implementation Plan a description of compliance with Phase One interconnection improvements and progress toward compliance with Phase Two interconnection improvements as discussed in this Order.

3. Each utility listed in Ordering Clause No. 1 shall file not later than May 1, 2015 an identification of one or more potential non-wire-alternative projects as discussed in this Order.

4. Each utility listed in Ordering Clause No. 1 is directed to file not later than July 1, 2015 demonstration projects as discussed in this Order.

5. Each utility listed in Ordering Clause No. 1 is directed to file an Efficiency Transition Implementation Plan not later than July 15, 2015 and to fulfill all interim, companion and subsequent requirements established in Appendix C.

6. The Secretary in her sole discretion may extend the deadlines set forth in this Order. Any request for an extension must be in writing, must include a justification for the extension and must be filed at least one day prior to the affected deadline.

7. This proceeding is continued.

By the Commission,

KATHLEEN H. BURGESS  
Secretary



# APPENDIX A

**Case 14-M-0101**  
**Reforming the Energy Vision**

**PARTY COMMENT SUMMARIES BY TOPIC AS ADDRESSED IN THE**  
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<sup>1</sup> Note that this section is out of order. It appears above with the comments from Sections II.B. and II.C.

**Entities that Commented on Staff Straw Proposal (with abbreviations)**

Advanced Energy Economy Institute, Alliance for Clean Energy New York, New England  
Clean Energy Council (AEEI)

AES Energy Storage, LLC (AES)

Agreen Energy, LLC and Vanguard Renewables, LLC (AGE/VR)

Alliance for a Green Economy (AGREE)

Alliance of Automobile Manufactures, Association of Global Automobile Manufacturers, and  
General Motors (Automakers)

American Association of Retired Persons and Public Utility Law Project (AARP/PULP)

American Biogas Council (ABC)

American Council for an Energy Efficient Economy (ACEEE)

Association for Energy Affordability, Inc. (AEA)

Bloom Energy Corporation (Bloom Energy)

Business Council of New York State, Inc. (Business Council)

CALM Energy, Inc. (CALM Energy)

Center for Working Families, WE ACT for Environmental Justice, Enterprise Community  
Partners and the Green and Healthy Homes Initiative (Energy Efficiency for All)

Central Hudson Gas and Electric Corporation (Central Hudson)

Central Hudson Gas and Electric Corporation, Consolidated Edison Company of New York,  
Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power  
Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and  
Rochester Gas and Electric Corporation (the Joint Utilities)

ChargePoint, Inc. (ChargePoint)

Citizens' Environmental Coalition (CEC)

Citizens for Local Power (CLP)

City of New York (NYC)

Clean Coalition (Clean Coalition)

Clean Coalition, Columbia University Sabin Center for Climate Change Law, Environmental  
Advocates of New York, The Nature Conservancy, New York Public Research  
Interest Group, the Pace Energy and Climate Center and the Solar Energy Industries  
Association (Clean Energy Organizations Collaborative)

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New  
York, the Pace Energy and Climate Center, the Sierra Club, and the Vermont  
Energy Investment Corporation (Clean Energy Advocates)

Consolidated Edison Company of New York, Inc. and Orange & Rockland Utilities, Inc.  
(ConEdison/O&R)

Consolidated Edison Solutions, Inc. (ConEdison Solutions)

Consumer Power Advocates (CPA)

Direct Energy Services, LLC and Direct Energy Business, LLC (Direct Energy)

Earthjustice (Earthjustice)

Ecology & Environment, Inc. and Vermont Energy Investment Corporation (ENE/VEIC)

EnergyHub and Alarm.com (EnergyHub)

EnergyNext, Inc. (EnergyNext)

Energy Storage Association (ESA)

Energy Technology Savings LLC (ETS)

Environmental Defense Fund (EDF)

Environmental Entrepreneurs (E2)

Exelon Corp. (Exelon)  
Federal Trade Commission (FTC)  
FirstFuel Software (FirstFuel)  
GridWise Alliance (GWA)  
Hudson River Sloop Clearwater, Inc. (Clearwater)  
IBM Corporation (IBM)  
Independent Power Producers of New York, Inc. (IPPNY)  
Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)  
Interstate Gas Supply, Inc. d/b/a IGS Energy (IGS)  
Interstate Renewable Energy Council, Inc. (IREC)  
John Wellinghoff, Stoel Rives, LLC with Katherine Hamilton and Jeffrey Cramer, 38 North  
Solutions, LLC (Stoel Rives/38 North)  
Lochinvar, LLC (Lochinvar)  
Manufacturers Alliance of New York (MANY)  
Mission:data (Mission:data)  
Multiple Intervenors (MI)  
Mutual Redevelopment Houses, Inc. (Penn South)  
National Association of Energy Service Companies (NAESCO)  
National Electrical Manufacturers Association (NEMA)  
National Energy Marketers Association (NEM)  
National Fuel Gas Distribution Corporation (NFG)  
Natural Resources Defense Council (NRDC)  
New York Association of Public Power (NYAPP)  
New York Battery and Energy Storage Technology Consortium (NY-BEST)  
New York Energy Consumers Council (NYECC)  
New York Geothermal Energy Organization (NY-GEO)  
New York Independent System Operator, Inc. (NYISO)  
New York Municipal Power Agency with the Independent Energy Efficiency Program  
(NYMPA/IEEP)  
New York Oil Heating Association, Inc. with the Oil Heat Institute of Long Island, Inc  
(NYOHA/OHILI)  
New York Power Authority (NYPA)  
New York State Department of Environmental Conservation (DEC)  
New York State Electric & Gas Corporation with Rochester Gas and Electric Corporation  
(NYSEG/RG&E)  
New York State Energy Research and Development Authority (NYSERDA)  
New York State Smart Grid Consortium (NYSSGC)  
New York State Utility Labor Council and Utility Workers Union of America, AFL-CIO,  
Local 1-2 (NYSULC/Local 1-2)  
Northeast Clean Heat and Power Initiative (NECHPI)  
Northeast Energy Efficiency Partnerships (NEEP)  
NRG Energy, Inc. (NRG)  
Nucor Steel Auburn, Inc. (Nucor)  
PosiGen Solar Solutions (PosiGen)  
PSEG Long Island LLC (PSEG Long Island)  
ReEnergy Holdings LLC (ReEnergy)  
Regional Plan Association (RPA)  
Renewable Energy New England (RENEW)

Retail Energy Supply Association (RESA)  
Revolution Energy Solutions, LLC (RES)  
RiverBay Corporation (Co-op City)  
Sierra Club (Sierra Club)  
Silver Spring Networks (Silver Spring)  
Simple Energy (Simple Energy)  
SolarCity Corporation (SolarCity)  
Solar Energy Industries Association (SEIA)  
State University of New York (SUNY)  
Tendril (Tendril)  
The Alliance for Solar Choice (TASC)  
The Nature Conservancy (TNC)  
ThinkEco, Inc. (ThinkEco)  
United States General Services Administration (GSA)  
Utility Intervention Unit of the New York State Department of State (UIU)  
Vote Solar Initiative (Vote Solar)  
Wal-Mart Stores, Inc. and Sam's East, Inc. (Wal-Mart)

**PARTY COMMENT SUMMARIES**  
**Track One Reforming the Energy Vision**

This topical summary of comments was compiled for the benefit of the reader and is not intended to be a comprehensive source of all comments submitted in this proceeding or to reflect any weight given particular comments by the Public Service Commission (Commission) or the Staff of the Department of Public Service (Staff). The full versions of party comments can be found at the Department of Public Service website under the REV case number, 14-M-0101, and have been considered in their entirety by Staff and the Commission.

**SECTION: I.D. SUPPORT FOR REV**

**Agreen Energy, LLC and Vanguard Renewables, LLC (AGE/VR)**

AGE/VR approve of the Staff Straw Proposal's (SSP) promotion of the value of distributed energy resources (DER). They point to the agriculture/food DER model successfully deployed on Massachusetts farms as an example of successful DER development. They believe a substantial agricultural/food industry base exists in New York (NY) to support both the immediate implementation and also longer-term sustained DER development and growth.

**Alliance for a Green Economy (AGREE)**

AGREE believes the REV proceeding has potential to move NY significantly down the path toward a sustainable energy system. They support efforts to move the state toward mass deployment of sustainable energy, decentralize NY's energy system, ramp up energy efficiency, reduce waste, reduce peak demand, promote distributed renewable generation, deploy demand response and storage, and develop a modern grid. AGREE is also an advocate for a renewable energy transition planned around the principles of social justice. They believe this transition should be pursued with proper planning and resources allocated to ensure democratic participation, fairness, and equity.

However, they are concerned with the complexity of the REV proceeding and the rapid pace of the comment deadlines. They believe this does a disservice to the goals of the proceeding and will result difficulty in implementation, because REV requires that consumers engage with the energy system as informed and active participants. They propose a participatory process that makes sense to consumers and demonstrates that the goals of REV reflect the common goals of consumers.

**American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)**

AARP/ PULP do not agree that the conclusions drawn from the SSP are supported or appropriate to make at this time. They agree that NY should plan for the future of distribution and generation supply services, but express concern that REV policies may not deliver benefits that will exceed those delivered by the current system. They are particularly concerned with ensuring that the resulting benefits of REV will exceed costs for ratepayers.

AARP/ PULP also challenge the conclusion that the technology needed to develop REV initiatives is already available as made without any evidence as to the large scale implementation of these technologies, the customer acceptance and engagement with these technologies, or the cost implications of implementing these programs on a large scale. Ultimately, they urge the Commission to slow the REV process down in order to fully consider the cost impacts and ensure meaningful participation by all stakeholders, including low income consumers.

Association for Energy Affordability, Inc. (AEA)

AEA supports the REV concept and applauds the SSP as a welcome consideration of a new approach to achieving their goals of affordable and reliable service along with environmental protection. They favor the emphasis on near-term measures that are necessary to build support, gauge feasibility, and avoid leaving the public vulnerable to adverse bill impacts.

They agree that if implemented properly the changes envisioned in this proceeding are likely to reduce electricity system costs from what they otherwise would be. They strongly suggest that there be explicit commitments to ensuring low and moderate income consumers see no adverse bill impacts as a result of REV and that efficiency and other distributed energy resource programs and markets be required to contain explicit requirements for participation and funding for buildings that house these populations. They also suggest the development of specific efficiency and renewable generation targets, and requirements and monitoring for progress in attaining the goals of energy efficiency and reduction of carbon emissions.

AEA also suggests that prioritizing and aggressively pursuing proven energy efficiency measures as part of utility basic service will help ensure REV is successful in ensuring the affordability of energy services. Furthermore, AEA stresses the importance of public participation. They point out that it will be difficult for parties to engage purposefully and regularly in numerous stakeholder processes, and that rate cases are notoriously technical, time-consuming and inaccessible to the general public. They encourage the Commission to streamline or reduce the number of simultaneous stakeholder proceedings, actively engage the public, and make timely and transparent information widely available.

Citizens for Local Power (CLP)

CLP supports the vision in the SSP and applauds the efforts to comprehensively tackle the urgent action needed to address the climate crisis and the aging infrastructure in the State. They comment however, that the viability of reforms called for in Track One depend in critical ways on decisions that have been postponed to Track Two. They are concerned that Track One recommendations will be adopted and implemented without a clear understanding of the costs of those recommendations, the distribution of those costs, and impacts on ratepayers, particularly low-income rate-payers. Additionally, CLP believes that without the right incentives in place from the start, utilities will not be motivated to implement REV recommendations to the fullest. CLP recommends that Track One and Track Two recommendations be implemented simultaneously, not sequentially, so that utilities are properly motivated and the Commission has the information it needs to ensure the success of the initiative.

CLP stresses the importance of setting clear, numerical goals for system adaptation and DER development, including the goals of a 50% reduction in greenhouse gas (GHG) emissions by 2030, and an 80% reduction in GHG emissions by 2050, and the goal of meeting 20% of projected demand through energy efficiency by 2025. Additionally, they propose targets should be set for improving grid efficiency and reducing peak load through transmission and distribution (T&D) improvements and demand response and management, including storage.

CLP also believes that utilities must be encouraged, possibly through performance-based incentives/disincentives, to prioritize and schedule investments in such efficiency and reliability improvements as distribution automation, reconductoring, and voltage variation optimization, as well as projects that directly support significant expansion of renewable generation, while avoiding transmission investments in which DER investments offer a viable alternative.

CLP shares the concern expressed in the SSP concerning NY's accelerating dependence on natural gas for electricity and supports the REV's objective to reduce this dependence through diversification of the State's energy portfolio. They believe that natural gas should not be



considered either “clean” or economical due to the environmental damage that results from fracking and the volatility of natural gas prices.

CLP also point out the singular focus on electricity in the SSP to the neglect of heating and transportation; which leaves out much of the State’s energy consumption. They believe REV should extend to the PSC’s jurisdiction over gas heating, with the goal of reducing overall need through energy efficiency and increased use of renewable energy. They also see REV as an opportunity to explore options for expanding the electric vehicle (EV) market in NY. They also comment that energy storage will be key to achieving REV goals and suggest that further attention should be brought to the potential of solar/storage.

Finally, CLP contends that the REV process is hampered by the inability of the public and all stakeholder groups to participate fully. They propose that intervenor funding should be made available to parties in all rate cases, so that the public is adequately represented and the voices of community groups, low-income groups, and other important stakeholders can be effectively heard.

City of New York (NYC)

NYC expresses support for the REV vision that would increase the role of DER in the electric industry, including energy efficiency and demand response. They add that the REV proceeding would benefit from more discussion and analysis of the manner in which the REV would avoid future infrastructure investment. NYC is uncertain whether the introduction of DER to serve general needs, instead of individual or collective local customer needs, would actually reduce or avoid the need for future infrastructure investments.

NYC goes on to comment that, while it is possible that the REV will result in electric bill reductions compared to the business as usual scenario, the SSP offers no facts or other basis to support this claimed benefit. They believe that the details of utility investment plans will have to be advanced and reviewed in individual rate case proceedings, but that all parties would benefit from a Commission statement of principles, including, where appropriate, cost limitation considerations that should guide programs and investments in furtherance of the REV goals.

Consumer Power Advocates (CPA)

CPA generally supports the vision of a more resilient and efficient grid based on the use of distributed resources operating consistently with market principles and recommends integrated information management system be designed and deployed to achieve these goals. However, CPA expresses concern that a rushed transition will put reliability at risk and expose consumers to unnecessary costs. They comment that REV needs to build on the current significant energy efficiency and demand management successes within the current Energy Efficiency Portfolio Standard (EEPS) program and provide a reasonable path that does not erode current achievements and that respects all current contractual obligations. They propose the development of multiple small scale pilot projects, each with measurable results, and verifiable cost impacts.

CPA also comments that at the onset, it must be determined what the total amount of the renewable generation might be and that it is premature to develop new mechanisms before implementing the data collection and analysis necessary to quantify the effect of any increase in renewables on the system.

Environmental Defense Fund (EDF)

EDF comments on the benefits of advanced metering infrastructure (AMI) that can provide the groundwork for rewarding well-timed changes in load on a grand scale and they question why the SSP continues to show skepticism about the cost-effectiveness of AMI. They concede that the cost-effectiveness of AMI may be questionable in a dense urban setting for various reasons, but point to a lack of analysis that would support such an assumption statewide. Without AMI, EDF sees a disconnect between REV’s vision of optimizing system efficiency and the technology pathways that are being given serious consideration. They are hopeful that Staff is contemplating

a different approach, such as appliance-based or system-based demand response on a mass market scale, perhaps enabled by appliance-level devices such as smart thermostats.

EDF agrees with the SSP that grid modernization along the lines anticipated in REV will result in a more resilient system, but point to only one aspect of grid transformation – microgrids – as specifically identified as contributing to resiliency. While they are in favor of microgrids, they stress that it is important to recognize that intelligence, situational awareness, and flexibility in the design and operation of the macrogrid, and greater deployment of clean energy resources would add considerable resilience over and above the benefits that can accrue from microgrids. EDF believes that a more resilient system would be one that would be able to make use of more varied strategies for coping with weather/climate-related strain, including engaging customers of every size and description in load management when appropriate. Finally, EDF comments that when resiliency is quantified as part of the benefit-cost analysis (BCA), it is imperative that different facets of resiliency be recognized.

EnergyNext, Inc. (EnergyNext)

EnergyNext supports the proposed Distributed System Platform (DSP) framework that will facilitate the integration of DER into the electricity market. However, they pose the question of what role the municipality will play in the REV process. They point out that the word “municipality” does not appear at all in the Straw Proposal, and “local government” but once. They believe that empowering municipal initiative, as well as animating markets, will be a key ingredient to the success of REV.

Exelon Corp. (Exelon)

Exelon applauds the Commission for the broad and comprehensive approach taken in the REV proceeding. They comment on the importance of ensuring that increased DER does not impair the financial ability of utilities to fulfill their core missions as regulated service providers within a competitive market framework, including the provision of distribution service and serving as providers of last resort. Furthermore, Exelon cautions that a sharp increase in DER without adequate system communication and control upgrades, along with supporting market mechanisms and operating procedures has the potential to create new inefficiencies.

Exelon agrees with the need to address many of factors indicating a need for substantial change recognized in the SSP. They recommend a focus on supporting infrastructure that makes fair compensation available, and emphasize the role that licensed nuclear generation can and should play in supporting REV.

With respect to fuel diversity, Exelon comments that it should not be looked at only in terms of building new generation, but also in terms of maintaining viability of existing clean generation such as licensed nuclear, hydro, solar, and wind. They believe that successful REV implementation will require maintaining existing, quality assets, adding new transmission infrastructure to support existing and new resources, and strategically integrating DER to the maximum benefit to ratepayers.

Exelon expresses concern with the SSPs discussion of rapid declines in costs and increased capabilities of DER. They urge the Commission to factor into its consideration market and regulatory evidence and changes that might affect any perceived decline, and believe that any assessment of DER costs should be net of government subsidies which mask the true cost of most renewable technologies as compared to existing resources. They are of the opinion that adoption of programs that are not economic on their own, but instead are justified through speculative price suppression effects, may constitute government intervention in competitive markets, which could have detrimental long-term effects of devaluing merchant generation and investment and causing investors to reassess the risk of future uneconomic regulatory action.

GridWise Alliance (GWA)

GWA supports the findings and recommendations in the SSP that there are significant benefits to transitioning to the REV market through the creation of a DSP. They believe that transition will require distribution systems to be modernized and equipped with intelligent devices, controls, and advanced communications systems to capture the level of granular data needed to seamlessly coordinate and enable a greater penetration of DER. GWA comments that in the emerging stages of REV it is appropriate for the incumbent utilities to fulfill the role of the DSP as an entity that is intricately familiar with the existing distribution systems. They state that building the DSP will be an evolutionary process that will take time and require flexibility.

Joint Utilities

The Joint Utilities agree that the potential benefits are significant enough to advance the REV process. The Joint Utilities are concerned however, “that the ‘illustrative examples’ on pages 9-10 of the SSP have not been thoroughly vetted, depend on critical assumptions, and might be misinterpreted. The Joint Utilities believe that the focus should be placed on the BCA framework and how to deliver value to customers.” With respect to the replacement of ageing infrastructure, the Joint Utilities add that they will continue to face significant replacement and refurbishment investment requirements during and after the transition to REV.

Manufacturers Alliance of New York (MANY)

In their comments, MANY expresses support for the initial comments of Multiple Intervenors.

Multiple Intervenors (MI)

MI supports many of the foundational objectives of REV, including the advancement of retail level demand response and cost effective distributed generation (DG). They also support the goal of “providing customers with more options to manage their energy usage” as a worthwhile endeavor on its own. They further agree that there is considerable potential to expand and integrate DER into NY’s electric markets. However, they comment that the SSP lacks rigorous, quantitative analysis that supports (or undermines) the REV initiative. They believe that since the structural changes envisioned by REV and the associated implementation costs are potentially substantial, it is essential that the Commission “get it right” before commencing major restructuring. They comment on the SSP’s assertions that (a) there is minimal load growth, projected to be only 0.16% per year through 2024, and (b) increasing peak loads growing at an estimated 0.83% per year, resulting in a declining statewide load factor. From these facts, MI believes that, since there essentially is no load growth projected for the next decade, higher priority should be placed on reducing surcharges and rates as opposed to subsidizing energy efficiency. They continue that, to the extent energy efficiency continues to be subsidized, focus should be on reducing peak demand, as opposed to electricity use in general. Additionally, MI comments that the current policies providing for the recovery of energy efficiency subsidies solely through per kWh charges are inequitable, not cost-based, and should be modified. They propose greater emphasis should be placed on allocating subsidy costs to service classifications responsible for the incurrence of such costs, and recovering them, at least in part, on the basis of contribution to peak demand.

MI comments that the worsening system efficiency addressed in the SSP is the product of a decline in the statewide load factor resulting from a dwindling manufacturing base. They believe that lowering energy costs would help to grow the State’s manufacturing base and improve overall system efficiency. MI proposes that increasing the system load factor can be achieved through adding high-load-factor manufacturing. To attract these customers, MI proposes changes in certain policies: (a) delivery rates that are not sufficiently based on cost-of-service; (b) the uneconomic and exorbitant subsidization of energy efficiency and renewable resources; (c) the inequitable recovery of surcharges on a per kWh basis; and (d) the continued use of “transition”

charges and revenue decoupling mechanisms that render rates more volatile and discourage energy efficiency by individual customers.

MI expresses concern that merely striving for lower average bills (as proposed in the SSP) is not a satisfactory standard or justification for the sweeping structural and regulatory changes under consideration here. From their perspective, reduced electric rates and prices are what are needed most urgently because electricity is a substantial business input for large energy consumers, and therefore, investment decisions are based, in material part, on electric rates and prices, not average bills.

Mutual Redevelopment Houses, Inc. (Penn South)

Penn South concurs with the goals of reducing dependency on fossil fuels, strengthening the grid so that climate events do not compromise reliability, and assuring that energy prices are sufficiently affordable to meet existing and future needs. They endorse microgrids as a major pathway towards achieving this vision and as innovative solutions that can accelerate the integration of renewables and efficiency and make additional power available to the grid. They commend REV for recognizing the vast advantages that microgrids can provide in realizing sustainable energy policy objectives and believe that microgrids hold the potential for new revenues through participation in wholesale and retail markets that can permit the underwriting for renewable and smart grid improvements.

National Association of Energy Service Companies (NAESCO)

NAESCO strongly supports the REV proceeding as the leading regulatory blueprint for the evolution of the United States utility industry. However, they urge the Commission to exercise caution regarding the ability of the competitive market to create optimal solutions that will achieve REV goals, and proposes instead that current utility capabilities should be leveraged to produce an orderly transition to a new DER driven energy market.

National Fuel Gas Distribution Corporation (NFG)

NFG appreciates the significant efforts undertaken by Staff to develop a collaborative REV process that meaningfully engages diverse stakeholders. As a gas-only utility service, NFG is concerned that REV's electric industry paradigm shift will have counterproductive results for natural gas consumers. They comment that electricity has proven to be exceedingly expensive for New Yorkers and the that reported results for the State's Renewable Portfolio Standard (RPS) Program is evidence that subsidizing renewable energy resources alone is not economically viable and does not provide price stability for customers. They believe that natural gas has emerged as the most viable solution for the provision of low cost electric power. They oppose the SSPs view on the need to decrease dependence on natural gas after the gas price volatility experienced in the winter of 2013- 2014. They comment that much of the state did not experience the severe volatility and that the cause of volatility was not supplies of natural gas, but a lack of transmission pipeline capacity needed to move supplies of gas to market. NFG believes that natural gas can be a significant contributor to DER goals identified in the REV Proceeding.

National Research Defense Council (NRDC)

NRDC commends Staff for their efforts in listening to and reviewing stakeholder feedback. They believe that their main goals of curbing global warming emissions and building the clean energy future "can only be realized through the bold leadership of states such as New York." They comment that efficient electrification of the transportation system can help realize all six objectives of the REV proceeding. They point to studies that have shown that once people plug-in their vehicle, they become much more energy-aware, thus enhancing customer knowledge and awareness of tools that will support more effective management of their total energy bill. They believe that the Commission should direct each utility to include in future major rate cases an assessment of the potential for and impact of efficient transportation electrification upon its

implementation of REV. NRDC proposes that efficient transportation electrification could also improve system wide efficiency and help mitigate the potential adverse impact of declining electric utility sales on consumers. Furthermore, they believe that managed charging, vehicle-to-grid technology, and battery-second life programs could also be an effective pathway under REV for integrating levels of variable renewable generation which will be needed to meet long-term climate goals.

Nucor Steel Auburn, Inc. (Nucor)

Nucor is strongly motivated to assess any DER possibilities that might be physically and economically feasible. They agree that DER offer the potential for expanding system benefits if effectively managed, but caution against taking for granted unproven benefits and cost avoidance. They comment that the anticipated REV benefits of deferred or avoided T&D investments, reduced line losses, increased grid resilience, increased system efficiency/heat rate improvements, etc. hinge on the ability of a DSP to coordinate and manage DER performance to maximum system benefit. They believe that without that management, DER implementation may have detrimental impacts. They propose that REV policy must make clear how a DSP will be authorized to accomplish the distribution optimization functions required under REV.

With respect to maintaining or improving utility system load factors, Nucor sees preventing continued erosion of manufacturing load as at least as important upstate as the development of DER potential resources in the NYC metropolitan area to satisfy system needs.

Nucor also comments on the potential for DER resources to contribute materially to lower system location-based marginal prices (LBMP) by flattening critical period energy usage. According to Nucor, DSPs need to establish products that will permit them to manage and optimize DG and retail demand reduction resources and they believe REV policies must be performance oriented rather than technology-favoring in this particular area.

Finally, Nucor comments that the Commission cannot overlook the fact that it does not regulate any aspect of wholesale energy, capacity or ancillary service markets, and that these are not unfettered competitive markets, but are actively managed by the NYISO and its market participants.

New York Geothermal Energy Organization (NY-GEO)

NY-GEO comments that geothermal heat pumps (GHP) should be an integral part of the “systemic change” proposed by REV because they can help to deal with problems addressed in the SSP like minimal load growth, increasing peak loads, declining system efficiency, and increasing dependence on natural gas. They believe that, electrically powered GHPs for heating and cooling combined with electric vehicles and renewable electricity provide the most sensible way forward to meet the 80% reduction of NY GHG emissions by 2050 and also provide an opportunity for electric utilities to stabilize their system utilization factors and their finances.

NY-GEO strongly requests that the eighth factor listed on page eight of the SSP be amended to include GHPs as a technology that has an impact similar to electric vehicles and believes that GHPs can provide many of the benefits listed on pages nine and ten. They contend that it is important that GHP be included in any listing of DERs that will be used as a baseline moving forward because of the ways GHP directly and robustly address REV objectives.

New York State Utility Labor Council and Utility Workers & Union of America, AFL-CIO, Local 1-2 (NYSULC/ Local 1-2)

NYSULC/Local 1-2 generally support REV and agree with many of the observations, conclusions, and recommendations included in the SSP. They believe REV can deliver major positive outcomes for NY customers and the environment. They propose several ways to achieve the anticipated benefits of REV: (1) DG other than renewables must have emissions below emissions of same-fuel large scale power generators, such as natural gas; (2) cost/benefits for DER

must be assessed without subsidies; (3) DER that delivers renewables must include costs for base-load support, and battery storage costs when feasible must be factored in; and (4) capital investment decisions and cost/benefit analysis and conclusions regarding DER must reflect rate reductions for regions whose congestion will be alleviated by transmission improvements and reflect the ability to deliver a much higher percentage of existing power from critical upstate base-load generation.

They caution that any DER investment must not eliminate transmission investment in new conductors which would replace those that threaten reliability. They also believe that it is imperative that existing base-load power generation be fully considered in the DER analysis because preserving base-load generation that delivers cost-effective fuel diversity is critical in our power generation industry.

PosiGen Solar Solutions (PosiGen)

PosiGen agrees that ensuring that low-to-moderate income (LMI) households participate in the clean energy economy, and that they save energy and money is a vital concern. They support the creation of a program to facilitate the participation of LMI customers in REV. PosiGen believes that providing LMI households with greater access to renewable energy will create beneficial economic impacts in LMI communities, and help to achieve NY's green energy targets. They assert that LMI households tend to be old, un-weatherized housing stock that stands to see the greatest reductions in energy usage. Furthermore, savings achieved will provide proportionately greater benefits to LMI households because they spend a much larger portion of their monthly incomes on utilities as opposed to upper income households.

PosiGen stresses the importance of making LMI communities as resilient as possible because such communities are often both densely populated and powered by aging grid infrastructure. For these reasons, PosiGen believes they represent a prime opportunity for the implementation of microgrid and storage technologies.

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island approves of the policy objectives of REV and applauds the Commission for taking on the tough and complex issues of the reforms and changes necessary to achieve these objectives. They believe that REV policy changes can result in increased customer knowledge and tools, market animation, system efficiencies, fuel and resource diversity, and system reliability and diversity.

ReEnergy Holdings (ReEnergy)

ReEnergy commends the Commission for its paradigm-shifting efforts to enhance the state electricity system and generally agrees with and supports Staff recommendations and conclusions. They comment on their desire to see an increase in renewable energy procurement in NY, and they support a green energy policy that fosters development of new renewable generation while also maintaining existing green energy projects that contribute to a diverse renewable portfolio and a robust regional economy across various industries.

They agree that increased dependency on natural gas leads to price volatility risks and agree that the development of large scale renewables can lead to fuel diversity, low carbon emission, and economic benefits to the energy system and society.

Retail Energy Supply Association (RESA)

RESA implicitly endorsed the goals described in the SSP, but questions whether the proposal can achieve such goals and outcomes. They believe that the market established by the SSP will grant utilities monopoly power and guaranteed rate recovery and allow them to compete with vendors for the sale to consumers of DER products and services.

Revolution Energy Solutions, LLC (RES)

RES commends the Commission for “taking the leadership in defining the future role of [DER], with the objective of stimulating innovation, incentivizing the investment in and the deployment of renewable energy resources that are market-based, scalable and sustainable.” They propose that for REV to be successful from an agricultural and agricultural processing sector perspective, the Commission should consider: (1) net metering; (2) the use of biogas in way other than for electric generation (ex. heat, transportation); (3) financial incentives for anaerobic digestion projects; and (4) promoting third party ownership of such projects.

Silver Spring Networks (Silver Spring)

Silver Spring applauds the Commission for undertaking REV and believes that there are remarkable benefits that can be realized by providing consumers with new technologies that can facilitate better decisions regarding their energy usage. They believe that cost-effective, proven technologies are available today to enable this market transformation.

Simple Energy

Simple Energy agrees with Staff that the central vision of REV is achievable, and appreciates that the SSP recognizes the expansive nature of reforming the energy vision. They support the six objectives of RE and support the bold steps taken in the SSP. They propose that, if designed and implemented with correct incentives under a new financial model for utilities, the benefits of REV can be better achieved.

Solar Energy Industries Association (SEIA)

SEIA appreciates the Commission’s effort to align its utility regulation with the state policy goal of expanding DER. They support Staff’s incremental approach and believes that distributed solar is an essential component of more liquid and robust markets for DER services and products. Further, SEIA urges the Commission to align its efforts in the REV proceeding with its policies to build a self-sustaining solar market in NY and achieve 3 GW of installed solar capacity by 2023. This alignment will encourage early DER penetration and provide a runway for the development of robust market signals for DER.

SEIA supports the near term objectives of increasing deployment of DER assets in NY and encouraging customer engagement in DER, while DSP capabilities begin to develop. They further recommend that Staff look to the planned expansion of NY’s distributed solar market as a way of achieving these objectives.

The Nature Conservancy (TNC)

The Nature Conservancy expresses support for the reduction of GHG emissions. They propose placing more emphasis on achieving a cleaner energy system with a firm commitment to further development and expansion of efficiency and renewables. They believe that investment in clean energy alternatives provides a host of benefits to the electrical energy system, the economy and the environment, and is an important measure of the REV vision. They propose that further analysis is needed to determine how much DER is needed, where it is most needed, how it will impact ratepayers, and how it will contribute to the State’s overall emissions reduction goals.

ThinkEco, Inc. (ThinkEco)

ThinkEco supports the REV vision of a distributed resource model. They believe that replacing the current way of doing business “will transition to a market where DERs will have much more recognition, wider deployment and better understood value in the State’s wholesale and retail electric markets.”

Utility Intervention Unit of the New York State Department of State (UIU)

UIU applauds the Commission for initiating a comprehensive review of the NY electric industry, and believes the SSP is a useful tool. They appreciate the sense of urgency reflected in the REV proceeding schedule, but urge caution. UIU declines to endorse the principles described

in the Straw Proposal. Instead, they recommend that “the REV Proceeding adjust its timing to advance detailed development of Track Two Issues and develop the proposed BCA so that the Commission, the parties, and ratepayers can better understand the impacts of the Straw Proposal’s recommendations.”

UIU questions two of the anticipated benefits of REV; (1) reduced average customer bills versus a business as usual alternative, and (2) securing the long-term viability of universal affordable service. UIU comments that the SSP does not sufficiently address the issues of anticipated costs of REV and does not adequately address potential barriers to customer engagement. They point to a lack of a BCA or other necessary studies that indicate that REV policies and programs will result in lower costs to the public and that estimates provided may be overstated.

United States General Services Administration (GSA)

GSA strongly supports the Commission's efforts to promote the development of DER as an integral component of electricity markets in the state, and to provide customers with enhanced and expanded market options to obtain clean, reliable electric energy at reasonable prices. GSA believes that the success of its DER efforts will be expanded by the Commission's REV initiative, and look forward to the successful development and implementation of the DSP.

Vote Solar Initiative (Vote Solar)

Vote Solar is encouraged by the Track One discourse and comments that the REV proceeding is consistent with their vision of a future where DER, including solar, are maximized on the grid. They are optimistic of a plan to empower ratepayers to both consume and contribute energy products and grid services. They also stress the importance of realizing a low-carbon future, where clean energy resources are prioritized for the benefit of public health and a livable climate.

Vote Solar supports a robust BCA framework to assess the various levels of REV implementation and favors the establishment of a stakeholder process to design such a framework. They suggest that the Commission make certain that the entity developing the BCA is un-biased, neutral, and experienced and they believe that a third party would best fit this role. Vote Solar believes that the SSP has already laid the foundation for a credible BCA framework.

Wal-Mart Stores, Inc. and Sam's East, Inc. (Wal-Mart)

Wal-Mart comments that market driven investment in DER and increased system efficiency are commendable goals of the Commission. They are dedicated to promoting energy efficiency and sustainability for its own facilities and customers and are continually seeking innovative ways to reduce GHG emissions at existing stores, clubs, and distribution centers around the world. Wal-Mart believes that environmental sustainability has become an essential ingredient to doing business responsibly and successfully.

SECTION: II.A. DSP FUNCTIONS

Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

AEEI comments that they agree with the division of the three regulated monopoly functions: Market Operations; Grid Operations; and Integrated System Planning. However, they recommend that the Track One Order include a clear delineation between DSP functions and utility functions, especially as it relates to the provision of DER products and services. Their main concern is the potential for anticompetitive effects of the utility providing services enabled by their monopoly status and the difficulty in creating a level playing field between unregulated utility



affiliates and non-utility third parties. AEEI is of the opinion that there are no value-added services that could or should be provided solely by a regulated utility or DSP. The utility or DSP should be required to provide third parties with access to data and information that would enable competitive provision of all value added services. They also believe that many basic utility services can and should be provided by third party suppliers, responding to utility competitive solicitations.

In their Reply Comments, AEEI shares the concern of UIU that it had not yet been defined what constitutes a value-added service. They comment that “the delineation between basic and value-added services is important to defining the roles of the market participants, including issues around data access, microgrids and DER ownership.

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP support the existing role of the utilities to achieve cost effective and least cost DER initiatives, but believe that those goals can be met without any change to the statutory obligations to ensure reliable, safe, and affordable electric service for customers. They believe that what it would take to turn the existing electric grid into an “intelligent network platform” is unknown and the notion that the DSP or the existing utility would be empowered to “monetize system and social values” goes beyond the current statutory objectives associated with electric service. Finally, they comment that suggesting that the DSP support market activity to enable engagement that is aligned with the wholesale market and bulk power system advocates transfer of pricing and rate design to federal authority and control.

City of New York (NYC)

NYC supports introducing more competition into the industry, provided there are real customer benefits of doing so. They believe that third parties should be permitted to compete against utilities so long as customers are not required to subsidize their operations, services, or products.

NYC has concerns that the description of the DSP may raise a legal question regarding jurisdiction. They point out that since DSP will purchase products and services from DER providers and Energy Service Companies (ESCOs), and sell them into the NYISO’s wholesale markets or to retail customers, it could be determined that the DSP is engaging in sales for resale, thus subjecting them to Federal Energy Regulatory Commission (FERC) jurisdiction. NYC notes that the SSP does not address this legal issue and just presumes that the Commission will oversee DSP operations.

Consolidated Edison Company of New York, Inc. and Orange & Rockland Utilities, Inc. (ConEdison/O&R)

In their individual comments, ConEdison/O&R comment on the benefits of AMI with respect to DSP functions. They propose that AMI will facilitate market operations by providing granular data useful to consumers, third parties, and energy suppliers. They propose that AMI can enhance visibility into distribution networks and enhance fault detection schemes that can optimize reliability. Finally, these utilities believe that AMI can facilitate integrated system planning by providing an increased level of information regarding circuit loading and distribution level needs.

Consumer Power Advocates (CPA)

CPA comment that creation of a DSP essentially requires the same market operations at the distribution level as an Independent System Operator (ISO) provides at the transmission level. They see this as an ambitious goal that required several years to accomplish in the case of the New York Independent System Operator (NYISO), which still requires constant oversight and revision. They believe both grid operations and system planning are best left to the regulated utilities, at

least in the initial stages of DSP development, because those functions are already performed well, and shifting those responsibilities will only complicate DSP development.

Direct Energy Services, LLC and Direct Energy Business, LLC (Direct Energy)

Direct Energy comments that “The distributed services platform should be designed primarily with the goal of reducing or eliminating the barriers to customer engagement and product innovation that stand in the way of the REV vision being realized under the current system.”

Earthjustice

In their reply comments, Earthjustice remarks that the full extent and sophistication of the necessary tools for effective system planning has not been fully contemplated in the SSP and party comments. They believe that the variables, complexities, and uncertainties associated with system planning are daunting, and absent effective planning, goals such as carbon reduction, grid resilience, forward-compatibility, customer empowerment, and affordability likely will not be achieved. They propose that the Commission must oversee “the development of sophisticated analytical and modeling tools needed to adequately plan for and invest in a modern, distributed 21st century electricity system,” and agree with EDF that system planning should be included in the DSIP. They further propose that the Track One Order should “prescribe a planning process for distribution system investment planning, the details of which would be developed in a stakeholder process.”

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC comment that “New York’s new DSP market should provide consumers with greater control and improved options for managing their energy consumption, on-site energy production, and energy spending, as well as help minimize barriers to consumer adoption of new technologies, deep energy efficiency, and distributed generation.”

EnergyHub and Alarm.com (EnergyHub)

EnergyHub comments that in light of the objective to establish market-based strategies and market power considerations, they believe that a periodic review of DSP functions is warranted and propose that the Track One Policy Decision identify a mechanism by which the DSP function is reviewed against REV objectives.

Environmental Defense Fund (EDF)

EDF suggests modifications to the DSP definition. Their proposed definition (with their additions in caps) is as follows: “The DSP is an PERFORMANCE-REGULATED, intelligent, OPEN AND TRANSPARENT network platform that will provide safe, reliable, RESILIENT and efficient electric services by integrating diverse SUPPLY AND DEMAND SIDE resources to meet customers’ and society’s evolving needs. The DSP fosters broad market activity that monetizes system and social values, by enabling active customer and third party engagement that is aligned with the wholesale market, and bulk power system, AND FEDERAL AND STATE ENERGY AND ENVIRONMENTAL POLICIES.”

Exelon Corp. (Exelon)

Exelon believes that utilities are well situated to take on the role of DSPs and agree with the SSP regarding regulated monopoly functions identified for EDCs. They state that a thorough BCA is needed to develop utilities’ roles and regulated monopoly functions.

In regard to competitive offerings, Exelon approves of the SSPs principles and limitations that govern DER ownership. They propose that, as experience is gained and BCA data is collected, there is potential for expansion of acceptable parameters for DER ownership by utilities where it serves a proven public service.

GridWise Alliance (GWA)

GWA comments that standardization and interoperability will be key drivers to developing DER markets through the DSP which will need the flexibility to enable participation of all kinds of

DERs in a safe, secure, and transparent manner. GWA supports the use of a uniform communications framework between DSPs. In regard to grid operations, GWA proposes that the DSP will need to integrate new market operation functions to manage existing and ‘smart grid’ infrastructure. This “will require that distribution systems be modernized and equipped with intelligent devices, controls, and advanced communications systems to capture the level of granular data needed to seamlessly coordinate and enable greater penetration of DER[s].”

IBM Corporation (IBM)

IBM recommends the Commission articulate the functionalities of the DSP in a time based, “building block” manner as opposed to specifying technologies, platforms, standards, or any other specific technology path. They believe that specifying technologies reduces competition, promotes a closed system, increases costs, and increases the risk of stranded assets if the technology fails to live up to its projected performance metrics.

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

In their reply comments, Infinite Energy remarks that the most fundamental long-term weakness of the SSP is placing utilities in the role of DSP providers, and that doing so will ultimately be the downfall of REV. They believe that the utilities expressed focus on public safety, reliability, and customer benefit speaks to the intention to maintain the same priorities they currently hold. However, Infinite Energy points out that, while those are important, REV will require additional, equally important priorities such as affordability, accessibility, competitiveness, efficiency, and sustainability; all of which are not addressed by the Joint Utilities.

Interstate Renewable Energy Council, Inc. (IREC)

IREC comments that increased competition will benefit consumers through economic development and cost savings, but excessive, burdensome consumer protection requirements can serve as a barrier to more competitive market and thus to the benefits consumers could receive from it. They suggest that the Commission should first identify examples of actual issues that have arisen that justify oversight, then the Commission should evaluate whether existing consumer protection mechanisms, including any licensing and business regulations already in place, may address those concerns. Finally, IREC suggests that the Commission solicit input from stakeholders, in particular impacted DER providers, before any changes are made with respect to oversight over those entities.

John Wellingshoff, Stoel Rives, LLC with Katherine Hamilton and Jeffrey Cramer, 38 North Solutions, LLC (Stoel Rives/38 North)

Stoel Rives/38 North comments that on the distribution side, the DSP should not be able to sell into or install in competitive markets that are offered to DER providers and believe that must be an absolute prohibition. They state that there is no practical way to wall off a DSP from its solar or DER providing affiliate. They agree with the SSP that “an independent DSP may be more inclined to promote the rapid technological innovations that are expected to propel the advances achieved through REV” and are hopeful that the Commission will ensure that DER providers are able to provide consumer choice among application and technology providers at just and reasonable prices.

Joint Utilities

The Joint Utilities are concerned with the SSPs recommendations that access to granular, operational planning data should be granted, and a platform for sharing data be developed to achieve a more open planning process. They distinguish between near-term system need and long-term system need, where DERs could serve as an alternative to a more traditional utility-identified investment in the near-term and in the long-term, DER providers can assess their value to the distribution system based on price signals provided by the DSP.

Multiple Intervenors (MI)

MI is concerned that the Commission or the DSP may attempt to monetize social values, arguing that to do so would be a “highly-subjective undertaking of speculative accuracy.”

In regard to grid operations, MI “agrees generally with the stated goal of having the DSP help to manage demand on a day-ahead and/or real-time basis to optimize efficiency and improve reliability. Importantly, such demand should be managed primarily—if not exclusively—through the deployment of economically-accurate, time-sensitive, and cost-based price signals to customers.”

In regard to competitive offerings, MI has several concerns regarding the SSP recommendation. They do not think customers should be funding any incentives for utilities to develop competitive services because that would provide an unfair advantage compared to non-utility parties. They also believe that any customer-funded incentives should only come from customers electing to purchase the competitive service from the utility. Finally, to the extent competitive services are enabled by a utility’s monopoly status, they do not believe that the utility should be permitted to provide those services on a competitive basis.

National Electrical Manufacturers Association (NEMA)

NEMA states, in regard to competitive offerings, that they support the creation of robust and competitive markets for value-added DER products and services. They believe that value-added services should not be provided solely by a regulated utility or DSP and that the utility or DSP should be required to provide third parties with access to system data and information that would facilitate competitive markets. NEMA recommends that rules be developed to ensure competition when utilities and their affiliates are permitted to participate in these markets.

In their reply comments, NEMA stresses the importance of standardization and interoperability and recommends the use of a uniform set of interface protocols across all DSP interfaces both internally and externally. They support the proposed three part planning process for development and implementation of the DSP platform and market and recommend that the Commission accept the proposal of the New York State Smart Grid Consortium to coordinate a stakeholder process. They suggest that if this proposal is accepted, an independent facilitator be selected to manage the process and that funding be made available to support the work.

National Energy Marketers Association (NEM)

NEM comments that the SSP appropriately identifies the need for a DSP to operate transparently and that distribution functions subject to market power measures and protections can be performed in a manner that furthers DER market development.

NEM opposes utilities being permitted to offer competitive value-added services. Additionally, they believe that if utilities are permitted to be DER providers it would weaken REV by “deter[ing] competitive entry and investment by other market participants, vest[ing] the utility with instant economies of scope and scale in the provision of competitive DER products and services, and [would] require a regulatory ‘best guess’ at an appropriate utility price for DER products that should only appropriately be determined as a function of competitive market forces, amongst other reasons.”

Finally, NEM believes that “it is important that the DSP products and services be made available in a non-discriminatory manner, that the price not pose an anti-competitive barrier to an ESCO or other DER provider utilizing the product or service, and that these services be provided in a timely fashion without unreasonable restrictions or requirements for their use.”

New York Battery and Energy Storage Technology Consortium (NY-BEST)

NY-BEST urges the Commission “to establish specific requirements for the DSP functions especially in regard to various planning requirements, plan implementation, procurement processes, consistency across all of the DSPs, enforcement of the planning requirements, etc.”

New York State Smart Grid Consortium (NYSSGC)

NYSSGC comments that the three areas where the SSP calls for stakeholder engagement (technical platform design, market design, and the identification and development of functions and capabilities that should be uniform across utilities) are interrelated, and should be addressed in a single integrated stakeholder process. They believe that it is important that these topics not be assigned to separate stakeholder groups, but instead are addressed in an integrated fashion so that the implications of decisions in one area can be immediately identified and understood.

NYSSGC proposes itself as the entity capable of facilitating this integrated stakeholder process. They do not propose NYSSGC recommend a market design, but that it facilitate an open and collaborative discussion focused on recognition of the Commission's market design objectives, and the functions and capabilities that the DSP must have to achieve those objectives.

New York State Utility Labor Council and Utility Workers Union of America, AFL-CIO, Local 1-2 (NYSULC/Local 1-2)

NYSULC/Local 1-2 comment that competitive offerings should be made available to electric utility customers. They agree with the SSP the structure of the transactional platform established by the DSP and the development of competitive value-added services. They also agree that, because the regulatory mechanisms for supervising the DSP-related activities of the incumbent utilities are already present, the incumbent utilities are the preferable entity to serve as the DSP.

Northeast Clean Heat and Power Initiative (NECHPI)

NECHPI comments that it will be difficult to establish competitive markets for DER providers and that they only support utility ownership of DER when the full benefits of the resource can only be realized through utility ownership.

NRG Energy, Inc. (NRG)

NRG comments that, since the DSP will manage the platform for competitive products and services, if the utility serves this role, it will be in a position to discriminate in favor of itself and its affiliates. They believe that “[g]iven the potential for the exercise of market power, strict neutrality on the part of the DSP provider is vital and can only be assured by requiring full independence or strict functional separation from the incumbent utility and accountability.” Additionally, they believe that, whether utilities serve as DSP or not, they should not be permitted to offer value-added DER-related services to customers. They believe that “the DSP provider should not have a financial interest in the deployment and operation of DER or in the outcomes of services and products facilitated directly or indirectly through the DSP.”

Regarding grid operations, NRG proposes that any role for a DSP that does not include independence or functional separation and accountability would severely impair competition, and that even a neutral DSP provider should not have exclusive control over functions which are better served by the competitive sphere.

Finally, they propose that “any such tariffs or DSP mechanisms adopted for DER must allow for third party aggregation and operation of the services provided by the third party's portfolio of DER resources, including those related to competitive DER providers' obligations to the DSP to respond to safety and other highly critical needs.”

Simple Energy

Simple Energy comments on regulated monopoly functions, and suggests that if the utility is the DSP for the near-term, the rate structure needs to optimize their incentives and earning mechanisms to achieve the successful outcomes outlined in the SSP.

In regard to competitive offerings, Simple Energy agrees that a full range of participants should be able to provide value added services.

SolarCity Corp. (SolarCity)

SolarCity comments that whoever fills the role of the DSP, they are concerned that the decisions of the DSP would override the decisions of the consumer in the operation of DER. They propose that the consumer should always be able to operate their own DER technology as it applies to their own consumption.

They also strongly agree that planning should be subject to open review and propose that “the Commission should order that customer-sited DER investments be prioritized over utility-owned clean energy investments, subject to the safe and reliable operation of the distribution grid in order to reduce the dependence on a central system or individual entity.” They believe that instead of funding new capital expenditures, utilities should look to leverage third parties that already have these capabilities and that any proposed utility expenditures should be opened up to public review and consideration and competitively bid of non-wire alternatives.

SolarCity disagrees with allowing utilities to offer competitive services to captive ratepayers, which, according to them, would create monopoly rights in an already functioning market. They comment that subsidizing a utilities’ competitive services with rate-based money, will incent utilities to increase revenue rather than reduce costs.

The Alliance for Solar Choice (TASC)

TASC is concerned that the utilities or the DSP will be able to “impose burdensome reporting, scheduling, measurement and verification, or dispatch requirements on distributed solar generation located behind-the-meter at residences and small commercial properties.” They believe that the DSP should not be permitted to dispatch behind-the-meter DG systems because doing so will allow the utility to limit the operation or prohibit export of energy from behind-the-meter systems. TASC adds, “The DSP needs to take the customers with on-site generation as they find them, with no power to forcibly shape the commitment, scheduling, or location of customer-sited generation, unless it procures such adjustments via voluntary agreements (or unless truly necessary to protect safety and system reliability)... The DSP should ‘facilitate,’ not dictate.” Finally, they believe that participation in DSP aggregation services should be voluntary.

In their reply comments TASC adds that too much control is given utilities over distributed generation. They believe that the main goal of REV is to give customers greater control over their energy decisions and investments and that customer choice must prevail in the market. Going forward, they recommend that the Commission and Staff “1) avoid generalized statements regarding utility or [DSP] control of DER; 2) distinguish between size and type of DER in establishing new control measures; and, 3) more explicitly balance the need for reliability-driven controls against the objective to enable greater customer access to DER technologies.” Additionally, they share the concerns of NEMA regarding DPS and Commission oversight over DER providers. They propose that this issue be address in a stakeholder process that includes ESCOs and other third party providers to ensure that the level of control or oversight does not impose “burdensome reporting, dispatch, measurement or other requirements that would chill market expansion for DER products and services.”

Utility Intervention Unit of the New York State Department of State (UIU)

UIU comments that, in regard to competitive offerings, it has not yet been determined what constitutes a “value-added service.” They also caution that it may turn out that “the price of innovation by the utilities is too high or that the task of separating competitive value-added services from monopoly services is overly resource-intensive.”

Wal-Mart Stores, Inc. and Sam's East, Inc. (Wal-Mart)

Wal-Mart firmly believes that DER deployment should not be the role of utilities. They believe the DSP should be an independent entity, set up to provide competitive services statewide.

SECTIONS: II.B. DSP MARKET STRUCTURE,  
II.C. OVERVIEW OF MARKET PARTICIPANTS' ROLES AND INTERACTIONS, &  
III.C. DER PROVIDERS AND ESCOS

Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

Jointly, these parties comment that, in regard to DSP market structure, they agree with “the need for open, animated markets that offer a level playing field, with the potential for products and services to flow to and from the DSP and to/from/among various market participants.” They propose a need to define what constitutes “markets” vs. “programs” and how the two will interact with each other. In addition, they seek further definition on what constitutes “regulated products” with respect to the provision value-added services to customers. AEEI supports the 11 market design principles laid out on page 16 of the Straw Proposal and cite principles 1, 9, and 11 as particularly important.

In regard to overview of market participants’ roles and interactions, AEEI stresses the importance of interactions between the NYISO wholesale market and retail customers and believe the DSP will play a role in enabling this interaction. However, they do not believe the DSP should have exclusive rights to administer wholesale-retail market interactions because certain market participants may prefer to go directly to the wholesale market themselves instead of going through the DSP. With this in mind, AEEI proposes clarification of what roles and responsibilities the DSP will have with respect to this wholesale-retail interaction.

With respect to DER providers and ESCOs, AEEI is concerned with the regulatory status of DER providers believes that “great care should be taken with respect to both protecting customer interests as well as fostering a growing DER market.” They point to wide array of federal, state, and local regulations places on DER providers already and caution that “duplicating existing protections could be highly inefficient and financially burdensome.” They also comment that the SSP does not provide justification for the need for additional consumer protections beyond those that already exist.

Alliance of Automobile Manufacturers, Association of Global Automobile Manufacturers, and General Motors (Automakers)

In regard to DSP market structure, Automakers’ reply comments offer that “utility market participation can be managed to ensure various business models by third-party service providers are integrated into the planning,” and believe utilities and third parties can and should work together to meet REV goals. They stress that it will be important to continually evaluate the system-wide benefits of actively engaged utilities, as well as their market interaction with third parties and customers.

American Association of Retired Persons New York and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP comment that, with regard to DSP market structure, the Commission should adopt principles based on current statutory guidance instead of “reinventing the role of the utility” or creating new obligations on customers. They express concern with “the creation of competitive markets for DER and the interaction of unregulated third parties in regulated utility services, the design of markets to promote societal goals and a ‘cost analysis’ that includes benefits unrelated to regulated utility services, and the promotion of integrating essential electric service into wholesale markets to ‘reflect full value of service.’” They see these policies as premature without more analysis and do not believe they should be adopted at this time.

AARP/PULP challenge the proposition in the SSP that ESCOs and other DER providers will “flood the market with products that customers will purchase.” They believe that there is no evidence that ESCOs offer DER products and services to their mass-market customers on a large scale. They express particular concern with the promotion of ESCOs increasing their market share to mass-market customers or perhaps even threatening to replace the utility-provided default service. One reason for this concern is their belief that consumer protection and licensing policies that currently govern ESCO activity are inadequate.

AARP/PULP agree that DER providers who are not ESCOs must also be subject to supervision and appropriate consumer protections, but point out that statutory reform might be necessary for such supervision. They express a need to identify or obtain clear statutory authority and sufficient internal resources prior to implementing REV policies that promote DER activities.

In their reply comments, and with respect to DER providers and ESCOs, AARP/PULP address the comments filed by RESA and states that idea that ESCOs or other DER providers can “deliver cost-effective efficiency, demand response, and distributed-generation programs and resources that will respond to the identified needs to lower peak load demand and properly and economically integrate such resources into the distribution grids” is unfounded. They support these functions and programs being performed by utilities in a cost effective way that, due to the regulated nature of utilities, “can be monitored and tracked to ensure that the promised benefits will actually occur at a reasonable cost.” They doubt that “market forces for these products and services will achieve the desired benefits in a manner that will ensure safe and reliable and least cost service for distribution service customers.” They comment that ESCOs have not offered any value added efficiency and renewable energy resources “in any manner that can be documented as having an impact on overall electricity prices, since they operate without any obligation to provide these programs at least cost or with any documented results that benefit either their own or other consumers.” They continue that ratepayers have spent billions to subsidize the creation of a retail electric market that has not provided any identifiable benefits to the vast majority of residential customers.

#### Association for Energy Affordability (AEA)

AEA comments that, in regard to DSP market structure, the best method of providing various market opportunities for DER is to utilize both mechanisms for coordinating retail and wholesale operations proposed in the SSP, in tandem, to achieve system efficiency and to fully realize the value of DER. They believe that there will need to be clear rules and regulations for implementing such coordination. They also believe that, under current NYISO market rules, DER other than demand-response, are at a disadvantage and are unlikely to be compensated for their full value. They propose that to achieve full integration into the NYISO markets, “use of DER should be prioritized and the NYISO should explore rule changes similar to those adopted for wind, solar and storage technologies in the wholesale market or the loading order used in California.”

AEA supports strong oversight of DER providers and ESCOs in order to protect consumers and promote engagement with the REV marketplace. As an example, they propose requirements on market participants like adequate training, certification, and insurance and system warranties. In their reply comments they add that strong oversight of DER providers and ESCOs is necessary to provide consumers with the confidence necessary to enter the REV model marketplace. They believe that the current ESCO model for mass market customers does not instill sufficient confidence in reliance on the market or existing consumer protections.

#### Buffalo Niagara Medical Campus (BNMC)

BNMC comments that “[c]aution must be exercised when limiting who represents a load in the market. In limiting representation, DER value can be skewed based on the risk tolerance level of the DSP.” They propose mitigating this effect by establishing “multiple market interface



options that would give loads that could be served by DERs greater choice based on their individual risk mitigation strategies and other motivations.” They continue that this greater flexibility and tolerance would facilitate customer participation.

CALM Energy, Inc. (CALM)

CALM, in regard to DSP market structure, recommends that, as opposed to automated direct DER transactions with the DSP without an intermediary as discussed in the SSP, DER-to-DER transactions, in the form of bilateral contracts, with DSP settlement should be included. They also propose that “an initial focus should be towards a DSP market or grid operations capability of measuring near real time and predicted grid needs of both grid reliability and grid efficiency at a nodal location and time, which was not sufficiently addressed in the straw proposal.” CALM comments that focusing on localized buying and selling within this DSP market with respect to nodal grid needs will maximize the benefits obtained from the DSP Market. Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

These parties believe that the Commission should establish a review schedule of the market, “maintaining a strong presence and a heavy influence” during the early development of DSPs and the market. They further stress the importance of ensuring that rules governing DSPs are standardized.

The Clean Energy Advocates support meaningful involvement for all market participants. They believe that stable growth of the market can be achieved through involvement at multiple stages by a variety of market participants. In this light, they believe a broad definition of what party can act as a market participant should be adopted.

City of New York (NYC)

NYC states, in regard to DER providers and ESCOs, that customer information should be protected. However, they believe that usage information could be provided to DER providers and ESCOs without releasing private information which should only be released after affirmative acceptance by individual customers.

Consumer Power Advocates (CPA)

CPA comments, in regard to DSP market structure, that they support the twelve principles enumerated by staff, but are concerned that the abundance of principles may distract from what they see as the most important goals; efficiency, reliability, and cost control.

Direct Energy Services, LLC and Direct Energy Business, LLC (Direct Energy)

Direct Energy believes that, in regard to DSP market structure, a market dominated by a utility will not deliver the kind of customer engagement and innovation sought through REV. They point out that market structures that have been the most successful in achieving those goals (like those in Texas and the United Kingdom) have removed the utility from a customer-facing role entirely. They further propose that appropriate incentives should be provided to both customers and utilities; customer incentives should reflect the value of DER and allow customers to use the market to choose the optimal level of DER, while utility incentives should promote development and maintenance of new markets while maintaining the financial health of utilities in a system with little to no load growth.

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC comment that, in regard to DSP market structure, the “DSP market should provide consumers with greater control and improved options for managing their energy consumption, on-site energy production, and energy spending, as well as help minimize barriers to consumer adoption of new technologies, deep energy efficiency, and distributed generation.” They propose that it be made clear that the DSP market should minimize barriers to entry for

consumers. They also recommend the addition of a “customer convenience” principle to the DSP market design that focuses on simplicity of access and interaction and would avoid exposure to the full complexity of the DSP market that may be unwanted by some customers.

In regard to DER providers and ESCOs, ENE/VEIC support the suggestion that DER providers and aggregators be allowed to sell their services directly to NYISO or to customers, as opposed to being limited to selling services exclusively to the DSP. They believe that allowing these actions will alleviate the concern of the DSP having control over DER revenue streams. Additionally, they believe that the Commission should consider ways that market participants could form their own DSPs to compete with existing DSPs in certain territories.

Energy Storage Association (ESA)

ESA comments that with utilities serving as the DSP, it is crucial that market entrants (like energy storage developers and innovators) are ensured full access to compete and participate in the market.

Energy Technology Savings LLC (ETS)

ETS agrees with the 12 principals for market design in the SSP. They also agree that utilities can successfully fill the role of DSP, so long as, “great care is taken to prevent unfair use of utility market power.” They stress the importance of a level playing field for all market participants.

In regard to DER providers and ESCOs, ETS agrees that DER providers participating in the markets should be subject to Commission oversight. They comment that, the process of regulating how various market participants interact must be carefully thought out in order to minimize any negative effects on the grid that may occur while ensuring reliability, efficiency, and the proper valuation of DER. Additionally, ETS agrees that it is essential that operational procedures, tariffs, and market rules are consistent and interoperable between utility territories.

Environmental Defense Fund (EDF)

EDF, in regard to DSP market structure, comments that wholesale markets may not always be the most efficient means to provide ancillary services in a distributed system. They point to voltage regulation as an example of such a service that might be best handled through neighborhood-level storage in the case of both microgrids and the larger grid. They propose that the DSP should purchase these services from customers, instead of assuming that “non-bulk ancillary services” will be bought and sold in markets to any great extent.

With respect to DER providers and ESCOs, EDF does not believe direct Commission oversight over all DER providers is necessary. They note that such regulation may be appropriate for some DER providers, but a majority will be entities that are currently not regulated by the Commission and EDF does not believe that consumer protection nor reliability concerns justify expansion of the Commission’s jurisdiction to include these entities. They continue with suggestions for the manner in which any Commission oversight might be effectuated. They propose: “[p]rovisions that slow transactions made by consumers with inadequate information (e.g., 3 day rights to cancel and prohibitions against upfront payments or deposits without interest); [p]rovisions for penalties as well as damages; and [m]echanisms that make enforcement pathways available to mass market customers who may have less access than sellers to legal representation.” EDF also points to the concern expressed in the SSP of protecting legitimate service providers from bad actors in the market, but they believe that ordinary consumer protection regimes, instead of additional Commission oversight, may be the best means of addressing this concern. They point to the New York City’s Consumer Protection Law as an example of a law that specifically to address the problem of bad actors in a market and suggests the possibility of crafting a similar law to address similar issues in the DSP markets.

EDF states that “the Commission should set an expectation that the DSPs will protect themselves from underperformance, nonperformance, or malfeasance through contractual mechanisms, as they are presumably expected to do in the case of other procurements.” They believe that the Commission can rely on the DSPs’ own regulated status, instead of increasing their regulatory authority, to ensure the DSPs avoid reliability risks.

In their reply comments on DSP market structure, EDF still supports the approach of balancing the benefits of utility engagement in DER/appointment as the DSP with the potential concerns. However, in response to the comments of the Joint Utilities, they express concern with the feasibility of pursuing these approaches. They see the acceptance of the DSP role by the Joint utilities in their comments without any reference to the proposed caveats as evidence that “they see that role as a straightforward enlargement of their existing franchise.” EDF points out that the Joint Utilities also propose “to make the utility-DSPs the sole source of demand for DER solutions, by allowing them to control all types of data relating to the system so closely that no one other than the utility-DSP could ever identify system needs before they become so acute that immediate action is needed.” They comment that this will not facilitate market animation and will only have the effect of creating information asymmetry that favors incumbent utilities. They further comment that they “can envision a possible future where well-designed protections and diligent oversight might largely mitigate the risk that the utility will exercise market power in favor of its own DER interests,” but that such an approach is not what the Joint Utilities are proposing.

Exelon Corp. (Exelon)

Exelon, in regard to DSP market structure, agrees that a set of principles should guide market design, inform review of market performance, and inform refinement of market rules, but comment that it is unclear as to what those rules should be. They point to gaps like this that create the need for “continued, measured REV implementation, relying on working groups or another forum to fill such gaps.”

Exelon generally agrees with the SSP’s 12 principles for market design. They believe customer protection is the most important, but note that it will be challenging to protect customers with hundreds of DER providers in the market if the appropriate oversight is not in place. Also important to Exelon is the principle of fair and open competition, but stress that State and federal DER subsidies must be netted out of comparisons when considering lowest cost alternatives and creating a “level playing field.”

Finally, Exelon suggests that in order to ensure coordination with wholesale markets, the Commission should seek feedback from NYISO before taking actions that will affect the broader system. They comment that coordination of DER with NYISO’s wholesale market will “require substantial time and technical platform investment.” They also express the need for protections to prevent discrimination in favor of the utilities’ own generation assets when utilities are permitted to own DER and propose that “FERC’s Standards of Conduct regulations should serve as a starting point for such protections.”

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy, in regard to DER providers and ESCOs, agrees with ESCOs being able to expand their businesses as DER providers in the REV markets and to expand the level of market participation of customers. However, they emphasize that “ESCOs can only take advantage of this potential to the extent both that utilities are barred from the provision and ownership of DER and that ESCOs are free to implement consolidated ESCO billing and the purchase of utility receivables.” They propose that utility ownership and provision of DER will stunt competition and will lead to higher prices and lower market penetration.

Interstate Gas Supply, Inc. d/b/a IGS Energy (IGS)

In regard to DSP market structure, IGS comments that it is unclear why it is appropriate or reasonable for a utility to operate the DSP, and expresses concerns that guaranteed cost recovery does not promote creative and innovative solutions. IGS suggests the separation of market functions which should be performed by an independent operator, from planning and operations functions which must be performed by the utility.

IGS addresses market participants' roles and interactions in their reply comments. They propose that utilities should provide system reliability and that an open and level playing field should be created for the development of innovation of DER. They strongly suggest the utilities be prohibited from owning and operating DER "as it would be highly counterproductive to market development, economic viability, consumer commitment to efficiency and choice, and it would not be the best use of customer dollars." Furthermore, they disagree with the Joint Utilities' comments that the 1998 Vertical Market Power Policy Statement "was never intended to apply to and is not applicable in the context of distribution utilities who may own distributed generation or energy storage." They comment that the potential to exercise vertical market power (VMP) to influence market prices for their own benefit is still a valid concern under the REV framework.

Joint Utilities

The Joint Utilities state, in regard to market participants' roles and interactions, that cost-effective DER can offer value to both the distribution system and the wholesale markets, but note that the values provided to each are distinct and not always aligned, and in fact, situations could arise where criteria or conditions in one market may prevent DERs from being dispatched in the other market.

The Joint Utilities express the need to thoroughly consider the details of both market model mechanisms (the supply aggregation model and the load modifier model) detailed in the SSP in order to realize the full value of DER. They comment on the significance of interaction between that DSP and the NYISO and the importance of the DSP maintaining the ability to dispatch and manage DER resources for the purposes of maintaining local reliability. Furthermore, they approve of the recommendation that this issue be addressed in a stakeholder consultation process.

With respect to DER providers and ESCOs, the Joint Utilities agree that all DER providers "must be subject to Commission oversight, including requirements for registration as a DER provider, and compliance with any business rules under which a DER provider must operate." They suggest that the Uniform Business Practices (UBP) that currently apply to ESCOs be amended as necessary to apply to all DER providers. Finally, they recommend that the Commission ensure that "cyber security rules are consistent with emerging industry-wide codes, and appropriate for the degree of data exchange that is required by REV."

Multiple Intervenors (MI)

MI expresses concern regarding the SSP principles for DSP market design. First, with respect to Principle #3, MI believes the principle is incomplete and should focus on reduced costs and lower electric rates and prices as opposed to simply preventing volatility because the benefit to customers is not fully achieved through stability alone; prices may be stable, but still higher under REV.

Second, MI believes that Principle #9 should be rejected or modified. They note that the term "societal cost analysis" is "highly subjective and of questionable accuracy, and should not be used to justify otherwise uneconomic investments." Furthermore, MI challenges the use of "portfolio-level assessments" because such an approach can lead to the approval of a portfolio of projects, only half of which are actually cost effective, as long as the portfolio as a whole proves to be cost effective. They propose the projects should be assessed individually to avoid expenditures on uneconomic projects.

With respect to market participants' roles and interactions, MI agrees that there is substantial, untapped potential for customers to provide demand response to the electric system. They propose the development of retail demand response programs that are more flexible and encourage customers to curtail load. They comment that it is important that (1) customer reductions be subject to measurement and verification, and (2) customers providing demand response be compensated fairly for the economic benefits provided.

National Electrical Manufacturers Association (NEMA)

In regard to DSP market structure, NEMA comments that the DSP market structure will need to be open and transparent in order to attract innovation and new private investment, while providing a level playing field for all participants. They recognize the need to define what products and services can be exchanged through with DSP market, including distinguishing between "basic" and "value-added" services. Additionally NEMA notes the need to establish rules and conditions for market participation, determine who may be market participants, and establish a fair and transparent method for valuing these products and services. NEMA emphasizes that customers should always have the control over their energy decisions and investments and should never be forced by the DSP or any market participant to purchase DER products or services.

NEMA continues that, as it pertains to DER providers and ESCOs, they are concerned about the potential for the Commission to exercise regulatory oversight over DER providers. NEMA recognizes the need to protect customers who participate in the market and "recommends that the Commission address this issue through a collaborative stakeholder process that includes ESCOs and other third-party providers."

National Association of Energy Service Companies (NAESCO)

NAESCO offers reply comments on the topic of DER providers and ESCOs. They suggest a middle position between the SSP and Joint Utilities' recommendation for comprehensive regulation of the DER market, and the comments of many other parties that call for little or no new regulation of DER. They believe that "there should be sufficient regulation to ensure that ratepayers are getting the full value of the DER resources from qualified providers that they are paying for as part of the electric system." To do so, they believe that regulation should focus on the function and not the entity. They propose that "the regulation of DER providers should distinguish between providers of critical grid functions and providers who install and/or service energy efficiency technologies that do not provide these critical functions." They believe that the latter group of providers is already sufficiently regulated by current rules and procedures. However, they believe that some additional regulation may be warranted for system-critical functions in an expanded DER market. However, they comment that any additional regulation "should not duplicate existing regulation and should be carefully calibrated to meet the requirements of critical grid functions and the risk that failure to perform those functions puts on ratepayers."

National Energy Marketers Association (NEM)

NEM, in their comments on the DSP market structure, propose that "NEM's Retail Demand Response Load Profile proposal should be required as a 'no regrets' near-term implementation measure that the utilities take until every New York consumer has an individual load profile via a smart meter." They express the importance of implementing Retail Demand Response Load Profiles so that the market can create new demand response products and consumers can be educated in their use.

National Fuel Gas Distribution Corporation (NFG)

NFG states, in regard to DSP market structure, that they support a market-based approach for the development of the REV market that lowers barriers for market participants to produce goods and services and invest capital. Their proposed method of developing the market includes

the establishment of broad-based policy objectives that lets utilities and market actors develop innovative ideas, strategies, and techniques.

With respect to DER providers and ESCOs, NFG supports Commission oversight of DER providers participating in DSP markets in order to protect consumers and legitimate service providers from bad actors in the market. Additionally, NFG “recommends that the Commission should identify how many New York ESCOs plan to become DER providers and which DER technologies they plan to prioritize or provide in the marketplace, in order to gauge true REV potential.”

New York Association of Public Power (NYAPP)

NYAPP asserts that municipalities and cooperatives, as non-profit utilities, have a unique opportunity to be leaders in the deployment of DER in their service territories because their distinct utility business model allows for experimentation with new technologies and services like distributed generation, energy efficiency and community-owned renewable energy resources. However, NYAPP is concerned about being included in a “one-size-fitsall” approach to a new utility business model that may be appropriate for investor-owned utilities but not NYAPP members. Thus, NYAPP recommends that the Commission not include NYAPP members in a broader ruling and instead direct the jurisdictional municipalities to work with NYPA to prudently implement DER where it will best serve New York’s consumers.

New York Energy Consumers Council, Inc. (NYECC)

NYECC comments that, in regard to DSP market structure, the use of a single ISO type of DSP may be preferable to multiple utilities filling this role jointly. According to NYECC, this structure will promote efficiency, standardization, and expedient development of the markets. They believe that since utilities will be participants in the markets, they should not serve as the DSP, but recognize “that perhaps it may actually be that it may be more efficient to have the utilities perform this function collectively although the issue of standardization of platforms, market rules, practices and procedures for administration of DSP markets 12 among the utilities would remain.”

In regard to DER providers and ESCOs, NYECC comment that the idea of Commission oversight of DER providers participating in DSP markets poses potential jurisdictional issues. They recognize the Commission’s interest in protecting consumers and legitimate service providers from bad actors in the market and see such oversight as the potential “minimum price of admission to participation in DSP markets.” However, they point out that to obtain such jurisdiction, the Commission may need to seek expansion of its current jurisdictional authority.

New York Geothermal Energy Organization (NY-GEO)

NY-GEO supports the principles for market structure in the SSP. They propose that the principle of fair valuation of benefits and costs should include externalities in addition to direct costs and believe that the social cost of carbon and other pollutants should be considered when doing cost comparisons. Additionally, with respect to the principle of economic efficiency, NY-GEO point to the societal benefits of GHP. They propose that the low operating costs of GHPs increase the economic efficiency of users. Furthermore, they cite the NYS Draft Energy Plan’s assertion that “\$36 billion leaves NY every year for out-of-state fuel costs,” and propose that the economic efficiency of GHP “tends to increase disposable income that can be used within New York State rather than being exported to other states.”

New York Independent System Operator, Inc. (NYISO)

The NYISO comments that, in regard to DER providers and ESCOs, DER providers may not neatly fit into the Commission’s current regulatory scheme. They believe that it will be appropriate for DERs to be subject to PSC oversight in certain circumstances (such as DER participation in DSP markets), but that they should be subject to FERC regulation to the extent that

DER providers participate in wholesale markets. They recognize that the REV initiative will “expand the types and numbers of participants who actively engage in the energy industry,” and note that while a majority of the activity will probably occur in the retail market, certain activities will enter the wholesale markets regulated by FERC and administered by the NYISO.

The NYISO states their intent to “work closely with the PSC and relevant stakeholders to develop rules that facilitate a robust market for retail DERs, and enable market participants to clearly understand their regulatory obligations” in response to the potential for market participants to participate in both the retail and wholesale markets.

New York Municipal Power Agency with the Independent Energy Efficiency Program (NYMPA/IEEP)

NYMPA/IEEP asks the Commission to continue to recognize that NYMPA members are fundamentally different from the State’s investor-owned utilities in several important ways, and allow NYMPA members to continue their activities in achieving the goals and objections of REV through participation in the IEEP.

New York Power Authority (NYPA)

NYPA agrees that the DSP market structure should enable new transactions and markets, protect consumers, and ensure reliability. They point to their experience as a “load serving entity and power provider to roughly 700 electric customers throughout the state with diverse energy needs,” as a valuable asset to the development of a DSP market structure.

NYPA approves of a DSP market structure that coordinates retail and wholesale operations, and agrees with the commitment expressed in the SSP to create a level playing field for all market participants. Additionally, they recognize that DER has the potential to significantly benefit the operation and reliability of the overall power grid and believe that a goal of the markets should be to integrate DER into grid operation and develop programs that adequately incentivize DER participation.

New York State Department of Environmental Conservation (DEC)

DEC comments that the Commission should provide appropriate oversight of DER providers participating in DSP markets in order to protect customers from predatory or other inappropriate behavior.

New York State Energy Research and Development Authority (NYSERDA)

NYSERDA comments on the importance of a market design that defines goals and roles of participants and establishes a compensation model that provides appropriate market signals. They believe that in developing markets, business models should be “organized around clearly established, communicated, and accessible price signals, including reasonable certainty as to their duration and commercially reasonable rules about performance measurement.” They continue, that appropriate incentives, and rate design will be essential to create a market that favors third party ownership and promotes an influx of private capital.

Northeast Clean Heat and Power Initiative (NECHPI)

NECHPI states, in regard to DSP market structure, that retail and wholesale operations need to be coordinated to optimize system efficiency and fully realize the value of DER. They see this as a challenging task due to, among other things, NYISO rules and regulations that have negative impacts on DER. They propose that the only way to achieve this coordination is to establish a standardization, planning, and implementation framework at the start that the DSPs and the NYISO will adhere to. NECHPI also proposes the need to resolve jurisdictional issues surrounding interconnection, telemetry, metering costs, and resource aggregation across jurisdictions.

With respect to DER providers and ESCOs, NECHPI “observes that the mechanisms that will actually provide DER stakeholders the ability to compete are vague and non-specific.” They

propose that if utilities fill the role of DSP, this issue must be fully developed and rules and regulations must be established to ensure a competitive framework is put into practice.

NRG Energy, Inc. (NRG)

NRG, in regard to DER providers and ESCOs, agrees that REV will provide ESCOs with the opportunity expand their businesses as DER providers and increase customer participation in the market. They point out the role that ESCOs have played in familiarizing customers to the idea of purchasing energy services from someone other than the distribution utility. They believe that ESCOs have the customer service experience and desire to expand their business in ways that will increase customer participation in DER.

Retail Energy Supply Association (RESA)

RESA comments that ESCOs are regulated by the Commission and subject to the provisions of the UBP, but the regulatory status of other DER providers has not been sufficiently addressed. They agree that DER providers participating in DSP markets should be subject to Commission oversight, but believe that the level of oversight needs to be clarified. They propose that the regulatory structural framework of the UBP as it relates to ESCOs can be adopted to apply to all DER provides. RESA believes that the UBP template will ensure that “consumer interests are respected and proper marketing behavior is followed by all DER providers.” Furthermore, they believe that this template will help maintain a level playing field by applying the same regulatory standards to all DER providers, not just ESCOs.

On the issue of market participants’ roles and interactions, RESA’s reply comments offer that it is not necessary for utilities to own DER because there will be numerous independent vendors capable and willing to fill this market gap. They recognize that utilities “have an important role to play in engendering growth of the use of DER products and services and they do in fact have important and unique knowledge and perspectives of the needs of the system and customers.” However, they believe that utilities can put these factors to good use without owning DER. They also express concern with the comments of the Joint Utilities that seem to propose that utilities seek to displace competitive vendors from the DER market. They believe that the Joint Utilities “seek to use their utility status and footprint to preclude independent vendors from playing a meaningful role in [the microgrid] market.”

Simple Energy

In Simple Energy’s comments on the DSP market structure, they agree with the idea of a more interactive role for DER in the DSP marketplace. They further support principles for market design in the SSP, particularly those of transparency, focus on customers, minimum barriers to entry into the animated market, and flexibility in execution of new programs. They believe that a marketplace with DER interaction will bring economic efficiency as well as additional societal benefits.

In regard to overview of market participants’ roles and interactions, Simple Energy points out that the SSP provides little details as to the level and type of oversight the Commission will have over the DSP market. They ask for clarification of the proposed regulatory construct and believe that the right parameters will facilitate innovation.

SolarCity Corp. (SolarCity)

SolarCity comments that they are concerned with Staff’s proposed market structure. They believe that consumers and DER providers “should have the option of interacting either with the DSP market or directly with wholesale markets, and the Commission should explicitly maintain this ability.” They further believe that the DSP should not provide services on customer-sited DER, and should not be allowed to include DER product and service investments in their rate base because this could create an insurmountable barrier for new market participants to enter into the market.



In regard to overview of market participants' roles and interactions, SolarCity agrees with the participant roles and interactions in the DSP market as proposed by the SSP. However, they believe they more clarification in needed with respect to Commission oversight of the market and particularly want to know what would be done if the DSP engages in market manipulation or other unfair practices. They call for the establishment of procedures for dispute resolution, and appropriate sanctions for wrongdoing in the market by the DSP. Additionally, they propose that the DSP should not be allowed to recover costs associated with dispute resolution, litigation, or other adjudication measures.

On the subject of DER providers and ESCOs, SolarCity responds to the SSP proposition the a regulatory scheme over DER providers will be needed to protect customers by pointing out that they are already subject to "numerous existing laws and regulations" that they comply with. They also point out the lack of specific examples of unfair practices towards consumers that form a basis for this concern. They recommend that this issue "be further examined through a collaborative stakeholder working group that would address Staff's concerns while minimizing the need for additional regulations."

The Alliance for Solar Choice (TASC)

With respect to DSP market structure, TASC recommends that several of the twelve principles for market design in the SSP be qualified or enhanced. First, they propose that the principle of "transparency" be balanced with mechanism to protect confidentiality of market participants business and pricing information. Second, they believe the principle of "customer protection" should include effective measures to protect privacy of customer information. Third, they recommend that the word "choice" in the principle of "customer benefit" should be read to include the option to self-generate with open access to the grid. Fourth, they propose that the principle of a "resilient system" should include procedures that make it easy for customers to safely and cleanly generate power on-site when the grid goes down. Fifth, TASC sees the principle of "fair and open competition" as one of the most important and expresses a need for continuing assessment and monitoring by the Commission. Next, with respect to the principle of "minimum barriers to entry," they propose avoiding "burdensome scheduling, reporting, monitoring, verification or dispatch obligations or the imposition of equipment requirements that increase cost to customers who chose to self-generation some or all of their power requirements." Additionally, TASC believes that the principle of "fair valuation of benefits and costs" should require valuation that is granular enough to recognize the unique benefits of behind-the-meter renewable generation. Finally, in regards to the principle of "coordination with wholesale markets," they believe that customers should have the right to sell products and services directly to the NYISO.

United States General Services Administration (GSA)

The GSA comments that, in regard to DSP market structure, they are concerned with the potential for a utility acting as DSP to exercise market power, especially when the utility or their affiliate own DER. They endorse the measures proposed in the SSP to mitigate market power, but to ensure their effectiveness, that GSA proposes that a more formal oversight process than what was included in the SSP be developed. They propose the creation of a group, either within the DPS, or a small, independent entity with the dedicated function of monitoring DSP-related market power issues.

Utility Intervention Unit of the New York State Department of State (UIU)

UIU comments, in regard to DSP market structure, that in encouraging "customers" to become market participants, the SSP fails to recognize the numerous types of ratepayers with various characteristics that term encompasses. They point out that while it may be possible for some consumers to become active participants, it is impossible to believe that all consumers will

be able to do so, most notably, residential customers with low-to-moderate income. UIU expresses concern with the SSP's statement: "The end-state market should be transparent, providing all market participants with the data required to understand what values different DER products could provide in different circumstances and locations and with clear information on how compensation will be provided for those values." They believe that limiting transparency to the end-state market is misguided and propose transparency at each phase of the market. Additionally, they express concern with the market design principle related to customer protection and seek clarification that the SSP did not intend any relaxation of existing customer protections.

With respect to overview of market participants' roles and interactions, UIU comments that it is not clear how and to what extent the Commission will oversee the market and call for further explanation. In response to the proposal that Commission oversight could diminish as the DER markets mature, they point out that problems still exist in the retail access market that require Commission attention after 15 years and for that reason believe that "there will still be a need for Commission oversight for years to come."

In regard to DER providers and ESCOs, UIU urges the Commission to resolve the issues raised in Case 12-M-0476 before enlarging the role of ESCOs. In support of this request, they point to shortcomings like "the low participation rate of only 24% of residential customers purchasing supply from an ESCO and ongoing complaints about market and pricing."

Wal-Mart Stores, Inc. and Sam's East, Inc. (Wal-Mart)

In regard to DER providers and ESCOs, Wal-Mart (and their ESCO subsidiary Texas Retail Energy) request clarification as to whether ESCOs and customers will be required to schedule and procure energy and participate in the competitive markets through the DSP. They express concern that ESCOs could be forced to turn over their functions to the DSPs or that they could be forced to perform their functions separately with each DSP. They request "that it be made clear that customers and ESCOs should be exempt or otherwise excluded from such requirements." Furthermore, they point out that there are jurisdictional issues that need to be addressed with respect to the Commission requiring that ESCOs provide DER services and operate through the DSP as well as Commission regulation over provision of DER services.

SECTION: III.A. DSP IDENTITY

Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

AEEI agrees with the SSP that the utilities should serve, at least initially, as the DSP. They believe that "having the incumbent utilities serve as the DSPs avoids operational redundancies, keeps the mandate for reliability clearly with one party, and takes advantage of existing regulatory practices." They point to the strong brand, existing customer relationships, and operational expertise of utilities that makes them particularly qualified to fill the role of the DSP. However, they note that their support is "contingent on them meeting detailed performance metrics" and their compliance with rules and regulations designed to prevent the exercise of market power. They propose the establishment of performance metrics with a strict timeline for review of utilities' performance and in the event that the utilities fail to live up to those metrics, the Commission should delegate DSP responsibilities to another entity.

Alliance for a Green Economy (AGREE)

In their reply comments, AGREE supports the recommendations of many parties that an independent statewide DSP be created. They disagree with the rationale for having utilities fill this role even though it may be the easiest and most expedient option in the short term. They believe

that having six different DSPs will create added complexity and inefficiency and that a “utility-controlled DSPs is incompatible with the stated desire in the [SSP] to put consumers as distributed energy resources providers on a level playing field with utilities and other market actors.”

American Council For An Energy Efficient Economy (ACEEE)

In their comments, ACEEE generally agrees with the SSP’s recommendation to allow utilities to own and operate distributed energy resources in specific situations and subject to a variety of constraints to prevent undue market power. They further suggested utilities be allowed to invest in DER for important public facilities, such as hospitals, where there are important resiliency benefits to be achieved that are in the public interest.

Association For Energy Affordability, Inc. (AEA)

AEA stated that the SSP correctly identifies many reasons for having the incumbent utilities serve as the DSPs and agree that it is preferable to have utilities provide this function.

Bloom Energy Corporation (Bloom Energy)

Bloom Energy recommends the Commission to develop mechanisms that will allow utilities to utilize “clean distributed generation as an alternate means to reliably deliver electricity to customers because, the third party developer business model has not produced enough distributed generation.” They point out that the current penetration of DG on the New York system represents less than 1% of the load.

Citizens’ Environmental Coalition (CEC)

CEC commented that REV should enable municipal and other local government entities to function as the DSP in concurrence with other non-profit entities.

ChargePoint, Inc. (ChargePoint)

ChargePoint agrees with the SSP that the most important criteria for utilities filling the role of the DSP should be requiring utilities to “leverage public and private partnership opportunities, particularly where utilities can gain experience from partnerships with third party DER providers.” They recommend that the Commission specifically encourage these partnerships to help accelerate innovation and expansion in EV services, which can contribute to expanded EV adoption.

Citizens for Local Power (CLP)

CLP “strongly encourage the creation of a Statewide Independent DSP.” They comment that, whatever form the DSP takes, it is important that the DSP provide a competitive market platform to enable the kind of innovation and investment that has not yet been developed. CLP comments that the short-term convenience of relying on the utilities as DSP is outweighed by the inherent risks of doing so. They noted that many REV parties, representing very different interests and concerns, agree that a utility-controlled DSP would ultimately work against the goals of the REV because of the inherent dangers of market distortion and manipulation. They believe that the utility as DSP is also not a viable interim approach because, once the utilities are set up to perform the DSP functions, it could be extremely costly and difficult to establish an independent DSP.

CLP further contend that the utilities are not innovative and will crowd out competition. They comment that the utilities’ market power cannot be effectively mitigated by incentives and standards and that it is impossible to judge the soundness of a utility-based DSP because the SSP does not describe the incentives or standards (which could be quite costly) that might help utilities overcome such market distorting influences. They also comment that the market functions described in the SSP are not currently performed by utilities, and there is no information about the costs of an independent DSP.

For these reasons, CLP asserts that a statewide DSP will better ensure standardization, simplify evaluation and tracking of DSP activities, make regulation easier, and make NY a more attractive market, thereby facilitating investment in the State.

City of New York (NYC)

NYC has no fundamental objections to the DSP role being filled by the utilities. However, they comment that clear rules are needed to provide fair and equal opportunities to all market participants.

Clean Coalition, Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, The Nature Conservancy, New York Public Research Interest Group, the Pace Energy and Climate Center and the Solar Energy Industries Association (Clean Energy Organizations Collaborative)

The Clean Energy Organization Collaborative filed reply comments in which they recommend the creation of a fully developed plan for an independent DSP as a fallback plan to balance the benefits and risks of a utility DSP. They also believe that if utilities are allowed to operate as the DSP and own DER, “strong Commission oversight will be required to balance the benefits of utility operation of the DSP with the unfair exercise of market power.” They propose a process for the development of an independent DSP be conducted in parallel with the utility DSP process. They also propose that a proceeding be initiated to “outline these details, trigger events, and market conditions that would initiate the transition process.”

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

The Clean Energy Advocates agree that, “given the utilities’ high degree of involvement in managing the distribution system, the utilities should initially act as the DSP.” They commented that utilities “already possess much of the physical infrastructure, human resources, and engineering know-how to rapidly step into the role of DSP.” However, they doubt the utilities’ ability to serve as a disinterested system operator. They also note that, because such systems are so complicated, there are many opportunities for subtle self-dealing. Therefore, they support separation of system operations and market administration.

They also advocate for the final REV decision to include a fully formed plan to implement an Independent DSP if the utilities fail to provide a functioning, equitable system. They propose that this plan should provide measurable outcomes like expectations and benchmarks for DSP market performance to help determine the need for an independent DSP.

Consumer Power Advocates (CPA)

CPA comment that utilities should be the DSP provider and believe that grid operations and system planning should be left to the utilities, at least in the early stages of DSP development because those functions are already well performed, and re-assigning them will further “complicate an already nearly overwhelming environment of change.”

CPA believes it is important that utilities retain operational control of their facilities. They also believe the DSP, as a neutral grid operator, should not participate in market activities that generate revenue. With respect to markets, CPA thinks that with adequate restrictions and protections for ratepayers, utility affiliates can participate in the wholesale markets. Finally, CPA believes that utility ownership of DER facilitate market power abuse and suppress market development.

Direct Energy Services, LLC and Direct Energy Business, LLC (Direct Energy)

In their comments, Direct Energy states that it is unclear whether the DSP must perform all of the functions described in the SSP. Direct Energy encourages the Commission to consider and evaluate, through collaborative processes, further development of a technical platform and market designs moving forward.

Direct Energy cites several reasons for consideration of an independent DSP. First, they point to the avoidance of market power concerns that arise when utilities serve as the DSP and

own and operate DER. They also believe that an independent DSP may more effectively promote the technological innovation that will move the market forward in achieving the goals of REV. Second, Direct Energy believes that some of the advantages identified in the SSP of having the utilities perform all of the DSP functions may be short-lived. They continue that it is important to ensure market participants have confidence in the ability of the DSP to provide services in an unbiased manor, and to achieve this goal, there must be “a substantial degree of structural separation between the DSP’s functions and the rest of the utility’s operations.” With this in mind, they point out that if utilities serve as the DSP, it may prove to be more efficient to define that role more narrowly, perhaps by limiting the DSP’s functions to market operations.

Finally, they comment that there is no need for the Commission to decide this issue at this time because the envisioned collaborative processes that will determine the structure and functions of the DSP will allow the Commission to continue assessing the scope of functions to be performed by the DSP, but Direct Energy proposes that the option of devolving those functions on an independent third party be left open.

#### Earthjustice

Earthjustice proposes the following provisions that should be adopted if utilities are placed in the role of DSP and allowed to participate in the DER market. First, they believe that this decision should be re-opened for a comprehensive review no later than five years after its effective date. Second, they propose establishing a stakeholder process to create performance standards for the DSP and develop “Standards of Conduct that will unbundle the provision of services by the DSP from the utility’s operation as a utility service provider.” Third, they propose quarterly review of the performance indicators, comparing DSP service delivery to itself (the utility) and other DER providers. Finally, they propose that if the utility DSP fails to provide comparable service to nonaffiliated DER providers, they will be removed from the role of DSP and prevented from offering any DER services.

#### Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC comment that there are “critical differences” between current utility functions and the range of dynamic REV market functions to be performed by the DSP and that these differences have led to some jurisdictions to assign some of these functions to independent entities. According to ENE/VEIC, these entities collaborate with utilities, but focus on customers, technologies, and markets, as opposed to capital investment.

ENE/VEIC also point to the success of energy efficiency stakeholder councils in states like Massachusetts, Rhode Island, and Connecticut as examples to consider when deciding the identity of the DSP. These states have created a central stakeholder body focused on policy and planning and these collaborative, multi-stakeholder councils promote cooperation in energy planning for efficiency and related demand side policy implementation. They note that such a council avoids “litigation expenses, and promotes early solution-oriented discussions between utilities, intervenor groups, and public agencies, before program details progress to the point where there is little flexibility to satisfy multiple objectives.”

ENE/VEIC do not object to utilities initially filling the role of DSP, but they stress the need to “establish robust performance metrics and strong regulatory oversight with firm planning deadlines,” in order to minimize the risks and ensure the benefits of a utility DSP model are fully exploited.

#### Environmental Defense Fund-(EDF)

In their comments, EDF cautions that even an independent DSP will still need to be regulated at a level comparable to the regulation of electric distribution companies because the DSP would share responsibility for system reliability. They further state that, because the DSP’s monopoly status within its given service territory, they should be thought of as a regulated utility,

and “the precise manner and extent of regulation should, to the maximum extent feasible, mirror that of other regulated utilities.” In terms of interim measures, EDF urges the Commission to take care to ensure that the initial assignment of DSP functions and responsibilities to utilities does not become a permanent, unchangeable feature of the marketplace. They believe that regardless of what entity carries out the role of DSP at the outset, its continued authorization to do so should be contingent on its successful performance and EDF notes that it is crucial to clarify both the metrics for evaluating DSP performance and the process by which a DSP’s franchise could be revoked.

EDF commented that the performance criteria identified in the SSP for determining whether utilities should retain a DSP franchise are much too narrow and do not ensure the advancement of all the REV objectives, like reduction of carbon emissions. They believe that before the DSPs are fully up and running, tracking energy efficiency and renewable energy procurement may be valuable to ensure that there is no backsliding vis-à-vis the legacy targets.

EDF agrees with the observation in the SSP that “the Commission should require standardized platforms, market rules, practices and procedures for administration of DSP markets” to maximize participation by third-party providers of energy-related goods and services. EDF notes that a lack of uniformity, standardization, and transparency has hindered the development of the marketplace for energy efficiency improvements of buildings.

EnergyHub and Alarm.com (EnergyHub)

EnergyHub comments that due to market power considerations, periodic review of the DSP is necessary. They believe that there are many benefits to an independent DSP operator, but recognize that there are also concerns regarding efficiency, standardization, and the exertion of market power that must be addressed in any event. They propose the establishment of mechanisms to review DSP function against REV objectives and can effect changes if necessary.

EnergyNext, Inc. (EnergyNext)

EnergyNext questioned whether the incumbent utilities are the best entity to serve as the DSP. They suggest demonstration projects to test and evaluate different DSP models be set up to facilitate more informed decision making. They believe that a more flexible ownership format will advance innovation and mobilization of private capital.

Energy Technology Savings, LLC (ETS)

ETS agrees that the utilities could successfully fill the role of DSP as long as care is taken to prevent the abuse of market power, thus ensuring that all markets participants experience a level playing field, regardless of their role, or the products and services they provide.

Exelon Corp. (Exelon)

Exelon supports utilities filling the role of DSP and performing the functions associated with that role. They believe that in order to integrate DER in the planning and operation of the grid and thus fully realize the value of DER, utilities “will be able to provide valuable oversight in this integration role as a regulated function benefitting the broader market.”

Federal Trade Commission (FTC)

FTC comments that the proposal that utilities “serve as its own DSP operator does not offer potential rival DSP operators any opportunity to show how they can benefit customers and surpass the distribution utilities in avoiding the potential distribution service discrimination threats outlined in the [SSP].” They address the concerns about additional costs associated with independent DSPs duplicating the functions already carried out by utilities and point out that consideration should be given to the duplication of operating and set-up costs associated with six utility DSPs. They encourage the Commission to rely on an open competitive selection process rather than on an administrative determination.

GridWise Alliance (GWA)

GWA agrees that incumbent utilities should serve, at least initially, as the DSP. They concur with the Advanced Energy Community that utilities' long term role as the DSP should be contingent upon adherence to strict performance metrics with a strict timeline for review of utilities' performance, and that if the utilities fail to live up to those metrics, the Commission is able delegate DSP responsibilities to another entity. GWA also notes that options to consolidate (or separate) DSP functions in the future should also be considered in the design phase, as these might lead to a logical evolutionary outcome.

Hudson River Sloop Clearwater, Inc. (Clearwater)

Clearwater believes that instead of the six incumbent distribution utilities, there should be a single statewide independent DSP. They suggest that a statewide independent DSP can encourage standardization and avoid abuse of market power through coordination with utilities, while at the same time protecting the interest of consumers and third-party providers. Clearwater believes that those who have a financial stake in the outcome of the market design should have input in such design, but that the market should be "designed and overseen primarily by people who represent the public interest and the policy goals set by the State through a democratic process."

Clearwater believes a statewide independent DSP should be comprised of "experienced energy system experts and engineers..., stakeholders representing third parties... and consumers..., and unions, who need to be represented on the DSP because their workers have day-to-day, real-life experience with energy distribution..."

As further justification for excluding utilities as the DSP, Clearwater notes the inherent conflict of interest presented by "the fact that all utilities in NY are now owned by national or multi-national corporations whose ultimate allegiance is to their shareholders and primary motive is to maximize profit, regardless of societal or environmental impacts, and who may have conflicts of interest with REV, State and Federal energy goals..."

Independent Power Producers of New York (IPPNY)

IPPNY comments that a utility DSP opens the door to VMP and re-monopolization and that disincentive rates, transparent processes, and regulation may not be enough to overcome detrimental exercise of market power. They therefore recommend an independent DSP.

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy comments that the DSP should be an independent, nonprofit that works with all market participants to realize REV objectives. They oppose the idea of the utilities serving in this role and caution that "such a decision would be effectively irreversible regardless of the performance of the utilities as DSP providers." They comment further that utilities are for-profit corporations that will only promote market activity when it benefits their bottom line. They note that this behavior is appropriate in competitive, free markets, but point out that if the utilities serve as the DSP, they will effectively control these markets and stymie competition.

Infinite Energy also comments on the importance of statewide uniform market practices and agrees with the emphasis placed on this idea in the SSP, but believes the means of implementation described are lacking. They propose that standardized tariffs will streamline rate cases, saving time and money, while also promoting DER penetration by offering consistent rules across the state. They believe that if the six utilities are the DSPs, they will create "six disjointed territories under six different regulatory schemes," and oppose this structure. Infinite Energy proposes that the process of setting up an independent DSP will be no more difficult than doing so for utilities and that the stakeholder processes intended to inform this creation will be better served with the utilities as one of many equal parties to the process instead of a controlling party. Furthermore, Infinite Energy believes that an independent DSP would require less regulatory oversight than utility DSPs.

Infinite Energy urges the Commission to consider that “once the monopoly utilities take hold of the role of DSP, an independent DSP may no longer be a feasible option.” They believe that once utilities are placed in the role of DSP, they will “vehemently refuse to step aside” if the Commission decides that they are not reaching determined objectives, but instead will argue that those objectives can only be realized at added costs to ratepayers or that the objectives need to be changed. They oppose the proposition in the SSP that replicating the expertise of the utilities will take added Commission time and ratepayer money as too nearsighted and believe that the long-term weaknesses of the utility DSP structure outweigh the short-term costs. If the utility DSP approach is pursued, they stress the need to develop a plan to remove the utilities from the DSP role if they fail to objectively serve the interests of the market as a whole.

Infinite Energy comments that the utilities have exceedingly important contributions to make to the DSP stakeholder process, but note that they are just one of many groups that can make such contributions and propose that a single, independent DSP provider that will hear the voices of all stakeholders, “is the perpetual collaborative process that will best bring the Commission’s vision to life over the long term.”

Interstate Gas Supply, Inc. d/b/a IGS Energy (IGS)

IGS comments that they do not recommend that utilities serve as the DSPs, but if that is the case, they believe it is critically important that they not be allowed to also own and operate DER. They see this as creating an inevitable conflict of interest this will stifle market competition and private investment in DER.

John Wellinghoff, Stoel Rives, LLC with Katherine Hamilton and Jeffrey Cramer, 38 North Solutions, LLC (Stoel Rives/38 North)

Stoel Rives/38 North comments that on the distribution side, the DSP should not be able to sell into or install in competitive markets that are offered to DER providers and believe that must be an absolute prohibition. They state that there is no practical way to wall off a DSP from its solar or DER providing affiliate.

They further propose an absolute wall between the market side of the DSP and the operations side when the DSP runs any distribution services. They comment that the three DSP functions addressed in the SSP “should be clearly separated and managed to achieve the most competitive and innovative results while maintaining reliable system operations.”

They commented that, if the PSC chooses to allow utilities to serve as the DSP, it is “essential that ... specific provisions and safeguards be put into place,” including scaled oversight, sufficient enforcement authority, open interconnection processes, separation of market and operations functions of the DSP, extensive audit resources, open and transparent planning processes with stakeholder participation. They also urged the PSC to require jurisdictional utilities to develop and submit a plan for transfer, if necessary, of operational control of their distribution systems to an independent entity designated by the PSC.

Joint Utilities

The Joint Utilities agree with the SSP recommendation that they serve as the DSP, and are prepared to assume this responsibility.

Multiple Intervenors (MI)

MI agrees with the SSPs endorsement of the utilities as DSP providers. They point out that such a structure will be more expeditious, less costly for customers, and will avoid duplicative costs and responsibilities. They also believe that it needs to be made clear to the utilities that their continued placement in the DSP role is contingent upon their performance and effectiveness and subject to change.



Northeast Clean Heat and Power Initiative (NECHPI)

NECHPI comments that the utilities serving as DSP will create a variety of conflict-of-interest and market-power issues and propose that the three DSP functions detailed in the SSP be separated. They believe that establishing competitive markets for DER providers and other energy-services providers will be nearly impossible with a utility DSP. They propose a structure where distribution system operations are controlled by an Independent Distribution System Operator (IDSO), with utilities still owning grid assets absent the responsibility of balancing the systems to meet demand and reliably needs.

According to NECHPI, an IDSO would be responsible for “system reliability, dispatching distributed resources, setting fair incentive mechanisms, and opening up the grid to third-party competition,” leaving utilities free to focus on selling electricity and building new projects.

However, if the utility ends up filling the role of DSP, NECHPI recommends the establishment of performance standards and a number of required checks and balances to ensure compliance with REV objectives. They further propose implementation of a plan for a time-limited transition to an independent body. Additionally, they suggest the utility DSP create “separate entities with separate assets, accounting and revenue requirements for each of DSP functions specified in order to eliminate many of the vertical power issues.” Finally, they recommend a BCA be done with respect to the utility serving as DSP compared to an independent entity and point out that the utility DSP scenario could likewise prove to be costly if utilities become market participants in addition to being market facilitators.

National Electrical Manufacturers Association (NEMA)

NEMA comments that, at least initially, utilities should serve as the DSP in order to avoid operational redundancies, maintain the role for ensuring reliability within one entity, and utilize existing regulatory practices. They agree with the comments of other parties that the utilities’ long-term existences as DSP needs to be dependent on adherence to “Commission approved performance metrics and rules to prevent the exercise of vertical market power,” and that the DSP functions should be separated or bid out to an independent entity if the utility fails to meet the necessary performance targets.

National Energy Marketers Association (NEM)

NEM expresses concern with the ability to oversee a utility DSP that will fill the roles of “market maker, market facilitator, and market participant all while having superior access to customer data and knowledge of the distribution system.” They believe that such a system would create conflicts of interests and facilitate the abuse of market power. They propose that if the utility DSP structure is utilized, the functions of the utility must be limited to distribution and reliability, and the utility should not be allowed to participate in the markets.

National Fuel Gas Distribution Corp. (NFG)

In response to the SSPs proposals for standardization of platforms, market rules, procedures for administration of DSP markets, NFG believes that standardization is a lofty goal in light of the fact that “New York is anything but uniform.” They point out that energy markets in New York State contain differences between service territories and geographic areas and that “platforms for the Customer Information Systems... vary across utilities and are a mix of internally developed systems and third party vendor software.” They question the proposition that standardization will reduce customer bills, citing a concern that the protocols and technological solutions of REV will not function uniformly across the state. They recommend a BCA be conducted to assess bill impacts for electric customers across the state with respect to standardization efforts.

New York Battery and Energy Storage Technology Consortium (NY-BEST)

NY-BEST recognizes and agrees with the SSPs reasoning behind utilities serving as DSP, but express concern that the SSP does not adequately address the market power and conflict of interest issues that may arise if the DSP role is filled by a single entity like the utilities. They express a need for clear rules for DSP engagement in the market that will facilitate a level playing field as well as open and transparent competition. Furthermore, they propose that rules should be established that allow DER providers to sell services directly to customers, directly to the NYISO, and also that allow the DSP or third parties to aggregate DERs to sell to the NYISO. They comment that such rules are necessary because without them, DER providers will be marginalized as a result a lack of competition for the DSP and the exercise of control over the revenue streams of DER providers. Additionally, NY-BEST proposes the idea of certain territories forming new DSPs at the neighborhood, town, or county level to compete with the existing DSP and request the Commission to explore this option.

New York Energy Consumers Council, Inc. (NYECC)

In their comments, NYECC does not oppose utilities serving as the DSP on a short term basis, but does not believe they should fill this role in the long term. They believe that in both the short and long term, the DSP's distribution functions need to be kept separate from other functions as a utility and that any potential for exercising market power resulting from a utility DSP engaging in the DER markets needs to be eliminated with appropriate rules and regulations.

NYECC agrees with the NYISO that "vesting the utility with the roles of market manager, distribution utility, DER provider, and DER developer at the same time may stifle the competition and technological advancement the PSC seeks to promote in this proceeding." In this light, they propose that a single ISO type of DSP may be more conducive to a market system approach. They believe that under this structure, utilities can be participants in the market, but not be the collective market facilitator. Furthermore, according the NYECC, a single ISO type DSP may also facilitate efficiency and standardization. NYECC also comments that they recognize that due to potential jurisdictional issues, having the utilities serve as DSP may be the only feasible option in the short term and that it may be that it "may be more efficient to have the utilities perform this function collectively although the issue of standardization of platforms, market rules, practices and procedures for administration of DSP markets among the utilities would remain." NYECC calls for a detailed comparison (perhaps a BCA) of the available options before a decision is made regarding the identity of the DSP.

In their reply comments, they remark that more information, and specifically a detailed comparison of the available options, is needed before a rational decision can be made as to who will perform the functions of the DSP. They caution against any rush to judgment one way or the other.

New York Independent System Operator, Inc. (NYISO)

The NYISO comments that it has market power concerns that may arise out of a "single entity acted as the DSP, distribution utility, and DER provider or owner, and recommended that an appropriate set of market rules be designed to mitigate any potential issues." They approve of the discussion contained in the SSP on monitoring and mitigating market power, and they look forward to working with the Commission "to ensure open, fair, and transparent markets moving forward."

New York State Utility Labor Council and Utility Workers Union of America, AFL-CIO, Local 1-2 (NYSULC/Local 1-2)

NYSULC/Local 1-2 comment that the DSP role should be filled by existing utilities, with their continued existence in the role subject to performance reviews. They cite safety and cost effectiveness as two potential justifications for a utility DSP. NYSULC/Local 1-2 also agree that

several of the essential DSP functions are already performed by utilities and that creating a new entity could result in duplicative responsibilities and raise jurisdictional issues with respect to regulatory mechanisms over an independent DSP that wouldn't be implicated by a utility DSP because regulatory mechanisms for utilities are already in place.

NRG Energy, Inc. (NRG)

NRG comments that either an independent entity should serve as DSP, or if the utilities fill this role, their DSP functions must be separated from other utility activities, and their selection be contingent on compliance with "strict and auditable performance standards." They propose that such separation must ensure that the utility DSP "has no direct or indirect financial interest in the outcomes of DER investment or in the services or products the DSP facilitates." Without this safeguard, NRG believes that private investment will decrease and the innovation that results from competition will be hampered. If utilities fill the role of DSP, NRG comments on the need for safeguards to limit their market power and inherent bias towards their own corporate interests, provide a level playing field for all market participants, and assure adequate performance.

In their reply comments, they continue that the "utility DSP should be limited to facilitation, operation, and promotion, rather than participation in the market." They believe that the very least, utility market participation should be limited in order to avoid the possibility for interference, gaming, and undue market power that would slow or stifle innovation. They urge the Commission to "consider the numerous stakeholders voicing opposition to the utility owned model as a call to caution—a need for a middle ground approach—for utility DSP ownership, guaranteed by a developed independent DSP process alternative."

Nucor Steel Auburn, Inc. (Nucor)

In their comments, Nucor does not oppose the role of DSP being filled by the utilities, but they state that that approach requires caution. They point out that utilities already carry out many of the DSP functions and believe that it would be inefficient to place another entity in that role and subject them to a new administrative scheme. They do caution, however, that there are inherent risks with this structure including obstruction of DER innovation and product development by the utility DSP. Nucor strongly urges that, for the time being, utilities should not be able to participate in DER investments.

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island agrees that utilities are best suited to serve as DSP, but point to the need for "new methods for planning the distribution system, and coordinating the activities and processes of all the emerging players that will desire access to the services provided by or required by the DSP." They note that utilities already have knowledge of technical standards and reliability protocols, as well as experience in planning, managing, and operating the distribution system. They believe that having the utilities serve as the DSP will "minimize confusion, provide clarity on roles and responsibilities and avoid redundancy and the associated unnecessary cost burden."

PSEG Long Island also point out that under the Public Authorities Law (PAL) §1020-f (gg), the Long Island Power Authority (LIPA) and PSEG Long Island, along with NYSERDA, are the designated entities for the design and administration of renewable energy and energy efficiency measures in the LIPA's electric service area. Therefore, they believe that the PAL requires that PSEG Long Island and LIPA serve as the DSP in this area.

Retail Energy Supply Association (RESA)

RESA comments that the DSP should be operated by an independent third party, similar to the manner in which NYISO operates. However, they do acknowledge that if such a structure proves to be cost prohibitive or infeasible, utilities could be set up as the DSP, as long as the proper safeguards were in place. They propose that a thorough analysis be conducted to weight the costs and benefits of each approach.

If the utility is ultimately selected as DSP, RESA proposes that, in order to promote a level playing field, the scope of the areas under control of the DSP should be limited. They recommend that “the functions assigned to the DSP be limited to enabling the facilitation, promotion and operation of the DER market, with the emphasis placed on efficiently matching competitive vendors with interested consumers.” They believe that this will help to mitigate the potential of the utility DSP to exploit their monopoly status as they compete in the DSP markets.

Solar Energy Industries Association (SEIA)

In their comments, SEIA does not take a position regarding DER ownership by utilities or their affiliates and what restrictions should apply. They approve of the SSP’s approach for considering utilities’ engagement in DER as a good means for “balancing any putative benefits of utility ownership against competitiveness and market power concerns.” Additionally, they agree that any utility proposals to own DER must undergo thorough review in order to ensure a level playing field.

Silver Spring Networks (Silver Spring)

Silver Spring comments that they believe that the utilities are in the best position to serve as the DSP with oversight by the Commission. They point to the utilities ability to ensure that all consumers are afforded the same access to new technologies and the benefits that come with them. They also believe that the knowledge and experience of utilities will facilitate the best use of consumer investment and provide the maximum value to the ratepayer. They propose that utilities consider a “single application approach” that would facilitate uniformity and a connected grid.

SolarCity Corp. (SolarCity)

In their comments, SolarCity states that an independent DSP will be necessary to achieve the goals of REV. They believe that the entity that performs the “functions of planning, market facilitation, energy efficiency, and portions of advanced distribution management systems” needs to be an independent entity who does not own the distribution system. They comment that the SSP does not support the proposition that an independent DSP will be an expensive, unwieldy, and incomplete response with examples, analysis, or figures. They call for an analysis of the cost and means of implementation of an independent DSP and believe that the possibility of an independent entity as DSP be explicitly allowed if utilities fails to meet set goals and standards. Along those lines, SolarCity also believes that a utility DSP should be required to “publicly file and periodically update plans that would transition DSP duties to another entity, which the Commission could commence a proceeding on at its discretion.”

United States General Services Administration (GSA)

The GSA expresses concerns with the incumbent distribution utilities serving as the DSPs, but recognize that an independent DSP would duplicate many of the functions of utilities and that the separation of market function from planning and operations functions might be unworkable and may not resolve all market power concerns. However they also have concerns that with six utilities serving as DSPs, there will be a lack of uniformity across DSP regions. With this in mind, the GSA recommends that the utility DSPs be required to provide uniform offerings and services across DSP regions that will facilitate the administration and implementation of DER initiatives.

Utility Intervention Unit (UIU)

The UIU agrees that utilities should serve as the DSP, but expresses concern with the SSP’s statements concerning changes the utilities will have to make in order to make themselves capable of that role. They point out that the SSP states the need for utilities to hire new staff and create new departments in order to function effectively as DSP. They call for further evaluation of these and other recommendations to assess the costs associated with staffing new departments and the recovery of costs associated with adopting these measures before the SSP is adopted.

Vote Solar Initiative (Vote Solar)

Vote Solar comments on the need to address regulatory foundations needed to enable shared solar in the DSP implementation plans now while the planning is being done, as opposed to during implementation when it will be difficult to introduce new ideas which will lead to stunted dialog that is behind schedule for careful consideration. As described in their comments, shared solar “provides an opportunity for all ratepayers to avail themselves of the benefits of solar.”

Wal-Mart Stores, Inc. and Sam's East, Inc. (Wal-Mart)

Wal-Mart states that utilities should not be involved with DER deployment. They believe that this would result in “monopoly-related inefficiencies” in the competitive DER markets. They believe that DSPs should be independent entities that provide competitive services and that utilities should “continue to concentrate on the business of monitoring and operating electrical systems, providing for continued system reliability and implementing capital projects and improvements to accommodate new REV markets...” When weighing the costs and benefits of an independent DSP against a utility DSP, Wal-Mart comes to the conclusion that REV initiatives have a much better chance of being successful in the long run with an independent DSP that collaborates with the NYISO and operates in a truly competitive market.

Wal-Mart comments on the SSP’s discussion of the challenges associates with utilities filling the DSP role. They note the concern that such a structure could hinder uniformity and standardization of market rules and platform technologies because each of the six utilities will operate as a separate DSP. Furthermore, they point to the SSP assertion that utilities will likely need to hire new staff with different skill sets and may even need to create separate DSP market departments. Accordingly, Wal-Mart believes that “the costs of establishing one independent DSP need to be weighed against the costs of six utilities establishing entirely new departments to carry out DSP functions.” Additionally, they point out that the SSP has acknowledged that an independent DSP may be more feasible at a later date, but Wal-Mart believes that this option should be explored now before utilities expend a significant amount of time and resources (at the expense of ratepayers) in order to develop the capabilities to serve as DSP. Ultimately they believe that this critical issue needs “substantially more review than has been conducted to date.”

However, Wal-Mart comments that if the DSP role is ultimately filled by utilities, their operations in the capacity “must be thoroughly reviewed and sufficiently circumscribed from the outset so as to not allow the utilities to frustrate the REV’s competitive goals.” They also propose the need for consistent and rigorous performance reviews that are conducted by an advisory panel comprised of both DPS Staff and market participants.

Additionally, in their reply comments, Wal-Mart proposes that if the utility DSP model is adopted, “the Commission must ensure that customers may, if they choose, be allowed to aggregate their loads as a means to maximize demand response, energy efficiency and renewable opportunities.” Furthermore, they propose that large customers should be allowed to continue to interact directly with the NYISO and not through the utility as DSP. Wal-Mart agrees with suggestions raised by several entities that, the Commission must adopt strict and standardized market rules to govern the utilities’ performance of DSP functions and believes that the DSP role needs to be functionally separated from all other utility activities.

SECTION: III.B. CUSTOMER ENGAGEMENT**1. Data Access and Privacy****A. Data Exchange**Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

AEEI expresses support for providing customers with more data and enabling customers to share data with DER providers. They believe that Advanced Metering Functionality (AMF) data will facilitate the development of new DER products and services that will be able to reach more customers.

Furthermore, in their reply comments they support the comments of ConEdison/O&R and NYSEG/RG&E that offer that AMF is a foundational requirement for REV that will providing direct support for five of the Commission's six objectives laid out in the SSP. AEEI believes that AMF is needed to achieve the necessary amount of two-way exchange of granular data.

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP oppose allowing unregulated third party DER providers to have access to personal data about a customer's electric service pursuant to an opt out methodology. They believe that if data like customer usage (particularly peak load usage) and customer location were released, it could have "serious implications for the safety and security of not only the customer and the household, but the security of the utility's distribution system." They point out the SSP's recommendation for data access registration requirements for market participants, but believe that the Commission does not have the necessary resources or the statutory authority to regulate and oversee the enforcement of such registration requirements.

Association for Energy Affordability, Inc. (AEA)

AEA comments that the collection and availability of data will be critical in both enabling DER markets and reducing load. They generally support the proposal of an "opt-out" procedure for data exchange with an "opt-in" provision for data that customers could reasonably expect to be private. However, they comment that additional analysis is needed to determine what data will be needed to achieve REV goals, who should manage the exchange, and how that exchange will be funded.

Buffalo Niagara Medical Campus (BNMC)

BNMC believes that access to data should be at the sole discretion of the customer (particularly in the commercial/industrial sector), and that an opt-out arrangement endangers the confidential and proprietary nature of customer data. They propose that an opt-in arrangement would be better in that it would allow customers to weigh the risks and rewards of participation in data exchange.

Citizens Local Power (CLP)

CLP support a data exchange and rules that make distribution system data and customer usage data available to market participants. They believe that these rules "should respect individual privacy and protect consumers from predatory behavior."

In their reply comments, CLP agrees with the Joint Utilities, BNMC, AARP/PULP, and UIU that the privacy and security of energy data is critical, and further agrees with AARP/PULP that unregulated private companies should not have access to personal data without consumers' knowledge and agreement. CLP does not agree with the Joint Utilities that only utilities may be entrusted with this information and that systems data should be provided to third parties only for

“competitive procurement of alternative solutions for utility infrastructure projects.” CLP believes that the Joint Utilities are assuming that they alone have the ability to plan for and implement DER. They believe that this approach would effectively foreclose development of a competitive market.

Consumer Power Advocates (CPA)

In their comments, CPA expresses concern about “confidentiality, ESCOs’ access to data, possible utility charges for data, customer access and control of data, and/or possible commercial use of data by third parties.” They are also concerned that new data links might become vulnerable targets of cyber-attacks which they see as a significant terrorism threat. They believe that thorough cyber security measures need to be adopted that will protect customers, tenants, buildings and operations before deployment of data exchange measures.

Direct Energy Services, LLC and Direct Energy Business, LLC (Direct Energy)

Direct Energy comments that the creation of a data exchange may not be necessary. They point to the “difficulty of obtaining current and accurate data from utilities in a timely manner” as the main impediment to obtaining the data necessary to achieve the goals of REV. Therefore, they propose that utilities should simply provide the data they already have to third parties (subject to customer authorization) in an accurate and timely manner instead of “pulling the spotty data from the existing system into a different system, which would put retailers and other third parties at a further remove from direct access to data coming off customers’ meters [and] create additional complexity and delay...” They also comment that serious issues relating to data privacy and security exist and need to be addressed, but ultimately believe that the potential benefits to customers and the system outweigh these concerns.

Earthjustice

Earthjustice supports the concept of a data exchange, but opposes the recommendation to provide certain customer usage data without affirmative consent. They do not support the proposed opt-out approach to sharing of customer data; even for “chunky data like total monthly energy usage data,” because even this data contains personally identifiable information. They suggest that all customer data sharing should be on an out-in basis and believe that under such an approach, the granularity of the data will not be an issue because the customer will be affirmatively consenting to have their data shared. Earthjustice also suggests that the Commission look to the DOE’s Voluntary Code of Conduct (VCC). They believe that the opt-out approach should be rejected.

EnergyHub and Alarm.com (EnergyHub)

EnergyHub supports the creation of a data exchange and believes that the operator should be selected through a competitive process in order to limit the market power of incumbent utilities. They also support the right of consumers to access their own energy information, and that customer access to the exchange should be included in basic utility service and provided free of charge. Additionally, they propose that the data exchange “should support delivery of information in an ongoing way through commonly accepted, nationally recognized standards such as Green Button Connect.”

EnergyNext, Inc. (EnergyNext)

EnergyNext comments that customer choice is a critical concern and that an “opt-out” provision will have the effect of constraining choice, at least until the customer’s awareness catches up with reality. One of their main concerns is that if customer data is available to one DER provider, it will be available to all, and customers will be overwhelmed with sales contacts.

Energy Technology Savings (ETS)

ETS agrees that the exchange of certain data is necessary to facilitate efficient penetration of DER into the grid. They propose that a single entity should run the data exchange, resulting in uniformity and ease of access for all DSPs.

Environmental Defense Fund (EDF)

EDF supports customer access to their energy usage data and the proposal that certain data should be shared by default, with the option to opt-out. However, EDF believes that more specification is needed regarding what customer usage data should be disclosed routinely to customers and to third parties and suggests studying the best practices used in other states.

In their reply comments, EDF comments that access to customer data, utility infrastructure constraints, and some kinds of DER data will be essential in the energy service future they envision. They comment on the benefits of AMI and wireless customer use data tools that can provide detailed information about customer time-of-day use patterns, costs of providing electrical energy based on incremental infrastructure and energy costs and rate options. However, they address the Joint Utilities' (and others') concerns regarding cyber security. They agree that this is a critical issue, but believe "the question should be how we design emerging multi-directional data flow systems so that they will be secure, not how those security concerns should impede what would otherwise be fair and reasonable access to data with a view to establishing a level playing field." Therefore, EDF rejects the assertion that, due to security concerns, utilities should remain in control of a customer and system data. They continue, that the narrowness of the proposal by the Joint Utilities; "that they should provide network congestion data to third party providers only when they have decided to initiate a competitive procurement of alternative DER-type solutions and then only system information that they deem 'adequate,'" is alarming and such an approach would give utilities a significant competitive advantage over third party providers.

Exelon Corp. (Exelon)

In their comments, Exelon supports the provision of accurate and timely data to licensed and authorized market participants in order to promote customer choice and product innovation. Additionally, they propose that under certain circumstances, "utilities should be provided opportunities to enhance revenue from performance incentives or provision of adjacent services," which in some instances may include conditional DER ownership.

FirstFuel Software (FirstFuel)

FirstFuel, in their reply comments, agrees with several commenters that AMF and timely access to granular data for customers and designated third parties will be essential to the success of REV. They support the notion that "data collection and access are an essential element to unlocking energy efficiency, and that third-party providers can assist utilities to maximize the opportunities to turn data into usable information." They agree that customers currently lack the information necessary to manage their bills and believe that AMF and granular data access should be provided to customers (and third parties at their discretion) as part of their basic electric service. They urge the Commission to "work with the Joint Utilities to reach a consensus around a data exchange that does not involve deferring key decisions until later in the proceeding, as proposed by the Joint Utilities." FirstFuel supports the view of the Joint Utilities that data privacy concerns are vital to success of the REV.

GridWise Alliance (GWA)

GWA comments that data access, security, and privacy are essential to encourage new market offerings that will enable consumers to better understand and manage their energy consumption. They believe that AMF and granular data access should be provided to customers and third parties (with customer consent) as part of a basic service offering. They also believe that



“Green Button and Green Button Connect standards could serve as an excellent basis on which to build these data access and exchange capabilities.”

GWA also points out the potential need for a Quality Assurance (QA) process that “scrubs” data before it is released to consumers or third parties. They comment that raw data taken directly from meters might result in consumers or third parties making decisions based on data that is not of “billing quality.” Therefore, they believe that the Commission should plan for instances where consumers will see changes in the raw data after that data has been through the QA process.

IBM Corporation (IBM)

In their comments, IBM recommends that the “Privacy by Design” framework be considered at the onset in determining how to address the need to protect customer data without hindering the innovation and other benefits that will come from large scale data sharing and analytics. They believe that the concepts embedded in this framework are a good place to start when instituting rules for data privacy during DSP development. Particularly important to IBM, are the principles of “respect for user privacy and embedding privacy into the design of platform applications.” They believe these concepts will instill confidence in consumer markets and avoid some of the concerns raised in past smart grid deployments.

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy agrees that access to customer data is central for the provision of DER and related services and supports the opt-out option for data exchange. However, they suggest a less complicated process of simply requiring utilities, with authorization of customers, to provide ESCOs and DER providers with full access to the customer data they already have.

They continue in their reply comments, remarking that ESCOs or other DER providers represent the customer in the same way that any other type of agent acts on behalf of the principal. Therefore, they see no need for utilities to police access to customer usage information, but instead should simply ensure that customers consent to their data being shared and then provide that data to the ESCO or DER provider as expeditiously as possible. They believe that access to customer usage data can facilitate lower prices for customers by reducing “the overall risk ESCOs and DER providers face by allowing them to factor out a great deal of the cost of the bad decisions that can come with insufficient customer usage data.”

Infinite Energy also comments on the importance of implementing standardized rules and practices among utilities in NY. They note that this will improve efficiency and reduce costs for all market participants even if utilities are not the DSPs, but will be essential if they do assume that role.

Additionally, Infinite Energy comments on the proposal of the Joint Utilities to create applications for customers to use while shopping for DER between third-party providers and the utilities themselves. They believe that these web-based tools are competitive products and should be offered by competitive providers. They believe that if utilities provide this service, it will be difficult for third party providers to compete with utilities. Furthermore, they comment that if third parties provide this service, they will bear the costs, as opposed to utilities who would recover the costs of creation of shopping portals for DER and energy-related value-added services from ratepayers.

Interstate Renewable Energy Council (IREC)

IREC supports consumers having “ready access to their own energy usage data in a secure and standard format.” They also agree that DER providers need to make information available in order to facilitate the DSP in coordinating energy services and making the most effective and efficient use of DER. Additionally, they suggest that access to data on customers and other market participants be authorized to a larger group than just “market participants” because they believe

that other entities—governmental entities, academic institutions, or non-profit organizations—may be legitimately interested studying and drawing important lessons from this data.

#### Joint Utilities

The Joint Utilities support data access that enables markets while meeting customer privacy and security expectations. However, they do not think creating a new data exchange system is necessary and believe doing so would be inefficient. They propose that the more cost effective solution would be to enhance the existing platform and use the Electronic Data Interchange (EDI) system to exchange data. They believe that “system solutions, privacy, and security concerns need to be considered for each of the four types of data,” including customer data, DER data, operations data, and planning data. They note that customer data often includes Personally Identifiable Information (PII) and therefore is generally considered protected. Thus the Joint Utilities believe that customers should share their information with providers on an opt-in basis. They propose the creation of new data privacy policies and guidelines to help ensure customers that their PII will be protected and also establish clear laws and rules for utilities to follow with respect to protection of this information.

The Joint Utilities do not believe that DER providers need “standardized, time-stamped customer energy usage information” in order to “develop business cases, attract investment, and quickly bring DER products and services to market.” They point out that competitive service providers in other industries market to and attract customers without customer-specific information. Alternatively, the Joint Utilities suggest that aggregated load information for various customer market segments would provide sufficient information to DER providers in order to develop product offerings while still protecting customer PII.

The Joint Utilities do agree that the DSP will require DER asset and commitment data and believe that new DSP operational systems will need to be developed that manage this data instead of creating a new data exchange. They also comment that this data will continue to be “subject to privacy and security measures consistent with existing utility systems.”

Joint Utilities believe the issue of data access should be addressed after the establishment of “technology platform defined interfaces and standards, as well as the [Distributed System Implementation Plan] DSIP planning process and the DSP market mechanisms.” They believe that the experience gained from these actions will inform the development of data sharing processes. Finally, the Joint Utilities do not believe that “utility supervisory control and real-time data should be provided to third-party providers out of concern for cyber security, critical infrastructure, public safety, and reliability.” They comment that this raw data will be of little use to these third parties.

In their reply comments, the Joint Utilities agree with other parties who raise concerns regarding data security and customer privacy. They comment that they “currently manage these concerns in a manner that serves customer interests and keeps utility information secure in accordance with federal standards and guidelines, such as the North American Electric Reliability Corporation's Critical Information Protection standards.” However, they point out that third parties are not held to the same standards, and it is unclear whether they could be. Therefore, they believe that they should continue to manage data sharing processes and platforms in the future. The Joint Utilities do not believe that it is necessary or cost-effective to create a separate data exchange system. They believe that existing utility systems already provide many of the features and kinds of information needed and propose to work with third parties to support the development of DER markets in a manner that appropriately secures customer data and protects customer privacy. Additionally, they agree with commenters like UIU, BNMC, NYC, NEMA, and Nucor that the provision of customer data should not be on an opt-out basis as the SSP proposes.

Mission:data

Mission:data states that the SSP does not describe any mechanisms for the exchange of data by utilities or the DSP and does not establish a timeline for ensuring compliance with these objectives. They believe that utilities should be required to include specific processes on how customer data will be made available to both consumers and their chosen service providers in their implementation plans. They propose that customers and authorized third parties should be able to access customer data using the Green Button Connect protocol by December 31, 2015.

Mission:data believes that data on billing-quality usage, tariff, and charges information will be necessary for “accurate Measurement and Verification (M&V) of energy efficiency, accurate savings projections for proposed improvements and cost-effectiveness evaluation of retrofits.”

Multiple Intervenors (MI)

MI comments that the proposal for the creation of a data exchange be rejected due to a lack of information on how much this data exchange would cost to create and administer. However, they propose that since that purpose of the data exchange is to enable ESCOs to market their products and services to customers, any costs associated with creation of an exchange should be allocated entirely to ESCOs or, alternatively, mass market customers.

MI believes that the information that a data exchange will make available is highly-confidential and proprietary. Therefore, they propose that there should an “opt-out” option and that ample attention be given to both rules governing the use of customer data and cyber security before funds are committed.

National Energy Marketers Association (NEM)

NEM believes that one of the main goals of REV should be ensuring that detailed customer usage data is provided to ESCOs “in a readily usable format,” and they disagree that customer consent should first be obtained to gain access to this information. They comment that access to usage data and hourly market-based pricing is needed to enable consumers and ESCOs to reduce energy bills. NEM proposes that participation should be on an opt-out basis. They believe that privacy concerns can be mitigated through aggregating customer data by zip code and limiting access to the data exchange to licensed ESCOs and other appropriate entities, thus creating a clear line of accountability.

National Fuel Gas Distribution Corporation (NFG)

NFG believes that the creation of a data exchange should undergo a BCA. They also strongly recommend an opt-in approach for the provision of customer data. NFG believes that appropriate, secure processes and protocols with respect to data access and data transfer still need to be developed and tested to ensure operability. NFG also notes that the SSP does not adequately describe in detail how the Commission will review and approve registration requirements.

New York State Department of Environmental Conservation (DEC)

DEC cautions that releasing customer data to third parties without prior consent should be thoroughly considered.

New York Energy Consumers Council, Inc. (NYECC)

NYECC supports advanced data access so long as adequate privacy safeguards are implemented. They propose that participation in the data exchange should be on an opt-out basis while the provision of granular customer-specific usage information should be on an opt-in basis. They also call for clearly defined consequences for failing to observe the certification that data not be disclosed to other entities. NYECC believe that the entity that administers the data exchange should be self funded and should conform to the “hyperconnected 21st century platform of trust.” They propose utilizing consumer-friendly web-based and mobile applications that can provide the customer with a means to comparison shop and provide all participants with access to “necessary

data located in one place where transparency, reliability and visible reputation are the general rules...”

NRG Energy, Inc. (NRG)

In their comments, NRG expresses concern with the potential risks of centralizing all data. They believe that doing so would have anti-competitive effects by allowing utilities and their affiliates to further exploit their monopoly position by giving them an “informational advantage over competitors.” They believe that this advantage is compounded by the utility’s control over customer and distribution system information. Furthermore, NRG believes that this high degree of information centralization will be unnecessary as “distributed resource logic increasingly allows decentralized optimization of DERs.”

Nucor Steel Auburn, Inc. (Nucor)

Nucor comments that the opt-out basis for providing individual customer usage data is one of the most concerning recommendations in the SSP. They believe that this data should not be disclosed without the express permission of the customer and also that customer billing information should not be disclosed at all.

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island comments that customers should have access to their information as well as market data that will enable them to make informed decisions on DER products and services. They believe that customer privacy is critical and therefore customer data should only be disclosed to third parties with express consent. They also believe that implementing a data exchange by 2015 is too hasty and stress the importance of developing clear rules for utilities as to what data is to be provided and how it shall be posted before any ratepayer money is spent.

Retail Energy Supply Association (RESA)

RESA comments on the importance of timely access to customer data. However, they do not believe it is necessary or even prudent to set up a new stand-alone data exchange. They point out that the data needed is already possessed by utilities and that standardizing the data elements and methods of providing this data will allow utilities to effectively provide necessary data to ESCOs and other DER providers without creating an entirely new entity. They oppose the notion of only providing more granular customer data after affirmative consent of the customer. RESA believes that this data may be most significant for a customer considering DER and should be made available on the same opt-out basis as participation in the data exchange.

In their reply comments, RESA addresses the comments of the Joint Utilities that disfavor dissemination of crucial customer data and related information to DER providers. Specifically, RESA opposes that proposal that the Joint Utilities only provide aggregated load information for certain market segments as opposed to customer-specific information. They believe that DER providers must be provided with timely and meaningful access to customer specific data in order to address “the interests of consumers on an individual basis in such a manner as to induce them to manage and optimize the efficient use of energy resources.” They comment that access to customer data will facilitate “a robust competitive market wherein vendors will target their products and services to individual customers in such a manner as to demonstrate the unique and individualized benefits the customer will achieve by purchasing the product offered by the vendor.”

Simple Energy, Inc. (Simple Energy)

Simple Energy does not support the creation of a data exchange platform without further development of the details surrounding it. The details Simple Energy are concerned with include data ownership and accessibility (including the process required to access data), whose data will be accessible, data standards (including transfer intervals and format), and processes that ensure the effectiveness of the system.

Tendril

Tendril supports the establishment of a data exchange. They comment that the exchange, system information, and the DSP marketplace need to be “interoperable and complementary.”

The Alliance for Solar Choice (TASC)

TASC offers reply comments that support increased access to system and customer data and also supports the proposal for an independently managed data exchange. They disagree with the utilities comment that DER providers do not require standardized, time-stamped customer energy usage information and that the existing EDI infrastructure provides sufficient access to information. TASC believes that the EDI system would be an inappropriate vehicle to provide data to customers on their energy use, or provide appropriate customer data and system data to competitive DER suppliers.

Utility Intervention Unit of the New York State Department of State (UIU)

In their comments, UIU suggests that the implications of an opt-out programs should be discussed with residential ratepayers and consumer advocates to gauge consumer acceptance before any implementation. They agree that consumers should have access to more data regarding their own energy use, but point out that the SSP does not mention how doing so will be financed and made available to the average consumer.

In reply comments, UIU continues to oppose the recommendation to utilize an opt-out approach to customer data sharing until customers can be assured their data will be protected and secure. They comment that customers should be able to decide who has access to their data and what data they want shared. They point to recent data security breaches in utilities’ systems and express concern about the ability of third parties with fewer resources than utilities to protect this data. They believe that this should be considered before the proposal to allow sharing of ratepayer data with third parties is implemented. Additionally, they agree with the Joint Utilities’ proposal to consider the DOE’s draft Voluntary Code of Conduct as a relevant source of guidance in the context of cyber security in REV.

**B. Access by Customers to Their Own Data and to Comparative Product Offerings**Citizens for Local Power (CLP)

CLP notes that utilities have no particular expertise designing and developing web-based tools to enable customers to shop for, and purchase, DER and other energy-related value-added services. Therefore, they recommend that instead of utilities performing this function as the SSP proposes, there should be a competitive bidding process for companies that specialize in web design and marketing.

EnergyHub and Alarm.com (EnergyHub)

EnergyHub supports consistent planning across service territories that will facilitate the development of DER “with the required capabilities in the locations needed.” They believe that this planning will include providing the public with information about the distribution system. They point out the benefits of using GridLAB-D software that was “designed to allow users to create detailed models of how new end-use technologies, distributed energy resources (DER), distribution automation, and retail markets interact and evolve over time, including creation and validation of rate structures, consumer reaction and the interaction and dependence of programs with other technologies and wholesale markets.” EnergyHub recommends that utilities be directed to create a common format for making system information available that is consistent statewide

EnergyNext, Inc. (EnergyNext)

EnergyNext comments on the likelihood of a partnership between ESCOs and DER providers that will help develop and maintain customer relations. They believe that customers

“should be encouraged to authorize their incumbent ESCO to provide data access to DER providers and arrange terms for customer approval.”

Energy Technology Savings LLC (ETS)

ETS believe that both customers and their third party providers should have real-time access to customer usage data. They contend that access to this data will allow providers to offer additional products and services that make it possible for customers to see how much energy they are using and make smarter energy choices. They support the development of new tools that will facilitate consumer understanding of energy and energy-related value-added products and services.

Joint Utilities

The Joint Utilities support utilizing the Federal Green Button standard and a customer information portal that will enable customers to access their data and increase their awareness of DER offerings and other energy-related value-added services. They express their willingness to invest in developing websites, mobile apps, and other channels of communication using the Green Button Application Programming Interface (API).

Mission:data (Mission:data)

Mission:data supports customer access to their own energy usage data, but cites a need to specify the types of data customers should have access to. They believe customers should have access to granular usage information as well as pricing information that provides the costs associated with each usage interval.

Multiple Intervenors (MI)

MI expresses concern with the lack of an analysis demonstrating the cost-effectiveness of new tools like consumer-friendly web-based and mobile applications. Additionally, they point out that large energy consumers may not need or want these tools. Therefore, they propose that the costs of developing such tools should be allocated to the targeted beneficiaries and not large energy consumers.

National Energy Marketers Association (NEM)

NEM comments that the SSP does not provide enough detail on its plan to promote mobile and web-based applications that will improve customer access to data. They state that it is unclear how such tools will be structured to provide access to energy usage data by customers and DER providers.

National Fuel Gas Distribution Corporation (NFG)

NFG recommends that the development of new tools that enable customers to comparison shop, make informed purchase decisions, and explore product offerings and associated pricing be included in the scope of a workable data exchange.

New York Geothermal Energy Organization (NY-GEO)

NY-GEO supports customer friendly tools, such as web-based and mobile applications, to understand the availability of various DER, renewable energy and home/business energy management products, as well as commodity services.

Nucor Steel Auburn, Inc. (Nucor)

Nucor proposes that a clear customer benefit will be essential to promote customer engagement and believes that market structures that provide incentives to utilities and present new marketing opportunities to ESCOs and DER providers “will struggle or fail” without a direct customer benefit. Therefore, Nucor stresses the importance of providing customers with access to their own data, market conditions, and timely price signals if REV initiatives are to be successful.

Silver Spring Networks (Silver Spring)

Silver Spring stresses the importance of customer access to real time data. They believe that this information will facilitate informed, market-based decision making regarding how customers use, buy, and receive energy, and help them control their energy costs. They also point

out that there will be an increased risk of market manipulation and inefficiency without this information.

### Simple Energy

Simple Energy agrees that customers should have access to their energy usage data in an easily accessible manner and encourages the utilization of standard data formats. They support development of new tools that will enable customers to utilize data and make informed decisions regarding energy usage. However, they note that more information is needed regarding the funding and breadth of these solutions.

Simple Energy comments the marketing to customers will be a crucial aspect of developing these tools. They believe that these tools need to provide incentives to customers, not only to utilize them in, but also to make purchases. They propose enhancing current rebate and incentives programs with additional options tied to such a web tool.

Simple Energy also believes that all stakeholders should be engaged in these tools. They propose that utilities should be allowed to develop these tools because they already have the capabilities to deploy such tools to consumers more quickly. They believe that it could be done independently or through cooperation with third party providers.

## **2. Customer Acceptance**

### Alliance for a Green Economy (AGREE)

AGREE expressed concern that the REV proceeding is exceedingly complex and moving at a rapid pace which they feel will prohibit participation by a majority of stakeholders, including the general public. They believe that the complicated language of the REV proceeding needs to be simplified and made more accessible to the public at large. AGREE recommends an aggressive public education campaign to shed light on the REV proceeding and to clearly explain the energy system choices at stake. They also propose that “generous and easy-to-access intervenor funds should be made immediately available for the public to engage in the research necessary to participate fully in the REV proceeding.”

AGREE expresses similar concerns in their reply comments. They believe that the call for numerous stakeholder processes and the approach to have a great deal of implementation done on a case-by-case basis for each utility will hinder public participation because, as AEA comments, “it will be difficult for parties to engage purposefully and regularly in so many groups, and rate cases and notoriously technical time-consuming, and inaccessible to the general public.” AGREE encourages the Commission “to keep the critical policy decisions in a decision-making space that is not splintered into inaccessible rate-cases, and provide for generous comment periods.”

### Alliance of Automobile Manufacturers, Association of Global Automobile Manufacturers, Inc., and General Motors LLC (Automakers)

Automakers agree with the statement that a “vast majority of customers...lack information, products, technologies, and incentives to fully participate in energy markets...” They comment that a “majority of consumers have not had first-hand exposure to Plug-in Electric Vehicle (PEV) technology, and charging behaviors are just beginning to be understood as data becomes more available.” They stress the importance of actively engaging customers and encouraging the growth of the PEV market. Additionally, they comment that “it is also important to recognize and emphasize the need for multiple channels to ensure relevant information reaches consumers.” Automakers believe that proactive outreach by all stakeholders, but notably electric utilities, will be essential to promote broad awareness and appreciation for PEV technologies.

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP comment that the SSP does not take into account that the most significant barrier to customer engagement is “household income and the lack of sufficient time or resources to focus on a modest reduction in the energy usage when the result may not even be visible on the total bill due to decoupling and surcharges and riders to support mandated programs.” They believe that customers may be interested in learning about their energy usage and ways to lower their bills, but caution that investment in DER may result in a decrease in usage but an increase in total bills because of the price to recover the costs of DER investments. According to AARP/PULP, this will lead to customer frustration and disappointment with the regulatory process.

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

In their comments, the Clean Energy Advocates express concern about public participation in the REV proceeding. They are concerned that many decisions in this proceeding will take place in “highly complex ratemaking proceedings that discourage public participation.” In order to encourage customer engagement, they suggest that adequate public participation is ensured in these proceedings given the “complex legal jungle that surrounds the PSC.”

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC offer reply comments on this topic that share the concerns of AARP/PULP with the lack of consumer representation in the REV proceeding, especially from the residential and low-income perspective. They agree that this lack of representation will stifle development of DER-related reforms that will benefit and empower individual consumers. ENE/VEIC believes that a consumer-centric approach is necessary if REV’s reforms are to be embraced by consumers. They also agree with others parties’ comments that the energy efficiency programs in New England should serve as models for REV’s efficiency-related reforms. They comment that these states “have all developed comprehensive energy efficiency programs for energy consumers in all sectors -- residential, commercial and industrial, and municipal,” and that “these programs are designed to provide consumers with three specific types of assistance that they need to overcome the numerous market failures that impede the implementation of cost-saving efficiency investments.”

EnergyHub and Alarm.com (EnergyHub)

EnergyHub comments that since promoting DER is a critical objective of REV, they propose establishing incentive programs like consumer rebates, incentives, and promotions that will promote the adoption of DER through existing consumer channels. They believe that “the Track One Policy Decision should direct utilities to develop and propose consumer technology incentives within their ETIPs and DSIPs.”

Environmental Entrepreneurs (E2)

E2 comments that REV needs to be made more understandable to consumers. They propose simplification by “focusing on the all-in cost of energy: affordability; predictability; and market signals that can change behavior.”

Exelon Corp. (Exelon)

Exelon offers some guiding principles related to competitive customer choice. They believe that the competitive retail market should be protected; that customer choice be maintained and the market supports the ability to offer competitive products and services. They also believe that competition must be protected by promoting ESCOs and defeating the perception the utilities are the only electricity providers.



Hudson River Sloop Clearwater, Inc. (Clearwater)

Clearwater comments on the need to promote equal access to REV and all PSC proceedings. They point out that the dialogue in the REV working groups “has been heavily weighted toward industry professionals.” They believe that the language of REV is not understandable to the general public, and is unsuited to facilitate a debate that is more focused on the public interest. Clearwater believes that the highly technical language used throughout the proceeding creates barrier to participation and urges the Commission to create “a readable, more easily understandable document for public consumption” that will truly further of goal of customer engagement.

Additionally, they comment on the importance of intervenor funding to facilitate participation by all. They believe that such funding can ensure that environmental justice is taken into account and will be particularly important in setting up the BCA Framework. They note that communities will need fun ding to hire environmental economists that will quantify the “costs and benefits that are important to them and that impact their lives.”

Interstate Gas Supply, Inc. d/b/a IGS Energy (IGS)

IGS comments that significantly more customer engagement in competitive retail electric markets is needed to facilitate the change proposed in the REV proceeding. They believe that the “customers that are engaged in New York’s retail electric markets, and affirmatively make a choice for their energy supply needs, are the customers that are most likely to adopt the innovative energy solutions that will help New York use and consume energy more efficiently.” They continue that many customers are not aware of the products and pricing that is available to them in the market, but instead see electricity as simply a commodity service in which they have no choice. Therefore, they urge the Commission to further the development and participation in the retail electric markets so that all consumers affirmatively choose their energy supply solutions. They believe that “robust retail markets will empower consumers to take control of their energy needs with the technologies that are the most efficient and cost effective.”

Joint Utilities

The Joint Utilities comment that new and innovative products and services will benefit customers only to the extent that they are aware of these products and services and perceive their value. They propose that market animation for these products and services must be done in a way that avoids unnecessary barriers to market entry, while at the same time establishing appropriate customer protections like cyber security.

Additionally, the Joint Utilities believe that the regulatory mechanisms that were put in place to accommodate retail access can be modified to address the oversight of DER providers. They comment that a regulatory model is needed that balances customer protections with encouragement to third parties to enter the market and offer innovative products and services.

In their reply comments, the Joint Utilities caution that the challenges of animating markets and engaging customers should not be underestimated. They agree that the success of REV will depend on “the willingness of customers to engage in new product and service markets, and to make behavioral and financial commitments when particular offerings meet their needs and are cost-effective.” They stress the importance of “utility innovation and targeted research, development, and demonstration over the next few years” in order to for utilities to “gain the practical experience required to demonstrate the value of innovative products to customers, and to promote development and use of these products over the long term.”

National Electrical Manufacturers Association (NEMA)

NEMA believes that AMF is critical to enabling increases mass-market participation in time-of-use or dynamic rate programs and will directly support at least four of the six REV

objectives. They point out that the importance of AMI in achieving REV goals is reinforced in the comments of NYSEG/RG&E and ConEdison/O&R.

New York State Utility Labor Council and Utility Workers Union of America, AFL-CIO, Local 1-2 (NYSULC/Local 1-2)

NYSULC/Local 1-2 expresses concern with the ability of ESCOs to provide energy savings to consumers. They strongly believe that customer choice must be preserved to the extent already enjoyed by customers. They also believe that customer engagement and ensuring that customers fully understand their options under REV must be done in an objective manner, with the focus on providing the highest level of customer benefit.

NRG Energy, Inc. (NRG)

NRG and urges the Commission to address the barriers that may hinder customer acceptance of DER in this proceeding. They also cite a need to prepare customers for the availability of DER products and services from competitive providers because negative customer experiences with the market can obstruct the development and growth of an emerging market. Additionally, NRG believes that the retail access regulatory model “has had the inadvertent effect of encumbering with complexity what should be routine transactions between customers and ESCOs.” They comment that pervasive consumer acceptance of DER products and services will “depend upon an easy, convenient, and timely customer experience,” and recommend that the Commission address the existing impediments to the customer experience and consider solutions.

Simple Energy

In their comments, Simple Energy approves of the plan to animate the markets by focusing on consumer activity and acceptance. They believe that doing so will require investments in developing educational, motivational, and sustainable programs that keep customers engaged, as well as facilitate increased transparency. They propose the consideration of campaigns that will enlighten consumers and motivate them to take advantage of DER opportunities.

Solar Energy Industries Association (SEIA)

SEIA comments on the benefits of community-based renewable programs like shared solar with respect to promoting customer engagement. They state that shared solar programs allow multiple customers in a community to pool their investments and receive the benefits of additional power and/or financial returns. They propose that these programs can be administered by utilities and allow for bill credits, “at a designated rate, for the electricity generated in proportion to the size of the customer’s share in the solar program.” They also point out that either utilities or third parties can be the owner of a shared solar project. Additionally, SEIA proposes that shared solar programs (combined with storage) can provide greater energy security and financial autonomy for customer groups who may not otherwise take advantage DER like renters and lower income ratepayers.

Vote Solar Initiative (Vote Solar)

Vote Solar believes that shared solar programs will promote customer engagement by providing an attractive clean energy product that will help customers stabilize their energy bills. They also comment that such programs are becoming increasingly attractive to utilities because utility-managed community solar programs allow utilities to maintain strong ties with their customers, with whom solar is becoming increasingly popular. Vote Solar encourages utilities to play a proactive role in developing shared solar programs and encourages the Commission to develop concrete steps that can be taken to advance these programs. They propose that the “proper valuation of the energy produced by shared solar customers via their electricity bill” will be an essential consideration in developing shared solar programs.

## **A. Community Choice Aggregation (CCA)**

### Association for Energy Affordability (AEA)

AEA believes CCA has value and should be explored further. They believe CCA “can provide more than simply lower or more stable rates since it can be made to fit the needs and desires of local communities as a whole. CCA based on acquisition of DER, rather than simply commodity purchases from an alternative supplier, could fit well within REV.”

### Citizens’ Environmental Coalition (CEC)

CEC comments that CCA should be supported by the Commission and that the electric system “must work for consumers, especially fixed and low income consumers.” They believe that integrated support should be developed for CCA. They also propose that increasing public participation by supporting technical assistance for consumers and the public “is essential for a democratic proceeding as the process moves forward.”

### Citizens for Local Power (CLP)

CLP cites a need to increase public participation in the REV proceeding. They believe that the discourse is dominated by industry and that the success of REV will suffer without full participation by the public and all stakeholder groups. They propose that intervenor funding be made available in all rate cases “so that the public is adequately represented and the voices of community groups, low-income groups, and other important stakeholders can be effectively heard.” CLP also proposes the creation of a Citizens Utility Board with adequate resources to serve as a consumer advocate.

CLP supports utilizing CCA as a tool for customer engagement and a means for promoting investment in renewable energy, energy efficiency, and other DER products and services. They comment that CCA programs have “proven to be reliable and capable of delivering greener power at competitive prices, while also providing a high level of community engagement in energy decision-making.”

### City of New York (NYC)

With respect to the proposed CAA model, NYC comments that no information was developed regarding its potential viability within NY. They also note that CAA does not offer individual customers a choice, but instead places municipalities in the same role as an ESCO that provides the same services and products to all participating customers.

### Consumer Power Advocates (CPA)

In their comments, CPA points out that little discussion has been given to the means of engaging customers and that the short procedural schedule and large numbers of stakeholders has prevented in-depth discussion of this and other issues. They believe that before major changes are made through this proceeding, the customers who will ultimately buy the products and services and pay the bills should be given a chance to voice their opinions.

CPA comments that CCA is not a customer engagement initiative and that they are unsure how it differs from the municipal model that many NY communities already use. They see the main advantages of CCA as tax avoidance and preferential access to hydro power, but do not believe it is an effective long-term strategy. Additionally, CPA believes that CCA is “likely to run afoul of NYISO buyer side mitigation rules.”

Furthermore, CPA proposes that if CCA is to be implemented, consumers must retain the right to opt out and either join other aggregations or participate in the market directly. They also caution that CCA might defeat the purpose of retail access by encouraging use of average cost pricing instead of encouraging households to realize savings by changing their energy use behavior in ways that benefit the system as a whole.

EnergyNext, Inc. (EnergyNext)

EnergyNext does not support CCA and believes that it “is a reversal of longstanding Commission policies relying on customer choice and control.” They oppose the idea of a municipality entering customers into an ESCO relationship that the customer does not get to choose. They believe that CCA will prevent competition and innovation at a time when the Commission should want more variety, new products, and customer control. They comment that CCA would frustrate the customer-based choice model that has led to the success of the retail access program.

Utility Intervention Unit of the New York State Department of State (UIU)

In their comments, UIU emphasize that ratepayer and consumer concerns should be the main consideration in REV decision making and that “DER markets should serve ratepayers and consumers, not the other way around.” They propose that the Commission analyze the lessons learned in developing retail energy markets before deciding the structure of the DER markets. They also express concern with the swift schedule of REV that has led to limited stakeholder involvement, particularly with respect to low and moderate energy consumers. They propose the establishment of an intervenor funding program to enable consumer advocates to participate more meaningfully in Commission rate and policy proceedings.

With respect to CAA, UIU states that they are interested in exploring this concept further. They believe that the CCA model has the potential to build and strengthen communities and rightfully places the focus on the community as opposed to individual customers.

**B. Time of Use (TOU) Rates**American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP comment that with TOU rates, customers “run the risk of paying much higher prices for essential electricity at certain times of day, because they cannot shift usage to off peak hours.” They do not object to the use of these rates on an opt-in basis and note that some customers may opt for a well-designed TOU rate option. However, they believe that TOU rates should only be promoted when there is evidence that the costs of developing and promoting TOU rates are “likely to be selected by enough customers to deliver the benefits in the form of reduced usage during peak hours of the day that has value in excess of the costs.”

AARP/PULP believe that TOU rates are not the most effective way to reduce usage during peak hours compared to other pricing programs. They suggest that the Commission “not focus in any significant way in promoting the existing TOU rate options, but rather focus on development non-AMI enabled demand response programs that target specific customer appliances, such as the thermostat for central air or hot water.”

In their reply comments, AARP/PULP remark that “the fact that ESCOs after nearly two decades are not offering TOU supply service to residential customers suggests that it is not cost effective to do so, and that there is little market demand for such time-varying rates.”

Association for Energy Affordability, Inc. (AEA)

AEA believes that TOU rates are an effective means for reducing peak loads and managing energy costs. They agree that utilities should examine ways to increase acceptance of these rates when it is beneficial to the system and the customer. They do caution however, that it is premature to apply TOU rates to all customers because “doing so could exacerbate economic conditions for vulnerable populations that cannot easily change energy use patterns.”

AEA expresses concern that advanced metering (which according to them is not synonymous with AMI) is only mentioned briefly in conjunction with TOU rates. AEA proposes

exploring the possibility of utilities and/or the DSPs providing advanced metering technology and analyzing the effect it can have on realizing the market and system efficiency benefits of DER. They believe that advanced metering can help realize the full value of DER and enable customers to manage their energy use through understanding of load shape and usage patterns with real time information on system functioning.

ChargePoint, Inc. (ChargePoint)

ChargePoint sees the benefits of TOU rates, but believes that they need to be approached from an operational perspective. They agree that TOU rates will “provide more accurate price signals for time-variable usage related to system cost,” and point out that as on-peak renewable generation expands, price signals may even promote on-peak usage to match availability. They propose the effective “management of load to resource availability and system costs will optimize grid operations and enable avoidance of costly upgrades to accommodate interconnection of new DG and expanded EV charging loads.”

Direct Energy Services, LLC/Direct Energy Business, LLC (Direct Energy)

Direct Energy recognizes the benefits of TOU rates and agrees that the customer utilization of these rates has been limited, but they disagree with the SSPs solution of directing utilities to revisit TOU rates for mass market customers and provide customers with easy to understand information that will enable them to make informed decisions with regards to what rate designs will fit their individual needs. They comment that in other states (Texas and Pennsylvania), time-differentiated products and services are offered by third parties, with utility involvement generally limited to providing interval data. Direct Energy points to programs they offer in states like “Free Power Day” or “Free Nights” that provide compelling and easy to understand price signals to customers. On the other hand, Direct Energy believes that the fundamental problem with utility TOU rates is that they are designed using utility ratemaking tools and the difference between the peak and off-peak rate is not enough to drive customer behavior. They propose that the solution is not to provide customers with more easy to understand explanations for why these rates are good for them, but instead to promote data availability that will enable companies to market to customers and provide them with compelling products and services. They believe that allowing third parties instead of utilities to offer time-differentiated products and services “would immediately bring the creativity and innovation... to New York mass market customers.”

Additionally, Direct Energy proposes that to promote TOU rates other than simple two-period rate schemes, the issues of AMI and the lack of interval data available for mass market customers will need to be addressed. They recognize that smart meter deployment is a daunting and complex issue, but believe that it is a critical issue to address with respect to the ultimate success of REV. They encourage the Commission to include advanced metering in the stakeholder process that will examine technical platform design and market design issues.

Earthjustice

Earthjustice offers reply comments on the topic of TOU rates. They point out that other parties “correctly identify the lack of AMI infrastructure in New York as a serious bottleneck to future progress in the REV marketplace.” They believe that the issue of low customer subscription levels for dynamic pricing plans is tied closely with the lack of AMI. They point out the benefits that TOU rate can offer, including lower overall system costs, to the benefit of all consumers. They continue that properly implemented TOU rates are fairer and will induce customers to use electricity more efficiently.

They propose that “instead of making TOU rates optional for all customers, the Commission should consider in Track 2 the option of making TOU rates mandatory for the largest 15 to 20 percent of residential customers and optional for others.” They believe that this approach would create an instant market for DER providers and “break the ice” on TOU pricing. They point

to a study conducted in the District of Columbia that suggests that most customers prefer TOU rates after they have experience with them. Earthjustice believes that after TOU rates are introduced to “the largest customers, with some socialization occurring as a result, voluntary subscription by smaller customers would likely increase.”

#### Energy Technology Savings (ETS)

ETS sees TOU rates as an effective means of incentivizing customers to utilize energy at off peak pricing times. However, they comment that real time usage data through advanced metering as well as a pricing mechanism that allows customers to receive the actual reduction in rates will be necessary to implement effective TOU programs. In response to the SSPs suggestion that alternatives to AMI may be necessary, ETS supports NEM’s proposal for retail demand response load profiles as a way to incentivize customers to participate in the DER market. They propose that “customers that purchase an energy efficiency device could be rewarded by being included in a load profile that is more typical of customers that do pay attention to the time of day when they utilize energy.” They believe that this approach “leverages meters in use today and can allow mass market customers to participate almost immediately in the management of their energy bill.”

#### Environmental Defense Fund (EDF)

EDF supports time-variant pricing as a useful tool for stimulating widespread load flexibility and improving system efficiency and they propose that a greater focus be placed on TOU rates. They believe that TOU rates have the potential to promote customer efficiency in how they use the electric system. They propose that if TOU rates are only offered on an opt-in basis, they must be designed in a way that will incentivize participation. In response to the SSPs proposal that utilities revisit TOU rates for mass market customers and provide customers with easy to understand information that will enable them to make informed decisions with regards to what rate designs will fit their individual needs, they believe that utilities should “return to the drawing board” and develop rates that offer compelling value propositions to customers.

EDF points out that current voluntary time-of-use (VTOU) rate structures offered by utilities are designed in a way that prevents actual customer savings from materializing. Under these structures, customers who opt in put “time and money into shifting their load only to generate savings that are enjoyed by all customers equally” due to the revenue-neutral approach to delivery charges. They continue that this effect is made worse by placing the cost of AMI on the customer when the benefits felt by all customers are greater than those felt by the adopting customer. They believe that the failure to provide customers with wholesale savings that were directly made possible because these customers shifted their consumption to off-peak periods deprives customers of any incentive to opt into VTOU rate structures.

EDF recognizes the benefits of a flatter load shape and comments that those benefits increase as more customers adopt time variant rates. Therefore, they believe that it is critical that rates be designed in ways present customers with a clear value proposition that will encourage both participation and changes in use. Additionally, EDF disagrees with the assumption that the full cost of AMI, should be borne “exclusively by individual customers rather than treated as equivalent to other investments that can benefit the system.” In the near term, they propose that TOU rates should provide opportunities for customers to save on commodity charges by changing their load shape, and that any barriers to ESCOs providing TOU rates be addressed. EDF also supports NEM’s proposal “that would allow time-differentiated energy pricing to be made available rapidly, without significant technology upgrades, by using a small number of smart meters to establish a class load curve for customers on time-of-use rates.”

GridWise Alliance (GWA)

GWA comments that REV should focus on dynamic pricing, rather than on traditional TOU rates. They believe that AMI is critical to enabling dynamic pricing and support the adoption of all cost effective options for providing this technology. GWA believes that DER will change load factors and variability patterns on the bulk power grid and thus change the requirements for central generation. They propose that dynamic rates can respond to changes in the supply mix while TOU rates might actually become counter-productive if they are not flexible enough to accommodate changes in supply and demand.

National Energy Marketers Association (NEM)

In their comments, NEM expresses concern with the suggestion to utilize longer rate period intervals for TOU rates. They comment that TOU rates, “should be more reflective of current ‘time-of-use’ market conditions, and not less so.” They believe that improved market-based pricing signals will be needed to reward consumers for engaging in more demand responsive behavior.

National Fuel Gas Distribution Corporation (NFG)

NFG recommends that a single purpose working group be created to evaluate AMI and suitable alternatives. They agree that the cost of the AMI technology is that most significant barrier to implementation and recommend that AMI technology be BCA tested for the electric industry, utilizing the same framework that will be developed as part of the REV Proceeding.

New York Geothermal Energy Organization (NY-GEO)

NY-GEO supports rates that accurately reflect cost of service overtime. They propose that TOU rates that reward night-time usage are a great way to promote GHP installations that can heat homes at night and “thus increase off-peak utilization of otherwise underutilized power generation capacity.”

Retail Energy Supply Association (RESA)

RESA state that the SSP’s recommendation with respect to TOU rates is inadequate and falls short of what is needed. They believe that the discussion should not revolve around what utilities need to do, but instead should address that the actions that must be taken to allow other entities like ESCOs to offer TOU rate options to consumers. They believe that the focus on the utilities is in contradiction to the vision of REV that seeks to promote market competition and customer choice. RESA comments the ESCOs are willing and have the knowledge to offer TOU pricing options, but their ability to do so is hampered by “solidified substantial and overpowering competitive barriers” that prevents them from offering customers these options in utility service territories. They point to the Con Edison Consolidated Utility Billing System program as an example of such a barrier. They comment that one way this program limits an ESCO’s ability to offer TOU rates is by requiring ESCOs to provide the rate to be charged before the end of the billing cycle, and thus the ESCO does not have complete data on which to base TOU rates (placing ESCOs at a disadvantage to utilities which have data on the full billing cycle).

RESA disapproves of the SSPs lack of discussion regarding these discriminatory patterns which were previously identified and discussed at length in the Con Edison rate proceeding (Case 13-E-0030). They propose that the SSP be modified to address the “un-level playing field between ESCOs and the utilities with respect to the provision of VTOU products and services.”

SolarCity Corp. (SolarCity)

SolarCity supports the promotion of TOU rates. They comment that TOU rates send appropriate price signals to consumers and DER providers, and would promote innovative the development of DER technologies with “load shifting, peak shaving and other applications.”

ThinkEco, Inc. (ThinkEco)

ThinkEco believes the development of TOU rates is important to reach a fuller realization of residential DR program benefits across the state and suggests that it can provide a solution to the REV Straw Proposal's call for technology that enables TOU but does not require deployment of AMI across the State. Specifically, ThinkEco describes its practice of aggregating on its platform both devices plugged into retrofit control system for plug loads (including RACs) and natively WiFi-enabled air conditioners. They propose that their in-home technologies be employed as a large pilot study of the impact of TOU rates on residential demand response and customer performance.

**C. Billing and Engagement**American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP object to the SSPs proposal to allow to ESCOs to promote DER or other energy related value added products on utility bills. They believe that this is an inappropriate use of the ratepayer supported utility billing systems and believe that utility bills should not be made into a marketing subsidy for any non-utility entity.

ChargePoint, Inc. (ChargePoint)

ChargePoint agrees that a significant barrier to DER animation is the inability of non-utility and non-ESCO providers to bill through the utility. They believe that exploring this issue should be a priority and "should include discussion of how to implement separate billing for customer EV usage..."

Direct Energy Services, LLC and Direct Energy Business, LLC (Direct Energy)

Direct Energy comments that the greatest barrier to customer engagement experienced by ESCOs is the absence of a direct billing relationship between them and their customers. They propose that an ESCO consolidated billing system will facilitate a closer customer relationship and allow ESCOS to offer countless products and services available through the bill. Direct Energy Points out that the SSP only mentions this issue briefly and in a footnote states that the issue will be addressed in Case 12-M-0476. They request guidance regarding the Commission's intentions to address this issue because they believe that the ability for ESCOs to develop customer relationships and provide commodity service while also offering DER products and services on a single, ESCO-branded bill will advance the goals of REV.

Energy Technology Savings (ETS)

ETS supports the idea of ESCOs being permitted to offer value-added energy related products and services on utility bills. They believe that this avenue of communication will provide customers with products and services that may be most beneficial to them. They also comment that it is crucial that this be done on the combined bill because they believe that ESCOs would be less inclined to develop and offer these products and services if they had to maintain their own billing system for them.

Additionally, in their reply comments, ETS supports the comments of NEM that express a need to modify utility billing systems to allow for bill ready billing (as opposed to rate ready billing currently offered). They agree that rate ready billing puts ECOS at a competitive disadvantage because the rate ready system does not allow ESCOs to account for customer usage before they provide the rate to the utility. Furthermore, bill ready billing would benefit customers who today have the products to customize their load management by providing a flexible system that would charge customers for what they actually use instead of forcing consumers to have the cost of their energy settled against a pre-determined usage profile dictated for an entire rate class.



Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC agree that the customer's bill is an essential aspect of customer engagement and will play a large role in animating the DSP market. For that reason, they believe that re-thinking the content and format of customer bills should be one of REV's highest priorities. They propose that customer bills need to be "empowering information tools" that can act as a "simple, effective, and intuitive vehicle for communicating energy costs, options, and savings." ENE/VEIC recommend that bill redesign be added as a near-term "no regrets" action for implementation.

Environmental Defense Fund (EDF)

In their comments, EDF agrees that the content and format of utility bills are significant barriers to DER market animation. They believe that utility bills that contain useful, readily understandable, actionable information, and offer products and services closely related to energy commodity and delivery charges would directly facilitate DER market animation. EDF encourages the Commission "to think broadly about how the utility bill can be used as a single point of contact for customers' increasingly sophisticated energy services procurement."

EDF also proposes that prepaid electric service may be an appealing billing innovation to some customers. They comment that in other regions, prepay programs tend to "reduce energy consumption and reduce utilities' cost of carrying debt and related enforcement, all while obtaining extraordinarily high marks for customer satisfaction." They propose that customers who prepay should be offered a discount that would reinforce the value proposition of prepayment and broaden its appeal.

Environmental Entrepreneurs (E2)

E2 support the adoption of a broad definition of "competitive offerings." They believe that this will offer new market opportunities to new entrants. They point out that billing and control of customer data has historically been a monopoly function, but believe that this process is costly and adds little value. They propose opening billing and access to usage data by third party providers that will provide customers with choice in their selection and management of energy.

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy "enthusiastically supports" the proposal to address billing reform and the recommendation that utilities make space on their bills for ESCO bill messages concerning DER or other energy-related value-added services. They see this as the first step toward the billing reform that is needed in NY. They propose that a clear, consolidated monthly bill from a customer's ESCO will promote customer engagement by creating a direct relationship between customers and ESCOs. Infinite Energy believes that billing directly from an ESCO will make ESCOs more competitive and that since they will be "taking on the purchase of utility receivables, ESCOs will have to manage their own bad debt, and so will serve low-income customers on appropriate rates."

In their reply comments, Infinite Energy rejects the four concerns that the Joint Utilities have to providing space on the utility bill for ESCO messages. They also comment on the utilities' assertion that implementing this change will take seven months and cost the better part of a million dollars. They see these projections as an "ominous premonition of the dilatory timeliness and lack of cost-savings and efficiency they will bring to the table as potential DSP and DER providers in a revolutionary market." Furthermore, they continue to support replacing the current consolidated utility billing system (CUB) with a consolidated ESCO billing system (CEB). They point out the CUB "has also allowed bad players in the ESCO market to take advantage of the incumbent utility's ability to spread the cost of bad debt among captive ratepayers, enabling these bad players to privatize profits and socializing losses." They believe that CUB will stifle the adoption of DER in the same way if has hindered the competitive provision of commodity service.

### Joint Utilities

With respect to the SSP's suggestions to enhance the consolidated utility bill, the Joint Utilities have four main concerns: (1) they believe that it is unclear whether allowing ESCOs to use 1,000 characters on a paper bill would effectively animate the market; (2) they believe that only the ESCO that is actively serving the customer should be allowed to place messages on the consolidated utility bill; (3) they believe that utilities need to have oversight of these messages to ensure they are for energy-related value-added services; and (4) they urge the Commission and stakeholders to "consider the prospect of increased federal regulation of utility communications." With respect to their fourth concern, the Joint Utilities propose as an example that combining commercial messages with the content of customer bills could trigger CAN-SPAM regulation. They also point out that allowing ESCOs to utilize space on consolidated bills may entail extra expense for paper and postage if messages extend to additional pages.

In their reply comments, the Joint Utilities respond to the other parties' call for CEB. They support the proposal to address this issue in a stakeholder process and point out that transition to a CEB system "would need to address a number of complex issues, including consumer protections and compliance with the Public Service Law, the Home Energy Fair Practices Act, and the Energy Consumer Protection Act."

### Lochvinar LLC (Lochvinar)

Lochvinar supports the proposal to provide space on utility bills for ESCOs to directly advertise energy-related value-added products and services. However, they comment that the SSP "neglects to include any mechanism to ensure open access or nondiscriminatory treatment." They believe that "allowing utilities to erect their own opaque processes through which ESCOs may be selected to advertise on bills would have unintended effects that are corrosive to the market and contrary to REV goals."

### Mission:data

Mission:data comments that the lack of a standard and open exchange of utility billing data is an immediate barrier to accomplishing REV objectives. They believe that while Electronic Data Interchange (EDI) has been an effective billing tool in the past, it will not support the market animation goals of REV. They propose that the discussion of enhancing consolidated utility billing be expanded to consider ways to make billing data currently exchanged in EDI available to customers and authorized third parties in a standard format.

Mission:data also comments that the quality of data will be as important as the types of data provided by utilities. They point out that revenue quality meter data (RQMD) is often required by utilities to accurately verify usage, but that utilities are generally not forthcoming with such data and instead provide third parties with "raw" meter readings. According to Mission:data, this creates an un-level playing field that leaves only the utilities in a position to offer DER. They propose that utilities should be required to "provide cost and usage data to customers at a level of quality that is adequate for meeting the wide array of market functions such as financial settlements for demand response or distributed generation."

Mission:data believes that real-time, on-premise usage data is an important aspect of any energy management strategy. They note the benefits the AMI can offer in this regard and suggest that consumers be given opportunities to access and leverage real-time information about their energy use. They also propose that customers should have access to "billing-quality price information" in addition to usage data and suggest the implementation plans should include mechanisms for making this information available to customers and service providers. Finally, they propose that in addition to exploring the content and format of paper bills, strategies should be developed that facilitate secure and modern electronic flows of utility billing data.

Multiple Intervenors (MI)

MI believes that ESCO messages on utility bills should be a low priority. They propose that billing improvements like increasing the functionality of billing systems to allow for more line items that will provide additional billing information regarding new products and services should be more of a priority.

National Energy Marketers Association (NEM)

NEM supports the recommendation to allow ESCOs to place messages pertaining to DER or other energy-related value-added services on consolidated utility bills. Additionally, NEM recommends that on-bill financing mechanisms be explored because many “DER-related products could entail a sizable cost and the on-bill repayment mechanism would make payment more economical by spreading the costs over time.” NEM also recommends modifying utility billing systems to allow “bill ready billing” as opposed to rate ready billing systems that effectively precluded ESCOs from offering TOU products because the ESCO must provide the utility with the rate before they know the customer’s usage.

National Fuel Gas Distribution Corporation (NFG)

NFG expresses concern with the proposal to allow ESCOs to place messages pertaining to DER or other energy-related value-added services on consolidated utility bills. They estimate that this change would result in a great deal of additional expenses including additional postage, printing, and paper costs. They comment that this provides ESCOs with a “no cost advertising-oriented messaging medium” with the costs borne entirely by ratepayers. They recommend that this proposal be benefit-cost tested before customers are forced to pay for ESCO advertising.

NFG further proposes that, since electronic bills are increasingly replacing paper bills, utilizing paper bills will be an ineffective means to advance REV objectives like market animation. They believe that DER providers should instead collect contact and demographic information directly from customers they are transacting with and use that information to develop outreach and education materials for potential customers, utilizing more effective avenues of communication.

NRG Energy, Inc. (NRG)

NRG agrees that a major barrier to full DER development is the limitations of the utility billing systems. NRG recommends a Supplier Billing Option as a way to create a relationship between customers and ESCOs/DER providers. Furthermore, they propose that such a billing system would provide a platform for continuous communication and allow ESCOs and DER providers to offer non-commodity energy services on one bill. They believe that these functions should be provided by competitive entities to the extent possible.

PSEG Long Island LLC (PSEG-Long Island)

PSEG-Long Island comments that the “capability of providing ESCO billing in the Long Island service territory does not currently exist,” and believe that providing this capability would require the expenditure of considerable resources over the next several years. However, they anticipate that they can offer the 1,000 character bill messages, but point out that doing so would entail additional programming costs and a larger bill that may lead to increased postage costs.

Utility Intervention Unit of the New York State Department of State (UIU)

In their comments, UIU recommends that the cost making approximately 1000 characters available on customer bills for ESCO messages concerning DER or other energy-related value-added services should not be borne ratepayers because the benefits of doing so is conferred entirely on the ESCOs. They also think that it is unreasonable to expect utilities to implement this change within six months of issuance of a Commission order. Additionally, UIU requests “clarification about whether each ESCO/DER provider would be entitled to 1,000 characters, or whether that amount of space is for all the providers together.”

In their reply comments, UIU also expresses concern that “providing an ESCO with 1000 characters on a utility bill allows an ESCO to subsidize and enhance its marketing activity and consequently place the other DER providers who are not afforded equal message space on a utility bill at a competitive disadvantage.” They continue that is all ESCOs and DER providers were afforded equal advertisement space on a customer’s bill, “the resulting flood of promotional material on a customer’s utility bill would be too burdensome on consumers.”

#### **D. Split Incentives**

##### Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

In their reply comments, AEEI supports the recommendations of AEA and the Clean Energy Advocates to “treat the multifamily market as a distinct sector for analysis, program and market development, and energy savings targets, with an emphasis on affordable housing.”

##### Alliance of Automobile Manufacturers, Association of Global Automobile Manufacturers, Inc., and General Motors LLC (Automakers)

Automakers believe that split incentives should be considered much broader than an obvious scenario of a multi-unit dwelling with a landlord-tenant consideration. With respect to PEVs they comment on various scenarios in which residents, employers, and retailers seek to control their charging needs while properly balancing the incentives across multiple stakeholders. They comment that “it is necessary that customers and the charging station owners have clearly defined rules or access to streamlined processes to resolve since the incentive is likely ‘split’ across each party,” and believe that “a growing charging network requires easy-to-understand and easy-to-implement processes across multiple parties and requires split incentives to be addressed across these arrays.”

##### American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP agree that more consideration should be given to the issue of split incentives regarding the barrier to the adoption of DER assets. They note that the SSP “appears to deflect this issue to some future unknown resolution that will occur in the innovative DSP market,” a result that they do not think is probable. They believe that this issue should be explored as a joint effort by all those who do have the authority to address this barrier.

In their reply comments, AARP/PULP remark that “well-designed programs for efficiency and distributed generation should be required for all customer classes, and customers who lack the authority or the resources to implement these programs should be subsidized as a matter of equitable distribution of ratepayer funds.”

##### Association for Energy Affordability, Inc. (AEA)

In their comments, AEA points out that New York has a higher percentage of residents living in multifamily housing than the national average. They also point out that a majority of low income families live in multifamily buildings with their energy costs representing a considerable burden and that delivering efficiency programs and other DER to multifamily buildings is stifled by split incentive barriers. They propose that a main Commission concern should be considering the impacts this split incentive has on consumers (particularly lower income consumers) and ensuring affordability and access to innovation. They agree that utilities should specifically address this issue in their implementation plans and suggest that utilities should treat multifamily buildings “as a discrete sector for analysis and program delivery and have specific programs and a clear energy savings target for multifamily buildings with an emphasis or priority for buildings with affordable housing.”

ChargePoint, Inc. (ChargePoint)

ChargePoint encourage the Commission to place a priority on finding near-term solutions to the split incentive problem. They support to recommendation to have utilities include potential solutions like new tariff and market options, transactive energy tariffs, and other “innovative options,” in their implementation plans. They cite the split-incentive problem as a primary obstacle to widespread growth of EV charging facilities at multi-unit residential locations. They offer an incentive program being considered in California as an example of a potential solution to the split incentive problem. This “make-ready” incentive program supports “private investment in EV charging equipment at multi-unit buildings by offering rate-based support of the interconnection facilities and make-ready work on the utility side of the installation for building owners willing to pay for all or a share of the onsite charging equipment.” ChargePoint supports programs like this because they help the owners of multi-unit buildings cover a portion of the up-front costs of building EV charging equipment, while rewarding private investment.

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

The Clean Energy Advocates comment that split incentives and lack of access to capital are major barriers to investment in energy efficiency in multi-family housing. They believe that “REV should treat affordable multi-family buildings as a specific and distinct sector with specific needs.” They support the development of a new tariff and new market options through shared savings mechanisms to remedy the split incentives issue.

Center for Working Families, WE ACT for Environmental Justice, Enterprise Community Partners and the Green and Healthy Homes Initiative (Energy Efficiency for All)

Energy Efficiency for All comment that home energy costs can account for a significant portion of the monthly expenses of low income households and that improving energy efficiency in affordable housing can reduce cost burdens on these households. They agree that utility implementation plans should directly address split incentives and the specific needs of multifamily residential customers, “including the implementation of shared savings mechanisms, community solar and other innovations.” Additionally, Energy Efficiency for All proposes that a distinct “multifamily sector” with specific energy savings goals be created that will address the unique needs of the multifamily homes and guide utility plans. They believe that the “unique opportunities, challenges and barriers, related to ownership, institutional structures, energy usage, and utility classification” of multifamily houses justify the creation of a new multifamily sector.

In their reply comments, Energy Efficiency for All further asks the Commission to; (1) order the planning of affordable multifamily DER pilots; (2) approve NYSERDA’s request for re-allocation of funding to low income and multifamily programs; (3) develop community engagement strategies to consider environmental justice; and (4) consider the need for increased multifamily budgets and strategies.

National Fuel Gas Distribution Corporation (NFG)

NFG agrees that many of the underlying economic relationships between landlords and tenants are beyond the scope of Commission authority and regulatory oversight. However, because these issues are outside of the Commission’s authority, NFG does not believe that utilities should not be forced to address these issues in their implementation plans. They believe that “DER providers will offer innovative pricing and service options to all customers, including this customer segment.”

Natural Resources Defense Council (NRDC)

NRDC suggests that the Commission prioritize increasing utility investment in affordable multifamily housing and promoting energy efficiency in that sector. They stress the importance of

such actions in light of New York City’s plan to reduce building emission in the next decade. They cite this plan in noting that multifamily housing “represents the greatest potential opportunity for citywide GHG reductions, due to its relative size and distribution of energy use.”

NRDC recognizes the barriers to investment in efficiency that split incentives can create and agrees that split incentives should be addressed in the utilities’ implementation plans. They suggest that implementation plans include “holistic plans to scale energy efficiency and promote DER in the affordable multifamily [housing] sector.”

In their reply comments, NRDC concurs with the comments of ChargePoint that efforts to address split incentives should specifically consider EV infrastructure that supports the grid. They agree that “the split-incentive problem is a fundamental obstacle to widespread expansion of much-needed EV charging facilities at multi- unit residential locations.” They remark that “in New York City, over 70% of residents live in multifamily dwelling units that do not have an attached garage where EV drivers can fuel their vehicles,” and point to NYC as an area where EV can provide the largest benefit.

New York Geothermal Energy Organization (NY-GEO)

In their comments NY-GEO express support for efforts to overcome split-incentives, particularly for low income consumers.

Utility Intervention Unit of the New York State Department of State (UIU)

UIU proposes that a focus be placed on developing programs that enable low-to-moderate income consumers to participate in REV programs. According to them, these consumers generally live in rented housing, are traditionally underserved, and “represent a vast, untapped market for the adoption of cost-effective energy efficiency.” They propose a multi-agency effort to address the split incentive problem in multi-family housing.

Vote Solar Initiative (Vote Solar)

Vote Solar supports utilizing community shared solar as a possible means to address split incentive barriers. They comment that shared solar could provide renters in direct-metered units the option choose clean energy and exercise more control over their bills. Additionally, they point out that some landlords may wish to install solar at a multi-tenant location and use the solar option as a draw to recruit tenants.

### 3. Affordability

#### A. **Commitment to Affordable Service**

Advanced Energy Economy Institute, Alliance for Clean Energy New York, New England Clean Energy Council (AEEI)

AEEI believes that wide use of DER is crucial to meeting the commitment to provide affordable energy. They support utilizing a comprehensive BCA to ensure that DER deployment benefits society as a whole and that benefits to customers are shared and not limited to customers that deploy DER. They particularly support the consideration of non-energy benefits like improvements to public health, customer engagement, and reliability.

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP express concern with the assumption of REV that “the creation of an effective marketplace for DER product deliveries will reduce costs for all ratepayers by optimizing distribution system operations, increasing system efficiencies, reducing the impact of distribution system management on the bulk power system, and deferring capital investments.” They believe that this statement shows good intentions, but is not supported with sufficient facts and point out

that the objectives and policies reflected in the SSP are not limited to those that are affordable. They further express concern with the BCA criteria that would allow for consideration of “putative societal benefits that may or not result in lower electricity prices to justify near term costs to ratepayers and result in unaffordable bill impacts.” Additionally, they ask the Commission to identify current trends that, if not changed, will exacerbate existing high rates and prices and address them in this proceeding. They point to the SSPs discussion of such trends that will result in “costs for inaction,” but do not believe that there is sufficient evidence to believe that “these unnamed trends” will be avoided with the programs and mandates of REV.

In their reply comments, AARP/PULP continue to support making energy affordability for NY consumers a primary focus of REV and point to a variety of programs and policies that would focus on energy affordability (ex. the recommendations for energy affordability contained in the draft State Energy Plan). However, they comment that these programs have been given little attention in the proceeding thus far and urge that this defect be remedied.

Association for Energy Affordability, Inc. (AEA)

In their comments, AEA proposes that efficiency programs should be a component of basic service. They support the requirement in the SSP that utility DSP implementation plans include plans to engage low and moderate-income customers in the DSP market with low or no initial investment. They suggest that these plans specifically target multifamily building owners and property managers since this is where the majority of these residents reside.

AEA believes that there is “a large untapped potential for energy efficiency in multifamily buildings and we strongly urge the Commission to use this proceeding to ensure this sector is provided with the necessary program support.” They propose that multifamily and multi-use buildings should be treated as a separate sector and that utilities and DSPs should be required to develop “aggressive targets for energy efficiency and minimum expenditures” targeted at this sector.

In their reply comments they add, that the Commission “should not expect markets, even animated markets for DER, to ensure the interest of consumers will be met. The REV proceeding and related collaboratives and rate cases must have built-in opportunities for community engagement, and must prioritize meeting consumer needs rather than market needs.”

Citizens for Local Power (CLP)

CLP believes that REV should promote “goals of social, racial, [and] economic equity and community involvement.” They point out that currently, utilities sequester a portion of their budget and direct it toward supporting customers who have trouble paying their bills. They believe that a proactive policy should also be adopted that promotes the deployment of DER in low-income neighborhoods and promotes “energy efficiency improvements to rental buildings and community renewable energy projects that can benefit renters.” They also propose that low-income customers must be adequately represented in all rate cases and REV-related proceedings.

Environmental Defense Fund (EDF)

EDF recognized that many parties have concerns with respect to affordability and REV, and agrees with Staff’s assertion that trends outside the REV proceeding are threatening affordability. They point to the “Business as Usual” scenario which describes a series of converging factors that run the risk of significantly increasing cost to consumers. They agree with this analysis and suggest additionally considering that the increasing costs of climate change and pollution further stresses the need to reduce emissions and develop a more efficient system. They believe that doing so can provide more affordable energy choices for consumers, “especially given that the costs of low carbon technologies are becoming much more competitive.”

Environmental Entrepreneurs (E2)

E2 comments that there is a lack of discussion in the SSP regarding mechanisms to measure and maintain affordability. They offer that spikes in prices are an inevitable result when regulated systems move to markets. They propose that to avoid these negative impacts, specific protections need to be given to low income consumers, and there needs to be “shock absorbers” that can mitigate the unavoidable peaks and valleys. According to E2, one potential way to do so would be to set-aside reserve funds to be used to soften the blow in the event of a price spike.

Exelon Corp. (Exelon)

In their comments, Exelon agrees with the notion of weighing the costs of REV against both the benefits and the costs of inaction. However, they caution that consumer costs “must not be taken lightly, trading their long-term stability in energy costs for short-term hypothetical benefits and solutions.” To avoid such a situation, they cite the need for a thorough BCA review of the long-term costs of any policy change. For example, Exelon proposes that when analyzing if DER could substitute traditional distribution system investment, it is imperative that the BCA values the ability of DER to provide the same level of reliability. Furthermore, they believe that DER powered by discontinuous fuel/inputs (like solar and wind) “should not be deemed to be equivalent to a transformer or additional feeder because its availability of dispatch is not equal to that of traditional options.”

Hudson River Sloop Clearwater, Inc. (Clearwater)

Clearwater comments that they do not see any tangible suggestions in the SSP as to how implementation plans will encourage participation of low and moderate-income customers. They propose utilizing community-based organizations to do outreach “to help to democratize these proceedings and their implementation.” In support, they note that similar actions have been successful in NYSEERDA’s Green Jobs/Green New York program.

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy expresses concern that ratepayers, who are already having trouble paying their electric bills, will be unable to participate fully in the new REV markets and the added costs of REV initiatives will have a detrimental effect on the quality of life of low income customers in particular. They propose that bill reduction be an essential consideration regarding the impact on low-income customers, particularly with respect to the reduction of Commission-approved tariff charges. They also propose that “consolidated ESCO billing, greater access to customer data and the complete exclusion of the incumbent monopoly utilities from competitive markets” will facilitate the animation of new markets using private capital and avoid burdening low-income customers with even higher bills.

In their reply comments, Infinite Energy addresses the comments of the Joint Utilities that express willingness to facilitate and promote existing programs directed to low-income customers. Infinite Energy comments that “ESCOs and DER providers are already providing these kinds of innovative services, and doing so in inventive ways that make it possible for low and moderate income customers to participate in the goals of the REV initiative on their terms.” They believe that if third parties and required to compete with utilities (who have increased market power and the ability to recover costs from ratepayers), “innovation will come to a halt, and it will be as difficult to provide competitive DER product offerings to low and moderate income customers as it is to provide competitive commodity offerings to those same customers in a market still dominated by utility default service.”

Joint Utilities

The Joint Utilities agree that engaging all customers, including low and moderate income customers, with value-added services is an essential goal. To further that goal, they pledge to continue to promote programs directed toward low-income customers and propose that, as the



REV proceeding advances and implementation becomes more refined, greater consideration will need to be given to determine how to most effectively enable low- and moderate-income customers to benefit from REV.

Multiple Intervenors (MI)

MI agrees with the concept of weighing the costs of REV against both the benefits and the costs of inaction. They propose that before retail energy markets are restructured, Staff should circulate a “quantification of the direct costs and benefits of (i) implementing REV and (ii) maintaining the status quo,” including the utility rates expected with each course of action. MI believes that this quantification will facilitate fully informed decision making in this proceeding and act as a useful guide to track the success of REV.

New York Geothermal Energy Organization (NY-GEO)

NY-GEO proposes that GHPs are likely the best technology to satisfy the goal of affordability. They comment that, because electric prices are more diversely based and less volatile than fuel prices, customers who utilize GHPs can avoid price volatility. They note that GHP currently increases utility revenue bases and thus shields low income customers from bearing the burden of utility revenue erosion. They also comment that “GHPs result in the lowest operating costs of any broadly available and practical method for cooling and heating buildings,” and propose that incentives be provided to low income consumers to promote access to GHPs

Nucor Steel Auburn, Inc. (Nucor)

Nucor comments that customer rate impacts are an essential consideration at every stage of REV. They point out that while the SSP focuses on the impacts felt by low and moderate income customers, similar concerns also apply “with equal or greater force to large energy intensive manufacturing operations.”

Utility Intervention Unit of the New York State Department of State (UIU)

UIU requests assurance that the Commission will continue to commit to customer protection, even in the end stages of REV. They believe that bill relief and customer protection should be considerations throughout the proceeding. They also comment that the SSP does not present fully developed evidence comparing the cost of implementing REV to the cost of inaction.

In their reply comments, UIU aligns with AARP/PULP, AGE, CLP, and many others that substantial measures are needed to “address the serious problems that low and moderate income ratepayers currently have with existing rates and to ensure that REV will benefit these ratepayers directly by lowering their bills.” They urge the Commission to take immediate steps toward resolving this issue, instead of waiting for the utilities to suggest approaches in implementation plans.

**B. Low-Income Customer Engagement**

Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

In their comments, AEA proposes that low income customers need to share in the society-wide and system-wide benefits of REV and must have the opportunity to adopt DER. In order to promote DER adoption among low income households, they propose that utilities offer all customers mass-market energy efficiency and demand response programs as part of their essential service. Additionally, they believe that the Clean Energy Fund (CEF) and the New York Green Bank are important tools to ensure that low-income customers are able to deploy other forms of DER, including distributed generation.

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP agrees that the ability of low and moderate income customers to participate in REV markets is a critical concern. They propose that more consideration be given and specific criteria be established to overcome barriers related to the financial ability to participate in the markets and to promote accessibility to programs for low and middle income customers. They also propose that further discussion is needed with respect to what constitutes the basic service plans, bill relief options, and incentive programs proposed in the SSP as possible avenues for the DSP to engage low and moderate income customers in the DSP market.

In their reply comments, AARP/PULP respond to the comments of the Joint Utilities that suggest that the affordability concerns and issues can be addressed with the targeting of existing or future programs to low-income customers. They believe that their suggestions fail to include any specific policies or recommendations. Additionally, they disagree with EDF and other parties that favor widespread AMI deployment and utilization of time-varying rates. They point out that there is no analysis of the costs of these programs and believe that, while some low income customers might receive value from, these programs are “fraught with potential adverse consequences for low income households.” AARP/PULP also oppose the use of prepay service programs and see them as a “degradation of service for low income customers, who are forced to lower their electric usage to avoid automated termination of service without any of the protections required by [the Home Energy Fair Practices Act] HEFPA and the Commission’s regulations.”

Citizens for Local Power (CLP)

CLP offers reply comments that agree with the comments of UIU, AGREE, AARP/PULP, and AEA that “REV must reduce, and not exacerbate the inequality and economic hardship faced by low and moderate income households.” They point out that the SSP “does not prioritize investigation of the impacts of the REV on these groups or the development of policies to ensure that they are protected and their access to energy efficiency and renewable energy products and services is increased to reduce and stabilize their energy bills,” and believe that this should be an immediate priority.

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC support prioritizing the issue of ensuring low and moderate income customers fully realize the benefits of REV. They believe that it is not enough that these customers share in the system-wide benefits, but that active participation is needed to address the needs of low income customers, particularly with respect to energy efficiency and conservation. ENE/VEIC believe that the requirement that DSP implementation plans include strategies to engage these customers at low or no cost is imperative.

Environmental Defense Fund (EDF)

EDF comments that the ways of engaging low income customers proposed for inclusion in implementation plans needs to be expanded on. They propose that serious thought be given to upgrading metering infrastructure because they believe that low income customers may be able to benefit the most from increased control of household expenses. EDF proposes advanced metering will facilitate programs like time-variant pricing and prepayment that may be particularly beneficial to low income customers.

New York Geothermal Energy Organization (NY-GEO)

NY-GEO proposes that low income customers could benefit most from the cost savings of GHPs. They propose that financing options, rebate programs, and effective outreach programs are essential to inform these customers and allow them to take advantage of the benefits of GHPs.

PosiGen Solar Solutions (PosiGen)

PosiGen believes that programs and policies designed to benefit LMI households are essential and particularly support greater access to renewable energy that would provide both economic and environmental benefits. They propose creating a solar program with funding set aside for LMI households. They characterize these households as “low-hanging fruit,” because they “tend to occupy old, unweatherized housing stock that stands to see the greatest reductions in energy usage, and typically live in close proximity to one another and have established neighborhood networks, thus providing ample opportunities for cost-effective, referral-based scaling.” PosiGen points to similar programs in California that have been successful in promoting renewable energy in LMI households. They also believe that barriers to programs like shared and community solar should be addressed to bring these economic and environmental benefits to LMI communities that consist primarily of renters and/or multifamily residences.

Additionally, PosiGen comments on the importance of making LMI communities as resilient as possible. They point out that these communities are often densely populated and powered by aging infrastructure and thus likely will benefit the most from DG products like battery backup, storage, and microgrid technologies.

PosiGen proposes an enhanced incentive pilot program that is tied to energy efficiency upgrades as a means to promote solar installations for LMI households. Additionally, they propose that any LMI household programs should offer improved repayment mechanisms. They comment that on-bill financing and on-bill recovery “expedite the repayment process for the customer and increases repayment rates for the installer,” but that currently, these billing options are prohibitive for most LMI households.

PSEG Long Island LLC (PSEG-Long Island)

PSEG-Long Island supports the goal of encouraging low and moderate-income customers to participate in REV initiatives. They see widespread access to new products and services as critical to the success of REV market redesign.

Solar Energy Industries Association (SEIA)

SEIA proposes extending the benefits of DER to LMI customers by developing LMI solar programs and they provide guidelines for consideration in developing these programs. They propose that low-cost financing alone is insufficient, and that LMI households “require both easy access to cheap capital, as well as a mechanism for significantly reducing the cost of the lease or sale of the solar system.”

They comment that LMI solar programs must include an educational element to promote the understanding of solar, offer energy-saving tips, discuss potential behavior modification, and explain the installation process. SEIA also support the recommendations of PosiGen that these programs should offer on-bill financing and/or on-bill recovery payment mechanisms that are tailored to better suit the needs of LMI households.

Additionally, SEIA points out that resiliency is a particular concern for LMI communities that are often densely populated and powered by aging infrastructure. They believe that these communities are ideal targets for implementing microgrid and storage technologies that can improve reliability and “create more market parity for purchasing electricity.”

Utility Intervention Unit of the New York State Department of State (UIU)

UIU agrees that participation by low and moderate income customers in REV markets is a concern. They support the SSP’s goal to encourage participation, but do not think that example used (Con Edison’s BQDM initiative) is a good example of how DER products can be targeted to low income customers. They point out that a majority of customers living within the area subject to the initiative reside in master-metered New York City Housing Authority buildings. Therefore,

according to UIU, since they do not have their own meters, it cannot be determined how these low income customers will respond to DER products.

UIU supports the Commission's commitment to affordable service and LMI customer engagement, but expresses concern that "the lack of a detailed implementation plan may lead to increased energy costs that would prevent low-to-moderate income customers from participating in REV programs." They believe that a firm commitment to minimize the impact of rate increases is needed to avoid potential negative financial consequences for LMI customers resulting from REV implementation. Additionally, UIU stresses the need for an evaluation plan with "check points to ensure REV is meeting goals and is providing better alternatives to the existing energy products and services." Along these lines, they propose that customer bills be used as a metric for evaluating REV. They believe that this metric can be used to evaluate the effectiveness of DER for residential customers and as an "indication that DER markets are increasing demand response and customer exposure to accurate price signals."

UIU expresses concern with the SSP's recommendation that each utility file an implementation plan addressing participation by low income customers. They believe that the potential inconsistencies between these plans would serve as an impediment to consumer participation. UIU recommends establishing a standard state-wide discount that would treat all low income ratepayers the same, regardless of the service territory they live in.

In their reply comments, UIU suggests establishing a uniform statewide discount for ratepayers enrolled in utilities' low income programs to begin to address affordability concerns. They point to publically available data and express concerns that LMI customers are more likely to take service from ESCOs than other residential ratepayers, but that "most residential customers who purchase supply from an ESCO pay more for that supply than they would have paid their utility." They conclude that the "current operation of the retail energy markets may lead to more ratepayers falling behind in their utility payments and becoming more susceptible to service termination."

#### Vote Solar Initiative (Vote Solar)

Vote Solar asserts that shared solar would present new opportunities for low to moderate-income customers, who may struggle with relatively high and unpredictable utility bills, pointing out that many LMI customers are renters and move frequently and thus are not in a position to invest in a solar system onsite. They state that shared solar products could offer more flexible, fixed-rate options with low to no-money down, and the subscription could move with the customer. Vote Solar also believes and there may be opportunity for creative synergies, for example, a shared solar project in a low to moderate-income neighborhood that offers solar job training opportunities to community members.

### **C. High-Usage Customers**

#### Energy Technology Savings (ETS)

ETS sees demand response programs as one of the most important strategies and agrees all utilities should implement these programs to enable customers to reduce their usage during peak pricing periods. They believe that these programs will facilitate more efficient use of the grid but comment that utilities should not be permitted to be active participants these programs due to the competitive advantage that would provide.

#### Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

In their reply comments, Infinite Energy addresses the comments of the Joint Utilities that stress the importance of ensuring that high-usage customers have the opportunity to benefit from REV, including as DER providers that can add to NY's DER base. Infinite Energy agrees that is

it important to facilitate this outcome, “but to do so, the Commission need only empower high-usage customers to seek out competitive third-party providers of these services.” They continue to oppose the provision and ownership of DER by utilities, and believe that third-party providers can meet the demand among high-usage customers to improve efficiency and save money. On the other hand, they remark that “where DER provides no clear benefit, its distorted utility-driven implementation among high-usage customers would create no added benefits at what would necessarily be added costs to captive ratepayers of all classes.”

#### Joint Utilities

The Joint Utilities agree that engaging high-usage customers can add to the DER base and they believe that it is essential that these customers have the opportunity to benefit from REV.

#### Multiple Intervenors (MI)

MI supports monetizing the economic value of DER products, but does not believe that social values and similar externalities should be included in this evaluation because they would “distort price signals, create inconsistencies with wholesale electric markets, and otherwise result in cross-subsidies among customers and higher utility rates, thereby exacerbating the State’s competitive disadvantage in terms of energy costs for the majority of large, high-load factor customers.”

MI also believes that the surcharges currently being imposed on large, high-load-factor customers are excessive and “should be addressed expeditiously.” Additionally, they express concern that the claimed reduction in System Benefit Charges would be illusory if expenditures on subsidy programs are increased but their costs are instead recovered through a combination of surcharges and increased rate allowances. MI urges the Commission to ensure that reduction in surcharges results in reduced total collections from customers.

#### Nucor Steel Auburn, Inc. (Nucor)

Nucor comments that there is “untapped potential for demand response and other forms of DER from high-usage commercial and industrial customers.” However, they note that the SSP does not recognize that energy intensive manufacturing facilities are regularly at-risk of becoming uneconomical due to competitive pressures within their own industries.

Nucor expresses concern with the SSP plan to monetize the value streams of DER products to encourage customer participation because it does not address the rate impacts of doing so, especially when those value streams are not monetized in other markets. They believe that addressing these concerns in the implementation stages of REV through BCAs is unsatisfactory and believe that DER-related rate impacts must be addressed at each implementation phase. Additionally, Nucor believes that reductions in System Benefit Charge are not likely to translate into lower overall consumer rates if the overall costs to achieve energy efficiency savings goals increase.

### SECTION: III.D. REV WHOLESALE MARKET

#### Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

AEEI states concerns that the SSP seems to indicate that the DSP should serve as the sole provider/facilitator of the interactions between the wholesale and retail markets. They support fair and open markets for the exchange of enhanced DER services and believe that entities other than the DSP should develop products and services that will utilize the DSP platform, but may circumvent DSP involvement. Additionally, AEEI believes that market participants should be

allowed to go directly to the wholesale market “either themselves or through an entity such as a demand response aggregator,” instead of utilizing the DSP platform.

AES Energy Storage, LLC (AES)

AES believes that the DSP should be required to establish transparent tariffs and rates that are consistent across all market providers. They also believe that DER providers and aggregators should be able to bypass the DSP and sell directly to the wholesale markets and that DER providers should be able to sell directly to customers.

CALM Energy, Inc. (CALM)

CALM comments that while they do not disagree with the concept of the DSP platform aligning with the NYISO platform and bulk power system, their views on the role of grid operations are distinctly different. They state that the DSP market provides the potential to establish a localized supply and demand market that will create value through “localized monetization of energy assets from customers that have different flexible requirements of consumption who can meet both distribution and transmission identified grid requirements and constraints.”

CALM recommends that, as opposed to automated direct DER transactions with the DSP without an intermediary as discussed in the SSP, DER-to-DER transactions, in the form of bilateral contracts, with DSP settlement should be included. They also propose that “an initial focus should be towards a DSP market or grid operations capability of measuring near real time and predicted grid needs of both grid reliability and grid efficiency at a nodal location and time, which was not sufficiently addressed in the straw proposal.” CALM comments that focusing on localized buying and selling within this DSP market with respect to nodal grid needs will maximize the benefits obtained from the DSP Market.

Citizens’ Environmental Coalition (CEC)

CEC believes the SSP’s vision gives more power to the already powerful large utilities. They comment that the electric system must work for consumers, especially fixed and low income consumers. They propose that municipal and other local government entities should be able to function as the DSP operator, including in conjunction with other non-profit entities, and do not believe that only utilities should be filling this role. They also believe that CCA should be supported by the PSC and comment that the Commission must act to overcome the many market barriers to rapid deployment of energy efficiency, renewable, and other sustainable energy options and not leave it to small businesses to overcome the market power of major generators and utilities.

Energy Technology Savings LLC (ETS)

ETS comments that the DSP should not independently operate load reduction programs, but should facilitate the dispatch of DER. They also believe it is important that there be consistent rules for all DSP programs in the state.

Exelon Corp. (Exelon)

Exelon questions what effect the reduction in peak loads will have on existing wholesale resources, particularly those that are critical to system integrity. Exelon believes the Commission and the NYISO will have to manage price suppression, and cautions that price suppression should not be considered a benefit because it can have impacts like premature retirement of a facility. Exelon cites other concerns including the possibility of integrating six potentially different DSP platforms, and market monitoring of the systems. They also point to reliability as a concern, questioning whether DER will face similar scrutiny and requirements as wholesale central station resources. In short, Exelon concludes, there are reliability and economic risks when distribution dispatch signals are disconnected from wholesale dispatch signals and that managing these risks will require detailed coordination between DSPs and NYISO.

Independent Power Producers of New York, Inc. (IPPNY)

IPPNY believes there needs to be a study that analyzes the potential adverse impacts of DER on wholesale markets and reliability. They state that while Staff expects that the aggregate effect of reduction in peak loads anticipated to result from the REV initiative will drive down capacity requirements and reduce peak energy needs, its impacts must be measured carefully to ensure that the underlying market design remains sustainable. They further opine that DSP interaction in the NYISO markets must not have an adverse effect on the NYISO's day-ahead commitment process, real-time operations, planning processes, demand curve reset processes, and its ability to satisfy all reliability rules and requirements.

Joint Utilities

The Joint Utilities support well-coordinated wholesale and retail operations to improve system safety and efficiencies, maintain reliability, and enhance the visibility and flexibility of a modernized distribution system. They point out that the two potential approaches to a market operations model (supply aggregation and load modifier) are very complex and need to be considered more thoroughly prior to selecting the most appropriate method. They propose that any model would need to consider the interaction rules between DSP and NYISO, preserving the DSP's ability to dispatch and manage the DER resources for the purposes of maintaining local reliability. The Joint Utilities endorse the SSP's recommendation that this issue be addressed in a stakeholder consultation process.

Multiple Intervenors (MI)

MI believes the manner in which REV is implemented could have beneficial and /or detrimental impacts on wholesale electric markets. They believe that if the Commission directs utilities to enter into above-market power purchase agreements, such actions would discourage the development of merchant generation projects.

Northeast Clean Heat and Power Initiative (NECHPI)

NECHPI comments that the coordination between the NYISO and retail markets will be "fraught with difficulties." They believe that each of six utility/DSPs will be unable to replicate NYISO market operations, stating it would be cost-prohibitive, exceedingly complex, and certainly beyond the skill sets of existing utilities. They believe a standardization, planning and implementation framework needs to be set up at the beginning to allow systematic planning and standards to be developed and adhered to by all DSP's and the NYISO. Additionally, they comment that jurisdictional issues need to be resolved including interconnection, telemetry and metering costs, and resource aggregation across jurisdictions.

Natural Resource Defense Council (NRDC)

NRDC believes coordination between the wholesale and retail electricity markets is necessary to achieve a "single ISO" vision where improved system wide efficiency is the driver of consumer and environmental value. They agree that in order to achieve integration, there is a need for coordination between the DSP acting as a service provider of DER at the retail level, while also facilitating interactions with the wholesale markets. They point out that some demand response resources may fill both a DSP requirement and have additional availability to sell into the NYISO wholesale market as an energy, reserve, or capacity resource. They believe these dual or multiple transactions should be encouraged, but they must also be monitored and known to both the NYISO and DSP provider to avoid double commitment. Furthermore, they believe that the pricing and valuing of resources at both the wholesale market and local distributed levels needs to be consistent, if not exactly the same. Finally, NRDC believes the NYISO needs to fully value the energy efficiency acquired by DSPs seeking to reduce their peak loads.

NRG Energy, Inc. (NRG)

NRG believes having the DSP operate load reduction programs oversteps into the competitive sphere and effectively grants utilities control over both DER programs and servicing responsibility for retail load. They believe competitive service providers can optimize DER's and load reduction into the wholesale market, while the DSP facilitates their interaction with the NYISO.

Nucor Steel Auburn Inc. (Nucor)

Nucor comments that just as utilities are expected to resist DER efforts that serve to reduce their sales, revenues and earnings, NYISO market participants similarly can be expected to react to declining peak loads and ICAP requirements attributed to expanded DER. They also caution that sales of energy, capacity, and ancillary services provided by DER resources through DSPs, ESCOs, or other aggregators may be characterized as wholesale sales that are subject to FERC jurisdiction rather than State regulatory authority.

SolarCity Corp. (SolarCity)

SolarCity expresses concern with the possibility that the DSP will control and aggregate all DER. They believe consumers should always be able to operate their own DER system as it applies to their own consumption. They also believe that customers should be able to choose a third party DER aggregator that is not the utility or the DSP.

Wal-Mart Stores, Inc. and Sam's East, Inc. (Wal-Mart)

Wal-Mart agrees that customers and ESCOs should not be required to obtain DER services through a DSP. They believe customers should be able to opt-out of DSP-administered DER programs, and should have flexibility to participate in energy efficiency, demand response, or ancillary services markets themselves, through a provider of their choice, or directly with the NYISO.

SECTION: IV.A. PLATFORM TECHNOLOGYAdvanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

AEEI comments that several of the most critical DSP functionalities (real-time network monitoring and DER control) are currently in the early stages of deployment and encourages the Commission to "ensure that the REV process results in regulatory guidance sufficient to enable the timely development and deployment of these functionalities." They support a transparent technology mapping process to determine which technologies best achieve the functionalities required to support the utility transition to DSP and believe that AMF should be included in the list. They propose that AMF can achieve both enhanced customer knowledge and tools to support effective management of their total energy bill and system-wide efficiency, as well as facilitating other REV objectives.

In their reply comments, AEEI expresses concern about costs to customers and reiterates its position that an appropriately designed BCA "that encompasses all operational and energy savings benefits should be used as the basis for decisions about AMF deployment as part of basic service." They believe that if it is not cost-effective to be a basic service, it should be available as a value-added service. AEEI also emphasizes "that without timely access to interval data for customers and their designated third parties, AMF deployment will fail to achieve a considerable portion of its potential benefits."



Agreen Energy LLC and Vanguard Renewables, LLC (AGE/VR)

In regards to DSP functional requirements, AGE/VR comment that that they believe ag/food DER can add base load power to the capacity needs of the utility with no cost to their ratepayers and support recommendations to include these market options allowing the food industry to contribute to the pool.

CALM Energy, Inc. (CALM)

CALM recommends that the DSP platform should be in alignment with the NYISO market and bulk power system.

Consolidated Edison Company of New York, Inc. and Orange & Rockland Utilities, Inc. (Con Edison/O&R)

In their individual comments, Con Edison/O&R support the deployment of AMI to all customers if a BCA supports such a program in each service territory. According to Con Edison and Orange & Rockland, AMI would support State energy goals, as well as several of the stated objectives of REV, including customer engagement, market animation, system-wise efficiency, and system reliability and resilience. They comment that AMI would also directly support the market operations, grid operations and integrated system planning functions of the DSP. For these reasons, they support including AMI as a foundational investment to support REV implementation.

Consumer Power Advocates (CPA)

CPA expresses concern that there is a rush to endorse a particular platform technology before the various products offered by DPSs are defined and that the SSP lacks specifics regarding technologies. They believe full implementation of the DSP platform will require a large investment in load control by customers and thus should be subject to rigorous BCA.

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC believe that the DSP market should minimize barriers to entry faced by consumers with respect to adopting efficiency, new technologies, and innovation and recommend adding “customer convenience” as a DSP market design principle. They also stress the benefits of an independent DSP (such as statewide uniformity and avoiding issues of utility market power ownership of DER).

Energy Technology Savings LLC (ETS)

ETS comments that a DER option to provide excess generation behind the meter or Grid should be added to the list of market functionalities. They also suggest that real-time capability to route excess load behind the meter or Grid to the list of initial priority functions.

Environmental Defense Fund (EDF)

EDF supports automated voltage and VAR control being included on the short list of initial priorities for the DSP.

GridWise Alliance (GWA)

GWA recommends that AMF be included on the list of priority functionalities for initial utility investment. They believe that “these types of technologies are among the foundational investments needed, as part of a more holistic strategy to advance the REV and the DSP.” Additionally, they support NEMA’s recommendation to promote the use of “open, consensus-based standards and protocols that support interoperability and competitive participation by third party providers.”

IBM Corporation (IBM)

IBM believes that cybersecurity should be a “first tier requirement.” They believe the technical, cultural, and legal issues relating to the security of critical assets on the system should be considered early in design. They propose that security should “involve an agreed upon series of business and policy metrics that can be measured to demonstrate performance, rather than a set of guidelines that may be subject to misinterpretation.” Additionally, they propose that a set of

“common cyber-security metrics for the DSP to orient around during modification of existing system and the development of a new IT infrastructure” be established. With respect to these metrics, IBM comments that they must be easy to obtain, easy to understand, and easy to share, meaning that “information gathered is not so sensitive it cannot be shared among internal organizations and external regulatory authority.” IBM believes that the most important action that can be taken to ensure security is the appointment and empowerment of a Chief Security Officer (CSO) responsible for enterprise-wide cyber security and compliance

IBM supports requiring an open-architecture model. They propose that open-architecture (different from interoperability) will enable all players to integrate with the DSP in a relatively fast, simple and easily understood manner. The primary reason that IBM recommends this model is to “prevent a series of closed systems developed by each DSP that prevents rapid, customer friendly and innovative products from reaching the market.”

Additionally, IBM believes that interoperability should be a core design point. They stress the importance of educating stakeholders and the Commission “on the importance of standards and the different options available to the utilities and technology community to develop the core building block functionalities of the DSP.” They do not recommend the Commission “attempt to resolve a complex technical problem for the standards community by imposing architecture on the DSP platform system.” Instead, they recommend the Commission approve an open stakeholder process “to develop the DSP business and technical architecture, standards and protocols necessary to achieve REV goals.” They suggest focusing on the core concept of interoperability as the foundation of development and technology investment. IBM also cautions that a lack of focus on interoperability in system design “will provide a functionality and niche-based culture to the development of DSP operations, subsequently increasing risk of going down specific technology paths that cannot easily be modified for integration into other critical systems.”

Finally, IBM recommends focusing on developing DSP functions, not technologies. They believe that more effort should be spent developing the “core functionalities of the DSP in the marketplace in a time based and ‘building block’ manner for investments,” instead of specifying any specific technology path. They believe that “specifying a technology or set of technologies will reduce competition, promote a closed system, increase costs, and the risk of stranded assets if the specified technology does not live up to its projected performance metrics.”

#### Joint Utilities

The Joint Utilities propose five foundational investments necessary to support DSP functionality and further the goals of REV: a) Communications; b) Grid automation; c) Grid edge monitoring; d) DER control/management; and e) Market operations/administration. They propose a collaborative to determine the actions needed to provide a “sufficient level of standardization both to achieve interoperability and reduce transaction costs for third-party providers.” They also believe that the risk of cyber security needs to be managed in order to maintain reliability, and ensure data and infrastructure assets are protected from security breaches. The Joint Utilities maintain that the “Technology Platform Technology Mapping exercise is valuable and will help inform the consideration of new technologies and investments, and identify crucial interdependencies to reflect in technology commitment decisions.”

In their reply comments, the Joint Utilities agree that the three stakeholder processes (Market Design, Technical Platform Design, and Benefit/Cost Analysis) need to be closely coordinated, but do not support an approach that would merge them into one stakeholder process. Additionally, they comment that identifying “standards and protocols that will allow various DER devices to communicate, respond to operational signals, and seamlessly integrate to manage electricity flows on the distribution system” will be an essential to REV implementation. They agree that the New York State Smart Grid Consortium can facilitate this process and recommend

that “the Consortium, in conjunction with the distribution utilities, initiate and lead a stakeholder process to develop the DSP technical architecture, including standards and protocols, necessary to achieve the Commission's REV goals.”

Mission:data

Mission:data comments that advanced metering capabilities are fundamental to innovation and market animation. They stress the energy efficiency benefits that can result from a more detailed historical record of energy usage that advanced metering can provide. They also point out that real-time information is critical to demand management and verification applications.

Multiple Intervenors (MI)

MI addresses the additional utility capabilities that need to be developed to implement REV. They believe that the proposed distribution system investments may be expensive and stress the importance to carefully evaluate each investment before customer funds are committed. Additionally, they believe that costs allocated to utility service classes must be consistent with cost causation principles.

National Electrical Manufacturers Association (NEMA)

NEMA agrees that developing a DER market through a DSP is technically and realistically achievable. They point out that many technologies needed to create a DSP are available and in use today, but note that some of the most critical functionalities (network monitoring and control) are still in the early stage of deployment. NEMA believes that AMF should be added to the list of priority DSP functionalities for initial utility investment. They believe that AMF is necessary to position the grid as a platform for the integration of DER because if provided data on activities occurring at the edge of the grid, providing operators with situational awareness of DER. They propose that AMF is an essential element to building a modernized grid that will be able to seamlessly integrate DER through a DSP.

Additionally, in alignment with other comments NEMA suggests that the functionalities of “DER power control” and “DER power factor control” be combined into “DER control” and that this new functionality be added to the list of initial priorities. They believe that DER control functionality is essential “to coordinate the scheduling and dispatch of DER and conventional generation in order to reduce the cycling of conventional generation and, thus, improve system-wide efficiency.” Finally, with respect to interoperability and standardization, NEMA recommends “the use of open, consensus-based standards and protocols that support interoperability and participation by third party providers.”

In their reply comments, NEMA adds that they support “the Commission’s consideration and approval of targeted demonstration projects that would allow the regulated utilities to test new capabilities and technologies that support the implementation of the DSP and that are aligned with goals of REV.”

New York Independent System Operator, Inc. (NYISO)

The NYISO comments that the three areas for stakeholder engagement (technical platform design, market design, and the identification and development of uniform functions and capabilities) “are interrelated, and should be addressed in a single, integrated stakeholder process.” They support the approach proposed by the New York Smart Grid Consortium.

New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation (NYSEG/RG&E)

In their individual comments, NYSEG/RG&E urge that AMI should be evaluated with a demonstration project and considered a foundational investment in REV. They believe that AMI supports a majority of REV objectives and “is unique in the sheer number of benefits it provides and the support it brings to the various functionalities necessary to create and operate the DSP.”

New York State Smart Grid Consortium (NYSSGC)

NYSSGC proposes that they facilitate a stakeholder process to develop the best means of implementing a DSP Platform. They believe that maximizing standardization in order to achieve greater efficiencies is a crucial goal and believe that “a collaborative, stakeholder process is essential to ensure that such standardization can be achieved in a manner that reflects industry and technological trends.”

Northeast Clean Heat and Power Initiative (NECHPI)

NECHPI expresses concern with the ability of each DSP, with diverse systems and a mix of internally developed and third-party vendor solutions, to ultimately create an integrated grid supporting high penetration levels of DERs. They believe that not enough discussion has been given to how individual DSPs will actually work together to come up with a uniform system and “how we get from this state of heterogeneous and widely varying platforms to a unified, common platform across utilities.” They recommend that an independent body be set up to begin immediately evaluating technical standards that can be agreed to by all of the DSPs.

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island comments that AMI should greatly assist in implementing REV-type reforms and supports investments in this technology.

SolarCity Corp. (SolarCity)

SolarCity comments that the DER power control function should not be limited to DSP control only, and that consumers, DER providers, and aggregators should have the option “use proprietary hardware and software consistent with utility and relevant ISO requirements” because “this will reduce the investment needed by utilities, and thus ratepayers, to establish DER control.”

SolarCity also comments that it strongly agrees with Staff’s proposed Technology Platform Policy Mapping effort and recommends that utilities should “incorporate expected increases in DER penetration into capital plans similarly to the incorporation of expected changes in demand.”

The Alliance for Solar Choice (TASC)

TASC comments on the importance of standardization and supports the proposal for technical conferences to ensure that DSP operational procedures, tariffs, market rules, and market procedures are standardized to the maximum extent practicable. They believe that “it will be easier for its members to expand services if utilities adopt common procedures, tariffs, and market rules.” They also support a standard communications architecture to enable interoperability with multiple end use devices and networks.

State University of New York (SUNY)

SUNY comments on the benefits of advanced building monitoring to create buildings that are designed to minimize the energy consumed and improve efficiency of building operations and indoor comfort conditions. They believe that these tools will close the loop on production, transmission, distribution and end-point consumption. They also comments on the benefits of smart metering and end-user education. SUNY supports the need to educate users and believe that technologies like smart meters (like the public dashboards utilized at the University of Buffalo that track real-time electricity use in more than 145 buildings) can empower consumers with real-time information that they can use to change how much power they use.

SECTION: IV.B. BENEFIT COST ANALYSIS FRAMEWORKAdvanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

AEEI generally supports the BCA framework as proposed in the SSP. However, they do not support utilizing the Rate Impact Measure (RIM) test, “whether to simply report the results of the test or to use these results for any investment decisions about DER.”

In their reply comments, AEEI addresses the Joint Utilities’ comment that they do not support the inclusion of monetized externalities in payments to DER providers. AEEI believes that it is “premature to make such a recommendation about these or other potential value streams and that this should be decided once the overall BCA and REV frameworks are better defined,” and add that “these externalities need to be treated as an integral part of the BCA consistent with the policy objectives of REV even if they are difficult to quantify and monetize.” They agree that developing the BCA should be done as soon as possible as other aspects of REV implementation are dependent on the BCA.

Agreen Energy LLC, Vanguard Renewables, LLC. (AGE/VR)

With respect to the BCA framework used for Tariff Pricing and Resource Procurement Provisions, AGE/VR comment that bilateral contracts should be used to determine the appropriate tariff rates. They also strongly urge the continuation of including virtual net metering in the NY tariff code for farm digesters.

Alliance of Automobile Manufactures, Association of Global Automobile Manufacturers, and General Motors (Automakers)

Automakers comment that many vehicle-grid services require added technology which implies increased costs and complexities to consider. They believe that “analyzing the benefits requires a complete assessment—for example, comparing a simple ‘incentivized charging’ example (lower-power TOU rates) with a complex ‘managed charging’ example (networked, demand response) is required for a real-world assessment.” They add that understanding the overall impact of PEVs requires a transparent and fair methodology that properly characterizes the full benefits and costs of vehicle-grid integration.

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP caution that reliance on social cost factors (like climate change, societal health and welfare) and “hypothetical values assigned for the purpose of considering investments,” will likely result in the approval of significant direct costs and resulting bill impacts for customers. They propose that a BCA should include an analysis of the proposed investments on direct bill impacts and affordability of service. They also propose that the “impact of REV investments on the customer bill should be evaluated in the context of all rising costs to the greatest extent practical.” Additionally, they believe that any BCA “should not allow for the inclusion of any estimated benefits that the utility cannot or will not assume responsibility for tracking and documenting that the benefit has actually occurred.”

Association for Energy Affordability, Inc. (AEA)

AEA supports utilizing a stakeholder process to address BCA issues in order to “ensure a more appropriate framework is used for the current restructured energy markets.” They approve of both moving to a portfolio-based rather than measure-based evaluation of efficiency programs, and the inclusion of state policy goals and non-energy benefits in the analysis. They also support the inclusion of a “qualitative assessment of non-quantified or difficult to quantify benefits if they are helpful to inform the analysis and approval,” but suggest that more emphasis be placed on direct customer benefits like controlling and stabilizing bills.

Bloom Energy Corporation (Bloom Energy)

Bloom Energy proposes the adoption of a broad BCA that captures the actual benefits and costs of the various resources and is applied equally across all technology types.

Buffalo Niagara Medical Campus (BNMC)

BNMC comments that in order to maximize opportunities, the BCA process must account for the full value of DERs including its contribution or impact to multiple system needs such as demand, energy efficiency, avoided infrastructure spend, reliability, and carbon reduction.

Business Council of New York State, Inc. (Business Council)

The Business Council offers reply comments on the BCA framework. They agree with the need to establish a stakeholder consultation process and express concern with the potential inclusion of a significant number of non-quantifiable externalities in BCA framework.

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

The Clean Energy Advocates support a well-designed, timely, and complete BCA as one of the most urgent and compelling goals in REV. They believe that a BCA should address environmental and public health externalities and support the EPA's Social Cost of Carbon benchmark as a more accurate valuation of the costs of carbon pollution. They support the use of the Societal Cost Test (SCT) and Utility Cost Test (UTC), but do not support the inclusion of Rate Impact Measure (RIM) in a BCA. Finally, they propose that the valuation of DER must be uniform across DSPs.

Citizens for Local Power (CLP)

CLP agrees with the inclusion of considerations of overall grid efficiency, system resilience, peak load reduction, and environmental sustainability in the BCA.

In their reply comments, that remark that they agree with other parties that a key feature of the BCA framework must be the internalization of environmental and social costs of fossil fuel use. They believe that the "impact of future savings resulting from energy efficiency, fuel-free generation, and avoidance of fossil-fuel price volatility" as well as "the value of avoidance of the harmful impacts of climate change on health and the economy" should be included in the BCA. They also believe that the BCA parameters should be developed through a stakeholder process that maximizes participation, especially for non-profit organizations and low-income groups.

City of New York (NYC)

In their comments NYC supports "giving customers greater choices, lowering carbon emissions, improving system resiliency and reliability, preserving fuel diversity, and removing barriers to distributed generation," but believes that before making any decisions on implementation, an empirical analysis showing that such implementation is in customers' best interests is needed. NYC urges the Commission "to require the development and testing of cost estimates of the REV itself, instead of waiting "until the utilities present their implementation plans to determine whether desired courses of action can be cost-justified."

Consumer Power Advocates (CPA)

CPA expresses concern that certain "no regrets" actions may be implemented before development of a BCA. They are also concerned with the recommendation that a BCA be used to set some tariff rates, a significant departure from cost based ratemaking. They believe the frequent review period in rate cases (not to exceed 3 years in between) controls costs and addresses consumer concerns.

Direct Energy Business, LLC and Direct Energy Services, LLC (Direct Energy)

Direct Energy believes that any BCA should clearly articulate how a given policy change affects all of the State's policy goals including economic and environmental goals. They offer that

the proposed SCT could be a starting point for evaluating environmental impacts in the context of broader state policy goals.

Earthjustice

Earthjustice believes that the Commission should find that a BCA framework shall be developed in a stakeholder process and should reflect the avoided environmental costs including GHG emissions associated with different resources.

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/ VEIC support the inclusion of social cost factors in a BCA and suggest switching from weighted average cost of capital to a social discount rate. They generally agree with the SSP's BCA guiding principles, but caution against heavy reliance on the RIM test. Additionally, they recommend considering fuel savings benefits where appropriate.

Environmental Defense Fund (EDF)

EDF comments that a uniform approach to a BCA might not be the best course of action because "using a BCA for making investments in the distribution system platform itself is a very different enterprise than using a BCA to choose between DER and traditional upgrades, or choose among DER." They believe that a BCA will need a method for calculating distributed marginal cost effectiveness and must consider both short-term variable costs and long-term capacity costs. Additionally, EDF supports the need to internalize externalities.

In their reply comments, EDF stresses that "The point is not to construct a BCA to give a false appearance of objectivity while intrinsically favoring one type of projects over another... The point is to develop a BCA that comes close to an honest accounting of the true costs and benefits of each proposal." They support the use of the utility weighted average cost of capital as the discount rate for DER. They believe that "what is important is that the distribution system upgrades and DER projects are evaluated fairly by a neutral market-maker," and that "applying a standardized discount rate to future costs and benefits is essential to ensuring that competing projects are evaluated consistently." They continue to support internalizing externalities and believe that to do otherwise would be bad economics. Finally, EDF believes that the question of monetizing positive externalities in the form of payments to DER providers should be discussed in Track Two.

Environmental Entrepreneurs (E2)

E2 comments that not enough discussion is given to how the carbon reduction objectives of REV are to be achieved and recommends that the value of reduced carbon emissions be considered in any BCA.

Exelon Corp. (Exelon)

Exelon comments that the risks of shortcomings in output and reliability, operational differences, and ancillary services must be quantified in a BCA. They believe that DER should be held to same standard as generation units and that price suppression should not be included in benefit calculations because adopting programs that are not economic on their own, but are justified through price suppression "constitutes government intervention in competitive markets, which could have detrimental long-term effects of devaluing merchant generation and investment and causing investors to reassess the risk of future uneconomic regulatory action." They also believe that DER should also not be subsidized by non-DER customers.

In their reply comments, Exelon agrees with the Joint Utilities that "the Commission must assure that these costs and benefits include only tangible factors and effects that can be calculated and weighted objectively, and not hypothetical, subjective criteria and externalities."

FirstFuel Software (FirstFuel)

FirstFuel offers reply comments that agree that the RIM test should not be utilized in the BCA framework. They believe that "the RIM test fails to capture the broad range of benefits that

accrue from distributed energy and energy efficiency resources.” They agree with AEEI and support utilizing a Resources Value Framework.

GridWise Alliance (GWA)

GWA believes that the BCA framework “should be defined appropriate to three different purposes: (1) utility DSP implementation plans; (2) periodic utility resource plans; and (3) pricing and procurement of DER,” but that one framework should apply across all three purposes. They also recommend implementing a holistic approach whereby all benefits and purposes are captured and believe that the Commission “should retain flexibility when it comes time to approve investments.”

Hudson River Sloop Clearwater, Inc. (Clearwater)

Clearwater proposes that the BCA should incorporate the EPA’s 2013 Social Cost of Carbon values. They believe that it is essential that costs and benefits be internalized from the outset of REV and propose that the BCA stakeholder process be initiated immediately. Additionally, they recommend that low-income and social justice advocacy organizations be included in this process and that funding be provided to them for environmental economists and other experts.

IBM Corporation (IBM)

IBM cautions that strong vision is needed for chances made to the energy system before diving directly into a detailed cost-benefit analysis.

Interstate Gas Supply, Inc. d/b/a IGS Energy (IGS)

IGS comments that the proposed BCA “utilizes relatively general factors that will lead to expensive litigation on a case-by-case basis.”

Independent Power Producers of New York (IPPNY)

IPPNY comments on the lack of any method to determine whether development of DER is justified because the necessary input assumptions and value methodologies have not been developed thus far in the proceeding.

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy agrees with using a benefit-cost analysis (BCA) as a framework for REV outcomes, but argues that it is not sufficient for pricing of DERs. They assert that utility DER pricing should only reflect market prices.

Interstate Renewable Energy Council, Inc. (IREC)

In their comments, IREC supports the guiding principles identified by Staff and agrees that a full range of DER benefits should be considered, including external and non-energy benefits. They strongly support a significant stakeholder process to develop the BCA framework. They suggest that the Commission utilize existing valuation methodologies as well as efforts in other states to develop similar frameworks. They also suggest that a neutral third party develop the valuation methodologies and inputs for consideration by the Commission.

Joint Utilities

The Joint Utilities comment that the BCA needs create a level playing field for the evaluation of DER products, bulk energy resources, and transmission and distribution options. They believe that the BCA framework should focus on costs and benefits that are linked directly to aggregate customer bills. Additionally, they believe that “specific BCA tests should be defined by the BCA stakeholder process” and they do not support “including monetized externalities in payments to DER providers.”

Multiple Intervenors (MI)

MI believes that the BCA framework proposed in the SSP would lead to substantial electric rate and price increases if implemented. With respect to the second principle, MI believes that when an investment is funded by customers, the BCA should only consider the benefits and the



costs that would be experienced by customers instead of those experienced by “all parties.” They also disagree with developing the BCA to assess portfolios rather than individual measures or investments because they believe doing so runs the risk of approving individual measures that are not cost-effective when the portfolio is deemed to be cost-effective (and also rejecting individual measures that are cost-effective when the portfolio is deemed not to be).

MI believes that a BCA should not attempt to assess potential benefits and costs decades into the future over the full life of the investments as such a BCA would be based on speculation and unreliable. Furthermore, they believe that “quantifying societal costs and values is a speculative endeavor that could lead to biased and uneconomic results, including much-higher rates.” They also express concern that the table of BCA guidance and the proposed discount rate presents a bias toward investments like energy efficiency and renewable resources and is attempting to make DER appear more cost-effective than it otherwise would.

National Fuel Gas Distribution Corporation (NFG)

NFG comments that the new BCA framework should only apply to electric distribution system planning and not natural gas. They believe that a standardized discount rate should be utilized statewide in all BCA testing to ensure that comparable results are produced. Additionally, NFG believes that BCA testing “should not be utilized to enforce negative ratemaking adjustments or penalty mechanisms.”

Natural Resources Defense Council (NRDC)

NRDC generally agrees with the SSP’s BCA framework and wishes to be an involved stakeholder in the BCA framework collaborative. They propose that the BCA framework not only take into consideration carbon prices, but more broadly consider other “key GHG mitigation strategies [like] strategic electrification, fuel switching, and combined heat and power (CHP).” They also recommend that the RIM test be eliminated from consideration because it does not focus enough on bill impacts of DER investment.

In their reply comments, NRDC agrees with DEC’s comments on the need to prioritize the reduction of GHG emissions and criteria pollutants. They disagree with NFG’s comments that the BCA framework should only apply to electric system distribution planning activities and that pursuing fuel neutral investment is unfair to ratepayers. They also disagree with the comments of MI and AARP/PULP that the inclusion of social cost factors will result in higher direct costs for customers. NRDC also proposes that the BCA framework stakeholder process should begin as soon as possible.

New York Battery and Energy Storage Technology Consortium (NY-BEST)

NY-BEST proposes that the BCA methodology ought to be independently developed through an open and transparent stakeholder process and that the methodology should be standard across all DSPs.

New York Energy Consumers Council (NYECC)

In their comments, NYECC expresses concern that while the BCA framework and process is characterized as scientific, neutral, and objective, there is a considerable amount of discretion being exercised when determining the qualitative benefits and costs in measure or investments when reasonable quantification is not possible. They also believe that “an appropriate and reasoned balance must be struck between the expected societal benefits and costs to be incurred by customers.”

New York Geothermal Energy Organization (NY-GEO)

NY-GEO agrees that it is crucial to develop an effective and inclusive BCA framework and that it is essential that the social cost of carbon and other pollutants be considered when evaluating costs and benefits.

New York Power Authority (NYPA)

NYPA proposes that any effort to truly capture the benefits of REV technologies needs to consider the benefits of smart inverters. They believe that “this technology is ‘REV-ready’ and stands to provide clear benefits to the transmission and/or distribution systems through their grid support capabilities, which potentially may lead to reductions in the system peak.”

New York State Department of Environmental Conservation (DEC)

DEC agrees that the list of benefits and costs in Table 4 of the SSP are the key factors that should be considered. They offer that “participation by a diverse set of stakeholders would be critical to successfully considering the full range of societal values.” They believe that greenhouse gas emission reduction should continue to be a fundamental objective in investment planning and agree that reduction of criteria air pollutants should be a priority for decision-making. Finally, they recommend that the Commission establish a standard and protocol for assessing qualitative benefits to ensure the transparency of the decision-making process.

New York State Energy Research and Development Authority (NYSERDA)

NYSERDA supports a BCA framework that is “purpose-oriented and includes utility resource planning, particularly if resource planning is incorporated regularly and fully captures costs and benefits at the distribution level.”

New York State Utility Labor Council and Utility Workers Union of America, AFL-CIO, Local 1-2 (NYSULC/Local 1-2)

NYSULC/Local 1-2 comments that the costs and benefits of DER should be assessed without subsidies. They believe that a BCA regarding DER “must reflect rate reductions for regions whose congestion will be alleviated by transmission improvements and reflect the ability to deliver a much higher percentage of existing power from critical upstate base-load generation.” They also believe that it is vital that existing base-load power generation is considered in this analysis

Northeast Clean Heat and Power Initiative (NECHPI)

NECHPI points to the need for a mechanism to develop a common set of methodologies. They believe that an independent arbitrator should be appointed to evaluate industry best practices and develop the appropriate BCA framework to be applied across all DSPs. They also believe that an independent organization should be established to oversee the implementation of REV and ensure consistency across all DSPs. Additionally, they propose that “GHG regulated air-contaminant impacts should be explicitly quantified and monetized.”

Northeast Energy Efficiency Partnerships (NEEP)

NEEP agrees with SSP’s BCA framework, but hesitates to endorse the RIM test because it “does not provide meaningful information to the Commission about the bill impacts to customers of energy efficiency programs.”

NRG Energy, Inc. (NRG)

NRG disagrees with relying on a BCA to develop an innovative DER platform and attracting private investment. They believe that BCA is best used to evaluate “government programs whose costs are incurred outside of a market mechanism,” and that utilizing BCA methodology may result in “biased and distorted comparisons of alternatives.” Alternatively, NRG proposes a market-based approach that will encourage “competitive forces to produce desirable outcomes for customers.”

Nucor Steel Auburn, Inc. (Nucor)

Nucor agrees that a reliable BCA framework is needed to assess DSP and DER investments throughout REV implementation and believe that broad-based stakeholder engagement will be required.

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island generally agrees with the goals and principles of the BCA framework and supports the use of qualitative analysis when necessary and when quantitative analysis seems uncertain. They comment that a fair and transparent BCA methodology “will help to build confidence in the market and help communicate the correct price signals to market participants.” They propose that avoided GHG and criteria air pollutants should be assigned as a supply benefit, not just a social benefit.

Solar Energy Industries Association (SEIA)

SEIA supports a sound BCA and believes that the process should utilize as independent third-party facilitator, make a timeline that matches the life of DER, and adjust utility rates to reflect reduced utility investments.

The Alliance for Solar Choice (TASC)

TASC agrees stakeholder engagement will be essential to developing the BCA framework and looks forward to participating in that process. They also agree with the guidance on key parameters, with the exception of the consideration of “lost utility revenues.” However, they express concern with the proposal to assess portfolios instead of individual measures or investments because they are uncertain how such a framework “can adequately account for benefits of solar technology that differ from other generation and DSM resources”

In their reply comments, TASC oppose Exelon’s comment that impact of DER in lowering wholesale electricity prices should not be counted as a benefit. They also urge the Commission to reject suggestion that environmental externalities be excluded from payments to DER providers. They believe that “emission reduction credit markets are unlikely in the short term to reflect the full value to society of reducing CO2 emissions from the electric power sector and that the full social cost of carbon should be included in the benefit cost framework and in monetized payments to DER providers.”

The Nature Conservancy (TNC)

TNC supports the creation of a stakeholder process to design BCA framework and proposes that this process should be undertaken right away, with a clear timeframe for completion. They cite the need to fully examine the external costs, avoided costs, and benefits and agree that environmental and social benefits must be taken into account and monetized. They concede that societal factors will be the most difficult to assess, but comment on the importance of considering “impacts and avoided impacts on water, land, communities, local economic development and the social benefits of increased resilience of the energy delivery system.”

Utility Intervention Unit of the New York State Department of State (UIU)

UIU supports the use of the SCT, UCT, and RIM tests and suggests that a fourth test be included; the Total Resource Cost (TRC) test. They propose that the weighting of these tests should be determined in the stakeholder process. They express concern that “technical conferences may be inadequate to develop such a critical aspect of REV,” and suggest that a third party develop alternative BCA methodologies and tests. Additionally, UIU suggests that the Track One schedule be extended to allow further party comments after the Track Two Straw Proposal is issued “so that findings and recommendations from Track Two could help inform elements of Track One”

In their reply comments, UIU agrees with AARP/PULP and the Joint Utilities that any externalities included should be quantifiable and assure actual performance for investment purposes.

Vote Solar Initiative (Vote Solar)

Vote Solar agrees with the SSP’s BCA framework, including the utilization of a stakeholder process to design the framework. They further propose that the framework be verified

by a third-party. They believe that all aspects of DER should be valued and comments that the benefit categories of “avoided O&M costs and “fuel price hedg[ing]” should be included. They also believe that the UCT and RIM tests are inadequate for DER valuation and only SCT should be used.

In their reply comments, Vote Solar recommends the Commission to consider the recently complete study commissioned by AEEI entitled Benefit Cost Analysis for Distributed Energy Resources authored by Synapse Energy Economics, Inc.

#### SECTION: V.A(2) SUPPLY-SIDE RENEWABLE RESOURCES

##### Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

AEEI supports the recommendation that, “the REC-only program approach should transition to bundled contracts for energy and RECs between the utilities and competitively selected projects.” They also support main tier renewable energy being procured going forward through long-term bundled power purchase agreements (PPAs) for large scale renewables. They believe that the Commission should establish a statewide RE goal as well as a required target for each individual utility. With respect to allocation of purchases among utilities, AEEI supports allocation based on load, with a continued role for NYSERDA in the procurement process. They recommend that a state entity (ex. NYSERDA) manage a central procurement process in which they select winning bids and require utilities to enter into bundled, long-term PPAs with one or more generators. They further believe that this approach would mitigate the concern regarding conflicts of interest when the utilities procure renewable generation from an affiliate. However, they comment that if this central procurement approach is not used, procurement would have to be administered by a third party with government oversight and a limit placed (ex. 25%) on how much a utility can procure from affiliates. Additionally, AEEI does not believe that changes to the energy delivery and technology eligibility criteria are necessary at this time. With respect to changes in procurement mechanisms, they support the proposal that utilities take on this function with a continued role for the state in coordinating the procurement process. Finally, AEEI proposes that further consideration be given to the issue of eligibility criteria regarding the age of renewable energy generation facilities.

##### AES Energy Storage, LLC (AES)

AES comments that “all utilities and DER providers require some long-term visibility and contracting capability to ensure that the projects have a secured or predicable revenue source. Bilateral contracts and tradable products with forward curves are needed to ensure a robust market place.”

##### Bloom Energy Corporation (Bloom Energy)

Bloom Energy disagrees with the recommendation that, “the REC-only program approach should transition to bundled contracts for energy and RECs between the utilities and competitively selected projects.” They do not believe a bundled approach works for the types of distributed resources that are envisioned by REV. They believe that bundled contracts are appropriate and should be available for large scale generation that is located far from load centers, but such approaches are not suited for smaller DG projects where energy is sold to the end use customer at or near the point of generation. They suggest that the “REC-only” approach be retained for these smaller projects and that the sponsor of each project be permitted to choose which approach is more effective.



Central Hudson Gas and Electric Corporation (Central Hudson)

Central Hudson recommends that the Commission conduct an open, transparent, and dedicated process to evaluate alternative approaches to utility purchases of Renewable Energy Credits bundled with energy and capacity through Purchase Power Agreements (“PPAs”). Central Hudson recommends the exploration of alternatives to PPAs because past use within New York has proved them deficient. Central Hudson proposes that the Commission consider alternatives, including: central procurement of RPS requirements through a State-sponsored entity or through a wholesale market-based solution; central procurement of RPS requirements by the electric utilities utilizing a tariff structure for cost recovery in lieu of contracts; direct ownership of renewable generating and storage facilities by a State-sponsored entity as a means for procuring Main Tier renewable resources; and direct ownership of renewable generating and storage facilities by electric utilities as a means for procuring Main Tier renewable resources.

Citizens for Local Power (CLP)

CLP supports the development of large scale renewables in the state and “calls for ensuring that a fixed percentage of the RPS be met by procuring solar energy, and that all renewable energy be sourced in-state.” They also support incentives for utilities and other energy aggregators and suppliers to promote the procurement of renewable energy.

City of New York (NYC)

NYC expresses concern with the “potential abandonment of the RPS platform without any appropriate record or adequate process.” They recommend that the RPS be continued for now and that a separate process be instituted to consider any modifications.

With respect to the goals of the procurement process, NYC believes that the targets for renewables should be driven by the State’s and City’s stated goals of achieving substantial greenhouse gas emissions reductions. They believe that purchases among utilities should be allocated based on load and they do not see a need for long-term PPAs. Instead they propose that the focus be on “establishing a fair and level playing field for all market participants and eliminating the barriers (*e.g.*, standby rates, interconnection rules and procedures) that are hindering the expansion of DER.” With respect to changes in the current RPS program design, NYC comments that the list of permissible technologies has proven to be too restrictive and they propose the development of “expeditious method of approving or authorizing meritorious projects or technologies.”

Clean Coalition, Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, The Nature Conservancy, New York Public Research Interest Group, the Pace Energy and Climate Center and the Solar Energy Industries Association (Clean Energy Organizations Collaborative)

The Clean Energy Organizations Collaborative filed reply comments that propose separating the issue Main Tier renewable procurement into its own REV Track or address the issue in its own proceeding. They believe that this issue has not been sufficiently addressed and express concern that “the firm objectives of RPS are lost in the transition” between the Clean Energy Fund (CEF) and REV proposals. They request clarification on the future of Main Tier renewable procurement and the role of utilities.

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

The Clean Energy Advocates support AEEI’s endorsement of bundled contracts for energy and RECs between utilities and competitively selected projects. They also support the PPA approach for the REV framework for supply-side renewables. They believe that a statewide renewable energy goal, with a clear percentage of total electricity usage target, should be

established as well as a target for each individual utility. They recommend imposing a fixed \$/MWh penalty on utilities that fail to reach their yearly target with the funds going toward the development of renewable energy projects. Additionally, the Clean Energy Advocates believe that new renewable resources should be centrally procured, and the allocation of purchases among utilities should be based on projected load. They propose that “each utility should enter into a bundled, long term PPA with one or more generators to cover that utility’s required purchase amount as a percentage of their projected load share.” They also propose that a state entity, like NYSERDA, manage the central procurement process, select winning bids, and require utilities to enter into PPAs. They believe that this approach would mitigate potential issue of conflicts of interest. Finally, the Clean Energy Advocates oppose revisiting the discussion of RPS eligible technology and believe that the current RPS technologies should be eligible for procurement.

Consumer Power Advocates (CPA)

CPA does not believe that the current procurement approach needs to be changed and express concern with assigning sole responsibility for procurement of large scale renewables to utilities. They comment on the potential that buyer side mitigation (BSM) efforts in the NYISO markets could be expanded and serve as a barrier to renewables. Additionally, at the retail level, they caution that such an approach will prevent ESCOs from marketing green energy and decrease the penetration of competitive suppliers in the retail markets.

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC agree that efficiency programs should be integrated into DSP operations and believe that DSPs should: “(1) procure all cost-effective energy efficiency before more expensive supply resources; and (2) should deploy efficiency as a cost-effective tool to reduce peak demand, optimize utilization of the electric grid, and defer or avoid infrastructure upgrades.”

Exelon Corp. (Exelon)

With respect to the procurement of large scale renewables, Exelon comments that clean base load resources provide all of the same benefits as large scale renewable, but on a greater scale. They urge the Commission to keep these other clean resources in mind. Additionally, they oppose the idea of utilities handling all procurement renewable resources through long-term supply-side contracts.

Hudson River Sloop Clearwater, Inc. (Clearwater)

Clearwater comments that “linking the rate of return on investment to utilities’ procurement of renewables will ensure they do their share to attain or exceed RPS goals; penalties for failure to do so will motivate appropriate action.”

Independent Power Producer of New York, Inc. (IPPNY)

IPPNY expresses concern with the recommendation to transition to bundled contracts for energy and RECs between the utilities and competitively selected projects. They do not believe there is enough detail on the structure of these proposed contracts, nor is there any discussion on how the utilities would recover the costs of these contracts from ratepayers. They also point out that there may be issues concerning the Commission’s jurisdiction to order utilities to enter into contracts with renewable projects to acquire energy at wholesale. They request that, if the utility procurement with bundled contracts approach is pursued, Staff should issue a more detailed white paper on the subject.

Joint Utilities

The Joint Utilities recommend that a separate process be established to assess the proposed procurement shift from NYSERDA to the utilities. They comment that they are unsure whether bundled utility PPAs could be used to meet the statewide RPS Main Tier program requirement. They also express concern that long-term PPAs could create higher costs for customers and

contribute to higher costs of capital, while limiting flexibility with respect to the development of renewable technologies.

Multiple Intervenors (MI),

MI believes that the recommendation that utilities assume the responsibility for procuring large scale renewable resources by entering into bundled contracts for renewable attributes and energy constitutes a completely new proposal and should be treated as such. They oppose the idea of requiring utilities to enter into long-term PPAs as part of the RPS or REV initiatives. They believe that doing so would raise rates and risk excessive payments being paid to renewable generators. They comment the current process of renewable generation facilities receive large subsidies from customers, in the form of contracts for the purchase of RECs is favorable because those developers retain the risk of market price fluctuations. They oppose shifting “market price risk from the owners of Main Tier renewable generation facilities to the Utilities and, presumably by extension, their captive customers.” They compare this proposed transition to long-term PPAs to the previously enacted Six-Cent Law that resulted in “billions of dollars in above-market energy payments and stranded costs,” and urge the Commission not to make the same mistake in REV.

National Fuel Gas Distribution Corporation (NFG)

NFG believes that the development of large scale renewables should be BCA tested, and “compared to other available options in an unsubsidized, non-discriminatory manner, utilizing the same framework that will be developed as part of the REV Proceeding, before continued subsidization and wide-spread deployment of such technologies continue in the REV market.”

Natural Resources Defense Council (NRDC)

NRDC supports the recommendation that procurement of supply-side large scale renewable resources become the responsibility of the utilities. They note that additional detail on this mechanism is needed, but stress the importance of ensuring that a new mechanism is in place by early 2016. They also support the recommendation of utilizing PPAs in this process. They continue to support the statewide target of supplying 50% of the electricity consumed from renewable resources by 2025, and believe that however the procurement process is structured, “it should be transparent and enforceable, and there should continue to be annual reports to the Commission regarding statewide progress, procurement levels, etc.”

New York Energy Consumers Council, Inc., (NYECC)

NYECC has doubts about assigning responsibility for procurement of large scale renewable resources entirely to the utilities, but acknowledges that “if a set of rules are created by which supply-side large scale renewable resources are not impeded or limited by this approach, then perhaps NYECC can support such an approach.”

New York Geothermal Energy Organization (NY-GEO)

NY-GEO comments on the importance of embracing thermal RECs for GHP systems moving forward. They offer a conversion factor (1 kWh = 3412.1416416 BTUs) that allows for an easy translation of GHP output into REC formulas.

New York State Department of Environmental Conservation (DEC)

DEC agrees that it is extremely important to support the development of large scale renewables in NY and thus supports the recommendation that utilities prepare and submit energy efficiency transition implementation plans (ETIPs).

New York State Energy Research and Development Authority (NYSERDA)

NYSERDA agrees that “changes to the current method of obtaining large scale renewable capacity are necessary.” They suggest that this option be considered separately from Track One REV issues and perhaps be considered in a third, supply-side renewable Track.



NRG Energy, Inc. (NRG)

NRG supports the recommendation for utility procurement of large scale renewable resources through bundled contracts for energy and RECs between the utilities and competitively selected projects. They are confident that “this approach, if properly structured, can provide significant amounts of low cost, clean renewable energy that will complement a growing resource base of DERs,” and facilitate increased competitive procurement of renewable energy.

Nucor Steel Auburn Inc. (Nucor)

Nucor does not support the proposal to transition to utility procurement of large scale renewable using the bundled contracting method. They do not see any benefits to customers that would result from this change an instead believe that doing so will increase rates. Furthermore, they believe that recovering the costs of procurement and contracts through the rate base will thwart any transparency objective and prevent customers from receiving accurate energy usage data. However, Nucor does support the recommendation that utilities assume full responsibility for implementing ETIPs to eliminate duplication of effort between NYSERDA and utilities.

Nucor does not offer an opinion on whether Main Tier renewables should be centrally procured, but comments that if a central procurement method is adopted, cost allocation should follow the “beneficiaries pay” principle.

PSEG Long Island LLC (PESG Long Island)

PESG Long Island comments that the integration of renewables on Long Island is currently being done by them and that they are “well suited to continue soliciting main tier renewable resources for installation on the Long Island electric grid and supports this recommendation.” They also support the recommendation for bundled contracts for RECs, energy and capacity because they currently operate renewable programs in that manner. They recommend that each utility take responsibility of their procurements, tailoring their procurement strategies to take best advantage of their individual resource needs.

Regional Plan Association (RPA)

RPA suggests that the Commission consider spatial planning with respect to procuring renewable energy. They share the concern that the RPS “is not sufficient to meet the state’s clean energy goals and supports efforts that will accelerate the transition to a clean power system.” However, they comment that the spatial implications of doing so need to be considered. They stress the need to “evaluate potential locations for solar, tidal, wind and other renewable resources in context with other priority land uses in New York State, such as coastal protection, wetland migration and farmland preservation.” They propose the establishment of a process to balance these interests in a “coordinated and collaborative process that has clear guidelines for resolving potential land use conflicts.”

RPA also recommends that the environmental consequences of the REV proceeding need to be monitored. They believe that any reduction in NYSERDA’s direct expenditures on renewable energy and energy efficiency should be gradual. Additionally, they note that not all DER are clean and pollution-free and believe that DER that produces clean energy should not be disadvantaged. Finally, RPA encourages the Commission to work with RGGI and environmental regulators to determine the specific benefits and costs to be included in the BCA Framework.

Retail Energy Supply Association (RESA)

RESA believes that the existing programs and methodologies for securing renewables in NY have been successful and do not think it is appropriate to abandon a more market based program and replace it with a new untested large scale approach performed by utilities. They believe that this approach is at odds with the vision of reliance on market forces and development of competitive choice in relation to a customer centric model. Additionally, they believe that such an approach would “interfere with the orderly development of the wholesale market as the utility

will now be using its monopoly rate recovery mechanisms to sustain the cost of projects that may be unsustainable from a market perspective and significantly exceed the cost of other generation alternatives.” They also believe that this can put non-utility parties at a competitive disadvantage because they will not have the utility rate recovery mechanism.

RESA also expresses concern that if the utility is responsible for the procurement of renewables, ratepayers will have to cover the cost of the bundled contracts for energy and RECs, increasing the total cost exposure to ratepayers. They also point out that this approach can have significant impacts on the retail market that remains available to ESCOs. Ultimately, they believe that this approach will “manipulate the utility's monopoly power and captive rate recovery mechanism to sustain the viability of renewable projects that exceed the cost of alternatives,” and oppose such a transition.

The Nature Conservancy (TNC)

TNC supports the recommendation that the REC-only program should transition to bundled contracts for energy and RECs between utilities and competitively selected programs, and that PPAs are appropriate for procuring large scale renewables. They believe that NY should adhere to its goal of 50% renewable energy by 2025 and that each utility should set targets to advance this goal. They believe that if large scale renewables are centrally procured, the allocation of purchases among utilities should be based on load share. They propose that a state entity should maintain a role in the central procurement process; mainly that of regulatory review and approval. Finally, they do not think changes to RPS eligibility criteria should be revisited.

SECTIONS: V.A(1) TRANSITION & V.A(3) ENERGY EFFICIENCY WITH LOAD  
MANAGEMENT CONTROL

Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England  
Clean Energy Council (AEEI)

With respect to the clean energy transition, AEEI supports a CEF proposal that commits “funding for ten years at current levels, in order to ensure that the necessary resources are available to prevent backsliding and to offer the market certainty that private companies need.” They also support the continued enhancement by utilities of their energy efficiency (EE) programs, and believe that the minimum EE target should include both the utilities’ current EEPS target and NYSERDA’s current target for that service territory. They propose that in order to accelerate utility investments, utilities should be allowed to recover costs in advance of a full rate case for both “no regrets” investments and ETIP filings.

In their reply comments, AEEI continues to support a “smooth transition of energy efficiency programs with a policy backstop to ensure there is no reduction in energy efficiency investment in the short term and no backsliding.” They also support the comments ACEEE that urge an increase in targets to 1.9% of annual electricity sales.

AES Energy Storage LLC (AES)

AES agrees that new tariffs need to be designed within the DSP market, but are concerned that the SSP intends to design a tariff for each technology instead of a tariff design that is technology neutral. They propose the tariffs should focus on the needs of the customer or the DSP with each technology evaluated against that need.

Agreen Energy LLC and Vanguard Renewables, LLC (AGE/VR)

AGE/VR comment on the importance of providing for an adequate return on the capital invested to make the power used by the food industry in order to ensure that investment capital remains available. They comment that “net metering credits used by farms applied to suppliers

and food power users using bilateral agreements works as the pricing mechanism without any detriment to ratepayers since the capital to make the power comes from the investor not the ratepayer.”

Alliance for a Green Economy (AGREE)

AGREE believes that the RPS and EEPS goals need to be clearly reflected in REV. They support aggressive benchmarks in efficiency and renewable development, and believe that “market actors and institutions that receive ratepayer and public funds must be held accountable to meeting those goals.”

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP comment that the proposed dramatic change in how efficiency programs will be developed, implemented, and funded will require far more public review and debate. While they support the development of a more integrated approach, they comment that there exists many significant issues that will need to be carefully considered, including the “design of the programs, the funding stream available to support the programs, the interaction with those who deliver the programs, the implications for design and delivery of the low income programs, [and] performance measures that must be in place to oversee the cost effectiveness and impact of these programs.”

In their reply comments, AARP/PULP oppose the comments of other parties that support reliance on external factors such as pollution and greenhouse gas emission reductions in evaluating energy efficiency and DG programs. They support “well-designed programs for efficiency and distributed generation should be required for all customer classes and customers who lack the authority or the resources to implement these programs should be subsidized as a matter of equitable distribution of ratepayer funds.” They believe the SSP proposal would “empower utilities to develop, implement and fund efficiency, demand response, and DER programs on behalf of their customers without any cost caps or funding mechanisms identified,” and believe that there would be no way to ensure that only cost-effective and least-cost programs are implemented. Furthermore, they urge the commission to address how it intends to integrate or coordinate its consideration of the CEF with REV.

American Council for an Energy Efficient Economy (ACEEE)

In regards to energy efficiency with load management controls, ACEEE agrees that utilities should continue to operate energy efficiency programs and should provide plans for doing so. They recommend that the electricity savings goal for utilities be “ramped-up” over the next several years to 1.9% in incremental savings each year, and that utilities be allowed to count savings from NYSERDA and Green Bank initiatives towards this goal. They also agree that utilities should consider incorporating such measures as whole building, fuel neutral approaches, and building management controls into their transition plans. Finally, they believe that “energy-savings performance targets are a much more effective measure to drive cost-effective energy savings than attempts to rely on the market,” and suggest that the focus remain these targets.

Buffalo Niagara Medical Campus, Inc. (BNMC)

BNMC comments that there needs to be an alignment of State funding sources and technical support to facilitate creation of the DSP market. They also propose a policy change that would promote dynamic load management among all customer segments at all times, not just in emergency situations. They offer that “with the proper monetization opportunities and rate structures in place, an aggregated, dynamically managed portfolio of varied resources, including distributed energy assets, can collectively contribute towards grid optimization at different times, durations, and fashions.”

Center for Working Families, WE ACT for Environmental Justice, Enterprise Community Partners and the Green and Healthy Homes Initiative (Energy Efficiency for All)

Energy Efficiency for All urges the Commission to “create a sector designation and increased budgets for the multifamily building sector with an emphasis on affordable housing, adopt an equitable policy framework to guide REV development, and require that utility implementation plans address split incentives and other barriers to energy efficiency measures and other DER in affordable multifamily buildings.”

Citizens’ Environmental Coalition (CEC)

CEC comments that “successes with energy efficiency and renewable energy have come directly from the efforts of dedicated public servants working in multiple state government agencies,” and express concern that a focus on market mechanisms could weaken the efforts of the public sector. They stress the importance of presenting efficiency and renewables goals in a clean and straightforward way. They also comment on the success NYSERDA has had in expanding energy efficiency and renewable programs and urge that successful programs should not be dismantled. They believe that “until new programs are up and running and actually delivering the claimed benefits associated with REV, all of the state’s existing energy efficiency and renewable energy programs should be maintained and expanded.” They also believe that energy efficiency and renewables need to be priorities for funding under the CEF and cite a critical need to define “Clean Energy” in REV and in the CEF proposal to avoid multiple interpretations. They disagree with classifying natural gas as clean energy.

In reply, CEC states that the Commission should immediately begin planning for the phase out of fossil fuels and that there should be no more investment in major fossil fuel infrastructure like new natural gas generators and pipelines. They also suggest planning for the safe decommissioning of all nuclear reactors in NY. They propose that a goal should be set that would create an energy system that “relies 100% on conservation, efficiency and renewables for our energy needs by 2050 and figure out a transition plan to get there.” Furthermore, they support consideration of all the benefits and costs of various energy options and point out that “pollution has major environmental and health costs.” CEC points to the variety of opportunities for public engagement and participation in efficiency and renewable programs, including community ownership and greater involvement of community based organizations. Finally, they propose the establishment of an Energy and Climate Board that will provide “some of the democracy and public involvement needed,” as well as providing “consumer protection including intervention in energy proceedings in addition to helping communities prepare for climate change.”

Citizens for Local Power (CLP)

CLP agrees with focusing on clear numerical goals, including the goals of a 50% reduction in GHG by 2030, an 80% reduction in GHG emissions by 2050, and the goal of meeting 20% of projected demand through energy efficiency by 2025. They believe that reaching or exceeding these goals is essential and utilities and energy supply companies should be required to meet renewable performance standards. They propose that incentives that increase utilities’ income should be structured so that, while rates may increase, overall customer bills do not.

In their reply comments, CLP expresses concern with the lack of recognition of the importance of meeting or exceeding state greenhouse gas emissions reduction goals in the comments of the Joint Utilities. They comment that the Joint Utilities’ comments focus “solely on reliability and security of the grid and ties all forward planning to this narrow view,” and believe that these omissions show that “it is not realistic to expect the utilities to internalize the broader REV objectives of addressing climate change and reducing dependence on fossil fuels.” They also reject the Joint Utilities’ claim that “it is not possible to maintain the current energy savings goals while adding new demand and carbon reduction goals without increasing overall funding levels”

as unsupported and believe that this shows that the utilities are struggling to innovate. Additionally, CLP proposes that “it is critical that existing state funding levels for energy efficiency and renewable energy not be reduced until REV costs are known and a sufficient period of time has passed for a realistic evaluation of the effectiveness of REV reforms.”

City of New York (NYC)

NYC comments that “energy efficiency programs have resulted in lowering peak demands and energy demand forecasts, and beneficial changes to utility infrastructure plans.” They encourage continued support for these programs and suggest that they should be prioritized over other types of DER because once they are installed or implemented, they are effectively permanent.

Clean Coalition

The Clean Coalition comments that to the extent possible, energy efficiency measures should be “time-optimized” to coordinate with the various DER in a substation area.

Clean Coalition, Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, The Nature Conservancy, New York Public Research Interest Group, the Pace Energy and Climate Center and the Solar Energy Industries Association (Clean Energy Organizations Collaborative)

The Clean Energy Organizations Collaborative offer reply comments that remark on the importance of setting greenhouse emissions reductions objectives and the need to establish aggressive targets for energy efficiency and maintain existing energy savings goals. They agree with other commenters that support the creation a new proceeding or track to implement energy efficiency policy objectives. They support the establishment of specific energy efficiency targets, regardless of whether investments in efficiency are made by NYSERDA, by the utilities, or through the markets. They also support the recommendation of EDF for tracking progress toward energy efficiency targets during the transition period to the DSP model to ensure there is no backsliding against legacy targets. Additionally, they agree with AEEI, AEA, NRDC, and NEEP that utility energy efficiency targets should be enhanced to assume the energy savings goals currently assigned to NYSERDA.

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

The Clean Energy Advocates comment that, in regards to clean energy transition, “an effective transition to REV must ensure no backsliding in New York’s clean energy leadership.” They support funding current programs for ten years at current levels, in order to prevent backsliding and to offer certainty to companies that invest in the NY market.

With respect to energy efficiency with load management controls, the Clean Energy Advocates believe that the SSPs outline of an implementation plan for energy efficiency lacks detail and recommends that “funding for the existing efficiency saving programs be sustained until there is evidence to suggest that the new framework will succeed.” Additionally, they express concern that little guidance is given with respect to utility developed ETIPs that are meant to bridge the gap between the utilities’ current energy efficiency efforts and the expanded efforts envisioned by REV. They question where the funding for investments in energy efficiency will come from if NYSERDA energy efficiency commitments are removed from the plan.

In addition the Clean Energy Advocates point to the lack of guidance in the SSP with respect to re-evaluating the means for achieving targets, ways to provide utilities and NYSERDA more flexibility to innovate and respond quickly to market information, and ways to target energy efficiency efforts to maximize the economic value to the utility service territory. Finally, they propose that “REV should include an ongoing role for NYSERDA and the CEF in overcoming

market barriers to energy efficiency and assisting consumers to manage and control their energy use.”

Consumer Power Advocates (CPA)

In regards to clean energy transition, CPA comments that ETIPs should recognize and continue support for current successful programs. They believe that “assigning NYSERDA programs and responsibilities to utilities within an abrupt transition period would disrupt and stall the current progress towards EEPS and DMP goals and create significant customer confusion,” and thus urge that an orderly, well planned transition process be applied. They believe that it would be extremely difficult for utilities to assume NYSERDA’s role by the suggested time table and believe that doing so would result in stranded investment of human capital and resources on behalf of entities hired by NYSERDA for energy efficiency and demand management programs. Therefore, they recommend that the current contracts and performance targets remain in place until the utilities have the time to plan adequately, coordinating with and utilizing the expertise of NYSERDA.

With respect to energy efficiency with load management controls, CPA requests clarification on what effect the proposal to include energy efficient programs to be implemented beginning January 1, 2016 in ETIPs will have on current, ongoing efficiency programs, including those now sponsored by NYSERDA. They point out that these programs have been developed and adjusted over the course of their existence and are now close to achieving their targets. They believe that ETIPs should not require the cancellation, assignment or abrogation of any current NYSERDA contract.

Direct Energy Business, LLC and Direct Energy Services, LLC (Direct Energy)

In regards to energy efficiency with load management controls, Direct Energy expresses concerns with the proposal to transition existing energy efficiency programs to utility control and revising the funding mechanism from the current energy efficiency surcharge to the utility’s rate base. They see a “disconnect between the desire to mobilize private capital and the plan to wholly transition the responsibility for the State’s energy efficiency programs to utilities that will be operating them as part of the rate base.”

They express concern with the proposal to move away from “almost exclusive reliance on one-time incentive based programs,” and that to achieve the State’s energy goals will require “an order of magnitude greater investment,” which “cannot be supplied by ratepayers alone, but will depend upon the mobilization of private capital and the transformation of the state’s energy market.” They believe this approach will hinder private capital investment in energy efficiency out of fear of unfair competition from the utility/DSP. They point out that this issue is not addressed in the discussion on utility ETIPs and recommend that the development of these plans be the subject of a stakeholder process to address these concerns.

Earthjustice

Earthjustice offers reply comments that support establishing reduction of GHGs in the electric power sector as the primary driver and goal of the DER market. They support adoption of the GHG reduction target contained in the 2014 Draft New York State Energy Plan and 80% by 2050. They point out that the SSP does not establish a GHG reduction target and agree with parties like Clean Energy Advocates, EDF, and NRDC that aggressive targets need to be established. They suggest adopting an energy efficiency goal of 2% of annual electricity sales. They also urge the Commission to make a preliminary conclusion that the regulatory regime approved in Track Two will base the compensation of the utility and the DSP in meaningful part on their performance on GHG reduction and energy efficiency goals.

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC agree that energy efficiency programs should be integrated into DSP operations. They believe that “any efficiency that is less costly than supply should always be captured because it provides positive net returns for ratepayers in the form of real energy savings, lower energy bills, more household spending power, and lower energy costs overall.” They propose that additional, well-designed financing options could allow more efficiency to be captured, potentially at lower program costs. Therefore, they do not agree that ratepayer funding for efficiency is a cost that must be reduced, but instead see it as a “least-cost resource acquisition tool and an investment with immense net benefits to ratepayers.” They believe that the best approach for energy efficiency programs is to utilize private capital to supplement, not replace ratepayer-based program funding. Accordingly, ENE/VEIC caution “that a shift to a purely market or financing-based model may set back efficiency efforts in the state, reduce the amount of cost-effective savings that could otherwise be obtained, and increase consumer costs.”

In their reply comments, ENE/VEIC generally support the three proposals outlined in the reply comments of the Clean Energy Organizations Collaborative: (1) the need to set greenhouse gas emissions reductions objectives; (2) the need to establish aggressive energy efficiency savings goals; and (3) the need to revise and update the benefit-cost analysis framework. They share the concerns of NRDC, ACEEE, and NEEP that ratepayer-funded efficiency programs may be too costly and that an energy efficiency expansion could only occur through a finance-only (or largely market-based) approach. They agree with these parties that the energy efficiency programs in New England should serve as models for REV’s efficiency-related reforms. ENE/VEIC continue to support implementing measures to overcome barriers to efficiency investments, including “(1) technical assistance and information, (2) financial incentives and rebates, and (3) efficiency financing – to overcome market failures and impediments to efficiency investments.”

EnergyHub and Alarm.com (EnergyHub)

EnergyHub comments that to promote consumer-oriented DER, the Track One Policy Decision should direct utilities to develop and propose consumer technology incentives within ETIPs and DSIPs.

Energy Technology Savings (ETS)

ETS proposes that retail demand response load profiles could be used to incentivize customers to participate in the market for energy-related value-added products and services. They propose that customers who “purchase an energy efficiency device could be rewarded by being included in a load profile that is more typical of customers that do pay attention to the time of day when they utilize energy,” thus reducing their overall energy costs. They comment that this approach could leverage meters in use today and allow mass market customers to participate in the management of their energy bill right away with minimal system changes or other investments. They also believe that these load profiles will promote the goals of increasing customer knowledge, providing consumers with tools to allow them to manage their total energy bill, and improving system wide efficiency.

In their reply comments, ETS supports the position of NYC urging the Commission to “consider reevaluation of the merits of regenerative drive elevator technology to qualify as a potential form of renewable power.” They point out that this form of renewable power does not currently qualify as an RPS technology, and agree with NYC that it should be included in the approved RPS technologies.

Environmental Defense Fund (EDF)

In regards to clean energy transition, EDF comments that “the relationship between the utility programs and the NYSERDA proposal that is forthcoming in the CEF proceeding is not entirely clear.” They support NYSERDA remaining responsible for energy efficiency programs

adapted to serve low-income customers because such customers may be poorly positioned to pay for or finance DER deployment without assistance.

In regards to energy efficiency with load management controls, EDF comments that the shift to utility-level procurement presents “an opportunity to improve the ability of energy efficiency solutions to compete fairly against traditional grid resources,” and points to the Illinois Power Agency’s recent 2015 Electricity Procurement Plan as a potential guideline when developing the expectations of ETIPs.

#### Environmental Entrepreneurs (E2)

E2 comments that the SSP does not effectively prioritize energy efficiency initiatives and leaves it to each utility to develop its own plan. They do not think utilities will “move any faster than required by the minimum standard already set,” and propose that setting an emissions performance standard will continue to raise the bar. E2 supports the transitions of Main Tier procurements to utilities and integrating efficiency programs into normal utility operations, but question what the tariff impact will be from changing the funding mechanism, and how that compares to the existing surcharge. They believe that, in order to ensure that the planned long-term transition continues beyond the current administration, a suite of legislative initiatives should be proposed and enacted (ex. allowing utilities to recover costs from the PPAs proposed for the new Main Tier RPS procurements).

#### FirstFuel Software (FirstFuel)

FirstFuel offers reply comments that urge the Commission to establish and enforce strong energy efficiency targets. They strongly support the comments of other parties that stress the need to continue investing in energy efficiency, avoid backsliding, and ensure that high savings levels are attained. FirstFuel believes that “high energy efficiency program targets create healthy market, channel resources, and establish incentives to find cost-effective efficiency that the market would otherwise fail to realize on its own. Market inertia, behavioral hurdles, transaction costs, inefficient information exchange, and numerous other factors have created barriers to energy efficiency adoption.”

#### Exelon Corp. (Exelon)

In regards to energy efficiency with load management controls, Exelon comments that the SSP provides insufficient information regarding the ‘expanded vision’ for energy efficiency pursuant to the REV. Furthermore, they point to the success of NY’s current energy efficiency marketplace and believe there is a lack of justification for replacing the current model and market.

In their reply comments, Exelon adds that “all REV activity must align with New York State and federal CO2 and other GHG climate initiatives.” They believe that “clean energy base load resources are needed for long term reliability and environmental compliance, and must have the ability to realize adequate revenue recovery.”

#### Hudson River Sloop Clearwater (Clearwater)

Clearwater comments that more clarification is needed with respect to transitioning to utility procurement of Main Tier renewables as part of a market-based approaches to increase levels of efficiency and renewable. They disagree with phasing out the System Benefit Charge (SBC) and the rebates for renewables until it is clearly demonstrated that market incentives are working sufficiently. They stress the importance of incentivizing the development of renewable sources of energy, while actively discouraging fossil fuel combustion and supporting its phase out. They propose the goals of increasing renewable energy generation, energy efficiency and demand response can be advanced through the creation of an “energy roadmap” that presents “what currently exists, where the gaps and challenges are, a specific timeline with specific metrics to be achieved as milestones toward successful implementation, and a financing strategy to ensure that investment is made primarily into renewables and other DER infrastructure.”



Interstate Gas Supply, Inc. d/b/a IGS Energy (IGS)

IGS comments that transferring additional control and responsibility to utilities will serve to diminish competition. They oppose making utilities responsible for administering energy efficiency programs, procurement of supply-side large scale renewable resources, and demand response services. They believe that these measures “would shift more services under the control of the utilities putting more risk on utility ratepayers, and also discouraging investment by independent developers.” They believe that instead of shifting the development of energy efficiency and renewable energy from NYSERDA to utilities, the Commission should focus on improving the existing programs.

Joint Utilities

With respect to clean energy transition, the Joint Utilities believe the clean energy DERs should be integrated into distribution system planning and operations, but comment that “until numerous issues related to performance metrics, cost recognition and recovery and incentive provisions are better defined as part of Track 2, the integration of clean energy DERs with system planning cannot be precisely defined.” They propose that statewide targets be created for both energy efficiency and renewable resources, but recognize that maintaining current energy goals and achieving new demand and emissions reduction goals within a new regulatory framework will require increasing funding levels. They comment on the SSP’s plan to transfer responsibility for most clean energy programs administered by NYSERDA to the utilities and express support for avoiding any interruption in these programs during REV implementation. Therefore, they propose that “the Commission make unencumbered clean energy funds (along with any incremental clean energy cost recoveries) available to support the utilities adoption of incremental clean energy programs.”

With respect to energy efficiency with load management controls, the Joint Utilities support filing ETIPs by the proposed date, and recommend utilizing the existing E2 Working Group to develop guidelines for the content of initial ETIP filings. They support the periodic reevaluation of the rules as more experience is gained with DER applications and believe that program rules must evolve as markets, technologies, and customer preferences change. They also support the development of a statewide data management system to monitor and track the progress of clean energy programs, but suggest that the RFP timeline be pushed back to allow for consideration of proposals developed for program years 2017 and 2018.

The Joint Utilities add in their reply comments that “the customer bill impacts of NYSERDA’s recent CEF Proposal “must be taken into account and considered with appropriate strategies that allow REV to move forward as an element to achieve clean energy goals of the State, along with the re-envisioned NYSERDA CEF.”

Lochnivar LLC (Lochnivar)

Lochnivar, in their reply comments, stress the need to ensure a level playing field for new products and entrants in the energy marketplace. They urge the Commission to “ensure that designated gatekeepers in the energy marketplace do not engage in anticompetitive behavior by freezing out competing products targeted at improving end-user energy efficiency and cost savings.” They agree that the market platform needs to be open to all manufacturers of affordable end-user energy efficient products and express the need to include safeguards and processes that “prevent utility gatekeepers from playing favorites in the energy marketplace.”

Multiple Intervenors (MI)

MI comments that “customer-funded, subsidized investments in clean energy – whether recovered through utility surcharges or base rates – need to be reduced materially, not increased, and certainly not increased by ‘an order of magnitude.’” MI has concerns regarding Staff’s recommendations that utilities assume responsibility for the procurement of renewable resources

and energy efficiency, but are not completely opposed to the recommendation to transition the SBC, RPS and/or EEPS surcharges into base rates, as long as they are recovered in a manner consistent with cost causation principles. They do however stress the importance of preserving the existing exemptions to these costs applicable to NYPA allocations.

MI disagrees with the recommendation that each utility's ETIP should include a portfolio of energy efficiency programs with an associated annual energy savings goal that is no less than currently assigned through the EEPS. They believe that only the programs that truly are cost-effective should be maintained. Additionally, they propose that utilities should only assume the role of administrator of certain energy efficiency programs if they are able to demonstrate improved results and/or greater cost-effectiveness compared to NYSERDA.

MI disagrees with expanding existing energy efficiency programs or spending and using system and environmental benefits of uncertain value to justify investments that are not cost-effective. Most importantly, MI comments that the current reliance on customer-funded subsidy programs must diminish and then cease.

#### National Energy Markets Association (NEM)

NEM opposes the recommendations to transfer to utilities, the responsibility of procurement of supply-side large scale renewable resources and to require utilities to develop EEIPs. They believe that these recommendations would "entrench the utilities in the competitive DER functions of renewables procurement and energy efficiency planning." They continue that adopting these mandates would discourage private capital investments in DER "because of the utilities' exclusive ability to receive guaranteed cost recovery at a guaranteed rate of return," and will ultimately grant utilities an unfair competitive advantage. NEM also comments that utility procurement of renewable resource raises significant price issues. They propose that "if renewables form part of utility default service, then default service must be priced to reflect the full costs of procuring these resources," and not an artificially low, subsidized price.

#### National Fuel Gas Distribution Corporation (NFG)

With respect to clean energy transition, NFG supports the development of ETIPs, but recommends that the deadline to propose these plans be extended to allow for the proper development of a comprehensive plan. They also suggest that the Commission delineate in future Orders whether EEPS and REV policy decisions (i.e., procurement of large scale renewables) apply to electric utilities only or all utilities contemporaneously. Additionally, they request guidance as to how a gas ETIP should be different than an electric ETIP and point out that "expanded demand-side REV efforts are largely applicable to electric utilities only." NFG also proposes that the issue of continuing existing EEPS programs that have already been cost/benefit tested be addressed.

On the subject of energy efficiency with load management controls, NFG believes that program costs should be recovered through transparent surcharges. They believe that transitioning from surcharge mechanisms to operating expenses does not integrate energy efficiency into normal utility operations, nor does it reduce ratepayer costs and by comingling energy efficiency costs into operating expenses, clarity and transparency is lost. Furthermore, NFG comments that surcharge mechanisms can be modified and funding levels can be changed quickly, but if these costs are transferred to operating expense, the only way to change funding levels would be through a rate proceeding.

NFG comments that "fuel neutrality is the antithesis of ratepayer equity" because such an approach results in "fixed, limited resources available to support home or business upgrades, renovations, energy efficiency enhancements, and new technologies" for residential and small commercial customers. Additionally, they believe that such an approach provides free rider benefits to non-gas customers at the expense of natural gas and electric customers.

With respect to quantification and verification of achievements, NFG believes that the proposal for utility-specific technical resource manuals (TRMs) needs further explanation. They believe that TRMs should be uniform in order to benchmark performance and produce usefully comparable results and suggest that utilities adopt and utilize the existing New York State TRM. Additionally, NFG believes that the current EEPS Reporting Database should be discontinued, and that a team should be formed to research systems that may be available for potential procurement. They recommend that the E2 Working Group handle this effort and that any technology solution undergo a BCA.

In their reply comments, NFG expresses concern with the fuel neutral approach recommended in NYSERDA's CEF Proposal. They believe that this proposal "would allow electric utilities to collect the entirety of energy efficiency funding and eliminate all energy efficiency programs offered by natural gas-only utilities," and that this "would be a significant setback to energy efficiency progress made to date in the western New York service territory, and in other service territories across New York with gas-only utilities." NFG also points out that current EEPS programs are set to expire at the end of 2015, and that any continuation of current energy efficiency programs has not been discussed. They agree with other parties that there is a serious need to address continued funding for utility energy efficiency programs.

Natural Resource Defense Council (NRDC)

NRDC comments that energy efficiency "should be the cornerstone of the Commission's policies to meet New York's greenhouse gas emission targets." With respect to transition, they point out that the SSP is silent as to the fate of NYSERDA's efficiency programs and thus setting aggressive goals for utility efficiency programs is all the more important. They express concern with what will become of the significant funds and the energy savings targets currently assigned to NYSERDA. NRDC agrees that the portfolio of energy efficiency programs required to be included in the utility ETIPs should set goals using the current EEPS as a floor and suggests increasing the bar for efficiency savings to 2% of annual electric sales. They also urge that utilities and stakeholders analyze what effect increasing the role of utilities in delivering energy efficiency programs will have on the magnitude of savings achieved and relative costs and benefits to consumers.

NRDC further recommends that coordination among the utilities in the planning and implementation of their energy efficiency programs be mandated and point out that this type of coordination has already been achieved in many of the New England states. They comment that this coordination should just simply occur between the electric utilities, but also between electric, gas, and other fuels. They believe that coordination of technical resources is particularly important and will reduce costs to customers. They comment that TRM development is time consuming and requires considerable amounts of research and they do not think that each utility should expend funds to have identical research duplicated. They also propose that evaluation plans be coordinated between utilities to ensure that all programs are assessed on a standardized basis, using consistent metrics. They believe that a stakeholder process should be conducted to develop standardized reporting requirements that will ensure transparency of data as well as uniformity in tracking and reporting on energy efficiency efforts.

With respect to energy efficiency with load management controls, NRDC recommends that "New York encourage the influx of capital needed to support energy efficiency investments at scale, while also expanding cost-effective customer incentive strategies that will drive adoption of energy efficiency products and services." In order to overcome administrative challenges with respect to customer incentives NRDC recommends that providing "full support for all cost-effective portfolios, while integrating them into the DSP business model and expanding the

framework under which they are evaluated to place them on a more equal footing with traditional utility investments.”

In their reply comments, NRDC expresses concern that REV does not provide a sufficiently robust or clear transition strategy to ensure that we do not lose the benefits of NY’s existing, longstanding GHG reduction policies. They continue to support the establishments of specific energy efficiency savings goals and urge the Commission to commence a stakeholder process as soon as possible with that goal in mind. They believe that these goals need to be developed in a timely manner in order to inform review of the utilities’ ETIPs. NRDC also recommends that “the Commission give serious consideration to establishing savings goals for the State’s gas utilities.” Additionally, NRDC shares the concerns of UIU, regarding the coordination of REV, the Green Bank, and CEF. They point out that the CEF proposal “proposes a generalized ramp down of NYSERDA’s efficiency implementation activities without any discussion as to specific programs, specific timelines, and specific program funding levels.” They request clarity and specification as to the fate of both NYSERDA and utility energy efficiency programs during this transition and believe that “it is unreasonable to assume... that effective January 1, 2016, the utilities will simply assume responsibility for the entire portfolio of efficiency deployment programs that NYSERDA currently administers.” They recommend a more gradual transition over the next 3-5 years. NRDC expresses concern that “the State not entirely abandon successful energy efficiency and renewable energy programs until it has stronger empirical evidence that the marketplace is indeed prepared to step in and make the necessary investments on the scale required to meet REV’s policy goals.” Additionally, with respect to renewable energy, NRDC supports creating a separate “Track” to develop the design details for the State’s Main Tier renewable program. Finally, NRDC endorses NYSERDA’s recommendation in its CEF proposal that fuel neutrality should apply to all energy efficiency programs, including all utility programs. New York Oil Heating Association, Inc. and the Oil Heat Institute of Long Island, Inc. (NYOHA/OHILI)

NYOHA/OHILI comments that “the current fuel-based EEPS programs are fundamentally deficient because they exclude consumers who use heating fuels other than natural gas or electricity.” They support the proposed fuel neutral approach as a way to bring the benefits of energy efficiency opportunities to all customers. They support funding of energy efficiency programs only through an electric bill surcharge as opposed to incorporating them into normal utility operations. They believe that “funding efficiency programs through surcharges applied solely on electric bills would be the most efficient and equitable way to collect money to support energy efficiency initiatives.” They further believe that funding through surcharges would also facilitate easy tracking, reviewing, and analyzing of the effectiveness of these programs, “instead of trying to discern the same information from costs that are imbedded in utility electric rates.” They also believe that NYSERDA should administer efficiency programs both during the transition phase and as part of the final model because they have a greater level of expertise than utilities and are in a better position to implement these measures.

New York State Department of Environmental Conservation (DEC)

With respect to clean energy transition, DEC supports the recommendation that utilities prepare and submit ETIPs to further statewide efforts to comply with increasingly stringent national ambient air quality standards for criteria pollutants. With respect to energy efficiency with load management controls, they believe that utilities should be required to maintain budgets for evaluation, monitoring and verification (EM&V) to track all DERs in a DSP region in a transparent manner. DEC agrees that “it is vitally important, to prevent back-sliding, that each ETIP include energy efficiency programs with an annual energy savings goal that is no less than

that currently assigned through [EEPS].” DEC also supports the development of a new integrated data management system to monitor and track the progress of energy efficiency deployment.  
New York State Energy Research and Development Authority (NYSERDA)

NYSERDA believes that utilities should be encouraged to design clean DER programs that will meet the needs of consumers and provide opportunities for energy efficiency that reach the entire customer base. They propose adopting a fuel neutral approach where programs are “designed to realize and be credited for emissions reduction efforts that result in reduced on-site (non-electric) fuel consumption.” They comment on the inherent alignment REV and the CEF and offer that the CEF “will expand the roles of utilities and other service providers envisioned under REV to reduce customer energy bills, improve reliability, and contribute to the State’s greenhouse gas (GHG) reduction goals.” They also believe that NYSERDA and utilities should coordinate the development and execution of the ETIPs to avoid program overlap and market confusion. Furthermore, NYSERDA supports the proposal to energy efficiency and renewable targets for the utilities and offer to work closely with utilities to help them achieve their targets.

With respect to reporting and data management, NYSERDA supports the creation of a data and analytics approach “designed to accommodate the broad range of information necessary to advance the State’s broader energy and environmental goals,” and particularly supports utilizing a bi-directional electricity data information exchange to “ensure availability of useful, accurate, and timely data for all market participants.”

New York Geothermal Energy Organization (NY-GEO)

NY-GEO agrees with the statement that “in order to attain these results, and to meet state and federal greenhouse gas emission reduction goals, an order of magnitude greater investment is needed,” but caution that such investment must be well targeted. They propose that widespread retrofitting to GHPs and a transition to electric cars will be necessary for NY to reach its GHG reduction goals. With respect to energy efficiency with load management controls, NY-GEO recognizes the significance of the proposal to integrate efficiency programs into normal utility operations and be recovered the as other operating expenses. However, they express concern that “this places an enormous burden on energy efficiency contractors to make sure the benefits of their technology are recognized and properly incentivized by each [utility].” Additionally, NY-GEO cautions against utility specific TRMs and urges DSP to play a constructive role if such TRMs are implemented.

New York Independent System Operator, Inc. NYISO

NYISO recommends that utility ETIPs “address how energy efficiency targets and investments will be funded, monitored, and their performance measured, so their contributions can be incorporated into the utilities and the NYISO’s planning processes.” They believe that transparency and coordination will be necessary to integrate energy efficiency programs into bulk power transmission system planning. They comment that transitioning energy efficiency program administration to utilities may introduce new considerations to the bulk system planning processes. They continue that energy efficiency needs to be integrated into this process to provide “efficient market signals, helping to realize the benefits attributable to investments in energy efficiency.”

New York Power Authority (NYPA)

NYPA recommends that utilities should be required to proactively coordinate REV-related planning and implementation initiatives with them. They believe that their extensive experience in developing energy efficiency initiatives statewide, “could significantly improve the likelihood of utility success in the planning for and implementation of REV initiatives.” Additionally, NYPA believes that the Commission should approve standardization of certain technologies. First, they propose installation of smart inverters for customer side renewable facilities and believe that “any serious effort to capture the benefits of REV-type technologies needs to recognize the value of

smart inverters.” Second, they propose the establishment of customer side end use device specifications, both for hardware and software, applicable to DERs and load control devices. They believe that the standardization of both technologies will “reduce costs, remove uncertainties, and help foster a quicker adoption of REV objectives,” and propose that they be included as near-term “no regrets” actions.

#### Northeast Clean Heat and Power Initiative (NECHPI)

With respect to transition implementation plans, NECHPI proposes that utilities be required to include Clean Heat and Power in their ETIPs that will detail their plan to optimize and monitor their energy efficiency portfolio in support of improved system efficiency and operation. They also propose the inclusion of “thermal energy/steam network planning as part of larger, long-term energy resource planning activities.”

#### Northeast Energy Efficiency Partnerships (NEEP)

NEEPs support the proposal to have utilities develop ETIPs and the proposal divide energy efficiency responsibilities between NYSERDA and utilities. They believe that “utilities are in good position to identify which energy efficiency programs in their individual service territories will offer the most value to their customers.” They also support including annual energy savings goals, using the current EEPS standards at a baseline. Additionally, NEEP agrees that coordination between the ETIPs and the CEF will be “essential to addressing the customer confusion and competition among program administrators that has undermined the success of the EEPS programs.” They propose that the role of NYSERA be clarified and that they play a continuing role in (1) “assisting customers to participate in DER markets and to overcome the informational, upfront cost, and split incentive barriers to obtaining energy efficiency resources;” (2) developing energy efficiency public policy serving as the statewide program evaluator; and (3) maintaining the infrastructure that has already been developed to support the delivery of energy efficiency programs. With regard to evaluating utility ETIPs, NEEP suggests utilizing a statewide or regional TRM as opposed to utility-specific one.

#### NRG Energy, Inc. (NRG)

In their comments, NRG cautions that the proposal to establish a central role for the utilities in energy efficiency could “create barriers to market entry which would negatively impact competitive DER and hinder achieving [REV goals].” They believe that energy efficiency measures “which are managed through energy devices and building energy management systems should be provided by competitive service providers, and the utilities’ role should focus on efficiency improvements that are not typically pursued by competitive service providers.”

#### PosiGen Solar Solutions (PosiGen)

In their reply comments PosiGen expresses support for NYSERDA’s “behind the meter market strategies” offered in their January 14, 2015 Clean Energy Fund forum, including “increased access to clean energy options for LMI ratepayers, integrated offerings and measurement, and verification driven contracting.” They point out that LMI communities are “most often exploited and preyed upon by bad actors,” and thus believe that these types of programs are needed to protect LMI households while promoting renewables and energy efficiency. Specifically, they propose a requirement that any LMI solar installation be accompanied by an energy efficiency upgrade. They believe that this would create additional protections while facilitating the growth of more integrated offerings that result in greater home health for LMI ratepayers. They further propose establishing a measurement and verification process to ensure these integrated offerings are efficient and effective.

PosiGen also recommends elevated incentive tied to energy efficiency upgrades that will jumpstart the market for solar installations for LMI households. They believe that a five year commitment of \$250 million (\$50 million per year) by NYSERDA could enable up to 3,333

residential PV installations and energy efficiency upgrades on LMI rooftops per year. They see this as “a modest initial anchor” and suggest that increasing these funds can be considered later in the program if it is successful and “provides the public benefits PosiGen is confident it will provide.” They also propose that an integrated solar and energy efficiency upgrade application should be utilized in order to provide a “clean energy one stop shop” for LMI households. Finally, PosiGen points to the “fundamental weaknesses in the existing LMI energy efficiency program.” They propose replacing that current infrastructure with a simple pay for modeled energy performance program that pay contractors based upon the level of actual mMbtu savings an upgrade should produce. They believe that such a program as they have proposed will “provide transparency, useful information for both ratepayers and administrators, and create real accountability for success in reducing LMI ratepayers’ energy burden over time.”

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island supports the implementation of a new energy efficiency data management system that is flexible enough to meet individual utility and the collective data needs of DPS and the State. They suggest that such a system be co-owned by all utilities, including LIPA, “as an asset that is recovered in rates, and that the DPS manage the exchange, either directly or via contract with a qualified vendor, with those operational costs shared equitably among the utilities, and recoverable in rates.” They also support the recommendation that utilities integrate energy efficiency funding into their regular operations.

Regional Plan Association (RPA)

RPA supports the commitment to transparency and collaboration through data management, reporting and exchange.

Renewable Energy New England (RENEW)

RENEW proposes that REV continue the RPS goals, as well as produce an additional 1500 MW of utility scale wind generation. They also suggest that the Commission should create a separate Track, or separate proceeding entirely, for issues concerning utility scale renewable energy.

RUPCO

RUPCO offers reply comments that express concern that “an overreliance on markets and elimination of incentives and public supports for residential energy efficiency will likely result in a significant decrease in the recent growth in demand for home energy efficiency and renewable energy upgrades across most income levels.” They call for a greater emphasis on defining and creating affordable access to clean energy and reducing energy demand through residential energy efficiency. They point out that “energy efficiency and installation of residentially-owned renewable technology will require purchasing decisions to be made at the individual consumer level,” and therefore stress the importance of factors like cost, available financing, and incentives. They believe that public benefits like low interest, low cost financing, and incentives need to be expanded.

RUPCO also comments that “REV should prioritize community-owned and collective efficiency and renewable projects to enhance local control over energy choices, develop local jobs, and keep energy dollars in local communities.” They propose particular attention be paid to providing LMI potential environmental justice communities information and access to energy efficiency resources. They support promoting energy efficiency integrally with popular renewable strategies like solar because energy efficiency will provide the best return on investment and can reduce renewable system costs. They support this opportunity to facilitate growth of the energy efficiency industry at the same pace as renewables. Additionally, they believe that “access to energy efficiency technology, financing and incentives as well as pathways to clean energy ownership must be open to all New Yorkers” regardless of “home-ownership, credit scores,

wealth, income, tax credits, or measures that disproportionately exclude low-income people, people of color, women and other underserved populations.”

Finally, RUPCO believes that REV must include strong GHG reduction targets, “based on the latest climate science, with short-and medium-term benchmarks and accountability measures to ensure goals are met.” They strongly support maintaining government support and subsidies for renewable energy until the market approach proves it can meet the State’s climate goals.

#### Sierra Club

The Sierra Club offers reply comments that generally support the comments of the Clean Energy Advocates, but supplements those with several suggestions. Initially, they urge the immediate commencement of a separate proceeding to determine the future of NY’s RPS program beyond 2015. They point out that neither the REV nor the CEF proceeding address the future of the RPS program and stress the need to expedite a new proceeding on this issue so that a new program is in place by the time the current one expires. Furthermore, the Sierra Club proposes that the Commission adopt a “10-year funding commitment to the post-2015 RPS program, which will provide critical certainty and predictability for renewable developers, keeping cost-effective renewable projects in New York, and allowing New Yorkers to profit from the billions of dollars in economic, public health, and environmental benefits which flow from those projects.” They also support the SSP and the CEF Proposal’s efforts to address measures to meet GHG reduction goals and agree that both short-term and long-term targets need to be set and maintained.

#### Simple Energy

With respect to clean energy transition, Simple Energy believes that energy efficiency programs, instead of expiring at the end of 2015, “be continued as the REV process continues to chart the complete future vision.” They approve of the aggressive timeline for submitting ETIPs, but suggest that a cost-recovery mechanism be included.

With respect to energy efficiency with load management controls, Simple Energy does not support the integration of energy efficiency programs into normal utility operations by 2015. They comment that “unless and until ratemaking is reformed and activated, we believe that maintaining cost recovery for such programs under current models will allow continued deployment and development of innovative programs.” Additionally, in regards to the proposal that current EEPS should be the floor for annual energy savings goals, they recommend setting a higher floor and rewarding utilities that exceed performance goals with additional returns beyond cost recovery.

#### State University of New York (SUNY)

SUNY comments that the Governor’s Executive Order 88 (EO88) “dovetails perfectly with REV, and has encouraged SUNY campuses to conduct energy due diligence that should now be invaluable to the utility companies as they prepare [ETIPs].” They comment that SUNY campuses are ready to actively engage with the utilities as they work towards load reduction through the development of their ETIPs.

#### Tendril

Tendril comments that it will be critical that utility ETIP contain strategies to facilitate customer interaction with market offerings for energy efficiency, load management, and other products and services. They also propose that ETIPs and DSIPs include specific proposals for development of a common web-based tool to further these goals.

#### The Alliance for Solar Choice (TASC)

TASC comments that photovoltaic (PV) system vendors “are well positioned to deliver energy efficiency at the time of PV installation.” They continue that PV vendors are also well positioned to market storage technologies. They believe that solar energy providers “should be



allowed to bid hybrid solar/efficiency/storage services to meet objectives under utility [ETIPs] perhaps initially through a demonstration projects.”

The Nature Conservancy (TNC)

TNC comments that a commitment to development and expansion of efficiency and renewables, and maintaining and expanding existing energy efficiency and renewable targets is essential to provide benefits to the environment and to customers. With respect to energy efficiency with load management controls, they support the development of ETIPs that include a portfolio of annual energy savings targets that use EEPS as a floor. Additionally, they believe that NYSERDA’s efficiency programs should be continued under the CEF at their current level of funding for ten years and that reporting and monitoring to ensure that the net level of efficiency activity is not reduced is essential. They also propose MW and carbon reduction targets be included in ETIPs and that standardized evaluation tools and a data management system be utilized to monitor of effectiveness of implementation programs.

Utility Intervention Unit (UIU)

With respect to transition, UIU seeks clarification that it is the intent of the SSP to “recommend that NYSERDA’s REV responsibilities include provision to low and moderate income residential ratepayers of all appropriate DER products and services, including current energy efficiency measures, as well as development of community microgrid systems and CCAs.”

In their reply comments, UIU remarks that the SSP does not contain any analysis that shows that utilities will operate energy efficiency programs more efficiently and effectively than NYSERDA currently does and calls for a slower, more deliberate approach to REV implementation. They express particular concern with the various opinions regarding cost recovery of these programs and caution that this issue needs to be thoroughly addressed before any implementation. UIU suggests utilizing surcharge mechanisms for energy efficiency programs for the time being because such mechanisms “(1) [promote] transparently and fairly distribute costs to residential and commercial customers, (2) allow changes in program design and funding levels easily without waiting for a rate proceeding to occur, and (3) do not unduly burden low-income and moderate-income customers.”

Vote Solar Initiative (Vote Solar)

In their reply comments, Vote Solar reinforces their concern with the array of barriers that prevent a majority of electric customers from investing in on-site renewable energy to meet their energy needs. They believe that shared solar should be considered in the REV process as a tool for expanding access to solar and other renewables. They point out that SEIA, CLP, Energy Efficiency for All, and IREC support this position as well. Additionally, they believe that “concerted attention in both the REV and CEF proceedings regarding programs, tariffs and other tools, inclusive of shared solar, will greatly assist in developing solutions that will broaden access to solar and other DER” for low and moderate income customers.

Wal-Mart Stores, Inc. and Sam’s East, Inc. (Wal-Mart)

Wal-Mart believes that the SBC surcharge program should be modified or discontinued. They requests that “the Commission consider allowing customers who have pro-active energy efficiency initiatives in place, the option to opt out of contributing to energy efficiency programs via the system benefit charge program and instead self-fund its own energy efficiency measures.”

SECTIONS V.B. DEMONSTRATION PROJECTS; V.C. INTERCONNECTION PROCEDURES; & V.D. MICROGRIDS

Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

In reference to demonstration projects, AEEI stresses the importance of demonstration projects and propose that they include business concepts, regulatory processes, and new services as well as technologies. They support involving third parties and propose implementing metrics to track how utilities are engaging third parties. They also propose that clarity needs to be given to the utilities on how they will recover costs associated with these projects. Additionally, AEEI believes that the large number criteria proposed might make it difficult for individual projects to meet them all.

With respect to interconnection procedures, AEEI supports Staff's proposal to raise the NY Standardized Interconnection Requirements (SIR) to 5MW. They encourage the Commission to streamline the process and recommend following the lead of the Massachusetts DPU in "tying utility compensation to performance in adhering to deadlines in meeting interconnection process milestones." They offer that Massachusetts has established a timeline enforcement mechanism and a system of associated financial penalties and rewards consistent with a more general movement towards outcome-based regulation. They also recommend considering a distribution-side tariff structure based on FERC's Open Access Transmission Tariff (OATT).

In reference to microgrids, AEEI supports the exploration of different technical and business arrangements, including ownership of different assets of the microgrid. They believe that "the same rules that apply broadly to DER ownership and market power should apply to microgrids, with a specific exception for multi-customer microgrids with utility/third party provider collaborations." They propose that utilities should make available information that will help third parties determine the best locations to develop microgrids (and all DER in general).

Agreen Energy LLC and Vanguard Renewables, LLC (AGE/VR)

AGE/VR recommend, in reference to demonstration projects, that a limited number of demonstration pods (specifically, anaerobic digester bioprocessing facilities), each with three or four DERs in one region, be implemented by privately capitalized ventures, with many business partners, on farm sites, using existing incentives from NYSERDA, all shared with a professionally managed, transparent, SCADA controlled process. In reference microgrids AGE/VR believe that ag/food DER is consistent with a distributed power energy vision.

With respect to interconnection procedures, they recommend implementing time limits of no more than 90 days for responses to each step of the interconnection process with reasoning for denial, accompanied by recommended solutions. They continue that if rejected, 30 days should be allowed for the appeal and then 30 days allowed for a response. They also propose that the method of allocating the total cost of any utility upgrade to the last 20% must be changed. They believe that baseload DERs should be given preferential treatment in interconnection queues compared to intermittent DERs (ex. Ag/food digesters provide power 24/7 with a 95% uptime when professionally managed.)

Alliance of Automobile Manufactures, Association of Global Automobile Manufacturers, and General Motors (Automakers)

In reference to demonstration projects, Automakers support "demonstrations of the fundamentals of vehicle-grid integration (standards, interoperability, characterization of values, and simple and flexible customer engagement) and believe that utilities should have an active role in developing charging infrastructure."

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

With regards to demonstration projects, AARP/PULP recommends additional criteria, concerning cost recovery, to govern the development and approval of these projects. First, they propose that any “DER programs with cost recovery from ratepayers should first be evaluated with a demonstration program to obtain data about customer engagement and impacts on usage, peak load demand, and bills.” Second, they propose that pre-approval should be required for demonstration projects with cost recovery from ratepayers. Finally, they propose that utilities “must agree that the recovery of costs in a future rate case will be subject to an evaluation of prudence.”

American Biogas Council (ABC)

With respect to interconnection procedures, ABC comments that these procedures need to be revised to remove barriers and lower the cost of and accelerate project development. They believe that benefits of ownership must flow to the entity paying for the grid asset improvement and not just to the utility.

In reference to microgrids, ABC comments that biogas plants are often a hub for organics processing from several local farms, businesses, or entire communities and that by establishing a microgrid, these projects can supply reliable, resilient, affordable, baseload renewable energy.

CALM Energy, Inc. (CALM)

CALM, in regard to microgrids, suggests that the highest priority from a DER/microgrid perspective should be towards creating a stakeholder approved, scalable, automated demand response capability through algorithms and analytics that enable customer control and optimization.

ChargePoint, Inc. (ChargePoint)

In regard to demonstration projects, ChargePoint comments regarding EV charging technologies that “demonstration projects for submetering, vehicle grid integration tariffs, and billing integration can test customer acceptance and pilot innovative efforts exploiting the respective strengths of the utilities and third party network service providers.” They agree that the most important principle should be requiring utilities to “leverage public and private partnership opportunities, particularly... with third party DER providers,” as they can help accelerate innovation and expansion in EV services and adoption, particularly in the near term. They propose a workshop on developing EV-related demonstration projects is warranted.

ChargePoint, Inc., in reference to microgrids, supports the recommendation that DSPs develop a process to inform developers where microgrids would provide the most value to the grid and are most easily able to interconnect. They suggest developing pilot microgrid projects at locations such as university and industrial campuses, including EV infrastructure in such pilot proposals, and using these projects as a platform for demonstrating new technologies and DER applications.

Citizens for Local Power (CLP)

With respect to demonstration projects, CLP offers reply comments that support these projects and recommend that they be financed with SBS/EEPS/RPS/CEF funds. They believe that criteria should be developed through a stakeholder process and oppose the comments by the Joint Utilities that suggest utilities undertake demonstration projects without oversight and with guaranteed cost-recovery.

In reference to interconnection procedures, CLP agrees with the need to address excessive interconnection costs and suggest establishing a process where third-party bids are considered and can be accepted subject to Commission oversight. CLP points out that many municipalities have landfill sites that are PV-ready that they cannot afford to develop due to the utilities’ estimated cost

of interconnection. They comment that such disputes must be resolved to facilitate the integration of large scale renewable energy resources.

City of New York (NYC)

With respect to interconnection procedures, NYC supports the use of standardized interconnection requirements “to avoid the potential for utilities to favor their own projects over those of unaffiliated third parties.” They believe that such requirements “would streamline and expedite consideration of requests and increase the transparency and integrity of the process.” NYC supports the elimination of barriers like interconnection requirements and standby rates to widespread DER deployment.

Clean Coalition

In reference to demonstration projects, the Clean Coalition suggests that utilities promptly design and implement pilot projects in order to provide a testing ground for distribution grid planning processes.

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

In reference to demonstration projects, the Clean Energy Advocates comment that a demonstration of a functioning DSP infrastructure project with a transparent stakeholder process should be required because they believe that early implementation plans and demonstration projects will confirm whether the utility ownership of DSP is technically feasible.

With respect to interconnection procedures, the Clean Energy Advocates note that utilities will need to devote more staff to process the increasing number interconnection applications. They support periodic interconnection reform and increasing the NY SIR to 5MW. They also recommend reconsidering cost allocation for DER interconnection upgrades.

In reference to microgrids, the Clean Energy Advocates request additional clarity, particularly whether this framework would exclusively facilitate utility-owned microgrids. If that is the target, they request more detail on how customers would qualify to “sign up” to receive this service. They also comment on the need to address barriers such as stand-by rates and suggest revision to the campus-style tariff in order to increase the societal and financial benefits of microgrids and encourage rapid deployment.

Consumer Power Advocates (CPA)

In regard to demonstration projects, CPA comments that these projects should include multiple small scale pilot projects, each with measurable results and verifiable cost impacts to prove the feasibility of REV. CPA recommends a cautious approach before requiring fundamental changes in operating procedures to limit the risks of reliability failures or undue bill increases.

In regard to interconnection procedures, CPA believes that, in addition to relying on standard procedures, imposing hard deadlines on utilities is an effective approach for projects larger than 2MW. A process for dispute resolution should be developed that provides a level of certainty to developers that allows for orderly project planning and rational decision making.

With respect to microgrids, CPA notes that present policies hinder customers’ ability to install DER. They point to a need for a systematic effort to determine what number, locations, and total capacity of DERs is optimum, and support the recommendation for a transparent process to inform developers where microgrids and DERs provide the most value.

Direct Energy Services, LLC and Direct Energy Business, LLC (Direct Energy)

In reference to demonstration projects, Direct Energy supports the use of demonstration projects and the proposed criteria that would guide investments. They believe that demonstration projects can be used as a test bed for DER technologies, the DSP platform, and regulatory

structures and they suggest establishing a more formal structure for proposing and vetting these projects.

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC, in reference to microgrids, request that the proposed definition of microgrid be explained in more detail. They believe that addressing barriers to microgrids should be a priority and point out the potential economic benefits of microgrids, including energy savings, continued business operation during grid outages, and participation in ancillary services markets. They also state that ESCOs, microgrids, and co-ops should be able to form DSPs to compete with existing DSPs as long as they meet the Commission's standards.

EnergyNext Inc. (EnergyNext)

In reference to microgrids, EnergyNext propose a process of community engagement to assure acceptance of both the physical boundaries and the cost-sharing proposition. They believe that microgrid tariff similar to the Remote Net Metering tariff could provide the financial incentives to induce widespread deployment with local initiative and participation, allowing communities to seek clean energy generation options and harden facilities that support public safety and health.

Energy Technology Savings LLC (ETS)

With respect to demonstration projects, ETS believes that demonstration projects are necessary and finds the criteria suggested by Staff to be reasonable and comprehensive.

In reference to interconnection procedures, ETS notes the importance in preventing overly burdensome and time consuming interconnection processes and supports that utilities will be in need of additional resources to conduct more frequent and complex interconnection reviews. They note that Staff should carefully monitor complaints relating to interconnection approval requests to ensure a fair process.

With respect to microgrids, ETS agrees with the microgrid subcommittee's list of barriers to marketplace entry and believes that these issues must be resolved to fully achieve the goals of REV. With regard to standby rates, they comment that it is important to consider how DERs may be used and their value properly reflected.

Environmental Defense Fund (EDF)

In reference to microgrids, EDF supports actions to improve the regulatory environment for microgrids, such as the development of a robust BCA framework and more information about where DER would benefit the grid. These actions include those that would benefit DG resources generally, such as standby rate reform and improved interconnection procedures; and actions that would uniquely relate to microgrids, including a regulatory framework tailored to microgrids. In their reply comments, EDF disagrees with the Joint Utilities' comment that removing the requirement that microgrids must be able to island will encroach on a utility's franchise rights. They believe that this "determination should be made as part of a comprehensive examination of regulatory structures and values of microgrid features – not assumed away without analysis of regulatory alternatives to address the roles and responsibilities due to existing obligations of a franchise."

Exelon Corp. (Exelon)

In reference to demonstration projects, Exelon suggests that demonstration projects should not be conducted until foundational REV issues like the method of ensuring fair compensation and confirming the role of existing, clean, base load resources (such as nuclear) are addressed.

FirstFuel Software (FirstFuel)

In reference to demonstration projects, FirstFuel expresses support for using pilot projects and studying lessons learned in other regions. They recommend partnerships between utilities and

service providers and suggest that utilities could test out the “service provider marketplace” concept on a small scale by issuing solicitations and launching a demonstration.

GridWise Alliance (GWA)

In reference to microgrids, GWA agrees that new rules and procedures specifically affecting the development and deployment of microgrids should be addressed. They also suggest considering the implications for the utilities’ and the microgrid owners’ obligations to serve. GWA supports that DSPs should incorporate microgrids into their planning and echoes NEMA’s comment that “choice must always prevail in the market and customers should always have the choice and control over their energy decisions and investments.”

Hudson River Sloop Clearwater, Inc. (Clearwater)

In regard to interconnection procedures, Clearwater notes that interconnection costs are one of the greatest obstacles for municipalities to overcome and believe that these costs should be waived for municipalities, or funded through NYPA or other reserve funds. They also propose that the utility application processing process should be monitored to prevent severe delays.

In regard to microgrids, Clearwater comments that the largest obstacle to the success of microgrids is standby tariffs and suggest that these tariffs need to be restricted or eliminated in order to promote distributed generation.

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy comments, in reference to demonstration projects, that further demonstration of DER technologies is needed to effectively implement the DSP and propose that “the Commission should consider the results of a diverse variety of publicly-accessible demonstration projects before coming to a final determination as to either the identity of the DSP or the procurement and ownership of DER by utilities.”

Interstate Gas Supply, Inc. d/b/a IGS Energy (IGS)

With respect to interconnection procedures, IGS supports the Commission goal of developing a streamlined and transparent interconnection process and supports modifications to Standby and Net Metering tariffs to remove barriers to DER.

Interstate Renewable Energy Council, Inc. (IREC)

In reference to interconnection procedures, IREC supports improving the existing interconnection procedures to make them more transparent, including: sharing information via a public queue; improving utility workforce capacity to review requests; improving the interconnection study process and interconnection agreement procedures; publicly providing reasoning for denial or delay of requests; increasing eligibility for the standardized process (e.g. FERC SGIP and many states have standardized processes for facilities up to 20 MW); and standardizing the interconnection process for CHP facilities.

John Wellingshoff, Stoel Rives, LLC with Katherine Hamilton and Jeffrey Cramer, 38 North Solutions, LLC (Stoel Rives/38 North)

In reference to interconnection procedures, Stoel Rives/38 North comments that the interconnection process should be open and transparent and point to FERC’s OATT as a model that can be implemented on the distribution side to benefit consumers and increase competition and innovation.

Joint Utilities

In reference to demonstration projects, the Joint Utilities comment that the proposed criteria could be overly restrictive and discourage innovation and suggest a more flexible approach that would promote projects that produce the desired information and innovation. They believe that “utilities should have the flexibility to propose their own demonstration projects, jointly propose demonstration projects with third parties, or seek proposals for demonstration projects

from third parties at any time as opportunities develop.” They further propose that a well-conceived and executed project should receive cost-recovery regardless of its results.

In reference to interconnection procedures, the Joint Utilities acknowledge that “interconnection process takes more time than many applicants would like, but adherence to such procedures... is fundamental to maintaining safety and reliability.” They comment that they are ready to work with the DER community to improve the interconnection process and supportive of periodic reviews of the SIR to identify opportunities for cost reductions and process improvements through standardization. They also express a willingness to consider the expansion of the SIR to DG installations greater than 2 MW in capacity, but note that the complex nature of microgrids warrants an interconnection process that is distinct and separate from a SIR. Additionally, they comment that publication of certain types of information upon denial of an interconnection application raises public disclosure issues. They also add that plug-and-play technologies should not be allowed to bypass the interconnection process as they may jeopardize safety and reliability.

In reference to microgrids, the Joint Utilities agree that “DG facilities within a microgrid could be owned by a customer, a third party, or the utility,” but point out that “when a microgrid serves multiple customers and operates within the surrounding electric distribution infrastructure, utilities are in the best position to own and operate such distribution infrastructure when it involves systems within the utility franchise area” because of their “workforce, procedures, emergency response plans, and the obligation to supply customers as providers of last resort.” Additionally, they oppose the definitional change that would not make it a requirement that a microgrid be able to island from the grid because this would allow microgrid developers to “encroach on a utility’s franchise rights and operate as a utility selectively, without the broader responsibilities of a regulated utility.” The Joint Utilities believe that “where a utility-owned microgrid provides a lower cost alternative to a traditional utility solution or where extraordinary public benefits are provided such as continuity of public services during times of natural disaster, such microgrid costs should be recovered through rates,” and should be supported by an effective BCA process.

#### Multiple Intervenors (MI)

With respect to demonstration projects MI large amounts of resources (particularly customer funds) should not be expended on initiatives that are the subject of demonstration projects until those projects have been implemented and evaluated comprehensively.

On interconnection procedures, MI comments that, with the exception of standby service charges, an arduous interconnection process is often the largest impediment to DG development and suggests that Staff investigate and mediate all interconnection disputes.

In reference to microgrids, MI notes that the market should dictate the number and the location of microgrids and that burdensome regulatory requirements and standby service rate structures should be addressed to facilitate their development.

#### Mutual Redevelopment Houses, Inc. (Penn South)

In regard to interconnection procedures, Penn South recommends a streamlined approval process instituted by the PSC with penalties imposed for untimely delay.

On microgrids, Penn South comments that barriers, such as high interconnection costs, prevent integrating microgrids into the system. They add that present utility stand-by charges can cost as much as purchasing the power itself and do not recognize the ability of microgrids to back up the utility grid.

#### National Electrical Manufacturers Association (NEMA)

In reference to demonstration projects, NEMA supports the deployment of DG demonstration projects as part of a broader research and development effort into “innovative solutions for increasing the penetration of such resources on utility distribution circuits without compromising reliability or power quality.”

NEMA agrees that new rules and procedures for microgrids should be addressed and that DSPs should incorporate microgrids into their planning, noting that “choice must always prevail in the market and customers should always have the choice and control over their energy decisions and investments.” NEMA concurs that “rules surrounding interconnection requirements and procedures, stand-by and demand charges, and non-utility ownership of generation and distribution assets need to be carefully considered by the Commission...” and that “these tariffs need to be evaluated specifically in the context of microgrids, and be evolved in a way that fairly values the benefits they bring to the ‘macro’ system.” Additionally, they comment that microgrids and community DG systems lend themselves to collaboration between third party providers and utility operators and encourage this collaboration.

National Fuel Gas Distribution Corporation (NFG)

NFG suggests a reform process for expediting the interconnection processes while minimizing costs and ensuring safety and reliability and supports increasing the SIR. They believe that standardized and effective interconnection processes for DG, CHP, and cogeneration facilities are essential to support REV goals.

New York Battery and Energy Storage Technology Consortium (NY-BEST)

On the subject of demonstration projects, NY-BEST encourages utilization of the New York Testing Centers of Excellence for 3rd party demonstration of the technologies and communication platforms integral to achieving DSP functionality. They offer that this and other facilities have the capabilities to help evaluate proposed platforms and perform field testing and validation.

New York Geothermal Energy Organization (NY-GEO)

In reference to demonstration projects, NY-GEO believes that GHP technology meets several of the criteria outlined for demonstration projects and looks forward to exploring participation these projects.

NY-GEO comments, in regard to microgrids, that GHGs can play an important role in microgrids and should be included in development processes. They add that sharing of thermal resources between buildings via district energy systems should be considered.

New York Independent System Operator, Inc. (NYISO)

In reference to interconnection procedures, NYISO agrees that greater transparency and less burdensome interconnection rules help remove barriers to entry.

New York Power Authority (NYPA)

NYPA notes it is working with customers “to encourage development of microgrids and other DG, to provide customers with additional ways to reduce their power costs, satisfy their desire for cleaner power choices and manage their energy production to ensure it meets quality and availability requirements.” They agree that the Commission should reevaluate standby tariff rates, considering the benefits that DER resources can provide to the grid and clarify how net metering policies apply to mixed DER resources. They also agree with the need for more efficient, standardized interconnection processes, with periodic review by the Commission.

New York State Utility Labor Council and Utility Workers Union of America, AFL-CIO, Local 1-2 (NYSULC/Local 1-2)

In their reply comments on microgrids, NYSULC/Local 1-2 agrees with the Joint Utilities that “utilities are in the best position to own and operate microgrids that serve more than one customer and operate within the surrounding electric distribution infrastructure,” citing the utility’s experience, assets, and procedures. They also agree that the costs for utility-owned microgrids providing public benefits should be recovered through base rates and should be supported by an effective BCA process.



Northeast Clean Heat and Power Initiative (NECHPI)

In reference to interconnection procedures, NECHPI comments that “interconnecting CHP can be complex, costly, and time-consuming and can make it unfinanceable.” They recommend that interconnection be made a near-term action item and that a working group to address interconnection issues for all DERs (particularly for CHP and microgrids) be established. Additionally, NECHPI recommends that the Commission updates cost-sharing of natural-gas upgrades and evaluate approaches to implementing more standardized permitting, zoning, and environmental processes across the state. In their reply comments, they add that interconnection procedures (including the SIR) should be as neutral as possible with respect to generation technology. They also point to Massachusetts and California interconnection standards and FERC’s Small Generator Interconnection Procedures (SGIP) and believe that these procedures should be considered industry best practices.

With respect to microgrids, NECHPI comments that establishing standardized, transparent BCA frameworks and valuation methodologies for each DER as well as for microgrids will mitigate the identified barriers. They believe that CHP up to 2 MW (as is the case for solar) should be allowed to participate in net metering to avoid demand charges and standby rates. They also propose restructuring of demand charges and standby tariffs in order to eliminate onerous utility rate structures with respect to CHP.

NRG Energy, Inc. (NRG)

NRG believes that the solicitation for demonstration projects should be on a competitive basis and should include projects aimed at evaluating the need for and value of centralization and complex market functions.

In reference to interconnection procedures, NRG comments that simplified procedures designed to accelerate interconnections are critical and should include periodic reviews to ensure that procedures accommodate new technologies and reflect necessary modifications to correct deficiencies by utilities in processing requests.

With respect to microgrids, NRG comments that regulatory reforms and DER market development will facilitate the deployment of microgrids by private investors. They believe that microgrids are “fully suitable to competitive development, ownership, and operation, and thus should be developed and addressed by competitive service providers according to the value they provide to consumers.”

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island comments, in regard to interconnection procedures, that increasing the SIR to 5MW is a major jump and will require a thorough evaluation to ensure that the proper protections are considered.

In reference to microgrids, they comment that DSP must treat all DER providers fairly, and not favor one technology (microgrid) over another (CHP, solar), when either may show the same value to the local grid. They believe that investment and operation and management costs should be borne by the customers directly benefiting and not spread to other customers. Additionally, they recommend that where microgrid equipment is located on public streets or rights of way, the utility should own and operate such facilities to ensure public safety and employee safety.

Retail Energy Supply Association (RESA)

On microgrids, RESA offers reply comments that express concern that the comments of the Joint Utilities that recommend the preclusion of independent (non-utility) multi-customer microgrids, seek to displace competitive vendors and extend their monopoly status in an important segment of the emerging microgrid market.

RiverBay Corporation (Co-op City)

Co-op City comments, in reference to microgrids, that excessive standby charges and restricted opportunities to sell electricity back to the grid are significant barriers to microgrid development and that should be addressed.

Simple Energy

Simple Energy supports promoting demonstration projects and agree with the criteria, that “it is important to set the right rewards for trying new solutions”, and they agree that “validation for projects should include customer-focused measures to determine the effectiveness of participation.”

SolarCity Corp. (SolarCity)

SolarCity comments that onerous interconnection procedures provide utilities with unearned advantages and that utilities would be incentivized to maintain or increase these barriers if they are permitted to own DER.

Solar Energy Industries Association (SEIA)

In reference to interconnection procedures, SEIA supports the recommendation to increase the NY SIR to 5 MW. They support a forward looking periodic interconnection reform process and also recommend the creation of a standing Interconnection Process Review Task Force with representation from DER providers to give feedback and reform burdensome procedures. They recommend that utilities increase their capacity to process interconnection applications with a performance-based measure that ties utility compensation to its ability to meet interconnection process milestones. SEIA supports the public interconnection queue suggested in the SSP and offers that any project specific information should be protected behind a secure login for program participants. They also support publicly available cost allocation methodology for distribution and transmission network upgrades resulting from DER interconnection, including standards for how to assign costs among multiple interconnection customers along the same distribution feeder to prevent first mover and free rider situations.

State University of New York (SUNY)

SUNY comments, in regard to interconnection procedures, that safety is paramount but should not be used as an excuse for utility companies cause unnecessary, costly delays in facilitating interconnections.

The Alliance for Solar Choice (TASC)

TASC recommends a comprehensive, regularly scheduled review of the SIR to explore opportunities to streamline the interconnection process and regulatory incentives to encourage utilities to make interconnections as fast and simple as possible for distributed renewable generation. They propose a transition to “a system in which distributed renewable generation is treated like load, with the costs of any needed upgrade in distribution systems recovered like any other expense to meet load.” They encourage adoption of FERC or CA interconnection models.

In their reply comments, TASC, with regard to plug-and-play technologies, urges the Commission not to make any general statement at this time and to address interconnection requirements for these technologies once it is clearer how they may affect distribution system operation and reliability.

The Nature Conservancy (TNC)

TNC supports using demonstrations to achieve REV objectives and suggest they be developed in NY Rising communities, critical infrastructure facilities, and college campuses.

In reference to interconnection procedures, they comment that interconnection rules are a barrier that must be addressed to enable DER development and recommend both increasing the SIR and better management of interconnection applications.

With respect to microgrids, they recommend that interconnection requirements be re-evaluated to facilitate obtaining revenue streams from markets, and support DSP transparently to inform developers where they can provide greatest value and most easily interconnect.

SECTIONS: V.F. PLANNING REV IMPLEMENTATION & VII. IMPLEMENTING REV:  
FINDINGS AND RECOMMENDATIONS

Advanced Energy Economy Institute with Alliance for Clean Energy New York, Inc. and New England Clean Energy Council (AEEI)

AEEI comments they generally support the transition and implementation planning to be performed by utilities as proposed in the SSP. They interpret this to mean that the utilities will be required to develop and submit (1) An ETIP that addresses energy efficiency starting in January 2016; (2) a Proposal for Interim Action (PIA); and (3) a DSIP that is a 5-year investment plan and REV implementation plan.

In regard to DSP platform and market vision planning, they support efforts to further define the DSP platform and also support the creation of the three stakeholder processes identified in Section V.F.2. They understand that the three submittals mentioned above (ETIP, PIA, DSIP) will need to be submitted to the Commission before the completion of these stakeholder processes, but expect that the results will be integrated into future DSIPs. On the other hand, they propose that the BCA framework be designated for timely completion because that framework will need to be finalized before utilities can develop their DSIP.

In their reply comments, AEEI supports “moving as quickly as possible down parallel paths – paths that allow us to achieve some ‘early wins’ while also laying the foundation for more comprehensive changes.” They disagree with parties like MI and AARP/PULP that recommend that the Commission slow the REV proceeding down and even put off implementation until Track Two issues are resolved. They recognize the concerns of these parties, but believe that “[REV] policy goals are important enough to New Yorkers that new policies in pursuit of these goals should be put in place as soon as is practicable.” They support the proposed initial steps and recognize that “the transition of the role of utilities and the electric system will be, in fact, a long and gradual transition to the end vision.”

Additionally, in reply to AARP/PULP’s comments on decision-making taking place in the context of individual rate cases, AEEI believe s that “making all decisions in the context of rate cases is likely not the best approach for transparency and for facilitating input from stakeholder organizations, especially small not-for-profit public interest consumer and environmental organizations.” They support creating a framework the REV proceeding with wide and meaningful public participation, and then allow the details of implementation will be worked out in individual rate cases when such participation is less practicable.

They also believe that utilities need to begin developing ETIPs without delay in order to have plans in plan by the end of 2015 and that “a formal stakeholder process is needed to provide consistent input to ETIPs and beyond to ensure that the plans address key market and customer segments as well as meet high quality standards.” Finally, with regard to the New York State Smart Grid Consortium’s proposal to combine three aspects of the proposed stakeholder engagement into a single, coordinated process, AEEI supports this proposal so long as an independent facilitator is retained to manage the process and an advisory committee is created that includes representation from the advanced energy community.

Agreen Energy LLC and Vanguard Renewables, LLC (AGE/VR)

In their comments, AGE/VR expresses readiness to provide DER technology in the agriculture and food sector. They propose that the Commission permit a demonstration pod of four to six different DER in one region to be done as a privately capitalized venture using existing incentives from NYSERDA. They believe that this would show an immediate transition to REV and demonstrate the “capturing value,” “demonstrating commitment,” and “gaining experience” elements of implementation.

American Association of Retired Persons and Public Utility Law Project of New York, Inc. (AARP/PULP)

AARP/PULP recommend that the REV implementation process be slowed down. They believe that the proceeding is moving too fast without either sufficient consumer input or consideration of the associated costs and bill impacts. They propose the following:

(1) The costs and bill impacts associated with the “implementation of current reliability standards, efficiency programs, renewable resource mandates, decoupling mechanisms, and planned and approved investments to harden the current electric system infrastructure” need to be identified, calculated, and clearly documented.

(2) Retail customer prices for essential electric service should not be passed through or aligned with short-term wholesale market prices.

(3) The Commission should adopt the reforms applicable to utilities and ESCOs proposed in its February 2014 Order in Case 12-M-0476, many of which have been stayed since April 2014.

(4) The Commission should avoid making final decisions on Track One policies until there has been sufficient consideration of associated Track Two policies that may have potential adverse impacts on customer bills and rates.

(5) Before ordering utilities to create Transition Plans or altering the current cost recovery mechanism, the Commission should assess current efficiency programs, pinpoint the flaws in those programs, and consider alternative design and implementation options.

(6) Utilities should be required to propose DSIPs that show how they plan to integrate DER into their ongoing investment and maintenance plans, show how they have integrated these plans into their tariffs, and provide the conditions under which DER programs are most cost effective and should be implemented.

(7) Any DER program proposed by a utility which will recover costs from ratepayers should first be evaluated through a well-designed demonstration or pilot project.

(8) The Commission should identify or obtain clear statutory authority with regard to registration, licensing, and consumer protection policies before expanding the role of ESCOs or empowering third party DER providers.

(9) Any CBA should not go beyond the statutory criteria for including costs in rates and should include an analysis of bill impacts, and significant variables to affordability.

(10) An opt-out option for sharing customer data should not be adopted and affirmative customer consent prior to the release of information should be required.

(11) Third parties should not be allowed to advertise their products on the utility bill.

(12) The cost impacts on non-participants and low-income customers should be assessed.

Association for Energy Affordability (AEA)

AEA supports a gradual implementation process and supports the use utility ETIPs, Proposals for Interim Actions, and a utility DSIP with a five year horizon updated every two years. They suggest that each utility be evaluated based on its own circumstances as well as a coordinated evaluation that compares success across utilities for possible replication in others.

In their reply comments, AEA continues that “addressing fundamental decisions on the BCA, data access and privacy, and market power mitigation must be near-term priorities.”

Additionally, they agree with MI that the Commission's role in the ratemaking process is of critical importance.

Business Council of New York State, Inc. (Business Council)

In their reply comments, the Business Council agrees with other commenters that the utilities "are well situated to initially take on the role of DSPs." They believe that the transition to REV "needs to be an iterative process taking place over a number of years to ensure the process is response to market signals and technological advancements."

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

In their comments, the Clean Energy Advocates addresses long-term utility planning and the SSP's suggestion to offer extended rate cases to remedy the concern of utilities and the DSP regarding long-term assurances on advanced infrastructure and capital expenses, effecting return on investment and eventually rates. However, the Clean Energy Advocates caution against a wholesale extension of rate periods because doing so may reduce stakeholder participation and limit oversight. They believe that longer rate periods "would only exacerbate the major concerns of the utility-DSP ownership, utility renewable procurement, and vertical market power." They propose that since many Track One issues are left for Track Two discussion, it is inappropriate to provide a longer rate period in Track One.

Citizens for Local Power (CLP)

CLP comments that system-wide planning should not be performed by utilities alone and they support the coordinated stakeholder processes proposed in the SSP. CLP also supports the near-term "no-regrets" actions suggested, with the exception of the proposal to have utilities design and develop web-based tools to enable customers to shop for, and purchase, DER and other energy-related value-added services. They believe that utilities lack the expertise in this area and propose that experienced experts should create these web-based tools that will be crucial to customer engagement.

Additionally, they propose several additional policy steps that can be taken immediately to advance REV goals. They propose raising the net metering cap to 15% and phasing out the cap entirely as more DER is deployed. They also propose allowing virtual net-metering and shared renewable energy to "expand access to the benefits of renewable energy by people without appropriate sites as well as by renters, and low-income groups, while also allowing targeted reductions within communities." Additionally they suggest addressing barriers presented by standby rates and interconnection costs, and specifically mandating utilities utilize best practices in their activities.

City of New York (NYC)

With respect to the "no regrets" actions, NYC agrees that there are untapped opportunities for energy efficiency that should be exploited and firmly believe that "such measures are cost-justified and properly can be implemented irrespective of other considerations." They similarly approve of the inclusion of demand response as a "no regrets" measure. They also support measures to increase the amount of information available to customers about DER options and alternatives, and facilitating their ability to transact business with ESCOs and other DER providers. The one "no regrets" action that NYC questions is substituting DER projects for utility capital investments. They believe that this option should be assessed, but that utilities should "first demonstrate that DER alternatives will be cost-effective, reasonable solutions, before they are mandated to proceed with such alternatives, and the protocols for ensuring customer privacy protections discussed above and in the [SSP] are established."

With respect to the transitional phase, NYC sees the recommendations that utilities proceed with implementation of demonstration projects and the integration of renewable resources into their planning and acquisition activities as premature actions. They believe that utilities should not take any transitional actions until REV concepts are more fully developed through the stakeholder process and a BCA has been conducted. Similarly, with respect to the third implementation phase, NYC supports the proposed stakeholder processes related to the development of the DSP and overall market design, but believe that it is inappropriate to have utilities simultaneously develop and file DSP implementation plans.

Consumer Power Advocates (CPA)

While CPA supports the objectives of REV, they do not believe that enough analysis has been conducted to proceed with REV implementation. They believe that the working groups have not sufficiently allowed for parties to voice their concerns and not fully addressed the details of many policy considerations.

Direct Energy Services, LLC and Direct Energy Business, LLC (Direct Energy)

Direct energy comments on the importance of standardization among the DSP markets and supports utilizing stakeholder processes to do this important work. However, they agree with the New York State Smart Grid Consortium that the three proposed processes should be combined into one. They believe that the three processes are interrelated and separating them will lead to inefficiencies and have the potential effect of excluding some stakeholders who lack the resources to participate in all three. Additionally, Direct Energy agrees with the Consortium's recommendation that they lead the integrated stakeholder process.

Ecology & Environment, Inc and Vermont Energy Investment Corporation (ENE/VEIC)

ENE/VEIC support the "no-regrets" action of utilities identifying projects for deferral or avoidance through the procurement of DER alternatives. They comment that DERs can avoid investment in more costly infrastructure projects and provide consumer benefits in the form of energy efficiency cost savings that will also advance the state's effort to meet renewable energy goals. They recommend that this near-term action can be strengthened by additionally requiring least cost T&D planning. Furthermore, ENE/VEIC urge the Commission "to adopt an incentive structure that achieves a least-cost distribution system and is consistent with the state's climate change goals, better serving the public interest."

Energy Storage Association (ESA)

ESA comments on the importance of safeguards prevent uncertainty for both utility planners and market participants. They propose that to the extent that energy storage "is able to participate in the wholesale market by creating value to the system and being compensated for that value, a similar approach should be taken in this DSP model such that the full range of benefits to the system are captured and monetized for energy storage."

Energy Technology Savings LLC (ETS)

ETS supports the three-part planning process regarding the DSP Platform and Market Vision Plan and the stages of activity which define the transition to REV as providing "the best chance for both short-term and long-term success of the new DSP platform."

EnergyNext, Inc. (EnergyNext)

In regard to near-term "no regrets" actions, EnergyNext believes that it is crucial that the Commission "clearly establish a role for local governments, and it should be integrated with any plans the utilities develop during the transition phase." They also propose that the utilities' concern about reliable operations can be addressed through ESCO participation in behind the meter energy management and efficiency efforts. In regard to transitional steps, EnergyNext believes that utilities should work closely with municipal officials, including emergency planning and response, public safety, public health in taking transitional actions.

Environmental Defense Fund (EDF)

EDF supports the proposed stakeholder processes, particularly with respect to development of the DSP. They recommend “that this stakeholder process include discussion of distribution system planning” because an “important outcome of the REV proceeding should be developing a standardized planning process such that clean energy alternatives are thoroughly evaluated when utilities plan distribution capacity upgrades.”

EDF points out that a process for the development of DSP performance metrics is not included (perhaps intentionally) in the transition process. They suggest that the development of these key metrics be integrated into one or more of the proposed stakeholder processes.

Exelon Corp. (Exelon)

Exelon supports moving forward with the near-term “no-regrets” actions, but only after foundational REV issues are addressed, including “methods to ensure fair EDC compensation for use of the grid by all customers in the distribution system, and confirming the role of existing, clean, base load resources such as nuclear in REV.” They comment that “pilot programs provide invaluable opportunities to vet rules and market structures through limited, real world conditions, while moving forward with REV goals,” but caution against undertaking multiple steps at this time. They suggest a measured, step-by-step approach that will facilitate carefully considering and analyzing each stage before moving on to the next.

GridWise Alliance (GWA)

GWA offers several reply comments on the findings and recommendations of REV. They believe that “customers and energy service providers should have access to system information, to make transparent and readily available the economic value of time-and location-variable usage.” They add that guiding principles should be developed here to ensure such access to system information is accomplished, while also protecting privacy, system security, and not being overly burdensome. Furthermore, they believe that this access to system information is necessary to achieve that goal of animating DER markets. GWA also believes that individual customer usage data should be made available, on an opt-it basis, to DER providers that satisfy Commission requirements and that the opt-out approach be rejected.

GWA agrees that utilities should only be allowed to own DERs under certain clearly defined conditions, or pursuant to an approved plan. They offer that it is important to “establish a permissive ownership structure that promotes the expanded use of DERs,” while at the same time ensuring a level playing field exists for both utilities and third party competitive providers. Additionally, that believe that “where utility affiliates participate in DSP markets within the service territory operated by their parent company, appropriate market power protections must be in place.”

GWA supports immediately undertaking a process to develop demand response tariffs for all service territories, including tariffs for storage and energy efficiency, all of which should be able to leverage DR to optimize grid operations/performance, not just to offset generation requirements. They also reiterate their recommendation that the Commission consider widespread AMF deployment. They support the comments of NEMA, NYSEG, RG&E, Con Edison, and O&R that stress the value and importance of AMF.

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy supports the near-term “no regrets” recommendation to adopt measures enabling ESCOs to further provide energy-related value-added services in order to facilitate creating a level playing field for these services. They also support the implementation of measures holding ESCOs to certification standards. They believe that the implementation of the REV vision should not be given to utilities alone and that utilities are not the best option to serve as the DSP. They believe that utilities are well-suited for achieving and maintaining safety and reliability, but

that serving as the DSP will require more and that “collaborative processes and fully competitive markets must be given the opportunity to prove themselves before they are effectively discounted in favor of the increased exercise of utility market power through the provision and ownership of DER and the management of the new DSP platform.” They believe that “the Commission can ensure better, more enduring outcomes by prioritizing the long-term rewards of competitive markets and collaborative processes over the short-term savings of an implementation driven by monopoly utilities.”

#### Joint Utilities

The Joint Utilities believe that a phased approach like that envisioned in the SSP is required to successfully implement REV. They comment that the “conclusions and recommendations in the Straw Proposal reflect a completely new vision for the structure of electricity markets in New York that requires significant effort and careful planning to implement.” To forward the REV development process, they identified “twenty processes, initiatives, and/or actions that they are required to perform in order to introduce, develop, and mature the REV vision.” They continue that these items and the ability to move subsequent work forward are reliant on timely Commission orders on Track One and Two, the progress of the initial BCA work, and the completion of the DSIP Methodology Stakeholder Process.

In their reply comments, the Joint Utilities agree with commenters that stress the “importance of clear goals, outcomes, timelines, deliverables, processes, and governance structures to the success of the various stakeholder processes.” They add that “stakeholder process charters and work scopes should include these elements to be developed and coordinated up front.” Furthermore, they propose establishing work plans that are divided into three-to-six month phases with clear deliverables at the end of each phase to ensure work efforts stay on track and achieve near-term progress.

The joint Utilities also support the comments of MI who believe “the resolution of selected Track One and Track Two issues is iterative in nature — care should be exercised not to get too far ahead in the implementation of Track One before critical Track Two issues have been decided.” The joint Utilities believe that the two tracks should be combined to “enable the Commission to resolve cost recovery uncertainty pertaining to incremental REV expenses and investments, including payment for products and services from DER providers (to the extent that these payments exceed avoided costs), and the incorporation of externalities into these and other spending decisions.” They comment that the uncertainty of cost recovery and the BCA framework affects the utilities' ability to invest in near-term no-regrets initiatives and demonstration projects.

#### Multiple Intervenors (MI)

MI recommends that REV implementation await the resolution of key Track One and Track Two issues because “numerous Track One and Track Two issues are inextricably interrelated, and financial commitments to implement Track One policy decisions should not be made until the regulatory and ratemaking issues in Track Two also are resolved.” They express support for REV objectives, but have concern with the specific implementation processes recommended. They believe that the factual case for implementing REV has not been made and that “the Commission should not commit large amounts of customer funds based on unsupported theories.”

In regard to transitional steps, MI does not oppose efforts to continue studying and analyzing REV initiatives, but recommends “delaying the commitment of customer funds in furtherance of REV until, at a minimum, Track One and Track Two policy issues have been resolved,” and stresses that “care should be exercised not to get too far ahead in the implementation of Track One before critical Track Two issues have been decided.”



In regard to considerations for next steps, MI urges that any “reorganization of the agency’s priorities” continues to recognize “the critical importance of the ratemaking process and the continuing need for cost-based utility rates, and the important role that the Commission and Staff can play in resolving utility/customer disputes.”

National Fuel Gas Distribution Corporation (NFG)

NFG requests confirmation from the Commission that the REV Proceeding, and its associated implementation requirements, is only applicable to the electric industry.

Natural Resources Defense Council (NRDC)

NRDC supports Staff’s recommendations that each utility identify those capital projects that are likely candidates for deferral or avoidance through the procurement of DER and that each utility submit a plan for a competitive DER procurement process, including making available customer usage data sufficient to allow DER providers to participate effectively in such a solicitation. NRDC expresses concern regarding any wholesale extension of rate periods. They believe that as REV evolves, there will be a greater need for oversight of utilities, especially if the fill the role of DSP. Additionally, NRDC points to the need for DEC to promulgate its rule regulating DG resources in order to avoid perverse environmental outcomes.

New York Battery and Energy Storage Technology Consortium (NY-BEST)

NY-BEST, in regard to near-term actions, supports moving forward with early actions to increase the market penetration of DERs and recommends some modifications to the actions outlined in the SSP, as well as suggests additional near-term actions. In reference to the suggestion that utilities identify capital projects are likely candidates for deferral or avoidance through the procurement of DER alternatives, they believe that a specified threshold for capital projects be established that would require utilities to evaluate DER alternatives for qualifying projects. Additionally, they suggest that “substantial additional data and information needs to be generated by utilities and made available to DER providers.” NY-BEST further suggests consideration of requiring that aggregated smart meter data be made available to customers. Next, they propose an expansion of incentive programs that will increase DER penetration, particularly with respect to adopting a similar approach for energy storage as has been done with solar. Furthermore, they point to a need for standardized tools and methodologies for modeling energy storage as well as other DERs. Finally, NY-BEST urges the Commission to address DER interconnection issues as a near-term action.

Northeast Clean Heat and Power Initiative (NECHPI)

NECHPI comments that “rigorous distribution system planning, transparent to all stakeholders, is a foundational requirement for the effective implementation of REV.” They suggest that the Commission adopt a “resource loading order,” that would prioritize DERs for investment, if they provide a cost effective solution compared with other alternatives. They also stress the importance of ensuring that “each utility has advanced financial, technical, forecasting and optimization tools for modeling DERs and their integration onto the grid.”

NRG Energy, Inc. (NRG)

NRG supports the phased approach for developing and implementing the DSP model and further enhancing the market for DERs because this approach allows stakeholders to explore and resolve key issues before committing investment and resources.

Nucor Steel Auburn, Inc. (Nucor)

Nucor agrees that near term REV-related efforts should be “self-justifying,” and that they should target activities that can immediately make incremental progress toward the REV core objectives. They particularly agree that utilities should identify current capital projects are candidates for deferral or avoidance through DER procurement. They also support immediate action to establish retail demand reduction arrangements (tariffs and flex-rate agreements).

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island comments that “establishing a clear transitional path towards a future of a clean, reliable distribution system that enables customers to procure a suite of energy products and services is critical for the long term success of the REV effort.” They cite a need to clearly define what is expected of utilities during REV implementation in order avoid confusion and help set realistic goals and incentives. They agree with the near-term objectives of increasing the DER asset base, building market and customer confidence in DERs, removing barriers to DER adoption, and developing the capabilities to support the ultimate implementation of REV.

Simple Energy

Simple Energy comments that “the multi-stage approach to moving the REV vision forward will test the best of project managers in development and execution.” They encourage utilization of a comprehensive tool to present and manage engagement. They comment that the phases articulated will help manage the transition, but they propose that “the REV proceeding does not have a definitive conclusion but rather will lay an ongoing format for future success and innovation in an animate[d] market.”

SolarCity Corp. (SolarCity)

SolarCity comments on the importance of developing the standards and vision for the DSP platform, and that transparency and stakeholder input is needed. They recommend adopting the stakeholder process proposed by the New York State Smart Grid Consortium to develop these standards.

The Alliance for Solar Choice (TASC)

TASC recommends that the DSIP should “identify those parts of the utility distribution system where customer-sited generation cannot be expanded without improvements in the distribution system infrastructure,” in order to “identify where new residential solar development should be deferred in the near term” and “where combinations of DER resources (e.g. PV/storage/EE hybrids) and infrastructure changes can most cost-effectively re-open segments of the distribution system to new customer-side PV generation.” They believe that the DSIP should also identify those parts of the distribution system where customer-sited generation could help relieve congestion or help defer capital expenditures for distribution system infrastructure.

In regard to DSP platforms and market vision planning, TASC recommends that developing a standard communications architecture should be done in a way that accommodates and takes full advantage of the existing infrastructure. Additionally, they suggest that the Market Design Stakeholder Process should consult with the solar industry to understand current and projected expansion of customer-sited PV generation and related DER technology hybrids. They believe that the DSP market design “should, where ever possible, be consistent with current PV marketing and customer engagement, to ensure that the new market design does not require large changes in either the technical requirements for distributed solar generation equipment or adversely affect the economics of customer-sided generation.”

TASC supports the proposal to “initiate a new distribution planning process with utility filings that lay out utilities’ investment plans over a five year period, including alternative demand and supply resource portfolios, proposed resource portfolios, and how they proposes to procure needed DERs.” They comment that the DSIP will have to include incentives that enlist customers to help supply the needs of the distribution system, and will also have to present opportunities for third parties to leverage their customer portfolios to provide distribution services.

The Nature Conservancy (TNC)

In regard to DSP platform and market visions planning, TNC “supports using a stakeholder process to address these issues and achieve some degree of agreement amongst the utilities and other stakeholders about the functions and parameters of the DSP platforms.”

In regard to considerations for next steps, they support the Commission assuming additional roles of market oversight. They also support functions like an ongoing process to ensure standardization and uniformity, to monitor the progress of DER penetration, and to ensure that barriers to market entry are eliminated. They recommend that “a plan be developed and executive commitment obtained for the additional resources and staffing needed to carry out these functions.”

Utility Intervention Unit of the New York State Department of State (UIU)

UIU urges a more measured approach to REV issues and believes that time should be taken now to thoroughly engage customers and consumer advocates to understand better what customers perceive as their best interests. They propose that during this period, the Commission should “complete the process envisioned in the Retail Access Proceeding to fix the problems with its current retail energy markets program, develop intervenor funding protocols for rate and policy cases, and institute a consistent low-income discount.” They caution that many of the SSP’s recommendations “will require the establishment of some type of ongoing structure, or follow-up process whether short-term or ongoing.” They comment that the major undertakings of REV will “require much thought, consideration of policy and technical expertise, and weighing of countervailing opinions, and then implementation of proposals on a pilot basis to test their efficacy.” Finally, UIU recommends that an analysis of the initiatives the utilities have conducted in the Smart Grid Proceeding (Case 10-E-0285) be conducted as it may provide useful information regarding the design and implementation of REV.

In their reply comments, UIU agrees that there are certain “no-regrets” actions that should be implemented right away, and believe that these steps are:

- “(1) stakeholder identification of tariff and regulatory impediments to DER; (2) enabling and encouraging utilities to propose and implement demonstration projects involving communities, ratepayers, and third party providers that would prove the value of a proposed REV program before Commission implementation; (3) development of a BCA to assess the costs of the various REV components; (4) the implementation of a uniform discount for low-moderate income consumers; (5) the establishment of an intervenor fund to ensure full participation in REV across all consumer sectors; (6) facilitation of a multi-agency effort to address the split incentive issue; and, (7) the resolution of the retail access issue that was stayed in Case 12-M-0476.”

They call for a more measured and deliberative approach to the key issues in the REV proceeding and cautions that it is essential that the Commission “fully evaluate the potential costs and benefits as well as the ramifications of the REV proposal before committing consumer funds to the adoption and implementation of costly REV policies and programming.”

SECTION: VI. MITIGATING MARKET POWER

American Biogas Council (ABC)

ABC recommends oversight measures to ensure that unregulated utility affiliate DER owners are not able to gain an unfair advantage over non-utility affiliated DER owners.

American Council for An Energy Efficient Economy (ACEEE)

ACEEE generally agrees with the proposal to allow utilities to own and operate DER in specific situations and subject to a variety of constraints to prevent undue market power.

Association for Energy Affordability (AEA)

AEA comments that “there will be times when it may be necessary or preferable” to allow utilities to own DER assets or otherwise enter the marketplace; particularly where marketplace offerings will be unavailable, or too costly. However, they believe that ownership of DER by utilities should be restricted, and utilities should be required to first attempt to find market-based solutions before being allowed to own DER. They also comment that utilities should be required to have open and transparent advance planning processes that will assess where DER can be used to support distribution system operations to enable the market to act in response to identified system needs.

Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc, New England Clean Energy Council (AEEI)

AEEI comment that utilities should be allowed to own DER and provide DER services under specific limited circumstances, and in specific markets, to support the transition to an animated DER market. They propose that to prevent utilities from exercising market power and achieving unfair competitive advantage, DER ownership or participation should be aligned with and contingent upon two basic principles: (1) Utility Indifference; and (2) Open Competitive Procurement. They further believe that utilities’ participation in DER should be limited to specific categories of projects. AEEI also advocates that all system planning and operational information available to the utility DER tariff team should also be made available to third party competitors on a non-discriminatory basis. Also, they propose that a utility’s market share of tariff based services should not exceed 10% of the market across the service territory on an annual basis and that interconnections should be completed on a “first-come first-served” basis.

AES Energy Storage, LLC (AES)

AES comments that the scope of services to be provided by the DSP is too broad and that more oversight is needed to prevent market power and to animate the markets. They believe that DER providers or aggregators should be allowed to sell services directly to the NYISO and directly to the customers or an aggregation of customers. They propose that the DSP could serve as a clearinghouse for these contracts. Additionally, they believe that, while utilities should serve as the initial DSP provider, this function should ultimately be opened to competition. They continue that the DSP should be a market administrator that uses pricing signals to provide the economic incentives to all DER resources and should not take operational control of these resources.

Agreen Energy, LLC and Vanguard Renewables, LLC (AGE/VR)

AGE/VR comment the “utilities may partner up with an ag/food DER... but it is not the business of utilities to use rate payer funds to be in this food business sector as the owner/operator.”

Alliance of Automobile Manufactures, Association of Global Automobile Manufacturers, and General Motors (Automakers)

Automakers support utility participation in the PEV market. They believe that utility involvement can ensure the benefits and costs of integrating PEVs into the grid are transparent and adequately captured. They point out that the PEV market involves increased complexity and opportunity compared to other DER and believe that utility engagement should not be prematurely precluded. They believe that “utilities may be well-suited to offer solutions in more complex installations, such as in multi-unit dwellings, commercial settings (including workplaces), or smaller market segments,” and that “their involvement can offer confidence to facility owners and permitting officials while streamlining installations and reducing costs.”

Bloom Energy Corporation (Bloom Energy)

Bloom Energy comments that it is critical that any participation by utilities in the DG marketplace be regulated with strong protections against the exercise of market power in order to ensure a fair and level playing field for third party-owned DG projects. They recommend development of a DG service tariff for utility owned generation service that requires third-party access to opt-in customers. They also suggest that utilities be required to make appropriate electric and gas system data available to third party DG providers in a much more comprehensive and timely manner.

CALM Energy, Inc. (CALM)

CALM comments that DER participation by utilities should be relied on in some special circumstances (i.e. resiliency needs, market ignored customer classes like small to medium sized commercial customers). They believe that utility-investment-based DER deployment programs should be allowed and should include performance-based incentives for load reduction, and should be based on smart grid standards for cyber-secure inter-operability.

ChargePoint, Inc. (ChargePoint)

ChargePoint supports agrees that there are circumstances in which some forms of utility engagement in supporting DER are of clear benefit to customers and support initial guidance from the Commission regarding which utility activities are clearly permissible, and which need to be proposed and justified. They described three conditions for utility engagement in DER: (1) The proposal must address a substantial system need; (2) The proposal must show that the benefits of utility engagement outweigh the market power concerns; and (3) Where the proposal involves ownership of DER by a utility, it must include a competitive solicitation for construction and operation, absent compelling circumstances.

Citizens' Environmental Coalition (CEC)

CEC comments that the SSP will give existing major market players even more market power than they currently have, by allowing utilities to create and operate the distributed system platform.

Citizens for Local Power (CLP)

CLP comments that, under the SSP, utilities would be allowed to own generation resources and would be put in charge of dispatching such resources, and managing the markets for these same resources. They do not see any advantage or benefit to allowing utilities to own renewable resources and believe that the justifications in the SSP are not compelling enough to allow utility ownership under even limited circumstances. They believe that such ownership will undermine the markets and stifle DER investment. Additionally, they question whether that proposed mitigation measures will prevent utilities from using their monopoly advantages to limit competition and suggest adhering to the current policy forbidding utility ownership of generating assets.

In their reply comments, CLP suggest there is an inherent contradiction in the SSP. They point out that the success of REV will hinge on the ability to “1) incentivize utilities to do something that contradicts their basic purpose for existing—namely, limit the growth and market share of their business, and 2) permit and incentivize other actors, including customers, competing businesses, and municipalities/government entities, to share in the monetary and social benefits of introducing DER.” They express concern that the Commission may not be able to oversee and control the behavior of utilities, ESCOs, and other market participants in this new complex market. They also point out that a clear theme of Joint Utilities comments “is to maintain utility control, including control over interconnection procedures and protocols.”

City of New York (NYC)

NYC comments that the success of REV relies on the ability to ensure a level playing field between and among the utilities, DER providers, ESCOs, and other market participants. They express concern with the use of ratemaking incentives to prevent discriminatory behavior on the part of utilities. They view such an approach as rewarding utilities for nondiscriminatory behavior (which is already prohibited under § 65(3) of the Public Service Law anyway) and instead recommend the use of negative incentives. They believe that all market participants should be treated equally and that the Commission “should establish fair and equitable rules, then step back and allow competition to take place.” NYC also supports the use of standardized interconnection requirements to avoid the potential for utilities to favor their own projects over those of unaffiliated third parties.

Columbia University Sabin Center for Climate Change Law, Environmental Advocates of New York, New York Public Interest Research Pace Energy and Climate Center, Sierra Club, and Vermont Energy Investment Corporation (Clean Energy Advocates)

The Clean Energy Advocates recommend that the Track One order include guidelines for application of the DER ownership criteria outlined in the SSP. They comment on the uncertainty of the effectiveness of ratemaking incentives and penalties to mitigate market power. They point out that traditional rates, which provide a return on capital investments, incentivize larger, longer-term capital projects and that there is a “fundamental disagreement” between such a traditional ratemaking approach and the incentive-based ratemaking envisioned in REV.

Consolidated Edison Solutions, Inc. (ConEdison Solutions)

ConEdison Solutions offers reply comments that point out that the Commission recently approved a request to not apply its Vertical Market Power (“VMP”) Policy for installations of up to 100 MW of renewable generating facilities by ConEdison Solutions and ConEdison Development in each of the affiliated utility service territories. They add that in approving the request, the Commission imposed an additional reporting requirement when affiliates request utility interconnections for such projects and concluded that the VMP Policy presumption is overcome under these circumstances. Therefore, the Joint Utilities request that the Commission reject the requests of MI and other commenters to restrict the ability for utility affiliates to own and operate DER facilities within their affiliated utility’s service territory. They believe that this restriction is “unwarranted, would be inconsistent with the long-standing practice of ConEdison Solutions in providing such services, and, further, would undermine the ability of customers in the [ConEdison] and [O&R] service territories... from continuing to work with an existing service supplier to install DER equipment and implement demand response and other operational strategies.”

Consumer Power Advocates (CPA)

CPA does not support allowing limited utility ownership of DER and utility sponsorship of energy efficiency programs because doing so may create market power that would thwart competition. Furthermore, they believe that the market power remedies proposed (including ratemaking treatment and rules to prevent abuse) are not adequate. They suggest eliminating the incentive for market power abuse by forbidding utilities from owning supply resources. CPA believes that utility ownership of the asset base will expose consumers to market power abuse, and prevent the development of the market.

Environmental Defense Fund (EDF)

EDF approves of the “thoughtful exploration of utility engagement in DER” by Staff and comments that “it is critical to find an approach that maximizes GHG reductions without stifling the development of a healthy DER marketplace.” They point to the SSP’s list of variables to consider as a good starting point for developing a principled, balanced approach.

EnergyHub and Alarm.com (EnergyHub)

EnergyHub comments that it is critical that innovations from competitive service firms and DER providers have a clear pathway into the ratemaking process. They also stress the importance of establishing open processes for market participants to propose new regulated products and tariffs. They caution that “information asymmetries are the foundation of market power, which can be expressed in rate and tariff design.”

EnergyNext, Inc. (EnergyNext)

EnergyNext supports integration of DERs into the electricity market via a DSP framework, but comments that local governments and business leaders should be included in this planning process. They believe that these entities can play an essential role in selecting the facilities and loads that should be served by DER and that this function should not be left to the utilities alone. They believe that too little attention has been paid to the role of municipal governments.

Energy Storage Association (ESA)

ESA comments that it will be important to allow market entrants full access to compete and participate in the market and provide services to the grid and consumers. They point out that energy storage is not defined or included in the definition of DER and recommend that and definition of DER be “technology-agnostic and application-inclusive.”

Energy Technology Savings LLC (ETS)

ETS comments that if utilities are permitted to own DER, they will have many competitive advantages over other third parties intending to provide DER. They comment that utilities can leverage existing ratepayer-funded assets and in-house expertise and access to customer data and information that is not easily available to third party DER providers. They believe that utility ownership of DER will have the effect of diminishing investment by third parties in DER solutions thus stifling innovation by these parties, and hindering the goal of promoting DER projects. However, ETS believes “it is reasonable to allow for direct utility participation in DER regarding sponsorship and management of energy efficiency programs and generation or storage located on utility distribution property, as well as a few other limited situations that must be listed in the utility [DSIP].”

Exelon Corp. (Exelon)

Exelon believes that the proposed limits on utility ownership of DER “is a fair start,” and comments that this approach can be refined as experience is gained and sustainable BCA rules are established. They do recommend allowing for direct utility participation in DER for the additional limited purpose of undertaking projects that are connected to a utility system for an approved public purpose.

Federal Trade Commission (FTC)

FTC comments that the SSP offers the potential for a rebundling of distribution and generation by allowing distribution utilities to invest extensively in DERs. They agree with Staff’s concerns regarding the exercise of VMP and believe that discrimination against the dispatch of DERs not owned by the utilities is another valid concern. They propose that “transparency in evaluations and decision-making can itself improve market performance by providing information to market participants and by assuaging DER investors’ unwarranted concerns about distribution discrimination.” They also suggest utilizing an open competitive procurement process that weighs the costs and benefits associated with potential alternative DSP operators to select an appropriate DSP. They encourage the Commission and Staff to “highlight issues involving possible distribution service discrimination by taking account of those issues in the competitive procurement criteria for selecting each DSP operator.” They believe that, at a minimum, “a DSP operator applicant should bear the burden to demonstrate that it will not engage in distribution service discrimination against other DER investors.”

Hudson River Sloop Clearwater, Inc. (Clearwater)

Clearwater comments that utilities should be limited to providing the service they currently provide, plus receiving and redistributing energy from bidirectional distributed sources (renewable generation, CHP, and microgrids) to their customers. They believe that excluding utilities from owning renewable generation is necessary because they have unfair advantages, including direct customer communication, easy access to investment capital, and there is no real barrier between a utility and its affiliate. Additionally, Clearwater recommends “a statewide independent DSP and agrees to a trial of limited ownership of renewable energy generation by utilities on the narrow scale proposed in the REV, with a re-evaluation in a few years to assess the effectiveness of this policy and the impact on other renewable energy providers.”

Infinite Energy, Inc. d/b/a Intelligent Energy (Infinite Energy)

Infinite Energy comments that any short-term advantages the utilities may be able to provide by filling the role of DSP (avoiding delay, inefficiency, and regulatory complication), “will come at the cost of the fundamental, long-term weaknesses inherent in giving control over emerging markets to a select group of market participants who have the ability to compete against private capital on the back of captive ratepayers.” Furthermore, they comment that, as well as dispatch and control, interconnection accessibility and access to system data are also at risk with utility DSPs. They suggest that instead of attempting to regulate market power, the Commission should mitigate market power by building an independent DSP. Additionally, Infinite Energy notes that the actions of unregulated utility affiliates represent a much smaller market power concern because the affiliate does not have the power to recover costs of taking risks from captive ratepayers. They propose that the best way to mitigate the market power of utilities is to prohibit them from offering DER “while allowing their current affiliates to do so at arm’s length from the utility in an otherwise fully competitive market, just as ESCOs and DER providers will be able to.”

Independent Power Producers of New York, Inc. (IPPNY)

IPPNY comments that utilities would be in a position to exercise vertical market power (VMP) if they were allowed to own DER, especially if utilities act as the DSP. They recommend adherence to the long-standing policy of prohibiting utilities from owning generation and imposing an absolute bar on utility DER ownership. They advocate for reliance on market-based mechanisms to incent the development of DER. With respect to the proposal that utility ownership of DER is necessary to facilitate rapid deployment of DER, IPPNY disagrees that rapid deployment of DER should be an imperative goal of REV. They comment that “the development of DER should not be incented for its own sake because it would result in more penetration of DER than is warranted by the savings and may have unintended adverse impacts on existing facilities.” They propose that the belief that rapid deployment of DER is “imperative” is premature because the necessary value methodologies and BCA framework have not been developed. Furthermore, even if rapid deployment is justified by a BCA, they do not believe utility ownership of DER is necessary to accomplish this goal. They do not believe that utilities’ “knowledge about their distribution systems, their relationships with their customers, and their claimed ability to educate customers” should be used as justification to allow them to develop and own DER for the purpose of rapid deployment because “once this information is provided to all merchant developers on a non-discriminatory basis, there is no reason why DER built by [utilities] would offer any greater benefit than DER built by private developers.”

IPPNY agrees that long-term success in animating a DER market depends on leveraging private capital and spreading risk beyond ratepayers. However, they believe that if “utilities are allowed to exploit their asymmetric access to information to the detriment of their competitors, even for the short term to speed the deployment of DER,” it will have the effect of discouraging the private investment necessary to achieve REV policy goals. They also comment that utilities



will be able exploit their economies of scale and relatively lower business risk to undercut competitors who do not enjoy the utilities' lower costs of capital. They continue that there is no reason that utilities cannot gain experience and confidence in how DER integration will impact the reliable operation of the distribution system by studying how DER owned by third parties in its role as DSP. Additionally, they offer that private developers are fully capable of building and owning DER and can provide the very same benefit to customers. Finally, they reject the revenue erosion argument for supporting utility DER ownership because "revenue decoupling mechanisms and fixed retail rates for recovery of T&D costs can be used to ensure utilities adequate rate recovery of grid costs." Ultimately IPPNY believes that the claimed advantages of utilities owning DER are without merit.

IPPNY also comments that the proposed mitigation measures are flawed and will not prevent the exercise VMP by utilities, harming both the competitive market and consumers, and discouraging private investment in the markets. They comment that monitoring interconnection and dispatch procedures are an inadequate measure to prevent exercises of market power that are difficult to detect. They believe that "market-based mechanisms are the best means of procuring resources and services that benefit the distribution system in the most efficient manner and that one of the primary benefits of competitive markets is that investment risks shift from captive utility ratepayers to private investors."

John Wellinghoff, Stoel Rives, LLC with Katherine Hamilton and Jeffrey Cramer, 38 North Solutions, LLC (Stoel Rives/38 North)

In their comments, Stoel Rives/38 North oppose the idea of the utilities owning distribution system assets being allowed to act as the DSP. However, if that must be the structure, they propose that it is "essential that ... specific provisions and safeguards be put into place." They propose the following measures to mitigate market power: scaled oversight; adequate enforcement authority to deter improper conduct; an absolute prohibition against allowing utilities to sell or install DER in areas served by competitive markets; an open and transparent interconnection process; an absolute wall between the market side of the DSP and the operations side; open and transparent planning processes; and contingency plans for transferring control to an independent DSO designated by the PSC.

#### Joint Utilities

The Joint Utilities support a pragmatic approach to utility DER participation. They believe that utilities have an essential role to play in DER deployment and because of their existing relationship with customers they will be able to add significant value. Therefore, they suggest a balanced ownership structure will most effectively promote DER penetration and market animation. They believe that any market power concerns can be addressed through regulatory requirements and limitations subject to appropriate oversight. They also believe that "customers should be able to choose their DER provider and should be provided the option to meet all their energy needs through their utility should they choose to do so." The Joint Utilities recommend expanding utility DER participation to the customer side of the meter. They "seek to partner with third-party providers to provide these services to customers, which will provide a pathway to a competitive marketplace."

The Joint Utilities also agree that concerns with respect to market power apply to third party owners of DERs as well. They comment that this ownership will also need to be monitored and managed by the Commission and offer that "utility ownership of DERs by its nature provides regulators with an added degree of control." Additionally, regarding utility affiliate ownership of DERs, they comment that "a code of conduct governing interactions with the utility DSP combined with existing cost allocation and affiliate transaction rules should effectively address concerns related to self-dealing."

Finally, with respect to the application of the VMP Policy Statement to REV, the Joint Utilities comment that this policy was never intended to apply, and is not applicable in the context of utilities owning distributed generation or energy storage. They believe that the policy was “developed under circumstances and for objectives unrelated to those in the REV Proceeding,” and thus “respectfully recommend that the VMP Policy Statement not be applied in the REV Proceeding with regard to utility ownership of DER.”

Multiple Intervenors (MI)

MI comments that the focus should be on addressing existing barriers to DER, rather than allowing utilities to engage in DER activities. They believe that for certain forms of DER, “utilities possess no unique expertise, and the market power concerns raised by allowing utilities to own generation outweigh any potential benefits.” They propose that addressing existing barriers to DER (high standby service rates and burdensome interconnection processes) should allow the market to respond to cost-based price signals to determine the amount and the location of DER that is most effective. They agree that utility ownership of DER risks stifling private investment in favor of utility investment which is subsidized by ratepayers.

MI particularly disagrees with the recommendation that utilities be allowed to participate in generation or storage located on utility distribution property because “such recommendation appears unlimited and could become a disincentive to merchant generation projects whose economics may be impacted detrimentally by competing utility projects.” They also believe that this runs the risk of forcing captive customers to bear the risk of uneconomic investments by utilities. They propose that if a utility identifies a specific distribution reliability need whereby costly system upgrades could be avoided or delayed through a DER project, “the utility should provide the market with an appropriate price signal... and allow non-utility parties to respond to such signals, thereby addressing the need without shifting investment risk onto captive customers or creating additional market power concerns.” Additionally, MI disagrees with the recommendation that unregulated utility affiliates be allowed to engage in DER activities within the regulated utility’s service territory. They propose that market power concerns could be mitigated, while still allowing affiliates to participate in DER activities, if “unregulated utility affiliates be allowed to engage in DER activities throughout New York State with the exception of their regulated utility’s service territory.”

National Electrical Manufacturers Association (NEMA)

NEMA agrees that there are competitive concerns when “the market arbiter is also a market player” and believes that animating markets that are open and competitive should be the top goal. However, they recognize “that at least initially, the Commission will not be able to achieve this objective without some utility involvement.” They stress the need for measures that will prevent utilities from exercising discriminatory or otherwise anticompetitive behavior, thus stifling competition and private sector investment. They propose instituting a market cap limiting the degree of market penetration of a regulated utility in furtherance of this goal.

National Energy Marketers Association (NEM)

NEM comment that utilities “should not be relied upon to be the jump-start to the DER markets.” They believe that the market power concerns associated with utility DER ownership are numerous and would require a high level of required regulatory oversight to maintain adequate controls. They support promotion of private investments to meet the demand for competitive DER products and services and believe that “this regulatory direction will incent the type of competitive activity and investment that is needed to transform the market and to develop DER innovations that meet consumer needs.” They also express concern with the proposals to permit utilities to engage in large-scale renewables procurement, develop energy efficiency programs, and implement demand response tariffs. They see all these activities as raising market power concerns

and note that “it would appear Staff has tacitly made a determination on the market power implications of these utility DER activities.”

National Fuel Gas Distribution Corporation (NFG)

NFG comments that caps should not be placed on the market share of any DER provider, including utilities. They recommend investigating strong market shares “to determine if they are a reflection of superior service to customers or the result of unwarranted market power.” They believe that this approach is favorable compared to the recommendation to “place arbitrary restrictions on market activity, create functional separations for DSPs, or develop and implement unnecessary ratemaking incentives or penalties,” because “these actions would create new barriers for DSPs and utilities that would inhibit the growth of the REV marketplace.”

Natural Resource Defense Council (NRDC)

NRDC supports the need to address market power concerns including those related to how the DSP selects resources and compensates them. They note that “there are multiple tests that need to be satisfied to show that an individual entity exercised market power in an illegal manner, but the best way to prevent market power abuse is to try and avoid situations where market power occurs.” They offer to provide additional feedback on how market power could be mitigated or avoided as more detail emerges in the REV proceeding regarding the DSP plans.

New York Battery and Energy Storage Technology Consortium (NY-BEST)

NY-BEST comments that if the DSPs are given control over dispatch of DER and allowed to own DER, third party DER providers could be severely marginalized.

New York Geothermal Energy Organization (NY-GEO)

NY-GEO agrees with the approach to utility engagement in DER that permits DER ownership “only under strict conditions where substantial needs are met, market power concerns are addressed and competitive solicitations for construction and operation are required.”

New York Independent System Operator, Inc. (NYISO)

NYISO expresses concern regarding market power in situations where a single entity acting as the DSP, distribution utility, and DER provider or owner. They recommend development of appropriate rules to mitigate any potential issues and “appreciates the extensive discussion contained in the [SSP] addressing how such market power could be monitored and mitigated when necessary, and looks forward to working with the PSC to ensure open, fair, and transparent markets moving forward.”

New York State Utility Labor Council and Utility Workers Union of America, AFL-CIO, Local 1-2 (NYSULC/Local 1-2)

NYSULC/Local 1-2 suggest that the Commission exercise oversight of all DER providers in order to protect consumers and ensure reliability of service. They agree there are market power concerns with respect to a utility DSP also owning DER, but also agree that there are certain circumstances where utility engagement in DER will benefit customers. They recommend including the establishment and operation of micro-grids as one of the limited forms of direct utility participation in DER which are permitted.

Northeast Clean Heat and Power Initiative (NECHPI)

NECHPI comments that VMP issues become particularly important if the utility is designated the DSP. They believe that numerous checks and balances would be needed in such a situation in order to ensure a level playing field. They believe that the utility DSP approach presents natural constraints that will hinder effective market creation and the ability to rely on market-based solutions achieve REV goals. They also believe that making the utility the DSP “will magnify the issues surrounding vertical-market-power policy, including the significant limitations the Straw Proposal places on utility ownership of DER assets, which could in fact enhance system reliability and efficiency at lower cost, with increased resiliency and lower GHG

emissions.” They believe that the market should be designed to maximize optimal performance and system efficiency, and in some cases, “utilities are best suited to optimize and monetize the full array of benefits provided by DERs both in front of and behind-the-meter.”

NECHPI believes that “open, transparent distribution system data access down to the feeder level is foundational to the successful and rapid rollout of DERs, as is the establishment of the BCA framework and associated valuation methodologies.”

NRG Energy, Inc. (NRG)

NRG comments that if utilities fill the role of DSP, strong safeguards must be established to “mitigate the utilities’ market power and inherent bias towards their own corporate interests; ensure neutrality in providing all DER providers access to the platform; and assure adequate performance.” They also believe that utilities should not be permitted to own DER generation and storage. They believe that such ownership would create bias, inefficiency, cross-subsidization by customers, and risk stifling new, private investment DER. They comment that reliance on privately-funded competitive DER is essential to the successful development and optimization of DER and the overall REV objectives. Additionally, with respect to the argument that utilities offer credibility and expertise, NRG points out that recent innovations like rooftop solar and smart thermostats “have resulted from private investment, innovation, and marketing by competitive firms” that “already have multiple DER products and systems, multiple channels to market, and competitive sources of capital.”

Nucor Steel Auburn, Inc. (Nucor)

Nucor comments that utility ownership and control of DER is problematic. They view the approach of allowing DER ownership in certain limited situations as a “slippery slope” of utility investment that would not serve REV objectives.

PSEG Long Island LLC (PSEG Long Island)

PSEG Long Island believes that the market power concerns raised in the SSP “can be effectively mitigated with effective policies and processes combined with proper oversight and with the proper incentives for utilities.” They believe that customer satisfaction incentives will motivate utilities to provide an open and transparent DER marketplace and that performance standards will ensure a well-functioning market for all participants.

Retail Energy Supply Association (RESA)

RESA believes that there is no reasonable justification for allowing utilities to own DER in addition to serving as the DSP. They comment that the proposed advantages of utility ownership of DER “can be applied effectively and efficiently without the utility owning the DER products and services.” They continue that, as the DSP, a utility can work cooperatively with DER providers and utilize their direct access to customers, their credibility as an energy provider, and in-house knowledge to accelerate the transformation to a more fully distributed electric grid without owning DER. With respect to the justification that utility ownership will give utilities “experience and confidence in how the integration of DER will affect the reliable operation of distribution systems,” RESA comments that utilities can obtain the same experience and knowledge without owning DER due to their role as the DSP.

Additionally, RESA expresses concern with the recommendations that utility DER ownership be limited to energy efficiency programs and generation or storage projects located on utility distribution property. They see these measure as creating loopholes by which a utility can own any type of DER project or measure without the oversight proposed for utility ownership in general. They believe the protective measures proposed do little to alleviate market power concerns and that it will be impossible to ensure fair and open markets or a level playing field under these conditions. Thus they comment that utilities should not be allowed to own or operate DER and instead offer that if “ESCOs are simply provided with the right information in a timely

manner and in a common format, they will bring forward the kind of innovative and engaging products and services that the PSC envisions being available.”

Simple Energy

Simple Energy comments that some limited DER involvement by utilities “is the swift path to a more robust DER market.” They oppose a complete prohibition on DER ownership and support utility engagement in energy efficiency programs.

SolarCity Corp. (SolarCity)

SolarCity disagrees with the justification for utility ownership of DER which proposes that “utilities can take advantage of their economies of scale, with concomitant lower production costs that can establish market viability.” They comment that “companies such as SolarCity have been rapidly achieving scale, even without captive ratepayers and a guaranteed rate-of-return.” They continue that DER providers have, through competition, been forced to innovate to reduce costs and “have established supply chains that would be difficult for utilities to replicate.”

Additionally, SolarCity expresses concerns with the proposal to allow utilities to invest in DER if there are no responses to a solicitation administered by the utility. They comment the design of a solicitation can be at fault for a lack of responses rather than a lack of interest in the underlying proposal. They also believe that unregulated affiliates should not be able to submit bids to utility-administered open solicitations.

With respect to interconnection procedures, SolarCity believes that utility participation in DER will incentivize them to maintain or increase barriers to interconnection; barriers that they would not impose on themselves, thus granting utilities unearned advantage over DER providers. Furthermore, they comment that the utility serving as the DSP “and being allowed to participate in the market could lead to uneconomic self-dealing in dispatching its own DER.” They propose that an independent entity audit and monitor dispatch to ensure effective competition. Also, they urge the Commission to “be explicit in defining the penalties that will be imposed for market manipulation, distorted dispatch priorities, or other market inhibiting actions and provide market participants with a speedy dispute resolution process.”

Solar Energy Industries Association (SEIA)

SEIA does not at this time take a position on whether utilities or their affiliates should be allowed to engage in DER ownership and what restrictions should apply. However, they support the proposed process for consideration of proposals for utility engagement and its ability to balance the benefits of utility ownership against competitiveness and market power concerns. They agree that any such proposals must undergo rigorous review in order to ensure a level playing field.

The Alliance for Solar Choice (TASC)

In their reply comments, TASC support the balance struck in the SSP regarding utility ownership of DER, but ask that utilities be prevented from owning behind the meter DER. They propose narrowing or eliminating the exception that would allow a utility to invest in DER where it can “demonstrate that its solution is superior to the competitive alternatives presented.” They oppose the proposals of the Joint Utilities that request the ability to own behind the meter generation and other DERs. They believe that if this is permitted, it will be nearly impossible to monitor and sanction market power abuses that can be exercised in subtle ways that are difficult to police. TASC cautions that if utilities are allowed to own behind the meter generation, the goal of attracting investment by independent DER businesses to NY may be defeated. They support utilities partnership with competitive DER suppliers to expand DER services, but note that such partnerships “will be difficult to build if utilities are simultaneously tasked with helping, and competing with, independent DER suppliers.” Finally, TASC comments that allowing utilities to own behind the meter generation is unnecessary because they are provided with stable revenue

sources that allow them to raise capital and meet reasonable shareholder objectives through performance based incentives, assured cost recovery, and other ratemaking mechanisms.

United States General Services Administration (GSA)

GSA expresses concern with the potential for a utility DSP to exercise market power, particularly with respect to utility (or affiliate) ownership of DER. They endorse the market power mitigation measures recommended in the SSP, but recommend a more formal oversight process to ensure that these mitigation measures are effective. They propose consideration of either establishing a dedicated function within DPS that focuses on monitoring DSP-related market power issues, or creation of a small independent body to oversee this function.

Utility Intervention Unit of the New York State Department of State (UIU)

UIU, in their reply comments, remark that the recommendations that utilities engage in limited forms of direct ownership of DER and that they fulfill the DSP function raise significant market power concerns. They urge the Commission to “carefully weigh whether either form of involvement is appropriate for incumbent utilities, which already hold a monopoly position in the delivery of energy in New York State.” They assert that the balancing approach taken in the SSP “contains unchecked assumptions and therefore provides insufficient grounding for instituting a system-wide process to facilitate direct utility engagement with DER and DSP.” The UIU offers that foregoing the rebuttable presumption analysis required by the VMP policy could lead to “a slippery slope of unchecked utility investment in and monopolization of the market for DER,” and they believe it is unclear why this policy wouldn’t continue to apply in REV since utility ownership of DER and assumption of the DSP role are “plainly analogous to generation and transmission, respectively.”

They suggest that more stakeholder participation is needed before a decision is made on these key issues. They caution that “measures including Commission review of DER interconnection applications, control of bids, and provision of distribution data may or may not allay these risks.” They stress the importance of “specific details, in-depth planning and deliberation, comparison to alternatives, and benefit-cost analysis” in order to enhance predictability and provide actionable information. They believe REV hinges on the ability to attract private capital investment to a developing market and thus the importance of these issues cannot be overstated.

# APPENDIX B

## State Environmental Quality Review Act

## FINDINGS STATEMENT

February 26, 2015

Prepared in accordance with Article 8 - State Environmental Quality Review Act (SEQRA) of the Environmental Conservation Law and 6 NYCRR Part 617, the New York State Public Service Commission (Commission), as Lead Agency, makes the following findings.

**Name of Action:** Reforming the Energy Vision (Case 14-M-0101) Order Adopting Policy Framework and Implementation Plan

**SEQRA Classification:** Unlisted Action

**Location:** New York State/Statewide

**Date of Final  
Generic Environmental  
Impact Statement:** February 6, 2015.

**FGEIS available at:** [http://documents.dps.ny.gov/public/  
MatterManagement/CaseMaster.aspx?Matter  
CaseNo=14-m-0101](http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=14-m-0101)

### I. Purpose and Description of the Action

The regulatory initiative launched in this proceeding, Reforming the Energy Vision (REV), aims to reorient both the electric industry and the ratemaking paradigm toward a consumer-centered approach that harnesses technology and markets. Distributed energy resources will become integrated into the planning and operation of electric distribution systems, to achieve optimal system efficiencies, secure universal, affordable service, and enable the development of a resilient,



climate-friendly energy system. The direction taken by the Commission in this proceeding is consistent with the terms of the 2014 Draft State Energy Plan [Shaping the Future of Energy, New York State Energy Planning Board, 2014] that calls for the use of markets and reformed regulatory techniques to achieve increased system efficiency, carbon reductions, and customer empowerment.

In the attached order, the Commission adopts a policy framework for a reformed electric industry consistent with the REV vision. Ratemaking reforms will be addressed in subsequent orders. The policy framework action in the attached order includes the following components:

Distributed System Platform (DSP)

1. Adoption of the construct of the role of the Distributed System Platform (DSP) provider as the entity that will procure grid services and offer services or price products that support Distributed Energy Resources (DER) and renewable supply resources, subject to guidelines governing market design.
2. A determination that the utilities are the entities that should expand their obligations to incorporate the functionality of a Distributed System Platform (DSP), subject to conditions to address market structure concerns.
3. A requirement that utilities periodically provide system planning information sufficient to allow service providers and customers to develop products and marketing plans to meet system needs with Distributed Energy Resources (DER) services.
4. A requirement that Distributed System Platform providers (DSPs) make system data available at a degree of granularity consistent with the market that it operates, in a manner that is timely to facilitate market participation, subject to critical infrastructure security requirements.

Distributed System Implementation Plans (DSIPs)

5. A requirement that Staff, after consultations and a report of the MDPT group, issue detailed guidance regarding the contents of Distributed System Implementation Plans (DSIPs).
6. A requirement that initial Distributed System Implementation Plans (DSIPs) be filed by each utility for review and comment by interested parties.
7. A requirement that additive Distributed System Implementation Plans (DSIPs) be filed by each utility.
8. As an interim filing prior to the initial Distributed System Implementation Plans (DSIP), each utility should publish information regarding portions of their system that need upgrades but are amenable to non-wires alternatives and identify at least one such potential project, including the nature, scale, and timing of the need and the geographic area affected, with enough specificity for potential market participants to inform future demonstration projects and/or to allow market participants to begin planning for projects that may follow initial DSIPs.

Security Requirements

9. Determinations regarding security requirements that (1) the National Institute of Standards and Technology (NIST) guidelines should be the primary reference for utilities in securing their systems; (2) each utility should prioritize enterprise-wide cyber security by appointing and empowering one accountable individual within the executive structure; and (3) utilities will have primary responsibility for ensuring that Distributed Energy Resources (DER) providers selling services into the Distributed System Platform (DSP) are in compliance with all applicable standards.

Digital Marketplace

10. A requirement that Staff investigate how a digital marketplace platform could be designed, owned and operated to allow consumers to compare energy providers and

potential services in a manner that furthers REV goals, and provide a report of its findings.

11. A requirement that Staff, in a consultative process, develop a proposal to increase the informational value of energy bills with the goal of enhancing customer engagement in energy purchase and usage decisions, and provide a report of its findings.
12. A requirement that Staff lead a collaborative to investigate and evaluate operational issues required for Consolidated ESCO Billing (CEB) including how CEB can be constructed to be consistent with Commission rules and regulations including those governing termination of service for non-payment, and provide a report of its findings.

#### Distributed Energy Resources (DER)

13. A determination that, subject to Staff monitoring, utility ownership of Distributed Energy Resources (DER) will only be allowed if (1) procurement of DER has been solicited to meet a system need, and a utility has demonstrated that competitive alternatives proposed by non-utility parties are clearly inadequate or more costly than a traditional utility infrastructure alternative; (2) a project consists of energy storage integrated into distribution system architecture; (3) a project will enable low or moderate income residential customers to benefit from DER where markets are not likely to satisfy the need; or (4) a project is being sponsored for demonstration purposes.
14. A determination that Distributed Energy Resources (DER) ownership by utility affiliates will be allowed (1) in RFI/RFP procurements if the utility hires an independent expert reporting to Staff to ensure an unbiased selection process; (2) in procurements based on open tariffs if the possible misuse of inside information is prevented by codes of conduct; and (3) in auction-based procurements if the possible misuse of inside information is prevented by codes of conduct and also, potentially, subject to caps on market share.

15. A requirement that Staff initiate a process to address and refine utility and affiliate codes of conduct.
16. A determination that some degree of supervision over Distributed Energy Resources (DER) providers will be necessary, in order to ensure both consumer protection and fair competition, such that Staff is directed to develop rules in consultation with stakeholders, most likely applying relevant portions of existing provisions of the Uniform Business Practices, and to propose such rules for public comment.

#### Interconnection Requirements

17. Determinations regarding interconnection requirements that (1) each utility will be required to have phase one capabilities (online portal with automatic studies and timely decisions) in operation by the time of their initial Distributed System Implementation Plan (DSIP) filing; and (2) progress toward achieving phase two capabilities (automated application and management process integrated with grid optimization planning) reported in each utility's DSIP.
18. A requirement that Staff initiate a consultative process to increase the threshold for the Standardized Interconnection Requirements to 5 MW.

#### Microgrids

19. A determination that Commission policy towards microgrids should center on the following attributes: (1) ability to optimize system efficiency within the microgrid and advance REV objectives such as integration of clean distributed generation and addressing grid constraints; (2) interconnection with the larger utility system, assuming a DSP market that allows mutual benefits and services to be monetized; (3) resilience and the ability to island in the event of system outage, particularly where critical customer facilities are involved; (4) the obligation to provide reliable power at just and reasonable rates within the microgrid; and (5) consumer protections for residential customers as required by the Home Energy Fair Practices Act.

20. A determination that additional comments from parties is invited regarding microgrid configurations that should have regulatory approval pathways developed, after which Staff will prepare and issue a more detailed proposal for additional comment.

#### REV Demonstration Projects

21. Determinations regarding REV demonstration projects that (1) each utility is directed to solicit and develop concepts for demonstration projects, and file initial demonstration projects consistent with the guidelines developed in the December 12, 2014 Resolution, unless demonstration projects have already been proposed within a rate filing; (2) utilities will be permitted to defer the revenue requirement impacts of the incremental costs of demonstration projects, until their next rate plan; (3) utilities may propose a performance incentive (funded within a 0.5% cap) which is linked to tangible reductions in the proportion of direct utility investment and increases in the proportion of third party investment in a demonstration project; and (4) demonstration projects will be a continuing effort as the implementation of REV develops.

#### Advanced Metering Infrastructure (AMI)

22. A determination that whether or to what extent Advanced Metering Infrastructure (AMI) is needed to achieve REV benefits, and at what cost, must be determined on a case-by-case basis, taking into account a number of factors.

#### Universal Service

23. The Commission's statutory responsibility to maintain universal, affordable service being a critical driver of the REV initiative, determinations that (1) utilities will be allowed to partner with community groups and/or invest directly in distributed resource projects on premises of low and moderate income customers, to target system needs and enhance the participation of low and moderate income customers; (2) providers of Distributed Energy Resources (DER), if they are participating in data access platforms or Distributed System Platform (DSP) markets, will be

subject to consumer protection rules to prevent abuses; (3) operators of microgrids will be subject to the Home Energy Fair Practices Act; and (4) measures will be required to avoid or mitigate potentially harmful emission concentrations from distributed generation or demand response in environmental justice areas.

#### Benefit Cost Analysis (BCA) Framework

24. A determination that since REV is a long term, far reaching initiative that will eventually touch most parts of the utilities' infrastructure and business practices, an attempt to project a quantified analysis on the wide-ranging set of potential benefits in a REV approach, against hypothetical future cost scenarios under both REV and conventional approaches, would be artificial and counter-productive and that such an effort would distract from the far more important task of carefully phasing the implementation of REV so that actual expenditures, when they occur, are considered intelligently in light of potential benefits recognizing that in this multi-phased implementation process, benefits and costs will be considered with increasing specificity.
25. A determination that the focus of the Commission's Benefit Cost Analysis (BCA) framework development will be on four categories of utility expenditures: (i) utility investments in infrastructure to implement REV; (ii) procurements of Distributed Energy Resources (DER) via selective processes; (iii) procurement of DER via tariffs; and (iv) energy efficiency programs, and that the extent to which BCA can be formulaically applied will depend on the type of activity and the range and time frame of potential benefits and costs.
26. A requirement that Staff issue a Benefit Cost Analysis (BCA) White Paper and then conduct a comment process, with the objective of proposing to the Commission a common framework that can be applied consistent with the REV framework.

Utility Energy Efficiency Programs

27. Authorization of 2016 energy efficiency budgets and MWh/Dth targets (based on 2015 budgets and targets) to immediately support utility planning for development and implementation of a 2016 portfolio and avoid an abrupt disruption in energy efficiency program services.
28. A requirement that utilities file rolling-cycle, three-year Efficiency Transition Implementation Plans (ETIPs) based on Commission-approved budgets and targets on an overall portfolio basis with the utility direct acquisition and rebate programs to be coordinated with NYSERDA programs and periodically reviewed so that each utility program is properly situated on the market transformation curve, with the utility programs becoming more oriented toward demand reduction where efficiency measures produce demand reduction that is less expensive than equivalent capacity purchases, with utility costs being recovered through rates like other ordinary components of the revenue requirement, and with utilities being encouraged to develop innovative programs to expand the reach of efficiency measures within low income communities, in concert with and not in competition with efforts of NYSERDA (NYSERDA remains the default provider of low income programs).
29. A requirement that Staff, in consultation with the E<sup>2</sup> Working Group, develop, and file, a REV Energy Efficiency Best Practices Guide outlining energy efficiency program best practices under a REV framework.
30. Requirements that each utility include a Self-Direct Program for large commercial and industrial customers in their energy efficiency portfolios, and that Staff and the utilities, in consultation with large commercial and industrial customers, develop, and file, Guidance regarding Self-Direct Programs.
31. A requirement that Utility Evaluation, Measurement & Verification (EM&V) activities be designed and implemented to update the current evaluation guidelines (i.e., the New York Evaluation Plan Guidance for EEPS Program Administrators), data tracking obligations and reporting requirements to be re-aligned to support market

transformation approaches and to reflect advances in EM&V technology.

32. A requirement that utilities work collectively to support the maintenance of a New York State Technical Resource Manual (TRM) and file a TRM Management Plan with the utilities assuming responsibility for the TRM from Staff.
33. A requirement that the total resource cost (TRC) test remain as the primary benefit cost analysis tool for energy efficiency until a new Benefit Cost Analysis (BCA) framework is developed that will eventually apply to energy efficiency, as well as other distributed energy resources.

#### Large Scale Renewable Resources

34. A requirement that Staff propose an option paper for public comment and that NYSERDA should identify funding for a 2016 solicitation in its Clean Energy Fund supplemental filing.

## **II. Facts and Conclusions in the EIS Relied Upon to Support the Decision**

In developing this findings statement, the Commission has reviewed and considered the "Final Generic Environmental Impact Statement in Case 14-M-0101 - Reforming the Energy Vision and Case 14-M-0094 - Clean Energy Fund" issued on February 6, 2015 (FGEIS). The following findings are based on the facts and conclusions set forth in the FGEIS.

### **A. Public Needs and Benefits**

The FGEIS indicates a number of challenges facing New York's energy system, including:

- aging infrastructure, with an estimated investment required over the next ten years of \$30 billion;
- an increasing dependence on electricity, and the need for reliability and resiliency, especially against extreme weather events;
- minimal load growth (sales base);



- increasing peak loads, resulting in declining system efficiency;
- electric systems vulnerable to cyber and physical attacks;
- technological advancements have developed in distributed energy resources and information systems;
- dependence on natural gas for electricity generation has increased system vulnerability to price volatility at peaks; and
- the need to reduce carbon emissions [FGEIS 1-4; 1-5].

REV is designed to rethink the regulatory structure of the electricity distribution system, and establish an improved paradigm, supported by regulatory oversight, to accomplish the goals set forth above. Actively seeking to reach the Commission's goals of active customer decision-making and involvement, increased distributed generation, deployment of real-time responsive technology and the use of distributed system platforms will help counter the concerns noted above. Specifically, the FEIS details the major categories of the public benefits of REV to include:

- increased customer choice and opportunity;
- increased system efficiency and therefore cost reduction, calculated both in terms of load duration curve and in terms of overall heat rate;
- improved fuel diversity, reduced fossil fuel dependence, and improved management of price volatility;
- deferral or avoidance of transmission and distribution (T&D) infrastructure investment;
- reduced line losses;
- increased penetration of clean distributed generation;
- reduction in carbon and other pollutant emissions, beyond what can be achieved through ratepayer funded programs;

- increased value of energy efficiency investments resulting from targeting programs to system needs;
- reduced average customer bills;
- increased grid resilience and security, including avoided restoration and outage costs;
- increased reliance on markets with resulting innovation in distributed energy resources products and benefits, and the ability to effectively integrate new innovations into the system;
- added levels of responsive demand and system flexibility that enable long-term development and integration of variable-output renewable resources;
- increased non-energy benefits to customers and society including, for example, reduced health impacts or increased employee productivity; and,
- securing the long-term viability of universal affordable service [FGEIS 1-18; 1-19].

## **B. Potential Impacts**

As described above, the adoption by the Commission of a policy framework for a reformed electric industry consistent with the REV vision in the attached order is comprised of a number of specific components. Chapter 5 of the FGEIS describes the expected environmental impacts of the action.

### Distributed System Platform (DSP)

The determination that the utilities are the entities that should expand their obligations to incorporate the functionality of a Distributed System Platform (DSP), subject to conditions to address market structure concerns, is expected to foster the development of new energy products and services; improve overall system efficiency; increase the use and coordination of Distributed Energy Resources (DER); and allow customers to manage their usage and reduce energy bills [FGEIS 1-7]. Incumbent utilities have the institutional knowledge and experience required to perform the proposed DSP functions and

tasks [FGEIS 1-8]. Concerns that the timeframe established for the alternative projections of REV accomplishments are too short [FGEIS B-12] should be alleviated by the designation of the utilities for the DSP role as they should have the capability to timely provide REV implementation. Similarly, the requirements that utilities provide system planning information and system data at a degree of granularity consistent with the market they are to operate is expected to timely facilitate market participation to allow service providers and customers to develop products and marketing plans to meet system needs with DER services. DSPs are expected to enable a greater and more efficient deployment of DER, so in that aspect the creation of DSPs will induce growth.

#### Distributed System Implementation Plans (DSIPs)

The preparation of Distributed System Implementation Plans (DSIPs) will not of itself create any environmental impacts. If the plans are ultimately implemented, it is expected that the DSIPs will enable a greater and more efficient deployment of Distributed Energy Resources (DER), so in that aspect the creation of the DSIPs will induce growth.

#### Security Requirements

Application of the security requirements contemplated in the attached order should result in increased grid resilience and security, including avoided restoration and outage costs [FGEIS 1-18]. That in turn should also result in reduced construction activity and transportation impacts by utility restoration crews.

#### Digital Marketplace

The intent of REV is to provide consumers with information and choice, to enable the consumer to drive markets

competitively and in an efficient manner. The attached order includes directives to Staff to develop proposals for future Commission consideration including (1) a digital marketplace platform; (2) increasing the informational value of energy bills; and (3) a resolution of operational issues required for Consolidated ESCO Billing (CEB). Actions to achieve these goals will be reviewed and considered in the future in reaction to the Staff proposals to be developed, therefore the investigations and reports to be undertaken by Staff pursuant to the attached order will not of themselves create any environmental impacts. If the goals are ultimately achieved, it is expected that the digital marketplace will enable a greater and more efficient deployment of Distributed Energy Resources (DER), so in that aspect the creation of the digital marketplace will induce growth. In addition, to the degree that the digital marketplace relies upon new electronic devices, while the digital/tech-enabled solutions do not create any direct environmental impacts, like any industrial product, the hazardous materials contained in such technologies may indirectly generate life-cycle environmental impacts during manufacturing, transportation and end-of-life product disposal [FGEIS A-11].

#### Distributed Energy Resources (DER)

Among the goals of REV is to develop new strategies to achieve a cleaner energy economy through greater use of distributed energy resources (DER) and increased customer participation [FGESI 1-1; 1-2]. The attached order includes determinations regarding utility ownership of DER, utility-affiliate ownership of DER, the refinement of utility and affiliate codes of conduct, and the development by Staff of rules to govern the conduct of DER providers. These matters are addressed primarily to ensure both fair competition and consumer protection and are not expected of themselves to have any

environmental impacts. To the degree that such matters contribute to creating more efficient markets, it is expected that they will enable a greater and more efficient deployment of DER, so in that aspect resolution of these matters will induce growth.

DER includes an array of activities including distributed generation (e.g., solar, wind, combined heat and power) distributed storage, demand response, and end-use energy efficiency [FGEIS 1-7].

#### Distributed Generation

Distributed Generation can encompass a wide variety of resources, technologies, and fuels. Non-CHP fossil-fuel fired generation of limited scale and located in physical proximity to load centers includes several types of technologies including reciprocating internal combustion engines, and combustion turbines (including micro-turbines); fuel types could include natural gas, propane, gasoline, and diesel fuel. While Distributed Generation of this type has few of the benefits associated with renewable and demand-side resources because it may have detrimental effects on air quality and other environmental resources, it does support the REV objective of distributed energy resources [FGEIS 4-13]. As currently deployed, such generation will likely be less clean than heavily controlled combined cycle natural gas facilities that supply base-load electricity in New York. However, fossil-fuel based on-site generation (particularly new cleaner and more efficient units) may compare well with less efficient "peaking" plants that are deployed only during very high load conditions, and their limited use to reduce load is environmentally preferable to the wide scale use of emergency generation that would result if blackout conditions ensued [FGEIS 5-7]. In contrast,

Combined Heat and Power (CHP) systems are attractive because the overall system efficiency can exceed the combined efficiencies of separate electric generation and thermal energy systems. Similar to customer-sited renewable systems, they can result in lower customer loads on the electrical system if located "behind-the-meter" [FGEIS 4-11]. CHP, also referred to as cogeneration, includes systems that generate both electricity and useful thermal energy within one facility. Typical systems involve either combustion turbines or steamdriven generators for generating electricity, followed by heat exchangers that capture the waste heat for use as space heat, domestic hot water, or process heat loads. CHP has the potential to increase local air pollution, may require the use of hazardous materials, which require proper precautions during operation and disposal, and may produce noise that may be audible beyond the immediate environment of the CHP system [FGEIS 5-24; 5-25].

#### Distributed Storage

The environmental impacts of energy storage are influenced by the efficiency of the technology and the original source of electricity [FGEIS 5-13]. By design, a storage device outputs less energy than the charging input. As such, energy storage devices may result in increased electricity demand from the existing grid, which may result in greater emissions when considered on a standalone basis (e.g., not taking into account displacement of other forms of energy generation). When energy storage technologies complement cleaner generation, however, such technologies can contribute to lower levels of both local and global emissions. On a large scale, the use of storage as part of a larger strategy to increase the responsiveness of demand will facilitate greater development of low-carbon energy generation. Where system efficiency is measured in terms of average heat rate, storage that complements low-carbon off-peak

generation will reduce total carbon output. Compressed air energy storage is the only energy storage technology that emits greenhouse gases from the operations of energy storage. Other energy storage technologies have minimal life-cycle emissions depending on the size, operation, and lifetime of each facility. Large-scale storage facilities may result in adverse environmental impacts that may occur during construction [FGEIS 5-14]. Batteries do not create any significant, direct environmental impacts, but like any industrial product batteries can indirectly generate life-cycle environmental impacts during manufacturing, transportation and end-of-life product disposal [FGEIS 5-15; 5-16]. Power stored in batteries can also serve as a source of electricity. Such technologies allow power to move back and forth between parked electric vehicles and the grid, providing utilities and grid operators with another mechanism to support grid stability and customers and opportunity to participate [FGEIS 5-11]. Grid energy storage can generate significant air quality benefits by reducing CO2 emissions as compared to peaker plant energy generation [FGEIS 5-16].

#### Demand Response

Load curtailment programs result in "real" load reduction that creates no emissions [FGEIS 5-6]. Load shifting programs that shift electricity generation across time can affect total emissions [FGEIS 5-7]. During very high load conditions, reducing reliance on less efficient "peaking" plants by shifting load to off-peak periods will result in reduced emissions because off-peak generation in New York is increasingly composed of low-carbon or carbon-free technologies [FGEIS 5-7]. For programs that encourage customers to reduce their load on the grid using on-site generation, such as diesel engines or solar panels, emissions may be greater or smaller than that of the system [FGEIS 5-7]. As currently deployed,

such on-site generation will likely be less clean than heavily controlled combined cycle natural gas facilities that supply base-load electricity in New York. However, fossil-fuel based on-site generation (particularly new cleaner and more efficient units) may compare well with less efficient "peaking" plants that are deployed only during very high load conditions, and their limited use to reduce load is environmentally preferable to the wide scale use of emergency generation that would result if blackout conditions ensued [FGEIS 5-7].

#### End-use Energy Efficiency

Energy efficiency technologies may generate hazardous materials during the construction process. For example, compact fluorescent bulbs contain mercury. Energy efficiency upgrades in buildings could require handling new building materials and disposing of older, hazardous materials such as asbestos, lead-based paint, polychlorinated biphenyls, and arsenic [FGEIS 5-5].

#### Interconnection Requirements

The implementation of online portals with automatic studies and timely decisions to facilitate interconnections, and progress toward achieving automated application and management process integrated with grid optimization planning requirements to better target interconnections, will tend to facilitate greater use and/or adoption of Distributed Energy Resources (DER). The attached order also includes a directive to Staff to initiate a consultative process to increase the threshold for the Standardized Interconnection Requirements to 5 MW. These activities are not expected to result in direct environmental impacts. Indirect impacts may arise to the extent that such activities contribute to or facilitate greater use and/or adoption of DER [FGEIS A-9].



### Microgrids

The attached order includes determinations that Commission policy towards microgrids should center on certain attributes including, among other things, the ability to optimize system efficiency within the microgrid and advance REV objectives such as integration of clean distributed generation and addressing grid constraints; that additional comments from parties are invited; and that Staff will prepare and issue a more detailed proposal for additional comment. Action to finalize these determinations will be reviewed and considered in the future in reaction to the Staff proposal to be developed, therefore the investigations and reports to be undertaken by Staff pursuant to the attached order will not of itself create any environmental impacts. If the goals are ultimately achieved, it is expected that microgrid implementation can facilitate the quick adoption of fuel efficiency and diversity, may reduce grid energy losses associated with the larger grid, and serve as a secondary energy supply when main grids are offline. Installation of microgrids, for example, could offer ancillary services including voltage support, frequency regulation, and black start capability [FGEIS 9-5]. Community microgrids are also expected to modernize the State's electric grid, protect communities from power outages, improve power quality and reliability, and enable a transition to cleaner and more efficient energy infrastructure [FGEIS 1-22].

### REV Demonstration Projects

The determination in the attached order that each utility is to solicit and develop concepts for REV demonstration projects, file initial REV demonstration projects, and continue REV demonstration projects as the implementation of REV develops is expected to provide tangible evidence of success of market

solutions that will lead to increased adoption of Distributed Energy Resources (DER) [FGEIS A-3].

#### Advanced Metering Infrastructure (AMI)

Advanced meters are a technology that allows greater control of energy demand and are more likely to be cost-effective for larger customers [FGEIS 5-9]. The determination in the attached order that the need for advanced meters to achieve REV benefits, and at what cost, must be determined on a case-by-case basis, taking into account a number of factors, will tend to ensure that environmental justice concerns and socio-economic impacts to low-income communities [FGEIS B-20] will receive sufficient examination.

#### Universal Service

In reaching the goals of REV, the Commission continues to strive for affordable electricity rates. It is the intent of REV that customers will drive markets, and such competition will achieve low costs for end users. The determination in the attached order that utilities will be allowed to partner with community groups and/or invest directly in distributed resource projects on premises of low and moderate income customers, to target system needs and enhance the participation of low and moderate income customers will tend to ensure that that low-to-moderate income residential customers will realize the benefits of the REV. The advisory group, and other consumer protections provided, also address the need to include specific institutional protections for low-to moderate income residential ratepayers [FGEIS B-20].

#### Benefit Cost Analysis (BCA) Framework

It is expected that a sound benefit-cost analysis (BCA) framework will be required to support policy, investment, and pricing choices as the implementation of REV moves forward,

including in rate cases, and that the costs to be incurred by individual utilities will be weighed against estimated benefits [FGEIS 9-10]. The attached order includes a directive to Staff to issue a BCA White Paper and then conduct a comment process, with the objective of proposing to the Commission a common framework that can be applied consistent with the REV framework. The BCA framework development is to focus on four categories of utility expenditures: (1) utility investments in infrastructure to implement REV; (2) procurements of Distributed Energy Resources (DER) via selective processes; (3) procurement of DER via tariffs; and (4) energy efficiency programs, and that the extent to which BCA can be formulaically applied will depend on the type of activity and the range and time frame of potential benefits and costs. Action to adopt a BCA framework will be reviewed and considered in the future in reaction to the Staff proposal to be developed, therefore the investigation and report to be undertaken by Staff pursuant to the attached order will not of itself create any environmental impacts. The BCA framework may present an opportunity to incorporate the consideration, as project portfolio development under the REV proceeds, of potential environmental damages from proposed distributed generation or other installations as part of project assessments on a more localized level [FGEIS 5-8] or in rate cases [FGEIS 9-10]. At those times, specific mitigation strategies could also be proposed [FGEIS 5-8].

#### Utility Energy Efficiency Programs

The clean energy technologies and resources promoted by REV, in particular, energy efficiency measures, create one common long-term, indirect effect: reducing the use of energy generated from fossil fuels [FGEIS 5-48]. The environmental impact of a reduction in the use of fossil-fuel based energy generation on the human environment is generally positive, but

will occur over long time horizons. For example, by reducing energy consumption, energy efficiency resources and technologies avoid the adverse environmental impacts associated with fossil fuel-based energy generation. The extent to which energy efficiency avoids adverse impacts and generates benefits depends upon the mechanism by which energy consumption is reduced, the location on the grid at which changes in energy consumption occur, and the current mix of fuel sources used in generation. The "dirtier" the fuels used for generation, the greater the benefits from energy efficiency or demand response programs. Adverse impacts avoided may also change over time, reflecting the dynamic nature of the electric grid and the energy market itself.

Energy efficiency technologies may generate hazardous materials during the construction process. For example, compact fluorescent bulbs contain mercury. Energy efficiency upgrades in buildings could require handling new building materials and disposing of older, hazardous materials such as asbestos, lead-based paint, polychlorinated biphenyls, and arsenic [FGEIS 5-5]. On balance, the long term benefits to society and to the participating customers more than outweigh the need to manage construction activities.

The continuation of 2015 energy efficiency budgets and MWh/Dth targets for an additional year will avoid disruption in energy efficiency program services. Moving to rolling-cycle, three-year plans will institutional stability of energy efficiency program delivery.

The development of a REV Energy Efficiency Best Practices Guide, utility Evaluation, Measurement & Verification (EM&V) activities, and the utility-supported Technical Resource Manual Management Plan will tend to place more responsibility on

the utilities as program administrators and make them more accountable for results.

### **C. Mitigation**

Chapters 5 and 6 of the FGEIS identifies mitigation measures that could address the potential adverse impacts of the action.

#### Mitigation of Local Emissions

The market structure envisioned in REV creates the potential for proliferation of small combustion sources which, in the aggregate, could result in more emissions than an energy structure based on centralized sources of fossil fuel generation, or could result in adverse local impacts. This risk is unlikely to arise from combined heat and power facilities, which tend to be more efficient than central generation. Rather, this risk principally arises from the potential use of backup generators to provide demand response for non-emergency (i.e., economic purposes). Moreover, this risk exists even if all facilities are in compliance with applicable codes and regulations [FGEIS 5-7].

The Commission has incorporated two mitigation measures to address these concerns in the attached order. The first is a determination that measures will be required to avoid or mitigate potentially harmful emission concentrations from distributed generation or demand response in environmental justice areas. The second is a requirement that Staff cooperate with the New York State Department of Environmental Conservation (DEC) to develop rules that avoid or mitigate the potential for harmful local emissions and report to the Commission regarding the status of emission regulations applicable to distributed generation, including any recommendations for further action

needed. These mitigation measures are among the measures to mitigate potential impacts associated with small-scale fossil fuel-based generation identified in the FGEIS [FGEIS 5-7, 5-8]. It is expected that the Commission will consider further mitigation measures if warranted by later REV implementation actions. In addition, as project portfolio development under the REV proceeds, potential environmental damages from proposed distributed generation installations could also be considered as part of project assessments on a more localized level. At that time, additional specific mitigation strategies could be considered [FGEIS 5-8].

#### **D. Cumulative Impacts and Climate Change**

Greenhouse gases such as carbon dioxide contribute to the trend of rising average global temperatures [FGEIS 3-14; 3-15]. Over the last century, the atmospheric concentrations of carbon dioxide and other heat-trapping greenhouse gases have rapidly increased. Although the presence of some greenhouse gases in the atmosphere is natural and essential, many human activities release additional greenhouse gases. Combustion of fossil fuels (coal, oil, and natural gas) to generate energy is the greatest contributor to atmospheric CO<sub>2</sub> levels. Agricultural and other industrial processes also emit other greenhouse gases such as methane, nitrous oxide and halocarbons. Compared with other states, New York emits relatively low amounts of greenhouse gases per capita (14.7 tons of CO<sub>2</sub> per New Yorker in 2007). This is due to a smaller proportion of New York's electric energy needs met by coal-fired power plants, and also to the widespread use of public transportation in the State's larger cities. As the concentration of greenhouse gases increases, more heat is trapped in the atmosphere, which causes an increase in temperatures.

In aggregate, the clean energy technologies and resources promoted by REV create one common long-term, indirect effect: reducing the use of energy generated from fossil fuels. The environmental impact of a reduction in the use of fossil-fuel based energy generation on the human environment is generally positive, but will occur over a long time horizon [FGEIS 5-48].

Changes in the total emissions of air pollutants resulting from fuel combustion is one of the primary impacts from the alternatives examined in the FGEIS [FGEIS 4-5]. The FGEIS selects system peak reduction as the basis (or metric) for constructing the two alternatives: (1) a lower bound estimate of the potential effects of the REV and Clean Energy Fund (CEF) proceedings, targeting a three percent peak load reduction in the near-term (i.e., over five years); and (2) an upper bound estimate of the potential effects of the REV and CEF proceedings, targeting a 14 percent peak load reduction over the longer term (i.e., over ten years). Based on the bounding analysis provided, emissions reductions as a percentage of the baseline follow relatively closely the reduction in grid-energy consumption expected. The lower bound expectation is that annual CO<sub>2</sub> emissions would be reduced by 1,712,000 tons or 5% of the baseline level [FGEIS 4-6]. The upper bound expectation is that annual CO<sub>2</sub> emissions would be reduced by 3,993,000 tons or 12% of the baseline level [FGEIS 4-6]. The reduction in carbon dioxide emissions in the upper bound, 12%, represents a rate over time that is roughly two-thirds that needed to achieve the 80 percent reduction by 2050 proposed in Executive Order 24 [FGEIS 4-7].

### III. Conclusion

The REV program is anticipated to yield overall positive environmental impacts, primarily by reducing the State's use of, and dependence on, fossil fuels, among other benefits. In conjunction with other State and Federal policies and initiatives, REV is designed to reduce the adverse economic, social and environmental impacts of fossil fuel energy resources by increasing the use of clean energy resources and technologies [FGEIS ES-10].



**CERTIFICATION TO APPROVE:**

Having considered the Draft and Final Generic Environmental Impact Statement, and having considered the preceding written facts and conclusions relied upon to meet the requirements of 6 NYCRR 617.11, this Statement of Findings certifies that:

1. The requirements of 6 NYCRR Part 617 have been met; and
2. Consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures that were identified as practicable; and
3. Consistent with the applicable policies of Article 42 of the Executive Law, as implemented by 19 NYCRR 600.5, this action will achieve a balance between the protection of the environment and the need to accommodate social and economic considerations.

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# APPENDIX C

### REV Energy Efficiency Best Practices Guide

To ensure shared learning and the evolution of programs across service territories, Staff will develop a REV Energy Efficiency Best Practices Guide, in consultation with the E<sup>2</sup> Working Group, outlining energy efficiency program best practices under a REV framework. The initial version of the Guide will be filed with the Secretary by February 1, 2016. It should include a process for future revisions and updates, also to be filed with the Secretary, such that the information in the Guide changes with the pace of technology and our directives.

### Self-Direct Program

Each utility will include a Self-Direct Program for large commercial and industrial customers in their energy efficiency portfolios no later than January 1, 2017. The Self-Direct Programs will allow large commercial and industrial customers to self-direct funds that would otherwise support the utilities' portfolio of energy efficiency programs toward the customers' unique suite of energy management investments, and allow the customers' energy savings to count toward the utilities' goals. Utilities, large commercial and industrial customers, and energy efficiency providers are encouraged to form partnerships to initiate self-directed and other transactive-based energy efficiency efforts prior to January 1, 2017. Utilities should consider the potential opportunity for such partnerships as they develop their 2016 energy efficiency program portfolio. Utilities should also seek to include such arrangements in demonstration projects. Staff and the utilities, in consultation with large commercial and industrial customers, will develop Guidance regarding this type of program to be filed with the Secretary by August 3, 2015.

### Evaluation, Measurement & Verification

Utility Evaluation, Measurement & Verification (EM&V) activities will be designed and implemented to yield timely information that shall be incorporated into the annual iterations of utility programs, resource manuals and guidance. Such activities should be complementary, not duplicative of NYSERDA EM&V activities, must inform improvement to individual utility energy efficiency efforts, but more importantly must be shared and integrated to improve the accuracy and reliability of foundational tools, such as the Technical Resource Manual. It is the Joint Utility's responsibility to ensure that utility EM&V activities are planned to be useful and are used, and in addition, coordinate with NYSERDA to avoid duplicative efforts. As REV recognizes the pace of technology and its ability to redefine our electric system, so too can

advances in technology be used to challenge and enhance our traditional approach to EM&V. Current evaluation guidelines (i.e., the New York Evaluation Plan Guidance for EEPS Program Administrators), as well as data tracking obligations and reporting requirements should be reviewed and revised. Data collection and reporting requirements need to be re-aligned to support market transformation approaches. This review should be undertaken in 2015 with revised evaluation, data collection, and reporting guidelines available to support the 2016-2018 program cycle. Staff will retain a monitoring and auditing role.

#### Technical Resource Manual (TRM)

The utilities will work collectively to support the maintenance of a New York State TRM, while allowing for utility territory specific inputs, as appropriate. The Joint Utilities will file a TRM Management Plan by no later than June 1, 2015. Upon filing this plan, the utilities will assume responsibility for the TRM from Staff. This plan should include a process that ensures each utility's and NYSERDA's input is considered, all changes to the TRM are transparent to Staff and stakeholders, and an updated TRM will be filed annually in accordance with the schedule discussed below. In addition the TRM Management Plan should include any plans for the use of contractor support, including the expected schedule for obtaining such support. Staff will retain a monitoring and auditing role.

#### Benefit Cost Analysis (BCA)

Under REV, a new Benefit Cost Analysis (BCA) framework will be developed that will eventually apply to energy efficiency, as well as other distributed energy resources. Until this BCA framework is in place, we will make limited changes and retain the total resource cost (TRC) test as the primary benefit cost analysis tool. While utilities are encouraged to apply the TRC at varying levels of granularity as an analysis and program management tool, the utility's portfolio should exceed a TRC of 1.0. This portfolio level BCA should be included in the ETIP, discussed below, along with a BCA for each program.

## ETIPs

We direct Staff, in consultation with the E<sup>2</sup> Working Group, to develop Guidance, to be filed with the Secretary by May 1, 2015, specifying the elements that should be included in utility ETIPs. At a minimum, each ETIP will provide:

- Descriptive information on the energy efficiency programs and initiatives proposed for implementation during a three-year program period,
- A plan and schedule for all EM&V activities that clearly identifies the information being sought and the date by which it will be obtained to support the overall program and guidance cycle, and
- A portfolio level BCA along with a BCA for each program.

## Program Cycle

The E<sup>2</sup> Working Group will establish a three-year rolling cycle, to be filed with the Secretary by May 1, 2015. The cycle shall include:

- An annual date by which Evaluation Studies of programs in previous cycles shall be filed in order to inform overall program design/operation and an updated TRM;
- An annual date by which an updated TRM will be filed to inform the preparation of utility ETIP filings;
- An annual date by which utility ETIPs will be filed to inform Commission authorization of utility proposed budgets and metrics;
- An annual date by which utilities will file proposed budgets and metrics for the next three-year program cycle;
- An annual target date for Commission authorization of utility portfolio budgets and metrics for a three-year cycle.

## Initial Cycle

To initiate the first cycle, 2016 budgets and targets below are authorized to immediately support utility planning for development and implementation of a 2016 portfolio and avoid an abrupt disruption in energy efficiency program services.

## 2016 Authorized Budgets and Targets

### Electric Portfolio

<b>Utility</b>	<b>2016 Budget</b>	<b>2016 MWh Target</b>
<b>Central Hudson</b>	<b>\$ 8,479,345</b>	<b>34,240</b>
<b>Con Edison</b>	<b>\$ 86,178,022</b>	<b>179,107</b>
<b>Niagara Mohawk</b>	<b>\$ 51,457,894</b>	<b>230,705</b>
<b>NYSEG</b>	<b>\$ 17,035,451</b>	<b>53,557</b>
<b>O&amp;R</b>	<b>\$ 6,302,164</b>	<b>19,302</b>
<b>RG&amp;E</b>	<b>\$ 10,482,078</b>	<b>31,776</b>

Utilities will propose budgets and metrics for the remaining years of the 2016-2018 cycle in an Energy Efficiency Budget and Metric Plan by July 15, 2015. As a separate but companion filing, utilities will file a proposed 2016-2018 ETIP by July 15, 2015, not for our approval, but to inform our consideration of the proposed budgets and metrics. The 2016-2018 ETIPs will utilize the 2016 budgets and targets authorized here and the proposed budgets and metrics for 2017 and 2018.

Utilities should be prepared to implement 2016 gas portfolios and propose budgets for the three-year cycle pursuant to the same approach as taken here with the electric portfolios, to be addressed in a forthcoming Order.

## EEPS Final Year Flexibility & Guidance

- EEPS EM&V funds may be used for activities in support of planning and implementation of post-2015 energy efficiency programs. Emphasis should be placed on the ability to obtain results in a timely fashion to support the overall cycle of improving guidance documents, e.g., TRM, BCA, REV Energy Efficiency Best Practices Guide. To aide in the more timely completion of EM&V work, Staff will continue to serve as a valuable resource to NYSERDA and the utilities in the conduct of the work but we will not require Staff approval. With this additional level of streamlining, NYSERDA and the utilities accept a higher level of responsibility for ensuring the quality and timely completion of the final work product. All final EM&V reports should be filed upon their completion with the Secretary. Staff will maintain a monitoring role and audit function to verify the use of EM&V results in future program planning.
- To the extent EEPS 2 program(s) are experiencing demand that exceeds the available budget(s), and the Program Administrator does not have a viable option of transferring budget/target from within their portfolio, uncommitted EEPS EM&V funds may be used for this purpose with the understanding that a corresponding increase in energy savings targets will be calculated based on an “as-ordered” \$/MWh or \$/Dth basis. Staff is directed to work with the E<sup>2</sup> Working Group to supplement existing EE Guidance on Reallocation of Budgets and Targets to address this option.
- EEPS program and EM&V funds that are unspent and uncommitted as of December 31, 2015 will be retained by the utility to reduce the revenue requirement associated with post-2015 energy efficiency programs.
- Staff shall work with the utilities and NYSERDA to identify the most efficient way of reporting and tracking EEPS 2 commitments and the period of time over which these commitments will be allowed to be converted to achievements to count toward EEPS 2 shareholder incentive calculations.

# APPENDIX D



STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

At a session of the Public Service  
Commission held in the City of  
Albany on December 11, 2014

## COMMISSIONERS PRESENT:

Audrey Zibelman, Chair  
Patricia L. Acampora  
Garry A. Brown  
Gregg C. Sayre  
Diane X. Burman, abstained

CASE 14-M-0101 - Proceeding on Motion of the Commission in  
Regard to Reforming the Energy Vision.

## MEMORANDUM AND RESOLUTION ON DEMONSTRATION PROJECTS

(Issued and Effective December 12, 2014)

BY THE COMMISSION:

INTRODUCTION

Demonstration projects will be an important step in implementing Reforming the Energy Vision (REV) policy changes and will inform decisions with respect to developing Distributed System Platform (DSP) functionalities, measuring customer response to programs and prices associated with REV markets, and determining the most effective implementation of distributed energy resources (DER). These projects are also a means of presenting REV to the customer and gauging their receptiveness to REV technologies, products, and services. Data collected from these projects will inform regulatory changes, rate design, and the most effective means to integrate DER on a larger scale.

By this memorandum and resolution, the Commission encourages utilities and third parties that have not already done so to begin working together at this time to develop potential demonstration projects. Although the Commission has

not yet acted on REV Track One in general, and cannot do so until the State Environmental Quality Review Act (SEQRA) environmental review process is completed, the Commission urges utilities and third parties to commence consultations and to begin developing proposals so that they will be prepared to initiate their proposals once the Commission has made its REV Track One policy determinations.

#### BACKGROUND

In its August 22, 2014 Straw Proposal,<sup>1</sup> Staff recognized the need for demonstration projects to develop Distributed System Platform (DSP) functionalities and measure customer response to programs and prices associated with REV markets. A comment period, including a September 22, 2014 deadline, was established for the submission of responses to the Straw Proposal.

The Commission also notes that there are various pilot or demonstration projects currently underway or proposed by the utilities within New York State. These projects are also expected to provide valuable feedback and to inform the REV initiative.

Central Hudson Gas & Electric Corporation (Central Hudson) has begun a pilot project to test its communication system with certain intelligent devices in a portion of its service territory. In its most recently filed rate case,<sup>2</sup> Central Hudson proposed a system-wide communications and distribution automation project designed to enable distribution

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<sup>1</sup> Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, Developing the REV Market in New York: DPS Staff Straw Proposal on Track One Issues (Issued August 22, 2014) (Straw Proposal).

<sup>2</sup> Case 14-E-0318 - In the Matter of Central Hudson Gas & Electric Corporation.

system control and optimization and allow for the future integration and analysis of DER.

In July 2014, Consolidated Edison of New York, Inc. (Con Edison) filed a petition for approval of a non-traditional customer-sided and electric utility-sided demand management program intended to defer major transmission and distribution capital investments that would otherwise be needed to address increased electricity demands in its Brooklyn and Queens service areas. The proposed program calls for distributed energy resources including demand management, energy efficiency and distributed generation.

National Grid Corporation (National Grid) in partnership with EPRI, the University of Buffalo and the Buffalo Niagara Medical Campus, will study the feasibility of a microgrid system in the city of Buffalo. This project was one of the award recipients of the funding announced by in February 2014 for the development or research of new techniques and "Smart Grid" technologies that add resiliency and efficiency to the state's electric grid. The projects were awarded funding from the New York State Energy Research and Development Authority's (NYSERDA) Electric Power Transmission and Distribution Smart Grid Program. In order to qualify for funding, recipients had to propose projects that improve the reliability, efficiency, quality, and overall performance of the electric power delivery system in New York State. Proposals were required to demonstrate significant statewide public benefit and quantify all energy, environmental and economic impacts.

Iberdrola USA (Iberdrola) previously issued a request for information regarding the design, planning, implementation and management of a "smart community" demonstration program. Through various investments, programs and partnerships, the

proposed project would incorporate distributed energy resources including distributed generation, energy storage, energy efficiency, demand management and storage; advanced metering infrastructure; distribution system automation including volt/var optimization; home and building management; and, home and building energy management systems.

In its rate case filed November 14, 2014,<sup>3</sup> Orange and Rockland Utilities, Inc. (Orange and Rockland) proposed an Advanced Metering Infrastructure (AMI) project in the Rockland County portion of the company's service territory which will, according to the company, provide significant benefits to customers in the areas of: managing their energy use, participation in Energy Efficiency ("EE") and Demand Response ("DR") product offerings, improved electric outage detections and restoration, and enhanced system engineering and planning. The company also claims that the investment will reduce operating costs.

In addition to individual utility pilot and demonstration projects, New York State has initiated a state-sponsored competition to encourage the development of community microgrids to spur clean distributed energy and improve resiliency and reliability in the wake of Super Storm Sandy.

The comments received on the Straw Proposal indicate that there is general support among parties for such demonstration projects. Some parties also raised concerns about the criteria to be applied to such projects and about cost recovery issues.

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<sup>3</sup> Case 14-E-0493 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc. for Electric Service.

SUMMARY OF COMMENTS

A majority of the comments received on demonstration projects show support for the quick implementation of such projects.<sup>4</sup> The comments recognize the need to test different methods of implementing DER and gauging customer acceptance to REV initiatives and generally accept the criteria proposed in the Straw Proposal.

Advanced Energy Economy Institute, Alliance for Clean Energy New York, Inc. and New England Clean Energy Council (collectively, "the Advanced Energy Community") believe that the criteria established in the Straw Proposal may be too restrictive and express concern that demonstration projects might have difficulty meeting all the proposed requirements.<sup>5</sup> Joint Utilities express a similar sentiment and propose a more flexible approach that would encourage innovation and allow utilities to propose their own demonstration projects at times when such opportunities develop.<sup>6</sup>

On the other hand, AARP New York (AARP) and Public Utility Law Project of New York, Inc. (PULP) recommend additional criteria to govern the development and approval of

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<sup>4</sup> Including the comments of Agreen Energy LLC, Vanguard Renewables, LLC, Center for Climate Change Law at Columbia University, Environmental Advocates of New York, New York Public Interest Research Group, Pace Energy and Climate Center, Sierra Club, Vermont Energy Investment Corp., ChargePoint, Inc., Clean Coalition, Consumer Power Advocates, Direct Energy, Energy Technology Savings LLC, Infinite Energy, Inc., Multiple Interveners, Simple Energy, The Nature Conservancy, The New York Battery and Energy Storage Technology Consortium, The New York Geothermal Organization, and The NRG Companies.

<sup>5</sup> Comments of the Advanced Energy Community, p. 34-35.

<sup>6</sup> Comments of Joint Utilities, p. 24-25.

demonstration projects.<sup>7</sup> These parties propose that while demonstration projects are needed, those with cost recovery from ratepayers should require pre-approval. Further, AARP and PULP believe that utilities need to agree that the recovery of costs in a future rate case will be subject to an evaluation of prudence. Lastly, these parties state that low income customers should not be required to pay for additional technology and that programs should be designed in a way that provides bill credits or rebates for reducing usage instead of punitive prices resulting from their lack of resources to acquire DER technology.

Finally, Exelon Corp. suggests that we should only proceed with demonstration projects after some of the foundational REV issues are addressed.<sup>8</sup> These issues include the method of ensuring fair compensation for use of the grid by all customers and confirming the role of existing, clean, base load resources such as nuclear.

#### DISCUSSION AND CONCLUSION

The Commission will make specific determinations addressing the individual comments when it acts on REV Track One following completion of its SEQRA environmental review. However, the Commission encourages utilities and third parties that have not already done so to begin working together at this time to develop potential demonstration projects and to consult with potential stakeholders in the affected communities so that they will be better prepared to act promptly once the Commission has made its REV Track One policy determinations. To assist in

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<sup>7</sup> Comments of AAPR New York and Public Utility Law Project of New York, Inc., p. 16-17.

<sup>8</sup> Comments of Exelon Corp., p. 28.

that effort, the Commission makes the observations set forth below.

#### Flexibility

The criteria to be established are intended to be appropriately flexible to achieve the goals the Commission wishes to accomplish with demonstration projects. The criteria being considered are set forth in Appendix A attached hereto, and are further discussed below. It is not the Commission's intent to specify the types of projects expected, but instead to establish guiding criteria that are not overly-restrictive and do not impose an insurmountable barrier to utilities and third parties as they develop projects. Proposals that depart from the criteria should contain explanation for the departure.

#### Demonstrating Innovation

The criteria are intended to elicit projects that provide useful experience with respect to DER implementation and DSP functionalities. It will be important to have a portfolio of demonstration projects that will test various technologies, business models, DER performance, and customer participation levels. Therefore, in developing demonstration projects, consideration should be given to the diversity of projects and the relevant information they will provide to the overall REV initiative. The portfolio of technology neutral projects should include, at a minimum, those that will test various DER technologies and products that can be integrated into the utility distribution system planning and operations; customer engagement and response to various programs, pricing structures and technologies; and DSP technologies that will allow for the integration, visualization, and market operations related to DERs.

Value Distribution

Among the many things the Commission is considering are methods for defining and quantifying how value is distributed between the customer, utility, and third party service providers, how revenue streams for these projects will be identified and supported by the allocation of costs among customer classes, the best way to consider cost recovery for these projects so that the cost recovery process itself does not become a barrier to the encouragement of such projects, and the best way to leverage private investment as a component of projects in order to minimize ratepayer costs.

Partnerships

The criteria should promote partnerships between utilities and third parties. Third party DER suppliers and/or service companies can contribute business know-how and capital to provide products and services that will present value to the consumer. Thus, when developing demonstration projects, utilities should seek to bring in a third party partner(s) to provide business experience and accelerate the development of a competitive market. Utilities should strive to support demonstration project proposals where third parties use their own capital, whether in cash or in kind, as indicative of their willingness to invest in the New York market.

Customer Engagement

Further, utilities should explore opportunities in their demonstrations to work with and include various residential, commercial, institutional and industrial customer participants. Customer engagement and measuring customer response to DER and data sharing will be a crucial element of these demonstrations. Demonstrations should include opportunities for third parties to demonstrate how various rate designs, information sharing, and other technologies can be used



to benefit consumers, encourage customer participation, and achieve REV's system efficiency and bill management objectives.<sup>9</sup> Data on customer acceptance of DER and data sharing will provide commercial and operational benefits when implementing these programs on a larger scale. Utilities should submit proposals that involve various customer groups across the state.

#### Market Solutions

Rather than following a traditional RFP/RFI method where the utility has pre-diagnosed the solution, instead utilities should identify the problem and the market should propose solutions, leaving the utility to determine which third party proposal provides the most valuable solution. In that regard, as part of utility outreach to potential third party partners, utilities should provide sufficient data to enable market participants to propose solutions to clearly defined problems, as data sharing may be essential to enable market participants to propose solutions. Also, proponents of demonstration projects should strive for third party ownership of DER, keeping in mind that any regime of third party ownership must be done in a manner that ensures safety, reliability and consumer protection.

#### Developing Competitive Markets

When demonstrations are necessarily bilateral, and therefore may not be competitive per se, it may also be desirable for utilities and third party partners to propose rules that will further the creation of competitive markets in the future in the form of data, terms, standards, or the like.

#### Ensuring Cyber-security

The Commission sees cyber-security of both customer data and utility system data as a critical concern. Projects

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<sup>9</sup> For example, demonstrations can test demand response, real time, or time of use pricing to better understand how to motivate different consumers.

should be developed with the aspiration of maintaining customer data privacy and keeping platform operations safe and secured. Data security will be entrenched in the standards and protocols needed to develop a DSP and needs to be considered when developing protocols to connect new end-use technologies and when evaluating new products and systems.

#### Scalability

The Commission is also considering criteria to ensure the scalability of the technologies and products tested to a larger percentage of customers both in the same customer class and among different classes and service territories so as to maximize the potential to increase DER penetration throughout New York State, and the speed in which substantive results can be achieved. In addition, demonstrations should develop strategies that clearly define outputs and provide a means of measuring and sharing data in order to inform DSP development.

#### Cost Recovery

The Commission, in promoting development of demonstration projects recognizes that utility rates may not currently provide the revenue necessary to support such activity. The absence of a cost recovery mechanism should not stand as an impediment to the development and implementation of demonstration projects. Utilities should bring proposed cost allocation methodologies and cost recovery mechanisms to the Commission for consideration.

#### RESOLVED:

1. The six major investor-owned electric utilities and third parties are encouraged at this time to begin working together to consult with potential stakeholders in the affected communities and develop potential demonstration projects to inform the Reforming the Energy Vision (REV) initiative so that

they will be better prepared to act promptly to initiate their proposals once the Commission has made its REV Track One policy determinations, as discussed in the body of this memorandum and resolution.

2. The six major investor-owned electric utilities are also encouraged to propose cost allocation methodologies and cost recovery mechanisms that would enable implementation of demonstration projects.

3. The Secretary shall issue a notice in substantial conformance with Appendix B attached hereto.

4. This proceeding is continued.

By the Commission,

(SIGNED)

KATHLEEN H. BURGESS  
Secretary

Principles for REV Demonstrations

The intent of early REV demonstrations is to advance the development of new utility and third party service or business models and to gain experience with integration of distributed energy resources. Demonstrations will inform regulatory changes, rate design, and provide utilities with the opportunity to learn how best to use these resources in system development, planning, and operations.

1. REV demonstrations should include partnership between utility and third party service providers. These partnerships may be unique to each demonstration depending on the situation. Utilities should endeavor to support demonstrations where third parties use their own capital.
2. The utility should identify questions it hopes to answer or problems or situations on the grid and the market should respond with solutions. Hence, third party participation through a traditional RFP/RFI method where the utility has pre-diagnosed the solution(s) does not meet this requirement. Data sharing will be essential to enable market participants to propose solutions.
3. Demonstrations should delineate how the generated economic value is divided between the customer, utility, and third party service provider(s). The demonstrations should propose how much of the projected capital expense needs to go into the rate-base versus competitive markets.
4. The market for grid services should be competitive. The regulated utility should only own distributed energy resources if market participants are unwilling to address the need and the utility is acting as the service provider of last resort (in this instance, "provider of last resort" and "needed" means that no one in the market is providing the solution and the distributed solution is less costly than alternatives for the problem).
5. While some demonstrations may be bilateral, and therefore may not be "competitive" per se, utilities and service provider should propose rules (data, terms, standards, etc.) that will help create subsequently competitive markets. In addition, utility and third party providers need to establish regulatory proposals to ensure safety, reliability and consumer protection. Service providers can retain intellectual property that results from base data that would be available to others.

6. Demonstrations should inform pricing and rate design modifications. For example, a component of a trial can test demand response, real time, or time of use pricing to better understand how to motivate different consumers. Demonstrations should include opportunities for third parties to demonstrate how various rate designs, information sharing, adjusted standby tariffs, and other technologies can be used to benefit consumers, encourage customer participation, and achieve REV's efficiency and bill management objectives.
7. Utility and third party service provider(s) should consider deploying in their demonstrations advanced distribution systems, including two way communications, real time operation of dynamic load, and other system technologies that support awareness, flexibility, efficiency and cost-effectiveness.
8. Utilities should explore opportunities in their demonstrations to work with and include various residential, commercial, institutional and industrial customer participants.

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

CASE 14-M-0101 - Proceeding on Motion of the Commission in  
Regard to Reforming the Energy Vision.

NOTICE ENCOURAGING DEVELOPMENT OF  
DEMONSTRATION PROJECT PROPOSALS

(Issued        )

TAKE NOTICE that the New York State Public Service Commission hereby encourages utilities and third parties that have not already done so to begin working together at this time to consult with potential stakeholders in the affected communities and develop potential demonstration projects to inform the Commission's Reforming the Energy Vision (REV) policy initiative so that they will be better prepared to act promptly to initiate their proposals once the Commission has made its REV Track One policy determinations.

The Commission anticipates that demonstration projects will be an important step in implementing the expected REV policy changes and will inform decisions with respect to developing Distributed System Platform (DSP) functionalities, measuring customer response to programs and prices associated with REV markets, and determining the most effective implementation of Distributed Energy Resources (DER). These projects are also a means of presenting REV to the customer and gauging their receptiveness to REV technologies, products, and services. Data collected from these projects will inform regulatory changes, rate design, and the most effective means to integrate DER on a larger scale.

The Commission notes that as demonstration projects are developed, utilities may need to propose cost allocation methodologies and cost recovery mechanisms to support such

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projects, especially when projects emerge outside the rate case process.

(SIGNED)

KATHLEEN H. BURGESS  
Secretary

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Commissioner Diane X. Burman, abstained

As reflected in my comments made at the public session on December 11, 2014, I abstain.