BEFORE THE
STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision	**:** **:** **:** **:**	**Case 14-M-0101**

STRAW PROPOSAL COMMENTS OF THE EXELON COMPANIES

In response to the State of New York Public Service Commission ("Commission") Staff's August 22, 2014 *Straw Proposal on Track One Issues* ("Straw Proposal") as issued in the above-docketed proceeding, Exelon Corp. – including its subsidiaries Constellation NewEnergy, Inc. ("CNE"), Constellation Energy Nuclear Group, LLC, Nine Mile Point Nuclear Station, LLC, R.E. Ginna Nuclear Power Plant, LLC, Exelon Generation Company, LLC, Baltimore Gas and Electric Company ("BGE"), Commonwealth Edison Company ("ComEd") and PECO Energy Company ("PECO") (collectively, "Exelon") – hereby submits its Comments related to "Reforming the Energy Vision" ("REV") in New York State.

INTRODUCTION

The Commission, Staff, the electric distribution companies ("EDCs"), market participants and consumer groups have all done well to work together thus far to consider and shape New York State's energy future through this and other proceedings ongoing before the Commission. However, all parties must be careful to avoid failing to see the forest through the trees. While it is important to consider how best to promote and develop microgrids and distributed energy resources ("DER"), and EDCs' roles in these efforts, the focus of the instant proceeding – by the Commission's own identification – includes the following goals:

1. "Enhanced Customer knowledge and tools that will support effective management of their total energy bill";
2. "Market animation and leverage of ratepayer contributions";
3. "System wide efficiency";
4. "Fuel and resource diversity";

5. "System reliability and resiliency; and"
6. "Reduction of carbon emissions."[1]

Staff reiterates these goals in its Straw Proposal.[2] New York is at a critical crossroads in that DER expansion on a wide-scale basis could take up to 10 years, though decisions made today could have lasting effects within and beyond that time period. To truly have "no regrets" beyond only any "No Regrets" programs implemented as part of REV, New York must not forget these important initial goals laid out by the Commission. To meet these specific goals, while promoting new technology at the EDC and end-user levels, we must pay careful attention to the bigger picture.

First, New York must ensure that continued operation and financial viability of both merchant generators and regulated EDCs are appropriately maintained and enhanced. An unintended risk of this proceeding may be a failure to carefully preserve these essential functions, putting existing and additional key infrastructure investments at risk and further eroding reliable grid operation. We cannot ignore existing transmission, distribution and generation, and the broader wholesale market on which New York State currently relies and will continue to require under *any* future energy market structure – including a structure allowing for better implementation and integration of DER. With respect to the continuing role of EDCs and the infrastructure they operate, parties must work to develop and establish rate designs that lead to fair compensation for use of the grid by all that use it. Without all beneficiaries of the grid paying their fair share, the Commission's REV goals cannot be realized – to the detriment of all market participants, including EDCs, generators and consumers alike. With respect to the role of merchant generation, continued attention to and reliance on broader wholesale market structures must be incorporated from the outset as primary parts of REV that will help the State meet the Commission's above goals.

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1 *See Order Instituting Proceeding*, Commission Case No. 14-M-0101 (Apr. 25, 2014) ("April 2014 Order") at p.2.

2 *See* Straw Proposal at pp.1-2.

While as noted we are at a critical crossroads, New York's history of relying on wholesale and retail power markets has provided noticeable, positive benefits for the State. For instance, New York's commercial and industrial ("C&I") customers have long taken advantage of and benefitted from competitive retail markets that rely on efficient, competitive and well-managed wholesale markets. The recent *Annual Baseline Assessment of Choice in Canada and the United States* ("ABACCUS Report") reported that 83.1 percent of large C&I customers in New York have chosen competitive energy service companies ("ESCOs") to meet their electricity supply needs.[3] These C&I customers have seen benefits through well-tailored commodity supply options – e.g., fixed-price options providing budget certainty during tough economic times, or options that provide the ability for customers to get more involved in day-to-day markets. They have also benefitted from innovative offerings that can work hand-in-hand with commodity products – e.g., DER such as solar installations and other behind-the-meter generation, energy efficiency reviews and upgrades, and participation in demand response markets. These very developments were the impetus behind electric market restructuring at its inception, and have now become drivers for REV. In no event should changes implemented through this REV process hinder or harm progress made and options available in competitive retail markets, particularly for C&I customers.

As REV decisions are developed and made, the Commission and stakeholders must keep in mind many objectives which include not only the above-mentioned grid reliability, but also cyber-security, revenue adequacy for wholesale generators and utilities, and alignment with current and future greenhouse gas ("GHG") initiatives. With respect to the latter, New York's reformed energy vision must include support for existing generation resources and the New York Independent

[3] ABACCUS Report at p.26. The Report is available at http://defgllc.com/download/abaccus-2014/. The Report is meant to be a scorecard that tracks U.S. states' and Canadian provinces' progress in restructuring electricity markets. While the Report is sponsored by a group of competitive electric suppliers, the 2014 ABACCUS Advisory Board is comprised of regulatory commissioners and former commissioners, energy executives, and representatives from sponsoring companies.

System Operator's ("NYISO") wholesale markets, specifically for clean base load energy that is necessary for reliability and best able to meet GHG goals identified by both the Commission and its Staff. REV outcomes should preserve access to clean energy from licensed nuclear resources in NYISO to provide the reliability required under system stress such as last winter's Polar Vortex events. These base load resources help to appropriately balance more variable renewable resources and other DER throughout the system, and support New York's GHG goals. New York environmental advocates and others advised the Commission last year:

> In large part due to New York's energy market design, New York ratepayers have benefited from cleaner, more reliable generation as well as historically lower wholesale electricity costs. Like all markets, there are always opportunities to review and provide minor adjustments to ensure efficient market outcomes that deliver reliable, cost-effective power to consumers.[4]

That group highlighted that "the Commission should place an emphasis on the most efficient, cost-effective and environmentally-friendly solutions,"[5] and that the State should "recognize the benefits of the current electric market that has provided more reliable, less costly and more sustainable electric power, and maintain its commitment to that market."[6] Licensed nuclear and other firm fuel, GHG-free base load resources have served and should continue to serve a primary role in providing these benefits. While the Straw Proposal does not address this fact, the Commission should nevertheless address the importance thereof in both its Track 1 and Track 2 discussions. This is particularly true if DER use increases substantially over the next 10 years and shifts GHG emissions from large, central station resources to smaller, geographically dispersed DER – which will likely include fossil-fueled DER – which could potentially be more difficult to regulate and monitor.

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4 *Comments of the Business Council of New York State, Inc., the Sierra Club, Alliance for Clean Energy New York, the Vote Solar Initiative, Citizens Campaign for the Environment, EarthJustice, Northeast Energy Efficiency Partnership and Environmental Advocates of New York,* Commission Case No. 12-E-0577 (May 29, 2013) ("Environmental Group Comments") at p.7.

5 Environmental Group Comments at p.7.

6 Environmental Group Comments at p.8.

Exelon is situated uniquely among stakeholders taking part in the Commission's REV proceedings. Exelon has operations and business activities in 47 states, the District of Columbia and Canada. The company is one of the largest competitive power generators in the U.S., with approximately 35,000 megawatts ("MWs") of owned capacity, comprising one of the nation's cleanest power generation fleets. As part of that fleet, we operate clean, base load resources in New York State which produce over 2,500 MWs of generation, operate at capacity factors over 90 percent, employ approximately 1,700 people, pay tens of millions of dollars in property taxes to the State annually, and are critical to the State and region in realizing its long term GHG goals. Exelon also currently operates three EDCs in the U.S.: ComEd in Illinois, PECO in Pennsylvania and BGE in Maryland. Finally, we have a national retail energy platform that offers electric and natural gas commodities, energy efficiency, load management, demand response, behind-the-meter renewable development, and other DER applications. These competitive retail customers include over one million residential customers in states such as New York, Connecticut, Illinois, Maryland, Massachusetts, New Jersey, Ohio, Pennsylvania and Texas, as well as more than 90,000 commercial, industrial, public sector and institutional customers – located in New York and throughout the U.S. – including two-thirds of the Fortune 100. With this wide array of internal interests and experience, Exelon's perspective can serve as a critical resource while New York State carefully balances wholesale generation, EDC rate recovery needs, retail market growth and expansion of markets to promote new capital for DER applications.

With this perspective across the entire value chain of the power business as an informative basis, Exelon proposes its "Guiding Principles" for wholesale, EDC and competitive customer choice markets in order to best meet the Commission's REV goals stated above. These Guiding Principles are organized as follows:

REV Framework Overarching Principles

- **GHG Alignment.** All REV activity must align with New York State and federal CO2 and other GHG climate initiatives.

- **Reliability Standards.** All applicable New York State, regional and federal reliability requirements must be maintained.

- **Cost/Benefit.** A cost/benefit analysis should be completed for any proposed changes. This includes the overall costs/benefits: for consumers; for REV Platform technology; and to evaluate DER investment versus traditional utility investment for individual project applications.

- **Generation Attributes.** Attributes monetized at the distribution level should receive similar consideration at the bulk power system level, and vice versa.

- **Realistic & Reasoned Implementation Timetable.** The timetable should incorporate winter 2013/14 lessons learned and a longer-term transition to dynamic load management.

Wholesale Market Guiding Principles

- **Market Model Coordination.** The functioning of the Distributed System Platform Provider (DSP) platform should align with the NYISO wholesale market model.

- **Clean Energy Base Load Support:** Clean energy base load resources are needed for long term reliability and environmental compliance, and must have the ability to realize adequate revenue recovery.

EDC Guiding Principles

- **Utility Role.** The EDC should fulfill the role of DSP.

- **Revenue Adequacy.** The EDC must have the ability to earn a fair return, maintain adequate cash flow, and secure long term financial health.

- **Value of the Grid.** All users of the grid should pay their fair share.

- **Management Flexibility and Dynamic Efficiency.** The final model adopted must: allow EDC management the ability to adjust to changing circumstances; support and encourage innovation; allow timely implementation of technological advances; promote continuous efficiency improvement; and support long-term value for customers.

- **Opportunities for Additional Revenue.** Where appropriate, EDCs must be provided opportunities to enhance revenue from bi-directional performance incentives or provision of adjacent services (services that the EDC is well positioned to provide and that are potentially competitive). These services include DER ownership under certain conditions.

Competitive Customer Choice Guiding Principles

- **Maintain and Protect Competitive Retail Model.** In any redesigned REV market, competitive customer choice must be maintained, and the market structure must support the ability to offer competitive services, including DER.

- **Protect Competitive Retail Model and ESCO Customer Engagement.** The REV must ensure that growth of competition is protected and not hindered by directly or indirectly encouraging the perception that the EDC is the only "electric company," particularly in the eyes of residential and small C&I customers.

- **Customer Data.** Effective customer choice and product innovation requires accurate and timely data for appropriately licensed and authorized market participants.

As discussed in more detail herein, we are concerned that, while more competitive than they would be absent access to choice and restructured wholesale markets, New York's electric rates are higher than others' in the region due to unique issues affecting the region. It is important to "get this right" in the first instance in order to maximize ratepayer benefit and avoid unintended stranded investments that could further raise rates unnecessarily. Other markets in Europe and the United States (e.g., California and Hawaii) may not have managed this transition in an optimal manner and ratepayers are victims to associated adverse outcomes. For the benefit of New York's consumers, we should work to avoid repeating others' past mistakes; keeping these Guiding Principles in mind will help to avoid such pitfalls.

For ease of review, Exelon's Comments are organized by section and subpart headings from the Straw Proposal. Where a particular section or subpart is not addressed, we may have addressed its content in the context of other sections, and/or we reserve the right to provide reply comments.

I. CONTEXT AND OVERVIEW

B. Summary of Findings and Recommendations

Exelon commends the State, the Commission and its Staff for opening this proceeding and taking a broad and comprehensive look at REV for New York State. Too many other jurisdictions have taken a piece-meal approach, addressing only one aspect of energy markets or new

technology, without considering effects of those policies on other areas or ways in which other market attributes and aspects may benefit from, support or interact with those new policies. By taking a holistic view as in the instant case, all stakeholders will have the opportunity to engage to encourage the best, balanced approach for the State's future.

1. Critical Path Objectives.

As explained above, the Commission must ensure that increased DER does not impair the financial ability of EDCs 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. Doing so will inappropriately shift financial responsibility for maintenance of a reliable system exclusively onto the shoulders of those customers who cannot or otherwise do not utilize DER. In addition, Exelon cautions that a sharp increase in DER without adequate system communication and control upgrades, along with supporting market mechanisms and operating procedures – including appropriate allocation of costs for implementing all such upgrades and procedures – has the potential to create new inefficiencies. For this reason, the State must undertake only a measured and deliberate roll out of REV outcomes and DER contemplated thereunder.

The experiences related to renewable resource implementation policies and incentives in California and Hawaii provide salient examples of what may happen if fair compensation for existing and additional resources is not included at the outset as part of New York State's REV process. In California, a recent study by the Edison Foundation's Institute for Electric Innovation ("Edison Study") points out that quick and sharp increases in the amount of consumers taking advantage of net energy metering ("NEM") as an incentive to build on-site solar have led to a sort of "Reverse Robin Hood" effect. It has become increasingly apparent that "most of the NEM subsidies go to affluent households, and these subsidies are largely paid for by less affluent

households through their electric bills."[7] Moreover – as reported in analyses conducted on behalf of the California Public Utilities Commission – the amount of dollars shifted in this way is expected to reach $1.1 billion by 2020.[8] The Edison Study explains that:

> [t]oday non-energy charges comprise a large percentage of the utility's costs that are recovered through a residential customer's retail tariff. These charges typically cover the fixed costs associated with grid services such as the transmission system, the distribution system, balancing and ancillary services, and the utility's investment in generation capacity. NEM, as practiced today, allows [DER] customers to avoid paying a large portion of their fair share of the costs of these grid services, which then gets shifted onto non-[DER] customers.[9]

Hawaii has similarly experienced a shifting of grid fixed costs from DER to non-DER customers as the state has seen rapid increases in solar development due to aggressive incentives.[10] The Hawaii Public Utilities Commission ("HPUC") itself recently noted that the distributed solar business model:

> will need to shift from a customer-value proposition predicated upon customers avoiding the grid financially – but relying upon it physically and thereby creating circuit and system technical challenges . . . .[11]

However, solutions to these compensation and reliability issues also exist. As explained in the Edison Study, "[a]lternative regulatory approaches exist for reducing, or totally eliminating, NEM cost-shifting."[12]

The Commission must also take into consideration effects that a too-rapid and/or too-substantial shift in policies can have on consumers' costs and the State's economy more broadly –

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7 *Net Energy Metering: Subsidy Issues and Regulatory Solutions*, Edison Foundation Institute for Electric Innovation (Sept. 2014) (*avail. at* www.edisonfoundation.net/iei/Documents/IEI_NEM_Subsidy_Issues_FINAL.pdf) ("Edison Study") at p.2.

8 Edison Study at p.3.

9 Edison Study at p.4.

10 *See Order No. 32053, Ruling on RSWG Work Product*, HPUC Docket No. 2011-0206 (Apr. 28, 2014) ("HPUC 2014 Order") at P34.

11 HPUC 2014 Order at P35.

12 Edison Study at p.4.

even where existing transmission, distribution and generation infrastructure is appropriately supported and compensated. Germany's experience is important to keep in mind, as that nation faces significant issues today due to aggressive, uneconomic renewable policies established in the recent past.[13] A recent white paper suggests that the United States:

> should carefully assess the lessons learned in Germany, with respect to generous subsidy programs and relatively rapid, large-scale deployment and integration of renewable energy into the power system."[14]

Renewable and other DER policies can result in increased, rather than decreased, costs to consumers and that increase must be carefully managed – both through appropriate public awareness and measured steps for roll-outs. The experience in Germany shows that large scale integration of renewable power can result in:

> a net increase in costs to consumers and other stakeholders. Moreover, when not properly assessed in advance, large-scale integration of renewables into the power system ultimately leads to disequilibrium in the power markets, as well as value destruction to both renewable companies and utilities, and their respective investors.[15]

The effects of these policies include weakening German utilities' financial integrity. German utilities' stock has plunged by nearly 45 percent since 2010.[16] Such rapid destruction of financials, in turn, leads to increased costs of capital and credit for a utility. This should be of particular concern to the Commission, as EDCs will be expected to invest heavily in substantial architecture and infrastructure in order to support and facilitate the enhanced DER market envisioned under REV. Increases in EDCs' costs of capital will invariably lead to higher costs for their investments and, in turn, customers.

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[13] *See, e.g.*, Development and Integration of Renewable Energy: Lessons Learned from Germany, Poser, Altman, ab Egg, Granata and Board (*avail. at* www.finadvice.ch/files/germany_lessonslearned_final_071014.pdf) (July 2014) ("2014 Germany Study").

[14] 2014 Germany Study at p.1.

[15] 2014 Germany Study at p.59.

[16] 2014 Germany Study at p.4.

Recent news articles have highlighted effects that these policies are having on Germany's economy and business environment, as well. The Wall Street Journal notes:

> Average electricity prices for companies [in Germany] have jumped 60% over the past five years because of costs passed along as part of government subsidies of renewable energy producers. [German power prices] are now more than double those in the U.S.[17]

As a result, some businesses are looking to move operations outside of Germany to manage these increased costs.[18] New York must be mindful to avoid a similar rapid disconnect from energy policies and prices of neighboring states and competing business locales.

3. Policy Recommendations.

Staff proposes that EDCs be the only entity primarily engaged in performing system planning, operating the distribution grid, being the primary interface with NYISO and developing and managing the DSP platform.[19] Staff *also* suggests that EDCs be allowed to own and operate DER.[20] Exelon generally supports Staff's positions on EDCs' roles and DER ownership. With respect to DER ownership, however, the Commission should not preclude competitive providers of these services from participating in this marketplace to meet retail customers', EDCs' and DSPs' identified needs. We provide additional comments regarding these roles in **Section II** herein.

Commission Staff also makes note of the need for appropriate data access among its policy recommendations.[21] We support the notion that customers and their energy service providers should have access to appropriate system information, particularly where those providers satisfy requirements laid out by the Commission.

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17 *Germany's Expensive Gamble on Renewable Energy*, The Wall Street Journal, M. Karnitschnig (Aug. 26, 2014) (*avail. at* online.wsj.com/articles/germanys-expensive-gamble-on-renewable-energy-1409106602) ("2014 WSJ Article").

18 2014 WSJ Article.

19 Straw Proposal at pp.4-6.

20 Straw Proposal at pp.4-6.

21 *See* Straw Proposal at p.5.

Each of the policy proposals provided by Staff – including, but not limited to those for data, energy efficiency, demand response and renewables procurements – warrant further discussion and may have unknown or unintended consequences. For this reason, not only should they be subject to further deliberations – perhaps through working groups – but they should be considered for inclusion in pilot programs prior to widespread adoption as policy standards.

D. Support for a Track One Policy Decision by the Commission

2. Drivers of Change

Exelon agrees with the need to address many of the points included in Staff's "factors indicating a need for substantial change."[22] In particular, regarding those drivers of change, the Commission should focus on supporting infrastructure that requires a confidence that fair compensation will be available, and keep in mind the role that licensed nuclear generation can and should play in supporting REV. In fact, such nuclear base load generation should be included in REV as a cornerstone generation source:

- on which the State can rely for "high-quality electric supply";[23]
- to provide "reliability and resilience . . . in response to the likelihood of increasingly severe storms and heat waves"; [24] and
- that will play a crucial part in the State's compliance with "[i]mpending federal carbon reduction rules and, more generally, [the] need to significantly reduce carbon emissions to mitigate climate change." [25]

Staff in its list of factors alludes to, and specifically identifies in its "Benefits of REV" in **Section II.D.3**., the notion that it is critical to address issues of fuel diversity. This diversity, however, should not be looked at only in terms of building *new* generation – whether stationary or DER – but also in terms of maintaining viability of *existing* clean generation such as licensed nuclear, hydro,

[22] Straw Proposal at p.8.

[23] Straw Proposal at p.8.

[24] Straw Proposal at p.8.

[25] Straw Proposal at p.8.

solar and wind in New York's fuel mix today. 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 of New York ratepayers.

Regarding Staff's discussion of "[r]apid declines in costs and increased capabilities of DER,"[26] however, the Commission must factor into its consideration market and regulatory evidence and changes that might affect any perceived decline. For instance, on June 3, 2014, the U.S. Department of Commerce imposed duties on Chinese solar panels to address concerns of 'dumping' of those panels in the U.S. market below costs.[27] To the extent cheap Chinese solar panels were a factor in Staff's determination of 'rapid declines' in DER costs, the factor was neither sustainable nor correct. In addition, 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. Moreover, any benefit-cost analysis ("BCA") should not treat assumed price suppression impacts from DER as "benefits," as such impacts can lead to unintended consequences such as premature retirement of clean base load resources. Adoption of programs that are not economic on their own – but instead are justified through speculative price suppression effects – 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.

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[26] Straw Proposal at p.8.

[27] *See U.S. Imposes Steep Tariffs on Importers of Chinese Solar Panels*, Cardwell, Diane, The New York Times (June 3, 2014) (*available at* http://www.nytimes.com/2014/06/04/business/energy-environment/us-imposing-duties-on-some-chinese-solar-panels.html?_r=0).

II. ESTABLISHING REV: DSP MARKET VISION

A. Distribution System Functions Required Under REV

1. Regulated Monopoly Functions

Exelon agrees, as noted earlier, that the EDCs are well situated to take on the role of DSPs in the REV. In addition, Exelon agrees with Staff's proposal regarding regulated monopoly functions identified for EDCs.[28] The Electric Power Research Institute ("EPRI") provides support for the EDC's role in performing these types of functions in a recent study regarding integrating stationary generation and DER into the grid.[29] The EPRI Study concludes that:

> The successful integration of DER depends on the existing electric power grid. That grid, especially its distribution systems, was not designed to accommodate a high penetration of DER while sustaining high levels of electric quality and reliability. The technical characteristics of certain types of DER, such as variability and intermittency, are quite different from central power stations. To realize fully the value of [DER] and to serve all consumers at established standards of quality and reliability, the need has arisen to integrate DER in the planning and operation of the electricity grid and to expand its scope to include DER operation – what EPRI is calling the Integrated Grid.[30]

Experts in this way recognize the need for this type of planning and integration; the EDCs will be able to provide valuable oversight in this integration role as a regulated function benefitting the broader market. As recognized by Staff, though, a thorough BCA is needed to better understand the EDCs' roles and regulated monopoly functions under any REV. Exelon discusses BCAs in more detail in **Section IV.B.** herein.

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[28] *See* Straw Proposal at p.12-14.

[29] *The Integrated Grid, Realizing the Full Value of Central and Distributed Energy Resources*, EPRI (Feb. 2014) (*avail. at* www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=000000003002002733) ("EPRI Study").

[30] EPRI Study at p.3.

2. Competitive Offerings

As noted earlier, Exelon supports allowing EDCs to own DER under certain defined circumstances.[31] Staff throughout the Straw Proposal has proposed principles and limitations that should govern such DER ownership, which should serve as a good place to start in identifying the ways in which EDCs may do so. In addition, as experience is gained and data on BCAs is accumulated, Exelon would be open to considering expansion of acceptable parameters for DER ownership by EDCs where it serves a proven public service.

B. DSP Market Structure

Exelon generally agrees with Staff's proposal that "a set of principles should guide future market design and, at appropriate intervals, should inform review of market performance and refinement of rules."[32] We note, however, that clarity is lacking as to what those "rules" should be. These gaps in REV highlight the need for continued, measured REV implementation, relying on working groups or another forum to fill such gaps.

Exelon generally agrees with Staff's 12 "principles for market design." "Customer protection" is paramount, but will be challenging if hundreds of potential DER providers in fact enter the market without appropriate oversight and resources to support such oversight. "Fair and open competition" is also important; as alluded to earlier, however, a 'level playing field' must mean that State and federal DER subsidies must be netted out of comparisons when considering lowest cost alternatives. Finally, in order to ensure "Coordination with wholesale markets," the Commission should wait for feedback from NYISO prior to taking further actions that will affect the broader system, including developing any secondary market. Mass interface of DER with NYISO's wholesale platform on a real time basis will require substantial time and technical

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[31] *See* Straw Proposal at p.72-73

[32] Straw Proposal at p.15.

platform investment. Moreover, to the extent EDCs are able to own DER under certain defined conditions, the Commission must consider what protections must be in place to prevent discrimination in favor of the EDCs' own generation assets; FERC's Standards of Conduct regulations should serve as a starting point for such protections.[33] Additional suggestions regarding coordination with wholesale markets are discussed in **Section III.D.2.** below.

III. ENABLING NEW ROLES FOR KEY PARTICIPANTS

A. Identity of the DSP Provider

As noted earlier in **Section I.B.3.**, Exelon supports the EDC assuming the role of DSP, as well as the functions the EDC should perform as the DSP.

B. Customer Engagement

1. Data Access and Privacy

As explained in our Introduction, retail markets for C&I customers have worked extremely well in New York State. This market sector has experienced high migration rates, substantial competition, and has access to a wide variety of well-tailored, value-added offerings including energy efficiency, load management, demand response, renewables and behind-the-meter generation applications for resiliency and reliability. Part of the success of these retail markets is due to development and advances in appropriate data access for customers' ESCOs. As noted in Exelon's Guiding Principles, effective customer choice and product innovation requires accurate and timely data. For this reason, we appreciate Staff's attention to these issues in the Straw Proposal and look forward to additional discussions. Exelon again suggests that the Commission direct stakeholders to address these data issues through a working group to review market, legal and customer impacts.

[33] "Standards of Conduct," 18 C.F.R. Part 358 (2014).

3. Affordability

i. Commitment to Affordable Service

Regarding affordability, Staff states, "The cost of implementing REV must be weighed not only against the direct benefits of REV measures, but also against the cost of inaction."[34] Exelon agrees with this notion, but notes that it must be applied broadly such that costs of action and inaction with respect to existing transmission and distribution infrastructure and wholesale generation must also be kept in mind when determining affordability of alternative solutions to meeting REV goals. Consumers' costs must not be taken lightly, trading their long-term stability in energy costs for short-term hypothetical benefits and solutions. This requires a thorough BCA review of long-term costs that may result from any particular policy alternative. For instance, if analysis is done to determine if DER could be used in place of traditional distribution system investment – such as transformer upgrades or adding feeders to a distribution circuit – it is important to ensure that the BCA values the ability of DER to provide the same level of reliability under similar conditions. DER that is powered only by intermittent fuel/inputs – such as solar or wind (absent storage capabilities) – 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. Exelon discusses additional details regarding BCAs in **Section IV.B.**

D. Wholesale Market Interactions

1. Wholesale Benefits Resulting From Expanded Use of DER

Staff makes mention that "the aggregate effect of reduction in peak loads will drive down ICAP requirements at the wholesale level and reduce peak energy production needs."[35] Exelon questions, however, what effect such a reduction in peak loads and ICAP requirements will have on

[34] Straw Proposal at p.31.

[35] Straw Proposal at p.34.

existing wholesale resources, particularly resources which otherwise are determined to be critical to system integrity, including in times of significant system stress. More generally, in the event that DER subsidies and/or significant development of DER occurs at the distribution level, behind a DSP, the Commission and NYISO will have to consider how to manage any price suppression and dampening that may occur at the wholesale level.

In completing BCAs, as mentioned earlier, calculations must not treat assumed price suppression impacts from DER as "benefits," because such impacts can lead to unintended consequences such as premature retirement of clean base load resources. If merchant capacity is devalued by implementing DER based on a justification of assumed price suppression benefits, merchant electricity suppliers will reassess the risk that regulators will take similar actions in the future, and they will adjust their behavior accordingly, becoming generally less likely to enter or remain in the market. This, in turn, would result in higher long-term prices for customers. It is important to evaluate and understand the ability of any DER, energy efficiency or demand response resource to permanently alter supply and demand dynamics in the market place. As in **Section III.B.3.i.**, the costs of action and inaction with respect to existing wholesale generation and the market, more broadly, must be kept in mind in any BCAs.

2. Coordination Between DSPs and the NYISO

Staff notes that "[m]arket rules must be developed which ensure that DER controlled by DSPs receive the value of benefits provided not only to the distribution system, but to the bulk power system as well."[36] Similarly, to maintain a 'level playing field' and, consistent with our response in **Section III.B.3.i.**, the Commission should consider the reciprocal – i.e., benefits that wholesale generation resources are providing to the distribution system.

[36] Straw Proposal at p.35.

In addition, as it contemplates coordination, the Commission must keep in mind other effects that DER proliferation could have on wholesale markets and systems that will nevertheless continue to be required to support New York State electric requirements and reliability. For instance, the Commission, NYISO and stakeholders must consider how six potentially different DSP platforms (one per EDC) – some of which may reside in the same NYISO zone – will be managed and integrated into wholesale market operations. These integration issues could, for example, include determining how to manage differences in settlement points between a retail DSP submarket and NYISO's day-ahead market or real-time market for a given NYISO zone. Such differences can create complicated seams issues that need to be addressed. Additional seams issues can arise *between* DSPs, as well, which seams also need to be addressed for proper market design. Market-monitoring functions present yet another area of issues which must be considered in any coordination planning. NYISO wholesale markets benefit from oversight by an independent market monitor; it must be determined whether NYISO's market monitor or some other entity(ies) will bear responsibility for the same function at the retail DSP level.

Similarly, reliability presents a host of issues which must be considered and addressed as part of any plan to coordinate the DSP model with NYISO. For example, NYISO maintains an annual planning requirement to establish its Internal Reserve Market and Locational Requirements for Long Island, New York City and the Lower Hudson Valley Zone. This evaluation takes into consideration many variables including generator performance, forced outage rates, intermittency of the resource and more. A key question, then, is whether DER will face similar scrutiny and requirements as those placed on wholesale central station resources. To ensure system reliability, we must determine not only how to conduct annual testing, but also how normal maintenance and necessary capital improvements will be enforced on DER.

Reliability concerns create coordination issues not only for DSPs, but also for EDCs and NYISO. If the Straw Proposal's REV recommendation is accepted and successful, in a new environment with increased DER proliferation, EDCs and NYISO will need to confirm how they will continue to meet New York State Reliability Council, Northeast Power Coordinating Council, NYISO, North American Electric Reliability Corporation *and* FERC reliability requirements. Full management of reliability – including, but not limited to, management to meet all such regulatory requirements – requires both control and transparency of all DER assets in a system. EDCs, other DER owners and NYISO will each have to consider what new platforms and upgrades will be needed to allow for this management within their systems, what the costs will be, and how those costs will be allocated. Finally, we must keep in mind that, if not appropriately addressed, devaluation of wholesale assets – as noted above in **Section III.D.1.** – could, in turn, create broader gaps in system resource adequacy and reliability.

In short, there are reliability and economic risks when distribution dispatch signals are disconnected from wholesale dispatch signals. Managing these risks will require detailed coordination between DSPs and NYISO, which should be supported by any final Commission order.

IV. GAUGING FEASIBILITY

A. Platform Technology

1. DSP Functional Requirements

Similar to the stance provided in response to **Section II.A.1.**, Exelon supports the DSP tasks identified in Table 2.[37] The list of DSP functions therein serves as a solid starting point for parties' consideration in the REV.

[37] Straw Proposal at p.38.

3. Technology Evaluation

As a general matter, Exelon strongly supports procurement, development and use of infrastructure that can support data acquisition needed for future grid operations and can provide access to customer information on an aggregated basis, in an expedited fashion.

ii. Customer Facing Technologies

Staff notes that "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."[38] Exelon commends Staff for recognizing the need to consider the potential for cyber attacks on the electric system. Increased DER would provide increased points of entry for targeted cyber-attacks; increased reliance on communications and the amount of data transferred among system operators and DER would create more potential system vulnerabilities. These heightened risks raise the importance of standardization for interoperability and cyber-security. Managing large numbers of DER systems will require acquisition, validation and updates of large amounts of data in a timely manner; malicious actions could cause incorrect results from necessary data management applications that could affect grid reliability, and that could cause both financial and physical harm to EDCs and other DER owners. While existing system operations architecture may not be ideal for substantial DER proliferation, alternate options could mitigate cyber security threats. We must take care to balance (a) the desire for open access to enable connection of myriad DER types from many different providers with (b) the need to ensure the network is secure from attack. Along these lines, it may be judicious to develop connection standards rather than requiring the network to be fully open. Exelon suggests that the Commission direct stakeholders to address these important cyber-security issues through a working group.

[38] Straw Proposal at p.41.

B. Benefit Cost Analysis Framework

Exelon agrees with Staff that:

> The risks and probabilities of future climate events, the expected useful life of assets, the impact of outages of varying duration on affected customers, and the potential risk to critical facilities, among other societal cost factors, should be considered, and should be monetized to the extent that reasonable values can be established and will be of practical relevance.[39]

A thorough BCA *must* be undertaken. Exelon briefly touched on important BCA aspects in **Sections II.A.1., III.B.3.i. and III.D.1.** above. In addition to those items, any BCA must account and include risk premiums in calculations for the potential non-performance or other failure of a DER (or other) alternative to traditional infrastructure investment. In the event that the alternative project falls through, the traditional investment will need to be made and will likely face higher costs due to a shortened emergency timeframe for implementation. This financial hedge is critical to ensure a true BCA advantage exists vis a vis a more well-established and already-vetted traditional infrastructure investment. Risk premiums should also be included to account for differences in operational aspects of various alternatives, for example, the delivery characteristics of resources such as energy efficiency or demand response as compared to central station generation in the wholesale market. To the extent that energy efficiency or demand response is relied upon to meet energy and capacity needs over the long-term, a decrease of central station power may occur. This could lead to severe price spikes if these energy efficiency or demand response resources do not materialize at the time of need. In this instance, parties may argue that energy efficiency or demand response was delivered and was offset by a large spike in demand. Given the difficulty in measuring these types of resources in particular, thought needs to be given to how to ensure that these resources are held to the same standards and can meet the same delivery requirements as standard generation.

[39] Straw Proposal at p.43.

Similarly, BCAs should take into account ancillary products and services provided by resource alternatives under review. Certain DER, for instance, may be able to provide Volt/VAR support to relieve capacity constraints on the system in addition to generating energy. To the extent DER cannot provide those ancillary services and central station generators or traditional transmission and distribution investments can, then – in order to guarantee that system reliability and power quality are the same under both scenarios – the BCA needs to include the additional costs required for DER.

BCAs also should not treat assumed price suppression impacts from DER as "benefits," because such impacts can lead to unintended consequences, such as premature retirement of clean energy base load resources. As previously noted, adoption of programs that are not economic on their own – but instead are justified through speculative price suppression effects – 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.

Any BCA or other analyses of DER investment must also take into account the need and costs for fair compensation for use of the grid by all market participants – including those able to take advantage of DER. As has been discussed at length, this is particularly important in order to protect non-DER customers that remain on EDC service (distribution and/or default commodity supply) from having to bear the burden of grid infrastructure costs incurred to support DER proliferation. This is especially important because those remaining customers often include lower income customers that face steeper challenges in making ends meet with rising EDC bills.

Finally, as with existing transmission and distribution infrastructure, Exelon stresses the need to consider and address through all BCAs the effects that a given policy alternative may have on existing generation resources – particularly clean, base load resources that will be needed for

New York State to maintain its environmental stewardship and meet its environmental goals. For instance, if peak and average load are lowered, and/or wholesale energy and capacity values otherwise lag, and critical stationary resources are unable to realize adequate revenues, such loss will have to be considered as part of the "costs" in a BCA.

V. BUILDING THE DSP MARKET

A. Clean Energy

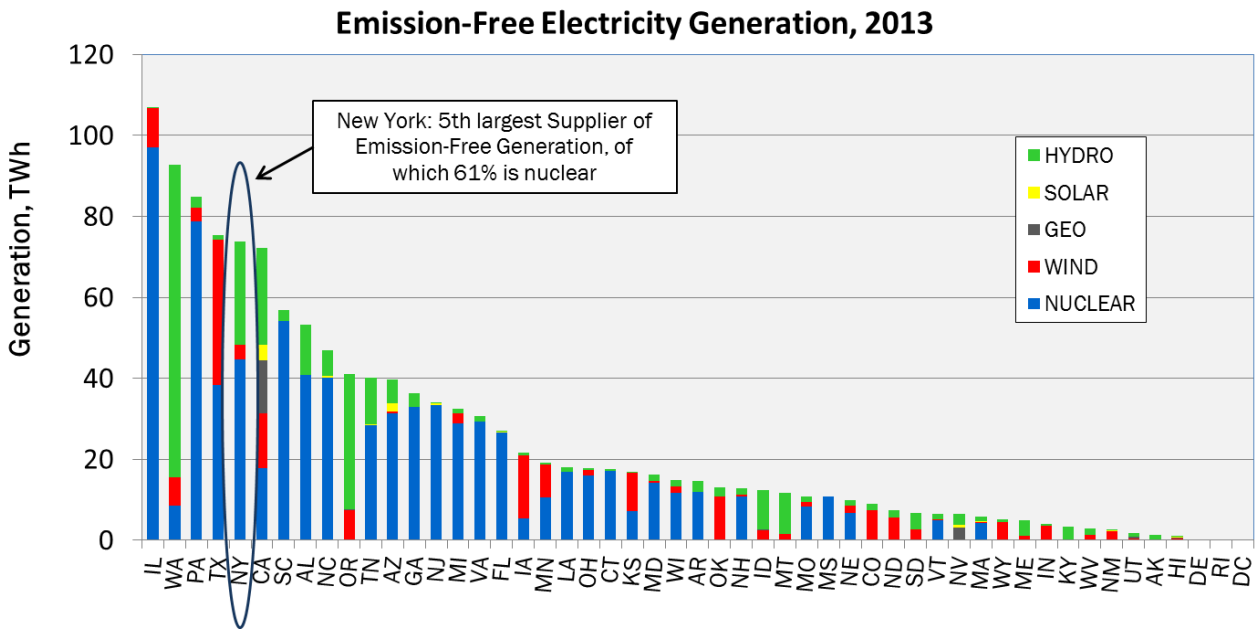
Exelon recognizes that New York has clean energy goals; we support alignment of REV activities with all federal, regional and State GHG requirements. These requirements include those resulting from New York's participation in the Regional Greenhouse Gas Initiative ("RGGI"), for which the State must be commended for its continued stewardship and involvement.

The Straw Proposal fails to address, however, the important role that clean stationary resources such as licensed nuclear, hydro, solar and wind must play in order to meet State goals and EPA requirements as part of the REV. As discussed at length above, particularly in response to **Section I.D.2.**, the Commission must recognize and articulate the benefit and need for these resources to be included in the REV alongside DER initiatives, including the benefits that they provide not only for GHG targets, but also for fuel diversity and fuel assurance. The Commission should also address the fact that transmission and distribution grid investment will be necessary at both the bulk power and local distribution level to improve transmission capability, reduce line losses, improve constraint areas, and promote greater interconnection of resources at the distribution and transmission levels of the grid to meet GHG goals noted above.

Licensed nuclear resources, in particular, play a critical role in assuring that the State will be able to meet GHG requirements and other environmental goals; any loss of New York's existing fleet of such licensed nuclear generation would place compliance in serious jeopardy. For instance, nuclear generation makes up 61 percent of New York's emission-free generation helping to rank it

in the top five (5) nationwide for emission-free electric generation.[40] In addition, nuclear generation in New York averted 22 million metric tons of CO2 emissions and without nuclear, the State's power sector CO2 emissions would be 36 percent higher.[41]

Fitzpatrick, Ginna, and Nine Mile Point plants avert nearly 14 million metric tons of CO2 annually. Without these plants, the increased amount of carbon dioxide would equal roughly 2.9 million additional passenger vehicles or 33 million additional miles driven. On the RGGI front, the loss of those plants would require compliance entities to purchase additional credits to remain compliant at a cost of at least $75-million and add upside pressure on prices.[42] The following illustrates well nuclear resources' role in New York's production of emissions-free electricity:[43]



It is extremely unlikely that any amount of DER implemented in the next 10 years will be able to replace those tons of carbon emissions savings, and further exceed them in order to meet aggressive State, regional and federal standards. Accordingly, compliance with the expected State

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[40] Calculations herein are based upon information provided in the U.S.Energy Information Administration's Electricity Monthly Updates ("EIA Updates") (*avail. at* http://www.eia.gov/electricity/monthly/update/).

[41] *See* EIA Updates.

[42] 14 mmt averted in 2013 by Ginna, Fitzpatrick, and NMP = 15.4 short tons. Most recent price, $4.88/short ton; $4.88*15.4 m short tons = $75M.

Implementation Plan requirement for the proposed federal GHG regulations must be a front and center foundational consideration as the REV plan is designed. A February 20, 2014 UBS Securities report further supports these findings.[44]

2. Supply-Side Renewable Resources

In its discussion of renewables in the Straw Proposal, Staff "recommends that procurement of supply-side large scale renewable resources become the responsibility of the utilities."[45] Staff also opines that "it is more important than ever to continue to support the development of large-scale renewables in New York due to the fuel diversity, low carbon emission, and economic benefits that these resources provide to the energy system and society."[46] Regarding the second of these comments, Exelon again notes that clean base load resources provide all of the same benefits as the large-scale renewables Staff contemplates, but on a greater scale. The Commission must keep these other clean resources in mind when considering Staff's comments on large-scale renewables.

With respect to Staff's first recommendation noted above, EDC procurement of all renewable resources is *not* necessary to encourage economic investment, and may in fact be detrimental to consumers. Therefore, we oppose Staff's recommendation. Renewable portfolio standards ("RPS") for retail and wholesale suppliers are a transparent method for encouraging investment in renewable resources. Under existing RPS market structures in New York, for instance, without the need for including renewable generation contracts in EDCs' rate base,

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43 *See* EIA Updates.

44 *See 4. Nuclear Benefits: Carbon-Free Electricity*, Nuclear Matters (Mar. 2014) (*available at* http://www.nuclearmatters.com/resources/fact-sheets/document/4-Nuclear-Matters-Carbon-Free.pdf) at p.2 (citing to a UBS Securities' Feb. 2014 report, stating "[w]e estimate closing Ginna, Fitzpatrick and Nine Mile (smaller nuclear plants) [in addition to Indian Point] would add another 37 percent to the state's projections [of carbon emissions]. As such, we see the state's carbon goals as entirely unattainable with further retirements, increasing total state emissions by at least 60 percent, and the entire RGGI region's by ≈25 percent, or 22 [million] tons, a cause for wider regional concern").

45 Straw Proposal at p.51.

46 Straw Proposal at p.52.

Exelon's competitive subsidiary, CNE, developed New York's largest solar project to date. Specifically, CNE under a 20-year power purchase agreement completed construction of a 2.7 MW on-site solar installation for Owens Corning at its thermal and acoustical insulation plant in Feura Bush, NY. This project – as with many of CNE's projects in the Mid-Atlantic and Northeast region – was developed and realized using at risk capital, *without* the need for a guaranteed rate of return. The Commission should refrain from locking consumers into supporting new renewable assets for long terms that in the long run may become obsolete and inefficient. Competitive forces can provide the lever that leads market participants to become innovative. This innovation translates into technological enhancements at a rapid pace. What may be state-of-the-art operations for a renewable resource technology today may be very inefficient five years from now. Obligating consumers, and not suppliers, to absorb that risk (and taking the incentives out of the market) will not lead to the best outcome for customers.

To the extent that the State nevertheless pursues long-term supply-side contracts between the EDCs and clean generation developers, we must again be careful to align the Commission's stated REV goals with the implemented policies. To that end, if the goal is to promote fuel diversity and a clean mix of generation serving New York State, existing, licensed nuclear facilities must also be considered as part of any supply-side contracted solution. Specifically, if EDCs are directed to centrally procure such resources, the products sought should be reclassified as "clean energy" resources and the procurement should allow for an EDC to contract with licensed nuclear generating resources, among others.

3. Energy Efficiency With Load Management Controls

Regarding energy efficiency, Staff recommends "that the utilities prepare and submit energy efficiency transition implementation plans (ETIPs) no later than March 31, 2015."[47] Staff adds that

[47] Straw Proposal at p.51.

"[t]he ETIPs will serve as the bridge between the utilities' current energy efficiency program efforts and their expanded demand-side efforts envisioned under REV."[48] In the first instance, Staff has not provided any information regarding the 'expanded vision' for energy efficiency pursuant to the REV. More importantly, despite a vibrant market for energy efficiency in New York today, Staff has not included any justification for replacing the current model and market, which ignores the successes achieved thereunder. CNE, for instance, has been actively engaged and successful in providing innovative energy efficiency solutions for New York customers. As an example, at the New York State Department of Correctional Services' Green Haven, Bedford/Taconic, and Sing Sing Correctional Facilities, CNE undertook over $8-million in energy conservation/efficiency projects, resulting in over $1-million in expected savings. The projects included, but were not limited to, a combined heat and power plant, installation of more efficient boiler and auxiliary equipment, condensate system improvements, fuel conversion at a central plant, energy management and control system expansions, and energy-efficient lighting replacements. These types of projects underscore the success of New York State's current energy efficiency marketplace.

B. Demonstration Projects

While Staff's list of criteria for demonstration projects appears acceptable, Exelon suggests that the State should proceed with demonstration projects only after foundational REV issues are addressed. As discussed in these comments, these foundational issues include both the method of ensuring 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 the State's REV plan.

[48] Straw Proposal at p.53.

VI. MITIGATING MARKET POWER

A. Utility Engagement in Distributed Energy Resources and Vertical Market Power Concerns

1. The Advantages and Disadvantages of Utility Engagement in DER

As noted, Staff's proposal to determine limits on EDC DER ownership is a fair start.[49] As experience is gained and sustainable BCA rules are established, the Commission can refine its approach to strike the proper balance.

2. Factors to Consider in Mitigating Market Power

The Commission Staff has done well putting together a list of "direct activities of regulated utilities" as they relate to DER.[50] However, Exelon suggests also 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, which public purposes should be defined by the Commission.[51] In addition, Exelon suggests removing the terms "and operation" from the final item in the list at the top of page 73.[52] Operations are not likely to be functions that are readily evaluated on a least-cost alone basis, so it is not certain that a competitive solicitation is appropriate to maintain operations of a system once constructed.

VII. IMPLEMENTING REV: FINDINGS AND RECOMMENDATIONS

B. Near-Term "No Regrets" Actions

Exelon again applauds Staff for its position in laying out "No Regrets" actions and the next steps to consider. We support moving forward with items under 'no-regrets' list, which are primarily demonstration projects, but only after foundational REV issues are addressed. These foundational issues include both methods to ensure fair EDC compensation for use of the grid by all

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49 *See* Straw Proposal at pp.70-73.

50 *See* Straw Proposal at p.72.

51 *See* Straw Proposal at p.72 (listing the "following limited forms of direct utility participation in DER" which are to be "permitted").

customers in the distribution system, and confirming the role of existing, clean, base load resources such as nuclear in REV. Pilot programs provide invaluable opportunities to vet rules and market structures through limited, real word conditions, while moving forward with REV goals. However, we caution against undertaking and managing multiple steps in parallel at this time. Instead, a measured, step-by-step approach will allow sufficient time to observe and address particular issues that arise, without placing unnecessary burdens on any party's resources. Each REV stage must be carefully considered and analyzed, and incorporate lessons learned before the next stage is initiated. The Commission should determine what amount of DER resources or other goals it intends to reach as part of each stage.

VIII. CONCLUSION

Exelon appreciates this opportunity to submit to the Commission its Initial Comments on the Straw Proposal and is confident that its recommendations will promote expansion of both energy market opportunities and market reliability, for the ultimate benefit of New York's consumers.

Respectfully submitted,

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On Behalf of the Exelon Companies

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[52] *See* Straw Proposal at p.73 (stating that "where the proposal involves ownership, it must include a competitive solicitation for construction and operation, absent compelling circumstances").