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Three Empire State Plaza, Albany, NY 12223-1350
www.dps.ny.gov

February 3, 2017

Ms. Kathleen Burgess, Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Matter 16-00561 – In the Matter of the Clean Energy Advisory Council

Dear Secretary Burgess:

Enclosed please find the meeting materials for the February 7, 2017, Clean Energy Advisory Council (CEAC) Steering Committee meeting, to be held from 1:00 to 3:00 pm. The meeting is open to the public and will be held in the **3rd Floor Hearing Room** of the Department of Public Service office located at Three Empire State Plaza, Albany, New York. In addition, interested parties may attend the meeting via video at the Department's Buffalo and New York City offices or via webinar and teleconference. The webinar and conference call information are provided below.

Those wishing to attend the videocasting in Buffalo to view the CEAC Steering Committee's meeting may do so in room 1050 on the 10th floor of the Commission's offices at the Ellicott Square Building, 295 Main Street, Buffalo, NY. **Anyone planning to observe the meeting in the Buffalo offices must notify Ruth Hunt at 716-847-3941, 48 hours in advance of the meeting.**

Those wishing to attend the videocasting in New York City to view the CEAC Steering Committee's meeting may do so in the video conference on the 4th floor of the Commission's offices at 90 Church Street, New York, NY. **Pursuant to procedures established by the building management, anyone planning to observe the meeting in the New York City office must notify Jan Goorsky at 212-417-2378, 48 hours in advance of the meeting, and must be prepared to show valid photo identification upon arrival at 90 Church Street.**

The attached meeting materials include an Agenda; the January 10, 2016 draft meeting minutes; the REV Energy Efficiency Best Practices Working Group's draft REV Energy Efficiency Best Practices Guide; the Metrics, Tracking and Performance Assessment Working Group's draft Performance Metrics Phase 1 Report; Monthly Updates from each of the CEAC's six Working Groups; and the CEAC's revised 2017 meeting schedule.

WebEx and Conference Call Information:

WebEx Event Address for Attendees:

https://nyserda-events.webex.com/nyserda-events/onstage/g.php?MTID=e03e9fe40a3607f2759fd5b60914641ee

Event Number:	664 219 009
Event Password:	CEAC2017

Audio Conference:	1-415-655-0001
Access Code:	664 219 009

Sincerely,

/s/

Colleen Gerwitz

Director of Program Management & Planning

Office of Markets & Innovation

Enc.

February 7, 2017
Clean Energy Advisory Council
Steering Committee Meeting
1:00pm – 3:00pm

In-Person/Webinar/Teleconference

AGENDA

The **agenda** for the meeting is attached and provided below.

1.	Roll Call	(5 minutes)
2.	Old Business	(5 minutes)
	a. January 10th Meeting Minutes	
3.	REV Energy Efficiency Best Practices	(30 minutes)
	a. Monthly Update	
	b. Draft REV EE Best Practices Guide	
4.	Metrics, Tracking & Performance Assessment Working Group	(30 minutes)
	a. Monthly Update	
	b. Draft Performance Metrics Phase 1 Report	
5.	Voluntary Investment & Other Market Development Working Group	(5 minutes)
	a. Monthly Update	
6.	Energy Efficiency Procurement & Markets Working Group	(5 minutes)
	a. Monthly Update	
7.	Clean Energy Implementation & Coordination Working Group	(5 minutes)
	a. Monthly Update	
8.	Low & Moderate Income Clean Energy Initiatives Working Group	(5 minutes)
	a. Monthly Update	
9.	Other Business	(20 minutes)
10.	Comments from the Public	(10 minutes)

WebEx and Conference Call Information

WebEx Event Address for Attendees:

https://nyserda-events.webex.com/nyserda-events/onstage/g.php?MTID=e03e9fe40a3607f2759fd5b60914641ee

Event Number:	664 219 009
Event Password:	CEAC2017
Audio Conference:	1-415-655-0001
Access Code:	664 219 009

Clean Energy Advisory Council (CEAC) Meeting Minutes

Held on
January 10, 2017
10:00am-12:00 pm

Roll Call

The following organizations were represented on the Steering Committee:

Scott Weiner, New York State Department of Public Service
David Margalit, New York State Energy Research and Development Authority
Mark Beaudoin, AVANGRID, Inc. / Iberdrola
Anthony Campagiorni, Central Hudson Gas and Electric Corporation
Matt Ketschke, Consolidated Edison Company of New York, Inc.
Cliff Mason, National Fuel Gas Distribution Corporation
John Isberg, National Grid USA Service Company, Inc.
Jeffrey Cohen, New York Power Authority
Roberta Scerbo, Orange and Rockland Utilities, Inc.
Mike Voltz, PSEG Long Island

Chris Corcoran, NYSERDA, Designee, Clean Energy Implementation & Coordination Working Group
Tricia Cioni, Cascade Energy, Designee, Metrics, Tracking & Performance Assessment Working Group
Mark Lorentzen, TRC Solutions, Designee, and John Williams, NYSERDA, Co-Chair, Voluntary Investment & Other Market Development Working Group
Adam Flint, Binghamton Regional Sustainability Coalition, Designee, Low & Moderate Income Clean Energy Initiatives Working Group
Bob Callender, TRC Solutions, Designee, Energy Efficiency Procurement & Markets Working Group
Frank Murray, NRDC, Designee, REV Energy Efficiency Best Practices Working Group

Old Business

November 30, 2016 Meeting Minutes
The meeting minutes of the November 30, 2016 meeting were approved by the Steering Committee.

Clean Energy Implementation and Coordination Working Group

Chris Corcoran, NYSERDA, stated that during November 2016, the Working Group focused on finalizing the *Utility/NYSERDA Coordination Draft Report* that is the focus of a presentation to the Steering Committee at this meeting. The Report presents a framework for collaboration and coordination, and builds off of past efforts, such as the Energy Efficiency Portfolio Standard (EEPS-2) "E2" Working Group, and is in compliance with the Department of Public Service (DPS) guidance on layered incentives.

In presenting the contents of the Report, Mr. Corcoran provided a high-level summary of the coordination activities including those with other Working Group representatives and the roles of external stakeholders. He stated that planned quarterly meetings will include invitations to targeted program managers for purposes of discussing and examining the level of success of specific activities. Mr.

Corcoran also added that a planned annual meeting will be the vehicle for receiving external feedback and a more national view from customers and stakeholders. Overall, Mr. Corcoran described the approach as a basic one; one that ensures that the appropriate program managers actively participate on an ongoing basis.

In response to an inquiry by Mr. Margalit as to how success will be measured, Mr. Corcoran stated that a slate of programs that do not duplicate incentives, that are offered in a timely manner, and that are implemented by the entity with the most appropriate strengths in that area will be evidence of success. He stated that the Working Group specifically acknowledged that there will be program implementation opportunities where NYSERDA's statewide approach will be the most effective, and other instances where the specificity of a utility approach will be most effective.

In response to an inquiry by Mr. Isberg, National Grid, Mr. Corcoran confirmed that there is no recommendation for the Working Group to "approve" of program design and implementation plans presented by respective program managers and clarified that the primary intent is for information-sharing purposes.

In response to an inquiry by Ms. Cioni, Cascade Energy, regarding the availability of the incentive inventory tool, Mr. Corcoran stated that it had not yet been released beyond the Working Group members. However, there are future plans to more widely share this tool, perhaps in a format that differs from its current database format. Mr. Isberg, National Grid, added that he favors a platform where everyone has access to the same, updated version.

Low & Moderate Income Clean Energy Initiatives Working Group

Adam Flint, Binghamton Regional Sustainability Coalition, provided a brief update on recent activities, including the submission of the *Report on Alternative Approaches to Providing LMI Clean Energy Services* to the Steering Committee on December 22, 2016, which is a topic of a presentation at this meeting. Mr. Flint also described changes to the updated Work Plan, including planned future discussions with the Energy Efficiency Procurement & Markets Working Group that may lead to the development of a proposed low-income or affordability earnings adjustment mechanism (EAM).

Chris Coll, NYSERDA, and Marty Insogna, NYS DPS provided a tandem presentation on the draft *Report on Alternative Approaches to Providing LMI Clean Energy Services*. Mr. Insogna began the presentation by describing the LMI Working Group and its subgroups and the scope as investigating and evaluating alternatives to the current delivery of services to LMI customers that can improve customer value. The services include such approaches as bill reduction, energy efficiency services, and renewable energy generation. Mr. Insogna stated that the Report recommendations apply broadly and take into account stakeholder input.

Mr. Coll continued the presentation by describing the LMI landscape and market, which includes consumers, building owners, and service providers. Mr. Coll stated that there are more than 3.5 million identified LMI households in the State, approximately 2.3 million of which are low-income and 1.1 million of which are moderate-income. Mr. Coll described, in detail, the barriers to adopting clean energy for segments of this market. Barriers include lack of access to capital and limited budgets, competing interests, lack of information, building of structural issues, split incentives, fragmented administration of programs, and difficulties in identifying LMI customers.

Mr. Coll stated that approximately $330 million in ratepayer funds are spent annually on LMI clean energy and bill payment assistance programs. In addition, about $350 million of federal funds are spent through the Home Energy Assistance Program (HEAP) and the Weatherization Assistance Program (WAP).

The number of estimated households served through these collective efforts was clarified in response to an inquiry by Jeffrey Cohen, New York Power Authority (NYPA). In response to Mr. Cohen's further inquiry as to which direction the State should take given the low penetration of eligible households, Mr. Insogna acknowledged the challenges of trying to serve a large number of households with rather limited resources, stating that the Working Group attempted to develop a set of recommendations that represent best practices and "no regrets" options. The 43 recommendations in the Report are presented in 10 categorical groups including: Energy Literacy, Awareness, and Program Application Process; Program Design; Health and Safety; Finance and Access to Capital; Access to DER and Utility Ownership; Integration of Energy Efficiency and Renewable Technologies; Access to Energy Consumption Data; Community Choice Aggregation; Consistency in Income Eligibility Classification; and Coordination with Other State Agencies.

In response to a comment by Mr. Weiner, NYS DPS, regarding utility ownership of generation and the attraction of private capital as not necessarily mutually exclusive propositions, it was clarified that the Working Group was indeed examining alternative approaches. Mr. Coll also stated that while the scope of the Working Group is limited to ratepayer funded programs, it is important to identify where the State can do a better job of working with other State agencies and entities.

Mr. Weiner stated that, in his opinion, this is a very comprehensive report. In response to inquiries by Mr. Weiner, NYS DPS, and Mr. Margalit, NYSERDA, as to the next steps in effectuating the Report recommendations, Mr. Coll reported that many of the recommendations, particularly those that do not require resource allocations, are already being pursued, while others present a "no regrets" opportunity and should be pursued. Mr. Insogna further added, that the Working Group intends to visit the issue as to whether it should continue its efforts and will formulate a recommendation to that end. Items that will be addressed during that examination include identifying actions that are likely to provide the most return for the effort, which efforts need the most foundational work, and who are the best agents to perform any proposed activities.

In response to an inquiry by Mr. Margalit as to what efforts are best provided by the utilities, Mr. Insogna stated that, in his opinion, the utilities are best equipped to identify customers in distress and prioritizing the customers most in need of additional services. Mr. Isberg, National Grid, provided a direct install program effort as an additional example.

Mr. Flint added that one of the more recent approaches in thinking about how best to serve the LMI sector includes the notion that any program tied to a utility tends to be viewed more legitimately than perhaps others.

The Steering Committee agreed to provide any additional feedback on this Report to the Working Group by the end of the week.

Energy Efficiency Procurement & Markets Working Group

Bob Callender, TRC Solutions, stated that the Working Group continues to meet bi-weekly, with the subgroups meeting weekly. The Working Group continues to work on developing and drafting the *Energy Efficiency Market Procurement Recommendations Report*, the deadline for which has been extended. Mr. Callender also reported that discussions will continue on materials prepared by the Joint Utilities on alternative approaches for acquiring energy efficiency that were presented to the Working Group by Raghu Sudhakara, Consolidated Edison. Mr. Sudhakara co-chairs the Working Group and is now joined by Megan Fisher, NYSERDA, who is the newly-appointed Co-Chair.

Metrics, Tracking & Performance Assessment Working Group

Tricia Cioni, Cascade Energy, reminded the Steering Committee that the *Performance Metrics Recommendations Report* is being approached in two phases. The subgroup met weekly throughout December 2016 with a strong focus on Phase One, which has a new due date of January 24, 2017. She noted that elements of the Phase One Report will inform Phase Two and the Working Group looks forward to feedback on this Report next month.

Ms. Cioni also reported that Phase One of the *Online Dashboard Recommendations Report* will build off of the *Performance Metrics Recommendations Report* and the Working Group looks forward to feedback during the March 2017 meeting.

Finally, Ms. Cioni reported that the *Evaluation, Measurement and Verification Coordination Report,* which has a revised due date of Quarter 4, 2017, is in abeyance while the Working Group turns its attention to the two previously-described work products.

Voluntary Investment & Other Market Development Working Group

Mark Lorentzen, TRC Solutions, reported that NYSERDA, in consultation with DPS Staff, has agreed to use the output of the *Voluntary Investment Parameters Report* and test new approaches for full pilot consideration within the parameters of the Clean Energy Fund (CEF).

Mr. Lorentzen stated that the Working Group is re-engaging with the focus being on the next deliverable which is a *Research and Recommendations Report* and reported that a Community Choice Aggregation (CCA) subgroup of 17 members has been formed in response to the strong interest in CCA pilots.

REV Energy Efficiency Best Practices

Frank Murray, NRDC, stated that the 50 "Best Practice" candidates identified by the Working Group covering both Regulatory/Policy and Program initiatives has been further curated to a list of 30 potential candidates. The Working Group then identified 6 of the Best Practices for a "deep dive" - illustrative of the type of information that should accompany any description of a Best Practice and which will be included in the forthcoming *REV Energy Efficiency Best Practices Guide Report* due on January 24, 2017.

In referencing the forthcoming Report, Mr. Murray requested, on behalf of the Working Group, a one week extension of the due date of that Report, until January 30, 2017, stating that the extra time was necessary for the finalization of the report, yet an extension of time which should still allow for inclusion in the materials for the February 7, 2017 Steering Committee Meeting. There was no opposition to this request.

Other Business

Megan Fisher, NYSERDA, highlighted the new Meeting Schedule that runs through June 2017 and also described the changes to the CEAC Work Plan that encompasses all of the Work Scope updates.

Public Comments

There being no other business to discuss and no comments from the public, the meeting was adjourned.

Steering Committee Update

REV Energy Efficiency Best Practices Working Group

Administrative Matters:

The Working Group filed our last Update on January 4, 2017 for the CEAC Steering Committee's January 10, 2017 meeting. At that meeting, the Working Group requested and the CEAC Steering Committee granted a one-week extension from January 24, 2017 to January 31, 2017 for the submission of the Working Group's Best Practices Draft Guide. The Working Group met the revised deadline and the Draft Guide was submitted on January 31, 2017. The Draft Guide tracks the Outline the Working Group filed with the CEAC Steering Committee on October 27, 2016,

Since the filing of our last Update, the Working Group has been actively engaged in writing the Best Practices Draft Guide. As described in our January 4, 2017 Update, the Working Group identified six specific best practices for which the Working Group chose to take a "deep dive" to illustrate the type of information that should accompany any description of a Best Practice.

Specific Working Group members were assigned the initial responsibility for drafting these specific sections. A smaller executive group then assembled these drafts and integrated them into the framework of the Best Practices Draft Guide. All Working Group members were then provided the opportunity to review and comment on the Draft Guide. Based on these comments, revisions were made in the Draft Guide. The Working Group Co-Chairs and NYSERDA and DPS Staff then assumed the responsibility for timely production of the "final" Best Practices Draft Guide.

Work Plan/Draft Guide:

The Working Group initially identified approximately 50 Best Practice candidates covering both Regulatory/Policy and Program initiatives. Through extensive discussions, the Working Group reduced this list to 30 items. An annotated listing of these items is contained as Appendix B in the Draft Guide.

Through prioritization based on potential need and impact within a REV framework, the Working Group then identified six specific best practices for which it chose to take a "deep dive". This was done through direction from the Steering Committee. Subsequently, the Working Group decided to reduce this list to five items. The Draft Guide contains expanded sections on each of these topics:

1. Use data driven market segmentation to create customized offerings for customers
2. Conduct utility specific assessments of the long-term economic and achievable energy efficiency potential
3. Build programs, policies, and market structure to reward a combination of energy efficiency and demand management
4. Tie energy efficiency/demand management incentives to savings outcomes through a Pay-for-Performance approach
5. Create a "one-stop-shop" and bundled measures/services approach to energy efficiency

For each of these items, the Draft Guide contains a clear statement of the Best Practice, the rationale for its inclusion, an outline of the expected outcomes within a New York REV context, and identification of a path to implementation in New York.

In addition, the Draft Guide identifies three specific policies that could provide clear, strong signals to support market development for energy services: (1) statewide long-term energy efficiency savings targets; (2) minimum funding commitments for procurement of energy efficiency: and (3) policies to ensure the realization of all cost-effective energy efficiency. In other states, these policies have reduced market uncertainty and have created backstops to foster predictable efficiency and clean energy opportunities. The Draft Guide also highlights the importance of a clear and consistent framework to define how third parties can transact energy efficiency and other DERs in a competitive marketplace.

The Working Group emphasizes the importance of treating the Draft Guide as a living document, not a static Guide confined to a particular point in time. The Draft Guide contains a series of recommendations, not least of which is integrating Best Practices into the work being considered by both the Clean Energy Implementation and Coordination Working Group and the Metrics, Tracking and Evaluation Working Group. Most importantly, the Draft Guide contains the recommendation that appropriate analytical resources – technical, policy, and program – be provided to support a viable, ongoing Best Practices Guide. The Draft Guide also notes the importance of outside engagement, especially by efficiency experts, in the identification and implementation of Best Practices and suggests an examination of the approaches several states have taken or are considering taking to incorporate this expertise. Time did not allow the Working Group sufficient opportunity to examine in any great detail these potential options.

Next Steps/Steering Committee Guidance

The Working Group submitted its Best Practices Draft Guide on January 31, 2017. We look forward to Steering Committee's review and comments at its February 7, 2017 meeting. In particular, we welcome the Steering Committee's feedback on the Draft Guide's recommendations and an appropriate mechanism or forum for ensuring timely updating and consideration of Best Practices in the development and implementation of energy efficiency and demand management programs.

Work Plan

Background:

The REV Track One Order[1] directed Staff to develop a REV Energy Efficiency Best Practices Guide to develop more innovate approaches to energy efficiency programs. The guidance is to support REV's enhanced value of traditional efficiency programs to provide for targeting specific system needs, coordination with a larger market transformation plan or development of technology, tools and information to facilitate customer load management. The REV Energy Efficiency Best Practices Guide has since been tasked to the Clean Energy Advisory Council through the Clean Energy Fund Framework[2] Order.

The Working Group will develop a REV Energy Efficiency Best Practices Guide outlining energy efficiency program best practices under a REV framework, and including a process for future revisions and updates. To inform development of the Guide, the Working Group shall conduct research and analysis of program data and shared performance assessments across New York State program administrators. It also will investigate relevant best practices from outside the state to identify replicable, high impact activities and promising innovative strategies, including pilots and demonstrations of new approaches. The Group is expected to update and revise the Guide such that the information in the Guide changes with the pace of technology and Commission directives.

Overview:

This Work Plan was developed by interpreting this mandate in the broadest sense, in line with the desire to encourage experimentation with innovative approaches, learn from early demonstrations and share best practices and lessons learned.

To complete the work, the REV Energy Efficiency Best Practices Working Group expects to meet bi-weekly. The Working Group expects most of its meetings to be conducted as teleconferences, however, if necessary, the Working Group will also conduct webinars and in-person meetings. Between meetings, the Working Group members will conduct work through email. It is anticipated that research and analysis will be conducted by members of DPS, NYSERDA and utility staff, working group members with along with possible consultant support.

The Working Group will be exploring opportunities to collaborate with other Working Groups and seek to identify intersections and leverage points with their activities. The Working Group will also seek perspectives from experts in the energy efficiency field and stakeholders, where needed. The Working Group intends to provide updates regarding progress and working schedule to the Steering Committee at the Steering Committee's public meetings.

[1] Case 14-M-0101, Order Adopting Regulatory Policy Framework and Implementation Plan (issued February 26, 2016)
[2] Case 14-M-0094, Oder Authorizing the Clean Energy Fund Framework (issued January 21, 2016)

Schedule:

Task	Responsibility	Due Date	Status
Updates to Steering Committee:			
Send Written Update to Steering Committee	*Designee*	*7/6/2016*	*Complete*
Send Written Update to Steering Committee	*Designee*	*8/10/2016*	*Complete*
Send Written Update to Steering Committee	*Designee*	*9/12/2016*	*Complete*
~~*Send Written Update to Steering Committee*~~	~~*Designee*~~	~~*10/13/2016*~~	*N/A*
Send Written Update to Steering Committee	*Designee*	*10/27/2016*	*Complete*
~~*Send Written Update to Steering Committee*~~	~~*Designee*~~	~~*11/23/2016*~~	
Send Written Update to Steering Committee	*Designee*	*12/6/2016*	*Complete*~~-~~
Send Written Update to Steering Committee	*Designee*	*1/3/2017*	*Complete*~~-~~
Send Written Update to Steering Committee	*Designee*	*1/31/2017*	*Complete*~~-~~
REV Energy Efficiency Best Practices Guide:			
Best Practices Compendium			
Assign tasks of the Best Practices Compendium	Co-Chair	7/13/2016	Complete
Develop criteria to identify promising REV programs, pilots and demonstrations	Assigned Member	8/3/2016	Complete
Compile research of relevant program data and performance assessments from NYS EE program administrators	Assigned Members	8/26/2016	~~On Going~~Complete
Analyze program data and performance assessments from NYS EE program administrators	Assigned Member	9/30/2016	In Progress
Compile research of replicable, high impact activities and promising innovative strategies, pilots and demonstrations, within and outside of NYS	Assigned Member	8/26/2016	~~On Going~~Complete
Analyze research, extracting insight and promising innovative strategies for Best Practices under the REV Framework	Assigned Member	9/17/2016	*Complete*~~In Progress~~
Off-site meeting to review and identify Best Practices	Working Group	9/30/2016	*Complete*
Draft Best Practices Compendium	Assigned Member	10/5/2016	*Complete*
Send Draft Best Practices Compendium to Working Group	Assigned Member	10/9/2016	*Complete*
Incorporate Feedback into Best Practices Compendium	Assigned Member	10/13/2016	*Complete*
Finalize Best Practices Compendium	Working Group	10/13/2016	*Complete*
Delivery Platform and Shared Learnings Mechanism			
Assign key tasks	Co-Chair	7/13/2016	Complete
Needs Assessment / Voice of Customer - utilities, program administrators	Working Group	9/23/2016	In Progress
Identify current approaches to Best Practices and shared learning across Program Administrators	Working Group	~~8/17/2016~~9/23/2016	*Complete*~~In Progress~~
Develop approach to update and revise Best Practice Guide	Working Group	9/23/2016	*Complete*~~In Progress~~
Off-site meeting to evaluate needs for shared learnings and promising mechanism for Best Practices	Working Group	9/30/2016	*Complete*

Send Draft Delivery Recommendation(s) and Shared Learnings Mechanisms for Guide to Group	Assigned Member	TBD	
Incorporate Working Group Feedback into Delivery Recommendation(s) and Shared Learnings Mechanisms for Guide	Assigned Member	TBD	
Finalize Delivery Platform and Shared Learning Mechanism(s) Recommendations for Guide	Working Group	TBD	
Best Practices Draft Outline			
Assign Components and task of Outline to Working Group Member	Co-Chair	7/13/2016	Complete
Synthesize Components into a draft outline and send Draft Outline to Working Group	Assigned Member	9/30/2016	*Complete*
Incorporate Working Group Feedback into Outline	Assigned Member	10/5/2016	*Complete*
Finalize Outline	Working Group	10/6/2016	*Complete*
Send Draft Outline to Steering Committee	*Co-Chair*	~~*10/13/2016*~~*10/27/16*	*Complete*
Steering Committee to Provide Comments	Steering Committee	~~10/20/2016~~11/3/16	*Complete*
Incorporate Best Practice Compendium, Delivery Platform Recommendation and Shared Learning Mechanism(s) to develop Draft Report	Assigned Member	~~10/26/2016~~11/15/16	*Complete*
Send Revised Draft (v1) Report to Working Group	Assigned Member	11/30/2016	*Complete*
Finalize Draft Report	Working Group	*12/28/2016*	*Complete*-
Send Draft Report to Steering Committee	*Co-Chair*	*1/24/2017*	*Complete*-
Steering Committee to Provide Comments	Steering Committee	2/7/2017	
Incorporate Steering Committee Feedback into Report	Assigned Member	2/10/2017	
Send Revised Draft (v2) Report to Working Group	Assigned Member	2/17/2017	
Finalize Report	Working Group	***2/17/2017***	
File Final REV Energy Efficiency Best Practices Guide	***Co-Chair***	***2/21/2017***	
Consideration of Additional Work Scope			
Discuss & Prioritize Additional Tasks	Working Group	3/1/2017	
Draft Scope & Justification to Working Group	Assigned Member	3/29/2017	
Send Draft Scope & Justification to Steering Committee	*Co-Chair*	*4/12/2017*	
Finalize Revised Scope	Working Group	5/19/2017	
File Revised Work Scope	***Co-Chair***	***5/22/2017***	

Revisions:

This Work Plan is a living document and the Working Group will revise it on a regular basis to include additional tasks assigned to the Working Group and to reflect any changes to the Working Group schedule. Revisions to this Work Plan will be included as a component of the Written Update to the Steering Committee. In instances where the Working Group determines that it will be unable to meet the

deadlines established by the CEAC Steering Committee, it will comply with the revision process outlined in the CEAC Work Plan and update this Work Plan accordingly.

REV Energy Efficiency Best Practices Draft Guide

Table of Contents

Executive Summary: *In Development*

I. Background

In the Reforming the Energy Vision (REV) Track One Order, the Public Service Commission (PSC) directed the Department of Public Service (DPS) to develop a REV Energy Efficiency Best Practices Guide ("the Guide") to ensure shared learning and the evolution of programs across utility service territories.[1] Subsequently, the PSC established the Clean Energy Advisory Council (CEAC)[2] and tasked it with developing the Guide. In response, the REV Energy Efficiency Best Practices Working Group ("Working Group") was formed and tasked, through its scope and work plan,[3] with developing the Guide. As part of the work plan, the Working Group submitted an outline for the Guide to the CEAC Steering Committee for review and feedback on October 26, 2016. The CEAC Steering Committee provided feedback and direction on November 3, 2016. In line with direction from the CEAC Steering Committee on the outline, and in accordance with the work plan, the member organizations of the Working Group are pleased to submit the draft Guide to the CEAC Steering Committee and stand ready to adjust the final Guide based on feedback and direction.[4]

II. Policy Context

New York State's approach to the transformation of the State's energy system emphasizes a clear end goal: to make clean, affordable, and resilient energy a reality for all New Yorkers. The 2015 New York State Energy Plan[5] sets forth a vision and a comprehensive roadmap for the State's energy future that connects a vibrant private sector market with communities and individual customers to create a dynamic, clean energy economy. The State Energy Plan serves as the roadmap for REV, centering on three strategic pillars of activity:

- Utility regulatory reform through the PSC's Reforming the Energy Vision Regulatory Docket.
- Market activation of the New York State Energy and Research Development Authority's (NYSERDA) Clean Energy Fund and the New York Green Bank.
- Public sector leadership through the New York Power Authority's investments in innovations.

The State's clean energy goals in the State Energy Plan include achieving greenhouse gas emissions reductions, increasing the share of renewable energy, and decreasing energy consumption in buildings by 2030. These clean energy goals serve as foundational elements to REV quantified by:

- A 40 percent reduction in greenhouse gas emissions from 1990 levels.
- Fifty percent of the State's electricity from renewable sources.
- A 23 percent decrease in energy consumption of buildings from 2012 levels.

To achieve these ambitious goals, it is necessary to have appropriate policy and regulatory structures including: stimulating innovative utility business models, an improved and more effective use of State resources, and robust participation from third parties and market forces. Equally important is the expectation that individuals and communities will also take an active role in achieving State energy goals. To help facilitate success under REV, the members of the Working Group believe it's critically important for program administrators and regulators in New York State to commit to capturing, sharing, and applying lessons learned and best practices as REV unfolds.

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[1] Case 14-M-0101, supra, Order Adopting Regulatory Policy Framework and Implementation Plan (issued February 26, 2015), pg. 79
[2] Case 14-M-0094 Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016)
[3] Matter 16-01009; REV Energy Efficiency Best Practices Working Group Scope; June 17, 2016
[4] See Appendix A for a list of the Working Group member organizations
[5] For access to the 2015 New York State Energy Plan, issued June 25, 2015, visit http://energyplan.ny.gov/Plans/2014.aspx

III. Working Group Approach

In its January 21, 2016 Order, the Commission tasked the newly formed CEAC with developing the Guide, *"develop a REV Energy Efficiency Best Practices Guide … outlining energy efficiency program best practices under a REV framework and including a process for future revisions and updates."*[6]

Convened by the CEAC Steering Committee on May 24, 2016, the Working Group members were self-identified and held a bi-weekly meeting to build out the Guide. On June 17, 2016, the Working Group filed the REV Energy Efficiency Best Practices Work Scope (Scope). Included in the Scope was the Guide objective:

> *"Develop a REV Energy Efficiency Best Practices Guide, to be filed with the Secretary, outlining energy efficiency program best practices under a REV framework, and including a process for future revisions and updates. To inform development of the Guide, the Working Group shall conduct research and analysis of program data and shared performance assessments across New York State program administrators.[7] It also will investigate relevant best practices from outside the state to identify replicable, high impact activities and promising innovative strategies, including pilots or demonstrations of new approaches. The Group is expected to update and revise the Guide such that the information in the Guide changes with the pace of technology and Commission directives."*[8]

The Scope was subsequently approved by the Steering Committee and has been considered as the guiding charter for the Working Group.

The Working Group filed the Work Plan Outline to the CEAC Steering Committee on July 27th, 2016.[9] The Work Plan identified the process steps to delivering the Guide and was ultimately approved by the CEAC Steering Committee on August 10, 2016.

In line with the Work Plan and consistent with the Work Scope objectives, the Working Group used the following guiding principles to begin its work and in developing this Guide:

- Commitment to achieving high levels of energy efficiency and demand management as an essential component of the transition to the REV model.
- Ensure coherence with other relevant work under the CEAC and REV proceedings.
- Focus work on delivering outcomes to drive the REV transition.
- Consider the work on best practices as a process, rather than a one-time output.
- Draw on existing program administrators' experience sharing best practices.
- Leverage third-party expertise outside of the Working Group.

[6] Case 14-M-0094 Order Authorizing the Clean Energy Fund Framework pg.55 (issued January 21,2016)

[7] The Working Group acknowledges that time and resources prevented the completing this specific task. To a large degree, this task is duplicative of the work of the CEAC Implementation and Coordination Working Group.

[8] Matter 16-01009, REV Energy Efficiency Best Practices Working Group Work Scope; pg. 2 (filed June 17, 2016)

[9] Matter 16-01009, REV Energy Efficiency Best Practices Working Group Work Plan (filed July 27, 2016)

To guide its work, the Working Group applied high-level REV objectives to programs and strategies under consideration as best practices. These include:

- Customer engagement with DER markets.
- Ability to stimulate DER providers.
- Potential for greater private sector investment.
- Potential to deliver system benefits.
- Potential to support new utility earnings opportunities.
- Carbon reduction.

IV. Guide Development

To inform the development of the Guide, the Working Group researched program assessments across New York State program administrators, along with relevant best practices and activities from outside the State to identify replicable, high-impact activities and promising innovative strategies, including pilots or demonstrations of new approaches. This research was then analyzed and evaluated using the abovementioned REV objectives and ultimately distilled down to 49 candidates deemed worthy of consideration by the Working Group.

To continue its work, the Working Group hosted a full day offsite meeting on September 30, 2016. The purpose of the meeting was to review research and analysis of the specific areas of program and policy best practices. For part of the day, the Group broke off into smaller teams to review, assess, and further synthesize research and analysis to identify overall themes. Through a full Working Group discussion, the Group prioritized key findings of research and analysis and created subgroups to focus on common areas of best practices with the goals of filling any identified gaps and building out candidates for the remainder of the work.

The Working Group submitted its Guide Outline for review and comment by the Steering Committee at its November 3, 2016 meeting. At this meeting, the members of the Steering Committee directed the Working Group to strategically focus the Guide on a small number of candidates and advance them through a more comprehensive assessment that could potentially lead to actionable steps for implementation.

In line with this direction, and in recognition that the group is not equipped to advance a large number of best practice candidates, a survey was developed to highlight themes and market needs in the context of REV. The survey summarized candidates, highlighted outcomes, and asked respondents to rank the applicability and effectiveness of the candidate in correlation with their business model and market drivers. This survey was sent to Working Group members, utilities, and program administrators. The results of the survey supported the identification of the five most promising candidates, each of which are expanded upon in Section VI.

Appendix B is a synthesized short list of the initial 49 candidates, based on candidate overlap and applicability to the context of this Guide. Each candidate in Appendix B includes a brief description of each and references for future analysis. As noted in the recommendations section below, the Working Group recommends that resources be applied to updating the Guide to capture market responses to energy efficiency program experiences, market development indicators, technology advances, and lessons learned through experiences with REV initiatives (i.e., REV demos and non-wires alternative market engagements).

V. Using the Best Practices Guide

The Working Group faced challenges in identifying specific, actionable, and importable "off the shelf" REV opportunities simply due to the fact that New York State, through the Clean Energy Fund and REV demos, is leading the way with market based approaches to delivering energy efficiency. The Group acknowledged that these new initiatives have yet to deliver results that could be evaluated in a REV framework. Similarly, it was difficult to ascertain best practices outside of New York because there are few states that mirror New York's market base policy objectives under REV. Despite these challenges, the Working Group did find success in identifying promising elements of the researched activities or initiatives, which offer the potential to advance REV objectives. In light of these circumstances, the Working Group suggests using the term "best practice" in a broad sense encompassing both policies and programs and consider the five expanded on below to be the most promising, most of which include actionable recommendations to begin to develop and advance within a REV framework.

VI. Best Practices Within a REV Framework

In building out the top five best practice candidates, the Group endeavored to address key elements to substantiate and support the implementation and adoption in New York State. These elements include a summary of the best practice distilled to articulate the strategy along with the identification of the market actors and entities responsible for implementing or fostering adoption. In addition, a high-level description of the potential impacts and outcomes within a REV framework are explained through highlighting examples from relevant programs and/or initiatives within and outside of New York State.

The top candidates which are expanded on in this section are:

1. Use data driven market segmentation to create customized offerings for customers.
2. Conduct utility specific assessments of both the long-term economic and achievable energy efficiency potential.
3. Build programs, policies, and market structures to reward a combination of energy efficiency and Demand Management (DM).
4. Tie energy efficiency/DM incentives to savings outcomes through a Pay for Performance approach.
5. Create a "one-stop-shop" and bundled services/measures approach to energy efficiency.

1. Use data driven market segmentation to create customized offerings for customers

Use market segmentation data to create highly customized offerings for customers based on their characteristics and needs, thereby targeting solutions that result in the greatest value to society, the grid, the utility, and the customer.

> *"Market segmentation is a marketing strategy which involves dividing a broad target market into subsets of consumers, businesses, or countries who have, or are perceived to have, common needs, interests, and priorities, and then designing and implementing strategies to target them."* [10]

[10] https://en.wikipedia.org/wiki/Market_segmentation

Customer segmentation and targeting is a well-established best practice in wide use across numerous industries. Segmentation has been in use for nearly 100 years. However, the energy efficiency industry is a late and relatively new adopter of data-driven customer segmentation and targeting. As such, for the better part of energy efficiency's history, many, if not most, utility and governmentally administered programs have been offered via "mass marketing" approaches – one product delivered via one message to very broad "residential" or "commercial" customer types. Mass marketed energy efficiency program design and implementation offer little, if any, customization for specific types of customers with varying needs, wants, attitudes, and interests. This approach leads to suboptimal customer engagement, program participation, and outcomes.

The objective of this best practice recommendation is to encourage all energy efficiency market stakeholders – regulators, utilities, program administrators, third-party service providers, consultants – to increase the use of advanced segmentation and targeting techniques to grow New York State's energy efficiency market.

Customers today receive personalized products and services from other industries, thus expecting the same across all purchasing activities. Data driven customer segmentation and targeting is a proven best practice in other industries and is now a customer expectation. The Working Group believes this best practice is key to scale energy efficiency in the State. Implementing segmentation as a common practice across all programs, by delivering the right product or service, with the right message, via the right channel, to the right customer, should help improve program reach, scale, and results.

> *"The overall aim of segmentation is to identify high yield segments – that is, those segments that are likely to be the most profitable or that have growth potential – so that these can be selected for special attention (i.e., become target markets)."*[11]

Segmentation can provide benefits to DER providers as well as customers. For DER providers marketing products and services, it provides a way to identify the best groups of customers to pursue and target with the most appealing product or service via compelling messages through convenient channels. Segmentation enables vendors to define customer preferences and needs with enough detail to match products and services specifically to their customers and drive increased sales. Personalized messaging will improve the customer experience as it increases the likelihood an offer is relevant and interesting to a customer.

Energy efficiency programs can and should adopt this approach to improve program participation and maximize market penetration of energy-efficient products and services in the State. The term "program" itself implies an undifferentiated approach to reaching customers. Rather, using a comprehensive data-driven segmentation and targeting strategy, market players will stop referring to "programs" and instead focus on "products" and "services." The focus on individual products and services improves upon monolithic programs by enabling the flexibility needed to effectively and efficiently reach the highest potential customer segments that are most likely to "buy." Just as importantly, comprehensive segmentation and targeting help identify which customers are least likely to buy, thus saving time and money.

The success and impact of segmentation is in virtually every industry, demonstrated by an increased sales volume in both retail and wholesale transactions. In the case of energy efficiency, the chief desired outcome is higher and faster adoption rates for energy-efficient products and services.[12] A second outcome is that segmentation can lead to a broader recognition and messaging of the multiple benefits of energy efficiency.[13]

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[11] Ibid

[12] David Frankel et al., Using a consumer-segmentation approach to make energy-efficiency gains in the residential market," McKinsey, November 2013. http://www.mckinsey.com/~/media/McKinsey/dotcom/client_service/EPNG/PDFs/Using_a_consumer-segmentation_approach_to_make_energy-efficiency_gains_in_the_residential_market

[13] Christopher H. Russell, "Leveraging Energy Efficiency's Multiple Benefits through Market Segmentation," ACEEE, August 2016. http://aceee.org/files/proceedings/2016/data/papers/7_482.pdf

In addition, segmentation can lead to a better selection of products by customers, based on the enhanced understanding of how business opportunities and problems can be met with energy solutions.

Segmentation shows value in both practice and planning within utility energy efficiency programs.[14, 15] For example, Eversource rolled out a customer engagement and energy efficiency strategy that relies heavily on segmentation to drive increased program participation.[16] Similarly, the marketplace REV demos currently underway throughout the State, such as Con Edison's Connected Homes demo and Avangrid's Community Energy Coordination demo, rely heavily on segmentation and targeting to engage customers.[17] In the future, as the State's energy efficiency market becomes fully robust, a longer list of third-party market players, from contractors to financiers to product manufacturers, will need to incorporate market segmentation in their delivery of goods and services. The REV demos will continue to offer lessons that should guide future deployment of segmentation by all market players within the REV context.

Some segmentation can be carried out independent from utility programs, using market and customer data collected by market providers from public or proprietary sources. Most providers are very likely doing this in at least some rudimentary way today – with some program implementers already deploying sophisticated "propensity to participate" tools. Much of the data needed for segmentation analysis is already available publicly or for purchase from companies who sell customer marketing data.

However, a key to segmentation for energy efficiency is getting far more detailed about customer needs using customer energy use, as well as audit or survey and equipment inventory data, which hold a tremendous amount of value to support analytics. Effective segmentation can benefit from analysis of this data in a top-down manner, beginning with a view into all customers' energy usage, and winnowing down to specific customers based on high-potential attributes. Utilities are well positioned to conduct this analysis since they collect meter data. It would also be beneficial to know each customer's history of investment in efficient products and services. Consideration should be given towards having utilities, in their role as the Distributed System Platform (DSP) provider, make segmentation information available to market actors as a means to facilitate greater DER penetration in their territories to support platform service fee opportunities, as well as programmatic and outcome based Earnings Adjustment Mechanisms (EAMs).

Following are the Working Group's near-term recommendations for implementing this best practice:

1. Regulators: Embrace increased use of segmentation as a means of delivering better outcomes for customers and society, and incorporate this view into policy decisions. Allow for investments in segmentation capacity through data and data access (i.e., software, analytics, third-party data sources, etc.) as well as afford program administrators the flexibility in program design and implementation to execute on segmentation opportunities. Consider DER provider access to segmentation information as a means to reveal DSP market opportunities.

2. Program administrators and third parties: Conduct an internal review of how current marketing and program design practices need to change to adopt customer segmentation and targeting strategies to induce action in clean energy markets. This effort should yield a plan to conduct segmentation studies and implement targeting strategies.

[14] Eric Belliveau, "Market Segmentation Strategy," Presentation to MA EE Advisory Council, May 2014. http://ma-eeac.org/wordpress/wp-content/uploads/EEAC_CT_MarketSegmentationStrategyPresentation_051314.pdf

[15] Denis DuBois, "How Efficiency is Learning About Market Segmentation from Internet Giants and Political Campaigns," Greentech Media, October 2014. https://www.greentechmedia.com/articles/read/how-energy-efficiency-marketers-are-learning-about-market-segmentation-from

[16] Geoff Phillips, "Eversource Customer Engagement Platform," presentation to AEE Utility Night, February 2016. http://aeenewengland.org/images/downloads/Past_Meeting_Presentations/geoff_phillips___eversource___customer_engagement_platform.pdf

[17] Information on all REV demo projects is posted online at: www.dps.ny.gov/REVDemos/

3. Regulators, program administrators, and third parties: Build statewide capacity on segmentation (e.g., through educational materials, technical conferences and workshops, and an information/best practices clearinghouse). This effort could benefit from collaboration with established market research and data analytics firms, including niche firms focused on energy efficiency. A dedicated and focused all day workshop highlighting best practices from inside and outside the energy industry could be an immediate action provided the Steering Committee identified a sponsoring entity (e.g., NYSERDA) to design and deliver the engagement.

Policymakers and stakeholders should be aware that, from a programmatic perspective, an increased focus on market segmentation could result in adjustments to the customer segments targeted for product and services. These adjustments may narrow the focus of offerings, thus broadening the customer segments not targeted for engagement. As the primary purpose of market segmentation is to identify and target the most attractive segments with the highest likelihood to buy a product or service, segmentation can lead to greater efficiency and effectiveness of marketing and delivery.

For private sector-funded, market-based solutions, this is a desirable outcome. However, for rate payer-funded, public policy-based programs, this raises concerns about customer equity asymmetry. While no customers would be excluded from purchasing energy efficiency products and services, only certain customer segments would drive product and service designs, marketing strategy and deployment, and program/market implementation.

State policymakers and regulators will need to consider customer segmentation in proceedings that may impact on utility and third-party DER provider segmentation efforts, for example, proceedings that cover utility budgeting, program design, and data access issues.

Customer segmentation and targeting are important to facilitate each of the REV objectives:

- **Customer engagement with DER markets.** Customers have high expectations for their interactions with service providers based on advances in industries outside of the energy sector (telecom, personal mobility, entertainment). Personalization is one important prerequisite. Segmentation enables utilities and other service providers to improve the relevance of their outreach to customers and conduct engagement more efficiently and effectively.
- **Lead generation for DER providers.** “Market animation” depends on customers getting accurate information about the products and services available to them, and the benefits of adopting them. Customer segmentation improves the information transfer and can help overcome the typical barriers to market growth as data helps DER providers target customers best suited to their offers.
- Segmentation can spur **greater private sector investment** by increasing marketing yield for third parties, increasing their understanding of customer preferences, reducing transaction costs, and bridging information gaps that would otherwise limit market growth. The net effect of these risk-mitigating outcomes would increase scale and help “mainstream” energy efficiency investments, thereby drawing greater amounts of private sector investment in energy efficiency, which in turn will positively support programmatic and outcome oriented **utility Earnings Adjustment Mechanisms (EAMs)**.
- **Carbon reduction** results from increased energy efficiency adoption.

2. Conduct utility specific assessments of both the long-term economic and achievable energy efficiency potential.

Each utility should conduct a utility-specific assessment of both the long-term economic and achievable potential for energy efficiency within its franchise territory. NYSERDA conducted such studies on a statewide and regional basis. To foster targeted investment that would facilitate the policy goals of REV, more focused, utility-specific studies are necessary. The purpose of such assessments would be to determine the long-term potential of existing and emerging technologies and practices and to identify barriers to the adoption of all cost-effective energy efficiency savings within a utility's service territory. Ideally, this assessment would be conducted within the context of a utility's broader long-term corporate planning process done at the State level and across utility territories.

Besides the statewide and regional potential assessments NYSERDA conducted, such assessments have performed in many other states and regions, including California, the Pacific Northwest, Connecticut, Illinois, and the Southwest.[18]

These studies will provide multiple benefits to multiple parties as the Commission implements its REV vision. These assessments can be a critical element in providing the initial justification for utilities, making the business case for investing in, and expansion of, energy efficiency programs.[19] In addition to providing an assessment of both the overall economic and achievable potential for energy efficiency, this assessment will help a utility identify those technologies, practices and sectors with the greatest or most cost-effective opportunities for achieving that potential.

These studies will provide valuable information to third parties and other market intermediaries, helping potential private sector investors to identify and target opportunities that are most likely to be highly valued, based on a utility's business plans, grid characteristics, and customer profile and needs. For contractors and potential third-party investors, these studies could identify potential business opportunities, including programs and policies that would overcome existing barriers to the increased investment in cost-effective energy efficiency.

These assessments would identify barriers within specific service territories that have frustrated greater investment in efficiency and potentially provide a stronger analytic basis to support energy efficiency performance targets and utility-specific EAMs. State energy policy makers and regulators would benefit from a more focused, utility-specific analysis of barriers and opportunities that could assist in the development of more targeted market development, programmatic, and financial solutions to specific issues. Moreover, these studies would allow the Public Service Commission to comprehensively evaluate a utility's energy efficiency program plan and its performance in meeting defined performance targets.

Ideally, these assessments should be conducted by the utility as part of its more comprehensive, long-term corporate business planning process. While much of the analysis will most likely be done by outside contractors, it is important that the utility assume primary responsibility for this action. The goal is to provide the foundation for a utility's business strategy to take advantage of technological improvements and market growth and capture further opportunities for cost-effective investments in energy efficiency.[20] Recognizing the multiple potential beneficiaries of these assessments, stakeholder input on the framework to conduct the studies is more likely to increase broader market acceptance of the assessments' analyses and conclusions.

[18] For a list of some of these studies, see National Action Plan for Energy Efficiency, Chapter 6: "Energy Efficiency Program Best Practices", U.S. Environmental Protection Agency, September 23, 2016, p. 6-16.

[19] National Action Plan for Energy Efficiency, Chapter 6: "Energy Efficiency Program Best Practices", U.S. Environmental Protection Agency, September 23, 2016, p. 6-15.

[20] As noted in the CEAC EE Metrics and Targets Options Report (p. 74) suggests new potential study address utility specific savings availability, and Appendix B (p. 79) provides a preliminary assessment.

While the Public Service Commission could elect to direct the utilities to conduct potential studies, the utilities can implement this best practice immediately on their own initiative. However, members of the Working Group believe such studies should be coordinated to ensure standardization and consistency, including frequency and data collection.

Making potential studies available is important to facilitate many of the REV objectives:

The first step to **broader customer engagement** with DER markets is knowledge. These potential studies would provide such knowledge by developing a better understanding of the efficiency market on a utility-specific basis. These assessments could provide an analytic basis for better identifying and evaluating discrete customer segments, leading to developing market implementation strategies designed to address specific customer needs within those segments.

The ability to **stimulate DER providers** depends heavily on identifying new or expanded business opportunities. By focusing on specific utility service territories, these potential studies have a greater chance of success in identifying such opportunities as well as addressing specific barriers and specific technologies that have particular applicability within that service territory. Similarly, the potential for greater private sector investment depends on the identification of new or expanded cost-effective business opportunities. A more localized utility-specific potential study offers the potential for identifying such opportunities that may be overlooked in a more comprehensive statewide or regional analysis.

The **potential system benefits** are directly linked to the possible investment opportunities identified as a result of these assessments. These could include: lower consumer costs, improvement in air quality benefits, avoided capital costs, greater system reliability – all benefits that result from greater investment in energy efficiency. Since these potential studies are more focused on a utility-specific service territory, an additional advantage is that any benefits are likely to be more localized.

To the degree that these potential assessments result in a greater investment in energy efficiency technologies and programs by a utility, contractors, and third parties, the State will achieve **greater reduction in carbon emissions**. By identifying new technological and programmatic cost effective investment opportunities for energy efficiency, these studies will contribute to a reduction in carbon emissions.

3. Build programs, policies, and market structures to reward a combination of energy efficiency and demand management.

A regulatory best practice is to build programs, policies, and market structures to reward the combination of energy efficiency and demand management strategies. This is done by ensuring resources are structured and deployed to capture the full economic value, range of demand, and consumption reduction.

Traditionally, energy efficiency and demand management efforts have operated independently each other through a "siloed" approach at both the regulatory and delivery level. This best practice recommends un-siloing the programs and focus on delivering both a comprehensive and streamlined manner. It's generally understood that consumers are not looking for demand management and energy efficiency value streams separately. Instead, they seek to maximize the value available to them from State and regulatory policy objectives in ways that meet their consumer or business needs. This larger focus delivers usage and demand reductions via integrated programs in a more customer centric manner.

Increased demand management among the State's electric customers has the potential to avoid traditional infrastructure and make more efficient use of the electric grid. The term demand management has traditionally referred to demand response provided by large customers that shift or reduce load when called upon during critical periods in exchange for payment. Demand management beyond traditional response strategies is now possible with large customers, especially in the realm of distributed generation and storage. Integrative strategies such as requiring energy efficiency audits and upgrades prior to installing customer sited renewables, distributed generation or storage require right sizing the load first before providing incentives for generation/storage.

While advances in technology are opening up additional avenues for demand management at smaller customers, these advances go far beyond just finding opportunities, e.g., through finding permanent peak load reductions, load shifting to improve asset utilization, optimizing for consumption and demand reduction, and using geotargeted demand management to reduce distribution system costs.

Examples of utilities with active programs in this area that have shown promising results include: Southern California Edison's upstream HVAC and Automated Demand Response pilot, NV Energy's residential HVAC and DR pilot, and Pacific Gas and Electric's automated DR program.[21]

Integration of efficiency and demand resources must begin with support from the Public Service Commission and Department of Public Service, followed by implementation by utility program administrators. The State's regulatory structure, funding streams, and staffing are segregated in a way that presents a barrier to using an integrated energy efficiency/demand management approach. For example, utility Energy Efficiency Transition Implementation Plans (ETIP) filings are currently barred from proposing solutions that integrate energy efficiency and demand management. Regulator support for considering a wider array of technical approaches will support the use of adoption of REV principles in the marketplace.[22]

In addition to regulators and utility program administrators, the other key actors are those that would potentially be contributing the end-to-end solutions for implementation. Since much of the back office and on the ground work would potentially be performed by third parties, there is clearly a role for DER vendors that could provide products or services for demand management. Manufacturers of appliances and equipment that do or potentially could offer connected capabilities also would play an obvious part in an integrated energy efficiency and demand management strategy. Additional coordination with NYISO is necessary as adding demand management to efficiency programs will shift the impact on the grid from static to dynamic.

This best practice should be implemented by considering and addressing the following:

- Assess the potential value and costs of combining incentives to optimize for both usage and demand reductions.
- Revise the regulatory approach to program delivery to allow the coordination and layering of benefits and incentives between energy efficiency and demand management programs.
- Allow the inclusion of integrated energy efficiency/demand management offering in utility ETIP filings and rate cases.
- Flexibility in timing of program impacts and annual goals to reflect different project program deliveries and project implementations (e.g., demand management projects can take significantly longer than energy efficiency projects when deploying complex and/or advanced technologies).

[21] Energy Efficiency and Automated Demand Response Program Integration: Time for a Paradigm Shift; Christine Riker and Kitty Wang, Energy Solutions; Fred Yoo, Pacific Gas and Electric Company; http://aceee.org/files/proceedings/2014/data/papers/4-912.pdf

[22] For example, utilities are offering symbiotic programs currently administered separately that offer greater impact through a combined strategy.

- Regulatory silos between energy efficiency and demand management program staff.
- Funding silos among energy efficiency and demand management programs.
- Identification of products and market segments suitable for demand management.
- How to aggregate large numbers of participants, and whether that should be done by utilities or third parties (e.g., this is particularly applicable to DER).
- Technology infrastructure needed in order to implement expanded demand management programs.
- Integration into both distribution and State grid operations.
- Identify value streams, either through avoided distribution costs or market payments.
- How to compensate participants. For example, through fixed payments or payments "per event," or some combination of the two.

In the near-term, utilities should seek to avoid generating new lost opportunities created by incentivizing energy efficiency products not capable of demand response when communicating/controllable versions are available. This way even if utilities are not yet ready to fully implement an expanded demand management program, they will be placing the building blocks in the field that can be activated in the future without significant new acquisition costs.

A process for energy efficiency planning already exists for each utility, and the State's utilities implemented varying levels of demand response. The Public Service Commission should allow utilities to include expanded and integrated demand management in these plans. Regulatory barriers need to be removed with respect to the funding mechanism currently in place to support energy efficiency, which remains separate from demand management initiatives. As utilities go through rate cases, more opportunity exists to include demand management in their energy efficiency planning process through base rate structuring.

Expanded demand management programs would inherently result in broader **customer engagement** with DER markets. End-use customers are a largely untapped resource for managing the grid. Providing them with an opportunity for compensation in exchange for participation will enable this market.

These programs also have the ability to **stimulate DER providers** by expanding the market for connected devices, the infrastructure needed to manage them, and potentially creating a market for aggregation of smaller customers.

The potential for **greater private sector investment** is dependent on the identification of new revenue streams that customers can use to pay for expanded investments. Third-party providers of technology infrastructure are anticipated to bring greater private sector investment.

The **potential system benefits** are clear – integrated demand management programs can expand the use of DERs as a grid resource as an alternative to capital investment in traditional grid infrastructure.

Determining the value of demand management to the distribution and transmission systems can help identify **new utility earnings opportunities**, potentially through access fees for third-party providers.

By enabling the integration of more renewable generation, or lowering the cost of that integration, or reducing the need to use of the dirtiest peaking generators during peak periods, integrated demand management programs will help the State achieve greater **carbon reduction** associated with emissions.

4. Tie energy efficiency/demand management incentives to project savings outcomes through a Pay for Performance approach.

Use an outcome-based approach which ties energy efficiency/demand management incentives to achieved energy savings ("Pay for Performance" or "P4P") to allow customers to pay only for those savings delivered and measured. Pay for Performance (P4P) is intended to boost the attractiveness and ease of deployment of energy efficiency by providing stable, predictable, and reliable savings outcomes that enable greater private investment through a more efficient and transparent marketplace.

The P4P model is widely used in federal facilities and large facilities served by Energy Service Companies (ESCOs) such as school districts and campus environments. Applying P4P to the wider utility customer base allows community-scale application of the meter based savings methodology to smaller customers who would not normally be of interest to ESCOs.

For DER providers in the small commercial/ industrial and residential market sectors, these projects provide an income stream to bring their services to previously hard-to-reach customers and used to lower their costs, thus passing savings on to consumers. It reduces the risk of a single project not achieving its energy savings goals by spreading it across a portfolio of projects.

Program administrators are expected to see lower per-project implementation costs. Aggregators are paid based on the difference between metered usage and adjusted baselines. Rather than paying for the savings at each building, the payments will be made on a portfolio-wide basis. Payments are also only for the energy savings achieved, not an estimate.

P4P accommodates a number of transaction structures in the market that pay for upfront investments in energy efficiency by capturing customer's bill savings as cash flow, and this is currently done in NY, MA, NJ, Pacific Northwest, and CA.

However, the evolution of P4P combined with metered savings provides an emerging pathway for the State to meet REV objectives, where energy efficiency is procured and valued as a grid resource like other DER for its temporal, locational, and load serving value.

According the Natural Resources Defense Council (NRDC)'s recent Pay for Performance Study, "In New York, through its Reforming the Energy Vision (REV) initiative, regulators are exploring the role of distributed energy resources in the electric grid. The industry reform goals are to empower customers to better manage their energy consumption and to stimulate the distributed energy resources market in order to increase the system's efficiency, lower environmental impacts, and increase affordability. Electric system operators plan to use energy efficiency as part of a distributed resource portfolio to defer distribution system upgrades, along with other benefits. Accurate, predictable, and persistent energy savings can help energy efficiency serve as a grid resource to manage local reliability and reduce system costs, and P4P approaches may be one mechanism to deliver savings to meet these goals."[23]

[23] Putting Your Money Where Your Meter Is, A Study of Pay for Performance Energy efficiency programs in the United States, Prepared by NRDC for Vermont Energy Investment Corporation, January 2017, p 14

Innovation in how energy efficiency is delivered to customers and procured by utilities is crucial to achieving mass scale. New technologies may allow energy efficiency to be procured as a grid resource because of the emergence of smart meters, cloud computing, and open source and transparent methodology to validate savings. As deployed by PG&E and CalTrack, this methodology is also intended to reduce and minimize program administrative, implementation and soft costs.

Measurement and Verification (M&V)

Pivoting from a deemed savings approach to an achieved savings approach opens opportunities to deploy Measurement and Verification that focuses on actual outcomes rather than a confirmation of generalized assumptions. M&V will benefit from the development of New York's Advanced Metering Infrastructure (AMI), but need not depend upon it. Existing software use current platforms such as Green Button Connect My Data to access customer's data. However, access to meter-level data for all customer types is a critical component in allowing the full valuation of energy efficiency as a resource in a P4P model.

This best practice engages a full spectrum of market participants, including investor owned utilities, individual utility customers, program administrators, vertically integrated contractors (e.g., ESCOs), financiers, and equipment vendors, among other DER providers. But it is most effective at enabling aggregation of mass market projects as a means to capitalize on value streams created by these investments.

At its most basic level, P4P is about creating a transaction to reward actual energy savings. The off-taker for energy efficiency credits could be a utility or a third party such as a developer, ESCO, or even a broker or a bank.

Implementation of this strategy involves participation of regulators, program administrators and DER providers. Some State programs have already used a P4P approach with success.

1. Establish a means of easily accessing customer utility data by a customer approved third party that meets technical requirements and addresses privacy concerns.
2. Standardize measure and verification (M&V) protocols to establishing baselines and determining achieved savings.
3. Program administrator(s) identify efficiency goals to be met by the P4P approach, including market segments, customer engagement opportunities, areas of load constraint, etc.
4. Program administrator(s) develop pilots to test the cost effectiveness of the P4P approach.
5. Program administrator(s) incorporate findings of the pilot(s) into standard offerings and business model.

This best practice supports multiple REV goals, including:

- **Customer engagement with DER markets** is enhanced by making smaller customer more attractive to third-party service providers via aggregation.
- **Ability to stimulate DER providers** is promoted by valuing the results of their goods and services and promoting competition for the most effective market-based approaches to achieving energy efficiency goals. A scenario to achieve this demand capacity requires a relationship between utilities and vendors capable of aggregating projects that reduce grid demands, abate carbon, and other values. When a building owner invests in efficiency, the project may deliver value to the load serving entities in addition to the customer. Therefore, quantifying the value of energy efficiency as a grid resource and a source of carbon abatement, reduces costs to the end customer on those projects that deliver the most grid benefits.

- **Potential for greater private sector investment** by supporting a wider use of energy efficiency financing products. This approach creates cash flows off of energy savings and system benefits. It allows private capital markets to invest through these value streams.
- **Potential to deliver system benefits** by opening up a large number of smaller customers to demand management and aggregation opportunities.
- **Potential to support new utility earnings opportunities** through new markets, greater private sector investment, and increased customer adoption that can all support outcome based EAMs.
- **Carbon reduction** through increased adoption of energy efficiency services and practices.

5. Create a "one-stop-shop" and bundled services/measures approach to energy efficiency.

Municipalities can increase participation in building retrofits and related DER opportunities by providing their residents with a "one-stop-shop" that simplifies access to available resources within the metro area. This can be accomplished with a single point of access to resources, and personalized advisory services provide customers with what they need to participate in the market. Simplifying access to programs, financing, and DER providers can scale participation in programs that is not possible in the current decentralized program delivery infrastructure currently used in the State. In addition, the development of bundles of measures that are replicable across buildings in that area, when paired with streamlined services, can allow municipalities to increase the penetration of high-impact measure implementation across the state.

In New York City, the NYC Retrofit Accelerator is a one-stop-shop for decision-makers in large buildings to connect them to all available energy programs and resources in the five boroughs. The Retrofit Accelerator offers any building decision-makers – owners, co-op board members, property managers, etc. – with one-on-one assistance to gain access to information on incentives, financing, and training opportunities to help them implement energy efficiency measures. Additionally, it works directly with program administrators and financing entities to simplify and streamline access to resources.

Since launching in the fall of 2015, the NYC Retrofit Accelerator has reached decision-makers in more than 2,000 buildings, with 300 of them starting construction or completing projects.[24] Assuming a 30 percent conversion rate from lead to project, typical of energy efficiency programs, the program is on track for reaching its goal of completing or initiating projects in 1,500 properties over three years, and reducing greenhouse gas emissions by one million metric tons over 10 years.

The Retrofit Chicago's Residential Partnership is another example of a partnership between the City and utilities to offer a single point of entry to organizations that are working to promote energy efficiency in Chicago. The program allows for a single point of entry to all incentive programs offered by the partnership.[25]

[24] As of November, 2016

[25] ACEEE; Local Government–Utility Partnerships for Increasing Participation in Utility Energy Efficiency Programs; August 2015; http://aceee.org/local-government-utility-partnerships-increasing

These models could be effective at supporting outreach and participation in local utility and NYSERDA programs by reducing confusion and ensure customers have access to a broad range of solutions to meet their needs.[26] The development of streamlined services that exist beyond the one-stop-shop can be market transformational and have a high energy or kW reduction impact in the long run, with a smaller one in the short term.[27]

A key outcome increased insight into the needs of consumers and decision-makers across the region, resulting in dual benefits. The first is increased coordination among regional program administrators through facilitation and feedback, helping to identify market gaps and needs for program administrators to adjust support programs. In conjunction, policy-makers can ground new policy based on the needs of their constituents.

A one-stop-shop that bundles both services and measures must fulfill three primary functions to be successful: streamlining and coordination of services through the provision of staff and resources, outreach and assistance for use of the one-stop-shop, and a clear definition with guidance on bundles of measures.

This best practice is administered by an entity with a cross cutting mission and a broad understanding of population needs, acting as a third party between existing resources and on behalf of its residents. This can be done through existing municipality services, or a broader third party such as NYSERDA. Although a single entity should implement or "own" the one-stop-shop, it is important that all program administrators are involved in the development of the service and are willing to participate. The simplification of resources does not just involve providing a single point of entry, but works best if the programs within the municipality are willing to coordinate and exchange information. To support collaboration, regulators should allow program administrators to make changes to their programs as necessary to meet shared goals. Over achingly, customers must be made aware of the one-stop-shop and be recruited through coordinated and proactive engagement and outreach.

The development of the streamlined services and bundles of measures both require engagement with multiple stakeholders and industry partners to understand the relevant local market barriers to participating in energy efficiency. These may include barriers such as complex incentives, lack of funding or difficulty accessing qualified contractors. Barriers can be identified through a market research study, or by bringing together administrators who have experienced these road blocks. Mapping all existing energy programs and resources is key to understanding opportunities for streamlining and filling in gaps.

In order to ensure uptake and use of the streamlined services, the administrator of the one-stop- shop should allocate resources to the marketing of the service. Additionally, the administrator will perform outreach to those that can most benefit from the service or whose use of the service can most benefit the system, and provide ongoing assistance to ensure that projects move through to completion. Marketing, outreach, and assistance can be adopted to a varying level depending on the available resources for implementation and the specific market needs.

[26] A third example, which targets plug loads and individuals, rather than building retrofits and commercial and multi-family building owners, are utility-branded marketplaces that serve as virtual customer engagement platforms. ConEd's REV Connected Homes demo (marketplace.coned.com) is one example, but such marketplaces have been deployed elsewhere in the USA and in deregulated markets, such as the UK (marketplace.eonenergy.com). These platforms offer core infrastructure to help utilities maintain an ongoing relationship with their customers and enable them to provide customers with the full range of DER offers, targeted to their individual needs.

[27] The NYC Retrofit Accelerator provides one-on-one technical guidance for building decision-makers across New York City. The NYC Retrofit Accelerator aims to provide a robust resource by taking a multifaceted approach to reaching assisting decision-makers. Program components include:

- A data-drive outreach strategy that uses City datasets to segment the City's buildings into typical typologies and identify high energy consumers with energy efficiency opportunities by using benchmarking and auditing data combined with public datasets.
- A widespread marketing and outreach strategy based on data and market insights.
- Robust technical assistance in the form of efficiency advisors to streamline energy efficiency services.
- Financing and incentive coordination across market actors.
- Training for building staff and decision-makers to make sure decisions are made in an informed way and buildings are operated efficiently.
- Additional services are developed based on market feedback.

This map of barriers and opportunities can be used to develop a program structure that helps program administrators or other entities to fill existing gaps and **support lead generation for DER providers**. Administrators can streamline access to incentives that may seem confusing to customers by directly figuring out which programs the participant may be eligible for and then referring them directly to that entity. The one-stop-shop entity should establish a standardized process for communicating between that entity, the program participant, their contractor, and any other relevant stakeholder to ensure a smooth experience. Through this coordination, program administrators are able to overcome programmatic obstacles and smooth out the overall customer experience.

In addition to coordinating with incentive program administrators, the one-stop-shop acts as a link between local and State agencies, private-lenders, training providers, and other marketplace resources to potential customers by curating those resources and making sure participants are aware they exist when relevant. This collaboration creates **greater private sector investment** through tailored programming, along with regional specificity through program implementation amongst implementers.

VII. Policy Considerations

Along with best practices identified through its research, the Working Group had extensive discussions of policies that could provide clear, strong signals to support market development for energy efficiency services.

Such policies include statewide long-term energy efficiency savings targets, minimum funding commitments for procurement of energy efficiency, and policies to ensure realization of all cost-effective energy efficiency. In other states, these policies have reduced market uncertainty and created backstops to foster predictable efficiency and clean energy opportunities for individuals, communities, and market actors.[28] Long-term targets also drive greater levels of efficiency penetration compared to states that do not have these policies. Another strong policy signal discussed was establishing energy efficiency as a resource and setting a requirement (i.e., legislation or regulation) that utility programs realize all available cost-effective energy efficiency. Of the many states with long-term savings targets, seven have this requirement including: California, Rhode Island, Massachusetts, Connecticut, Maine, Vermont, and Washington. These states are widely recognized as national leaders on energy efficiency and achieve higher average annual energy savings compared to states lacking such requirements.[29] The Working Group agreed that such policies are critically important considerations under REV and notes these policies are successful in driving greater levels of energy efficiency in other states. However, some members of the group note that specific attention should be paid to how these policies can support, or in some cases conflict with, New York's more market oriented policy objectives.

Through its research, the Working Group also identified the need for a clear and consistent framework to define how third parties can transact in the competitive market for energy efficiency services and other DERs. This is done by defining services to be bought and sold within identified areas. The definitions include details on expected reliability and other performance requirements, constraints on how DERs can meet the identified need, a clear solicitation evaluation methodology, methodologies to count services provided and

[28] Acadia Center Lessons from New England: Energy Efficiency Best Practices; September 2016. http://acadiacenter.org/document/best-practices-table-for-ny-clean-energy-advisory-council/
ACEEE, The 2016 State Energy Efficiency Scorecard, Research Paper U1606, September 26, 2016, aceee.org/research-report/u1606
See table 9 on page 28.

[29] ACEEE Picking All the Fruit: All Cost-Effective Energy Efficiency Mandates, Summer 2014, http://aceee.org/files/proceedings/2014/data/papers/8-377.pdf. See figure 2 on pp 8-83.

ensure no duplication from related programs, consistent pro forma contracting document templates, and the development of outreach plans to ensure robust participation in the competitive solicitations. California has made great strides in these areas as part of their Integrated Distributed Resources proceeding.[30] The Working Group points to California's efforts as an example that could be leveraged to support the evolution of third-party market in New York State and taken up by the Joint Utilities as part of the DSIP Advisory Group's work to ensure a robust, transparent, and consistent market for energy efficiency services exists in the State.

VIII. Process for Future Revisions

The Working Group reached a consensus view that this Guide should not be treated as a static document and never be considered "final." Dozens of energy efficiency programs around the U.S., as well as REV initiatives within the State, continue to deliver results that shed light on how best to foster the adoption of energy efficiency and meet a range of desired social, environmental, and economic goals. Such results, if properly evaluated within a REV framework, will help State market participants and policymakers refine their notion of what works and turn promising ideas into established best practices.

The Working Group recommends the Steering Committee consider an implementation approach that ensures the list will be continuously updated to capture changes in technology, market developments, and experiences with REV initiatives. It is unrealistic to anticipate the Steering Committee or other CEAC working groups to have the bandwidth to identify opportunities and evolve the Guide as needed. Therefore, the Working Group recommends the dedication of appropriate technology, policy, and program analytical resources to support the ongoing development of the Guide. This could include, for example, hiring a consultant or naming another party (e.g., NYSERDA) to:

1. Further develop and identify best practices.
2. Keep the Guide current by incorporating the latest market developments.
3. Evaluate the value of best practices through the lens of REV objectives.
4. Capture and disseminate lessons learned through experiences with REV initiatives (e.g., REV demos, market transformation pilots, and non-wires alternative market engagements).
5. Facilitate the statewide adoption of high-value best practices.
6. Ensure robust involvement by experts in the field.

Based on research and discussions, the Working Group identified several states that have established, or are exploring the establishment of, forums that are platforms to involve experts in the field and advance policy objectives. These forums are used for the identification of energy efficiency best practices, as well as other elements to support an effective statewide strategy and efficient coordination with resources and energy efficiency programming. Working Group members identified the Massachusetts Energy Efficiency Council[31] as a model that New York State may want to consider, along with the process underway in California.[32] The Working Group suggests the Steering Committee consider an examination of the needs and benefits of a similar forum in New York State.

[30] R.14-10-003 Joint Competitive Solicitation Framework Working Group Final Report; http://drpwg.org/sample-page/ider/
[31] http://ma-eeac.org/
[32] www.caeecc.com

IX. Additional Recommendations

The Working Group recommends that Program Administrators (PAs) utilize the Guide as a tool in program design and implementation considerations. This can be done through self-direction or Commission direction. The Working Group also recommends the CEAC Clean Energy Implementation and Coordination Working Group consider allocating ample time on a regular basis and resources to share lessons learned and best practices as part of their collaboration structure and process.[33] Through this collaboration venue, the PAs could also identify shared learning needs and findings among members which can help facilitate research on best practices from outside of New York State.

The CEAC Metrics, Tracking and Performance Working Group should consider establishing a consistent evaluation framework to capture, catalogue and disseminate shared learnings and best practices from all REV initiatives, including energy efficiency programs, REV demos, non-wires alternatives, and related pilots or demonstrations. As noted in their Evaluation Guideline Report,[34] existing and future evaluations should be structured to ensure learnings are continuously extracted, and inputs and insights pertaining to best practices are captured. As REV demonstration projects, ETIPs and Clean Energy Fund (CEF) strategies are evaluated, the PAs should ensure findings are captured and shared with the entity managing the Guide to easily support ongoing maintenance.

Consideration should also be given to the development of a public facing platform that can house best practices, lessons learned and studies, energy efficiency plans and initiatives (e.g. ETIPs, CEF strategies) and results towards statewide metrics and objectives as well as utility specific targets. An example to consider would be the Massachusetts Energy Efficiency Advisory Council's Platform.[35]

X. Summary

The Working Group believes that many of the identified Best Practices, and other areas of interest, offer significant opportunities to advance REV objectives. In summary, the Working Group recommends the following:

- The Steering Committee ensure the list will be updated on an ongoing basis to capture technology advances, market developments, and experiences with REV initiatives.
- The Steering Committee consider dedicating appropriate technology, policy, and program analytical resources to administratively manage the Guide to accomplish the following:
    - > Further develop and identify best practices.
    - > Keep the Guide current by incorporating the latest market developments.
    - > Evaluate the value of best practices through the lens of REV objectives.
    - > Capture and disseminate lessons learned through experiences with REV initiatives (i.e., REV demos and non-wires alternative market engagements).
    - > Facilitate the statewide adoption of high-value best practices.
    - > Ensure robust involvement from experts in the field.

[33] Matter 16-01005; New York Program Administrator Coordination Draft Report; filed December 2, 2016. As noted in the draft report, *"this WG [Working Group] will serve as a forum for sharing Best Practices, lessons learned, and communicating both informally and formally on new ideas and progress to date"*

[34] Matter 16-01008 MTPA Working Group

[35] http://ma-eeac.org/

- The Working Group suggests the Steering Committee consider an examination of the needs and benefits of a more formal forum like the Massachusetts Energy Efficiency Council.
- Program administrators utilize the Guide during program design and implementation.
- Staff and the Commission utilize this Guide when evaluating portfolios and program proposals from Program Administrators.
- The CEAC Clean Energy Implementation and Coordination Working Group consider allocating ample time and resources to sharing lessons learned and best practices.
- The CEAC Metrics, Tracking and Performance Working Group consider establishing a consistent evaluation framework to capture, catalogue and disseminate shared learnings and Best Practices from all REV initiatives including energy efficiency programs, REV demos, non-wires alternatives, and related pilots or demonstrations.

XI. Appendix A – REV Best Practices Working Group Member Organizations

Company/Organization
Acadia Center
Binghamton Regional Sustainability Coalition
City of New York
Community/Self-representation (I. Weiser)
Con Edison
Enervee
Environmental Defense Fund
First Fuel
Lime Energy
Long Island Power Authority
National Association of Energy Service Companies (NAESCO)
National Grid
National Resources Defense Council
New York State Department of Public Service
New York City Energy Efficiency Corporation (NYCEE)
New York Power Authority (NYPA)
New York State Energy Research and Development Authority (NYSERDA)
Orange and Rockland
TRC

XII. Appendix B — Synthesized Short List of Identified Best Practices

BP#	BP Candidate	Description	References/ Notes
1	Use data driven market segmentation to create customized offerings for customers	• Rather than focus on sorting customers into rigid programs, market segmentation data should be used to create highly customized offerings for customers based on their characteristics and needs. • This is done using market segmentation data to create highly customized offerings for customers based on their characteristics and needs.	Energy Central Good segmentation is key for commercial customer engagement Segmentation in Program Plans • Connecticut C&I Segmentation (p. 346-376) • Rhode Island C&I Segmentation (pdf p. 92-100) Massachusetts C&I Segmentation (pdf p. 149-152) Eversource Customer Engagement U.S. DOE Report - Overview of Current and Future Use Cases for Residential Connected Thermostats Green Mountain Power E-Home Program
2	Conduct utility specific assessments of energy efficiency potential	• State law in RI, CT, and MA establishes an economic model for efficiency investment based on procuring all cost-effective electric and gas efficiency. • Process starts with a rigorous assessment of the amount of achievable, technical efficiency potential available in the State. • The results are used to determine energy savings targets for the next three years.	MA Consultant Assessment of 2016-2018 Potential U.S. DOE Department of Energy Repository NYSERDA NY Jan. 2015 Statewide Potential Study Pennsylvania 2015 EE Potential Study Pennsylvania 2015 DR Potential Study
3	Build programs, policies, and market structures to reward a combination of energy efficiency and demand management	• Regulators and Program administrators should build programs, policies, and market structures to reward a combination of energy efficiency and demand management. • As a more customer centric approach, this would allow consumers the opportunity to capture the value of both energy efficiency and demand management in a more seamless manner than having two programs/offerings. • Has the potential to leverage demand management incentives to pay for the more efficient products and devices (e.g., smart thermostats and appliances) by capturing the value of demand management events.	PG&E ADR Incentive Program ACEEE - Energy Efficiency and Automated Demand Response Program New York Public Service Commission Requires Utilities for file Smart Home Rate Demonstration projects (p. 135-137) • NYSERDA Full Value Tariff Design and Retail Choice Whitepaper provides detailed elements of smart home rate (p. 136-153) ACEEE Putting More Energy Into Peak Savings: Integrating Demand Response and Energy Efficiency Programs in the Northeast and Mid-Atlantic Eversource (MA) Demand Reduction Demonstration Project Proposal • See also, Eversource MA Presentation to the MA Energy Efficiency Advisory Council for summary National Grid (MA) Presentation to MA Energy Efficiency Advisory Council on Demand Reduction Demonstration Project In Connecticut, Eversource (presentation) and Avangrid (presentation) are both developing Demand Response pilots as part of their energy efficiency program plans. In Rhode Island, one-third of performance incentives for efficiency program administrator is apportioned partially to achieving MW savings, rather than just MWh Savings (p. 26).

BP#	BP Candidate	Description	References/ Notes
4	Tie energy efficiency/ demand management incentives to project savings outcomes through a P4P approach	• Programs and strategies should be delivered to tie energy efficiency and demand management incentives to actual project savings outcomes.	NJ Pay for Performance (C&I) NH Pay for Performance (C&I) California's AB802 requires savings measured at the meter • Staff Whitepaper on existing conditions baseline framework • CA (PG&E) Pay for Performance (Res.) (See also, detailed regulatory filing)
5	Create a "one-stop-shop" and bundled services/ measures approach to energy efficiency	• Create a single point of contact for customers. • This can be done through a single entity with bundled services/measures approach to energy efficiency, including consistent marketing.	One Stop Shop NRDC/ Optimal Energy; The Energy Efficiency Extra Value Menu: Streamlining Energy Efficiency Delivery Public Purpose Energy Services Company ACEEE Summer Study 2014 Paper NEEP Multi-Family Energy Efficiency Retrofits: Barriers and Opportunities for Deep Energy Savings (NEEP, et al.) Statewide marketing examples: MassSaves NHSaves Energize Connecticut Efficiency Maine Efficiency Vermont
6	Multi-year Customer Engagement Plans	• There should be multi-year utility plans that outline an approach to customer engagement coordinated with third-party vendors and promotes energy efficiency. • This would allow third-party DER providers and stakeholders the ability to understand when and how utilities would engage the market, which will better support resource allocation decisions.	ConEd Customer Engagement Plan US Department of Energy - Insights on Smart Grid Customer Engagement
7	Target program activities to most effective point of supply chain, not just customers	• Upstream (distributor-level or negotiated retail agreements) incentives can offer greater reach than traditional rebates, and at lower cost. This works well for purchases of more efficient products for replacement, but less for early retirement or when a higher level of consumer education is needed.	How to Use Midstream Incentives to Promote ENERGY STAR Certified Consumer Electronics The End of Prescriptive Rebate Forms? Massachusetts Moves Upstream; Rishi Sondhi and Nathan Strong, Northeast Utilities Gabe Arnold, Optimal Energy Massachusetts EEAC Consultant Team Memo Reviewing C&I Upstream Offerings ENERGYSTAR Retail Products Platform
8	Create acceptance criteria and use data and analytics to support M&V of energy efficiency projects.	• Automate parts of the EM&V process to streamline data acquisition and processing to increase visibility and, quickly obtain ongoing and interim savings feedback.	LBNL Assessment of Automated M&V Methods Report on SCE Preferred Resources Pilot NEEP EM&V 2.0 Workshop: Designing Pilots and Acceptance Criteria

BP#	BP Candidate	Description	References/ Notes
9	Monetizing the value of Energy Efficiency through rate design	• This can be done by supporting energy efficiency through tiered rates. • Energy savings can be supported through dynamic pricing.	NYSERDA Full Value Tariff Design and Retail Choice Whitepaper (p. 136-153) National Grid (MA) Worcester Pilot Project Interim Evaluation Regulatory Assistance Project's Smart Rate Design for a Smart Future
10	Support energy efficiency programs with integrated technology-based customer engagement and behavioral programs.	• Behavioral programs offer a new opportunity for energy savings. They should be integrated with customer engagement systems that drive demand in all efficiency upgrades through continuous engagement.	Zalesny, Mary D. Tracking Utility Behavior-Based Energy Programs Against the Behavioral Theories and Principles that Inspired Them. 2012 Navigant Consulting Report to Massachusetts Energy Efficiency Advisory Council NEEP As Advanced Metering Grows, See Action Describes Potential for New Energy Savings EERE Insights from Smart Meters: Ramp-Up, Dependability, and Short-Term Persistence of Savings from Home Energy Reports EERE Insights from Smart Meters: Identifying Specific Actions, Behaviors, and Characteristics That Drive Savings in Behavior-Based Programs EERE Insights from Smart Meters: The Potential for Peak-Hour Savings from Behavior Based Programs
11	Strategic energy management	• Helping customers implement strategic energy management will drive deeper and sustained energy savings allowing them to continuously improve energy performance and achieve systematic energy savings through capital improvements, and operational and behavioral changes within the organization. • This approach is most applicable to mid and large commercial, institutional, and industrial customers. NYSERDA stimulates this market in the industrial sector through the Clean Energy Fund. Consideration should be given to expanding the offering.	NYSERDA Clean Energy Fund Investment Plan Industrial Chapter NY PSC Staff's Self-Direct Program Guidance US DOE SeeAction Network: Industrial Energy Efficiency: Designing Effective state Programs for the Industrial Sector SEEAction Resource on SEM MA EEAC Consultant Memo: Increasing Energy Productivity through Strategic Energy Management (SEM) (March 2016) NEEP Strategic Energy Management Workshop (November 2016) See Action Fact Sheet: Strategic Energy Management for State and Local Governments
12	Integrate electric, natural gas, and delivered fuels efficiency to address electric and thermal savings opportunities.	• Address electric and thermal savings opportunities simultaneously to increase cost-effectiveness while maximizing savings for consumers. • Allows for shorter payback terms and supports a more customer centric approach as envisioned under REV.	ACEEE Successful Practices in Combined Gas and Electric Utility Energy Efficiency Programs Vermont Act 56 Tier III Programs NY PSC Order Adopting a Ratemaking and Utility Revenue Model Policy Framework NY PSC Order Adopting Distributed System Implementation Plan (DSIP) Guidance NEEP Policies Driving Air Source Heat Pump Market Expansion (July 2016)

BP#	BP Candidate	Description	References/ Notes
13	Expand third-party access to Building Data and Information.	• Customer approved third-party access is critical to the delivery of third-party services through a distributed service platform. • Minimizing friction and steps in allowing access to customer usage and bill payment history data can reduce soft costs and expand interest in clean energy services.	Better Buildings Energy Data Access Toolkit (Better Building Accelerator) IMT/ NRDC's City Energy Project
14	New construction programs should incentivize low load and near net-zero homes.	• Focus new construction programs on highly efficient homes in order to educate the building trades and mainstream high performance buildings.	ACEEE on Zero Net Energy strategies Connecticut Zero Energy Challenge
15	Anchor energy efficiency programs in economic terms and benefits for ratepayers	• Market participants need clear signals that a territory will have stable business opportunities. • Budget and program uncertainty leads to energy efficiency businesses leaving for states with more stability.	EPA REMI carbon tax study in MA EPA REMI study of rebates program in RI Synapse Bill Savings in a Clean Energy Future E4theFuture Energy Efficiency Jobs in America NEEP Seeking Proof Energy Efficiency Creates Jobs, Ask DOE
16	Enable easy access to financing options	• Support easily access to customer facing retail financing. • Program administrators and DPS/PSC should enable and allow for customer access to on-bill and PACE financing options. • NY Green Bank and PACE Administrators should engage with utilities to ensure customer have access to customer friendly finance options like PACE and on-bill.	*Customer Access:* New York City Energy Efficiency Corporation - NYCEEC Financing Making it Count: Understanding the value of Energy Efficiency Financing Programs Funded by Utility Customers Eversource NH Smart Start Program *On Bill:* ACEEE Summary of California On-bill programs (May 2016) ACEEE Energy Savers Multifamily OBR Program *Policy/whole sale market:* Connecticut Green Bank Accessing Secondary Markets as a Capital Source for Energy Efficiency Program Finance: Program Design Considerations for Policymakers and Administrators Energy Efficiency Finance Programs: Use Case Analysis to Define Data Needs and Guidelines ACEEE Tennessee Valley Authority (through Sept 2015)

BP#	BP Candidate	Description	References/ Notes
17	Public Sector to lead by example	• Public sector entities and communities should lead through ambitious goals, new technologies, and innovative approaches.	New York City's One City: Built to Last Transforming New York City's Buildings for a Low-Carbon Future NYSERDA Street Lighting in New York State: Opportunities and Challenges NYSERDA and NYSDOT Announce New LED Street Lighting to Make Central Avenue Safer and Reduce Energy Costs NEEP LED Street Lighting Assessment and Strategies in the Northeast and Mid-Atlantic NEEP Public Sector Building Energy Benchmarking: Utility Data Access Options and Opportunities (NEEP) EERE See Action Fact Sheet: Strategic Energy Management for State and Local Governments NYS Five Cities Energy Master Plans (Albany) (Buffalo) (Rochester) (Syracuse) (Yonkers)
18	Adoption of New Codes	• States and municipalities should adopt more stringent building codes to achieve higher energy savings through performance and stretch codes.	Performance Energy Codes *Stretch Codes Examples:* http://newbuildings.org/code_policy/utility-programs-stretch-codes/stretch-codes http://www.oregon.gov/bcd/codes-stand/Documents/reach-16reachcode.pdf http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/csl/stretch-energy-code-information.html http://www.energy.ca.gov/title24/2013standards/ordinances/ http://aceee.org/files/proceedings/2012/data/papers/0193-000252.pdf http://aceee.org/files/pdf/conferences/mt/2011/2B%20-%20Isaac%20Elnecave.pdf http://newbuildings.org/sites/default/files/2011_PolicyMaker_Resource_Guide_PNNL.pdf http://www.molloy.edu/Documents/Sustainability/longislandtownsgreenpaper.pdf http://www.lgc.org/wordpress/docs/freepub/energy/case_studies/ReachCodes.pdf
19	Establish Stakeholder collaborative that manages programs and targets for energy efficiency/DER Programs	• Stakeholder involvement and oversight in energy efficiency decision making results in greater stability, less litigation, and ultimately higher energy savings levels.	US DOE/SEE Action Report on Energy Efficiency Stakeholder Collaboratives MA Consultant Assessment of 2016-2018 Potential

Clean Energy Advisory Council

Overview of the Draft REV Energy Efficiency Best Practices Guide

Presented at the February 7, 2017 Steering Committee Meeting

Topics

- Working Group Scope
- Using the Guide
- Approach to Developing the Guide
- Top 5 Best Practice Candidates
- Summary of Recommendations
- Questions/Discussion

Working Group Scope

"Develop a REV Energy Efficiency Best Practices Guide, to be filed with the Secretary, outlining energy efficiency program best practices under a REV framework, and including a process for future revisions and updates. To inform development of the Guide, the Working Group shall conduct research and analysis of program data and shared performance assessments across New York State program administrators . It also will investigate relevant best practices from outside the state to identify replicable, high impact activities and promising innovative strategies, including pilots or demonstrations of new approaches. The Group is expected to update and revise the Guide such that the information in the Guide changes with the pace of technology and Commission directives."

Using the Guide

- Group was tasked with a broad mission and scope
- Challenges in identifying specific “off the shelf” REV opportunities because:
  - New York is leading the way with market based approaches to delivering energy efficiency. Few states have market base policy objectives.
  - New initiatives (REV demos/ CEF strategies) have yet to deliver results that could be evaluated in a REV framework
- Found success in identifying promising elements of the researched activities or initiatives which offer the potential to advance REV objectives.
- Consider “Best Practice” in a broad sense as promising candidates that encompass both policies and programs which can advance REV objectives

Approach to Developing the Guide

- Broad research conducted pertaining to high-impact activities and promising innovative strategies
  - Including examples from New York, Massachusetts, New England, California, New Jersey
- Applied high-level REV Objectives through analysis
  - Customer engagement with DER markets.
  - Ability to stimulate DER providers.
  - Potential for greater private sector investment.
  - Potential to deliver system benefits.
  - Potential to support new utility earnings opportunities.
  - Carbon reduction.
- Initially identified approximately 49 best practice candidates to work with
- Organized into subgroups to develop, synthesize and combine candidates

Approach to Developing the Guide

- November 5 Steering Committee feedback
  - Strategically focus on a small number of candidates
  - Seek actionable steps/elements for implementation
- Survey was developed to highlight REV themes and market needs
  - Highlighted outcomes and asked respondents to rank the applicability and effectiveness of the candidate in correlation with their business model and market drivers
  - Sent to Working Group members, utilities, and program administrators
  - Results of the survey supported the identification of the five most promising candidates
- Built out the top five candidates addressing
  - Summary of the strategy
  - Potential benefits
  - Involved actors
  - Potential to address REV objectives
  - Actionable elements/steps

Best Practices

1. Use data driven market segmentation to create customized offerings for customers

- Historically, utility and governmentally administered programs have been offered via “mass marketing” approaches: “residential” and “commercial”.
- Orient service offerings based customer characteristics and needs, targeting solutions that result in the greatest value to society, the grid, the utility, and the customer
- Utilities (as the DSP provider): Could make segmentation information available to market actors as a means to facilitate greater DER penetration through lead generation, support platform service fee opportunities, and programmatic and outcome based EAMs
- Regulators: Afford program administrators the flexibility in program design and implementation to execute on segmentation opportunities
- PAs, regulators and 3rd parties: build capacity on segmentation and targeting through workshops, software and best practices

Best Practices

2. Conduct utility specific assessments of both the long-term economic and achievable energy efficiency potential
    - Studies determine utility specific long-term resource potential of existing and emerging technologies
    - Support utility target setting, system planning, and program planning as well as 3rd party business targeting opportunities.
    - Enable better regulatory policies and utility non-wires market engagements.

3. Build programs, policies, and market structures to reward a combination of energy efficiency and demand management
    - Through ensuring resources are structured and deployed to capture the full economic value, range of demand, and consumption reduction.
    - Integrated demand management programs can expand the use of DERs as a grid resource as an alternative to capital investment in traditional grid infrastructure.
    - “Un-siloing” programs to maximize the value of integration of efficiency and demand resources.
    - Allow consumers to more seamlessly access demand and energy value streams in making investment decisions.

Best Practices

4. Tie EE/DSM incentives to project savings outcomes through a Pay for Performance approach
   - Creates a stable, predictable, and reliable savings outcomes that enable greater private investment through a more efficient and transparent marketplace
   - Supports system efficiency needs through verified outcomes.
   - Creates investable cash flow off of energy savings and system benefits, attracting private sector investment.
5. Create a "one-stop shop” and bundled services/measures approach to energy efficiency
   - Simplifying access to programs, financing, and DER providers to scale participation
   - Collaboration creates greater private sector investment and impact through tailored programming, along with regional specificity through program implementation amongst implementers.
   - Requires engagement with multiple stakeholders and industry partners to understand the relevant local market barriers to participating in energy efficiency

Summary of Recommendations

- Ensure the list will be updated on an ongoing basis to capture technology advances, market developments, and experiences with REV initiatives.
- Consider dedicating appropriate technology, policy, and program analytical resources to administratively manage the Guide to accomplish the following:
  - Further develop and identify best practices.
  - Keep the Guide current by incorporating the latest market developments.
  - Evaluate the value of best practices through the lens of REV objectives.
  - Capture and disseminate lessons learned through experiences with REV initiatives (i.e., REV demos and non-wires alternative market engagements).
  - Facilitate the statewide adoption of high-value best practices.
  - Ensure robust involvement from experts in the field.

Summary of Recommendations (Continued)

- Consider an examination of the needs and benefits of a more formal forum like the Massachusetts Energy Efficiency Council.
- Program administrators utilize the Guide as a tool during program design and implementation.
- DPS reference the Guide when evaluating portfolios and program proposals from Program Administrators.
- Clean Energy Implementation and Coordination Working Group should consider allocating ample time and resources to sharing lessons learned and best practices.
- CEAC Metrics, Tracking and Performance Working Group should consider establishing a consistent evaluation framework to capture, catalogue and disseminate shared learnings and Best Practices from all REV initiatives including energy efficiency programs, REV demos, non-wires alternatives, and related pilots or demonstrations.

Questions/Discussion

Steering Committee Update
Metrics, Tracking and Performance Assessment Working Group

The Metrics, Tracking and Performance Assessment (MTPA) Working Group has four objectives and subgroups associated with each:

1. **Evaluation Guidelines Recommendations** – Provide guidance to DPS staff in updating for REV
2. **Performance Metrics** – Defining program performance metrics and methods for tracking them
3. **On-line Dashboard** – Provide input to NYSERDA in creating a dashboard for tracking metrics
4. **EM&V Coordination**

During this past period MTPA working group members focused on the Metrics and Dashboard topic areas.

Evaluation Guidelines Recommendations Report:

Recent Progress:

- None. This task is complete. The group filed the final report and posted companion content.

Updates to the Work Plan:

- None.

Expected Coordination/Task Dependencies:

- Evaluation Guidelines should be viewed as a living document and updated, as needed, based on later work product and outcomes of the MTPA working group and other working groups. For example, as performance metrics for market transformation programs are finalized, the Evaluation Guidelines may require updates to address these metrics and methods. Furthermore, other working groups should be informed of elements of the guidelines, e.g., advanced M&V.

Performance Metrics Report:

This work is parsed into two phases. The Phase 1 Performance Metrics Recommendations Report focuses on basic performance metrics to gauge progress across all clean energy programs. The Phase 2 report will focus on performance metrics and measurement for market transformation strategies.

Recent Progress:

- The working group completed the Phase 1 metrics recommendation report on January 24 and solicited comments from the Steering Committee and other interested parties. Input is being gathered during the 2/7/17 Steering Committee meeting.

Updates to the Work Plan:

- None.

Expected Coordination/Task Dependencies:

- Performance Metrics Recommendations will need coordination with:
  - Clean Energy Implementation & Coordination (CEIC) working group: for more detailed information regarding the central database and tracking of data
  - Data Tracking E2 Working Group: to obtain documentation on metrics previously identified and to leverage the output of this group, as applicable, in forward-looking metrics

Online Dashboard Recommendations Report:

The report will be recommending implementing the Dashboard in two phases: basic, standardized, and public-facing quarterly dashboard reporting requirements (Phase 1) and interactive user features, drill-down capability, the ability for the user to generate tables, related graphics, and expanded contextual information (Phase 2).

Recent Progress:

- The Dashboard subcommittee met on 1/5/17 for a demonstration of the current DPS Energy Efficiency Portfolio Standard on-line reporting system and the Open NY platform, including some of NYSERDA's content on that platform.
- The subcommittee is developing a structured plan to solicit input from stakeholders outside of the MTPA Work Group on dashboard design and functionality.
- The Dashboard subcommittee members drafted a recommendations report for subcommittee review on 1/30/17. The report recommends four types of metrics (savings, costs, targets, and pipeline) to NYSERDA for dashboard specification.

Updates to the Work Plan:

- An extension was approved during the 1/10/17 CEAC meeting.

Expected Coordination/Task Dependencies:

- The MTPA Working Group's Performance Metrics Phase 1 report will inform key metrics to be presented in the Dashboard. The requested extensions help maintain a sequenced approach.
- The Dashboard development should be viewed as a work in progress given the identification of additional metrics in phase 2 of the Working Group's Performance Metrics report

EM&V Coordination Report:

Recent Progress:

- None.

Updates to the Work Plan:

- None.

Expected Coordination/Task Dependencies:

- EM&V Coordination Plan requires understanding of the work underway by the CEIC working group.

Metrics, Tracking and Performance Assessment Working Group Work Plan

Background:

By order issued January 21, 2016 (January CEF Order),[1] the New York Public Service Commission (the Commission) established the Clean Energy Advisory Council (CEAC). The Commission required that the CEAC address specific issues and provide the Commission or Staff with recommendations and reports regarding such issues. To comply with the Commission directives, the CEAC developed a structure that relies upon Working Groups to conduct the necessary research and analysis and to prepare reports regarding their findings and recommendations.

The CEAC established the Metrics, Tracking and Performance Assessment Working Group to develop recommendations for a consistent approach to metrics, data tracking and performance assessment, inclusive of evaluation, measurement & evaluation (EM&V) that looks to advances in technology and approaches to reduce and limit the dollars required for these functions while maintaining needed reliability, which will increase the dollars available for program delivery. The Working Group will also identify and recommend metrics and approaches for evaluating market development and transformation.

Overview:

To complete the work assigned by the Steering Committee in accordance with the schedule established in its work scope, the Metrics, Tracking and Performance Assessment Working Group plans to meet weekly. The Working Group expects most of its meetings to be conducted as teleconferences; however, the Working Group will also conduct webinars and in-person meetings if necessary. One in-person meeting has been scheduled for July 20, 2016. Between meetings, the Working Group members will conduct work through sub-group teleconference meetings and via email. Subgroups have been established and preliminarily staffed, based upon initial member interest for each major work area. Further drilldown on specific sub-group assignments will be finalized in the near future.

Objectives:

The Working Group will focus on five main objectives that are closely linked and therefore will develop a foundation that directs its work plan to meet the discrete needs of each deliverable while ensuring that each objective is informed by one another. These areas are as follows:

1. Evaluation Guidelines Recommendations Report
2. Coordination of EM&V Activities
3. Performance Metrics
4. On-line Dashboard
5. Recommendations Regarding the Continuation of Working Group Activities

[1] Case 14-M-0094 et al, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016).

The Working Group intends to provide updates regarding progress and working schedule to the Steering Committee at the Steering Committee's public meetings.

Schedule & Status Tracking:

Task	Responsibility	Due Date	Status
Updates to Steering Committee:			
Send Written Update to Steering Committee	*Steering Committee Designee*	*7/6/16*	*Completed*
Send Written Update to Steering Committee	*Steering Committee Designee*	*8/10/16*	*Completed*
Send Written Update to Steering Committee	*Steering Committee Designee*	*9/12/16*	*Completed*
Send Written Update to Steering Committee	*Steering Committee Designee*	*10/13/16*	*Completed*
Send Written Update to Steering Committee	*Steering Committee Designee*	*10/27/16*	*Completed*
Send Written Update to Steering Committee	*Steering Committee Designee*	*11/23/16*	*Completed*
Send Written Update to Steering Committee	*Steering Committee Designee*	*12/6/16*	*Completed*
Send Written Update to Steering Committee	*Steering Committee Designee*	*1/3/16*	*Completed*
Send Written Update to Steering Committee	*Steering Committee Designee*	*1/31/16*	
Evaluation Guidelines Recommendations Report:			
Discuss Current Guidelines, Working Group (WG) Members Identify Interest in Task	Co-Chairs and WG	6/16/16	*Completed*
Identify Revision Areas, Assign Sub-Group of Interested WG Members to Undertake Task	Co-Chairs and WG	6/23/16	*Completed*
Further Refine Areas for Revision/Addition, Begin Developing Outline, Assign Recommendations Text, Begin Developing Specific Revisions	Co-Chairs and Sub-Group	6/30/16	*Completed*
Draft Evaluation Guidelines Recommendations Report Outline V1 sent to Sub-Group	Assigned Member	7/5/16	*Outline Completed & Submitted to Steering Committee*
Written Feedback on Draft Outline V1 Provided by Subgroup	Sub-Group	7/7/16	
Subgroup Feedback Incorporated and Draft Outline V2 Sent to Full Working Group	Assigned Member	7/8/16	
Written Comments on Outline V2 Provided by Full Working Group	Working Group Members	7/12/16	
Draft Evaluation Guideline Text V1 provided to Sub-Group	Assigned Member(s)	7/12/16	
Revised Draft Outline V3 Provided to Full Working Group	Assigned Member	7/14/16	
Written Subgroup Feedback on Draft Evaluation Guideline Text V1	Sub-Group	7/14/16	
Evaluation Guideline Text V2 Compiled and Provided to Full Working Group	Assigned Member	7/18/16	

Task	Responsibility	Due Date	Status
Full Working Group Provides Comments on Draft Evaluation Guideline Text V2 (In-person Meeting)	Working Group	7/20/16	
Draft Outline V3 Submitted to CEAC Steering Committee for Comment	***Co-Chair***	***8/10/16***	
Receive CEAC Steering Committee Comments on Outline V3	Designee/Co-Chairs	8/17/16	Draft Report Completed and Submitted to Steering Committee
Finalize Outline V4	Assigned Member	8/19/16	
Draft Evaluation Guidelines Recommendations Report V1 and Evaluation Guideline Text V3 provided to Working Group	Assigned Member(s)	9/2/16	
Written Comments from Working Group on Evaluation Guidelines Recommendation Report V1	Working Group	9/6/16	
Draft Evaluation Guidelines Recommendations Report V2 Submitted to CEAC Steering Committee for Comment	*Co-Chair*	*9/9/16*	
Receive CEAC Steering Committee Comments	Designee/Co-Chairs	9/19/16	Final Report Completed and sent to Steering Committee and filed in DMM
Revised (if needed) Draft Evaluation Guidelines Recommendations Report V3 Provided to Full Working Group	Assigned Member	9/26/16	
Finalize Evaluation Guidelines Recommendations Report	Assigned Member	9/30/16	
File Final Evaluation Guidelines Recommendations Report and Provide Evaluation Guideline Text To DPS Staff[2]	***Co-Chair***	***10/3/16***	Guideline text provided to DPS Staff
Evaluation Guidelines Issued	***DPS***	***11/1/16***	***Completed***

[2] The 1/21/16 CEF Framework Order in Case 14-M-0094 directed DPS Staff to issue revised Evaluation Guidelines by November 1, 2016. The output of this Working Group activity will be both a summary level Evaluation Guidelines Recommendations Report as well as suggested Evaluation Guideline Text to aid DPS staff in making revisions to the Guidelines document.

EM&V Coordination Plan:			
Discuss Coordination Plan, Working Group (WG) Members Identify Interest in Task	Co-Chairs and WG	6/16/16	Completed
Assign Interested WG Members to Sub-Group to Undertake Task	Co-Chairs and WG	6/23/16	Completed
Begin Development of Strawman for Coordination Efforts (i.e., Identify Activities/Outcomes Requiring Coordination, Possible Coordination Approaches, Etc.)	Co-Chairs and Sub-Group	6/30/16	Completed
Gather Further Input from Sub-Group Members on Coordination Needs and Approaches	Assigned Member	7/7/16 and continuing	Ongoing
Discuss EM&V Coordination Plan with Full WG at In-Person Meeting	Working Group	7/20/16	Complete
Revised Strawman V21 and Construct for EM&V Coordination Plan Outline V2 Shared with Full WG	Assigned Member	7/26/16	Date to be revised
Submit EM&V Coordination Plan Outline to CEAC Steering Committee for Comment	***Co-Chairs***	***Q2 2017***	
Submit Draft Coordination Plan V3 to CEAC Steering Committee for Comment	***Co-Chairs***	***Q4 2017***	
File Final EM&V Coordination Plan	***Co-Chairs***	***Q4 2017***	

Performance Metrics Recommendations Report:			
Discuss Metrics Recommendation Report, Working Group (WG) Members Identify Interest in Task	Co-Chairs and WG	6/16/16	Completed
Assign Interested WG Members to Sub-Group to Undertake Task	Co-Chairs and WG	6/23/16	Completed
Coordinate with Data Tracking E2 Working Group to Obtain Documentation on Metrics Previously Identified, Coordinate with Energy Efficiency Procurement & Markets Working Group	Co-Chairs and Sub-Group	Early July TBD	Ongoing
Discuss Potential Metrics with WG Members, Including New Areas Requiring Metrics, at In-Person Meeting	Co-Chairs and WG	7/20/16	Complete
Develop Draft Outline V1 of Performance Metrics Recommendation Report, Provide to Full WG	Assigned Member	8/16/16	Complete
Full WG Provide Written Comments on Draft Outline	Working Group	8/19/16	Outline Completed and Submitted to Steering Committee
Create Revised Draft Outline V2 based on Full WG Comments	Assigned Member	8/23/16	
Submit Outline V2 to CEAC Steering Committee for Comment	***Co-Chairs/DPS***	***9/9/16***	

Receive Steering Committee Comments on Outline	Co-Chairs and Sub-Group	Complete d	Completed
Performance Metrics Subcommittee Develop Draft Report Content	Co-Chairs and Sub Group	11/10/16	*Completed*
Performance Metrics Subcommittee Review Draft Report	Co-Chairs and Sub Group	12/8/16	*Completed*
Review of Draft Report by full Working Group	Working Group	12/15/16	*Completed*
Submit Draft Performance Metrics Report V2 to CEAC Steering Committee for Comment	***Co-Chairs***	*1/24/17*	*Completed*
Receive Steering Committee Comments, Prepare Final Draft	Working Group	2/7/17	
Revise Performance Metrics Report as Needed Based on Steering Committee Comments, Provide to Full Working Group for Final Review of Substantive Changes	Co-Chairs and Sub-Group	TBD	
Full Working Group Written Comments Due	Working Group	TBD	
File Final Performance Metrics Phase 1 Recommendations Report	***Co-Chairs***	***2/28/17***	
Submit Outline Performance Metrics Report Phase 2 to CEAC Steering Committee for Comment	***Co-Chairs/DPS***	***Q1 2017***	
Submit Draft Performance Metrics Report Phase 2 to CEAC Steering Committee for Comment	***Co-Chairs***	***Q3 2017***	
File Final Performance Metrics Phase 2 Recommendations Report	***Co-Chairs***	***Q3 2017***	

On-line Dashboard Recommendations Report:			
Discuss Dashboard Recommendation Report, Working Group (WG) Members Identify Interest in Task	Co-Chairs and WG	6/16/16	Completed
Assign Interested WG Members to Sub-Group to Undertake Task	Co-Chairs and WG	6/23/16	Completed
Initial discussion among full working group regarding dashboard requirements and timeline	Working Group	8/4/16	Completed
Work Group Continued Discussion of Dashboard Requirements	Working Group	8/11/16	Completed
Discussion of Outline V1 Based on WG Input to Help Inform NYSERDA Reporting Plan (Due September 1, 2016)	Co-Chairs and Sub-Group	8/18/16	Completed
Review Outline with Sub-Group and Identify Next Steps to Draft Report Development	Co-Chairs and ~~WG~~ Sub-Group	10/27/16	Completed
Sub-Group Develops Draft Report Content	Co-Chairs and Sub-Group	11/10/16	Completed
Full Working Group Reviews Outline	Working Group	11/10/16	Completed
Submit Outline to Steering Committee	***Co-Chairs***	***11/17/16***	*Completed*

Incorporate Steering Committee Feedback into Outline and Draft Report	Co-Chairs and Sub-Group		Completed
Submit Draft Report to CEAC Steering Committee for Comment	***Co-Chairs***	*3/10/17*	
Receive CEAC Steering Committee Comments and Finalize, Provide to Full Working Group for Final Review of Substantive Changes	Co-Chairs and Sub-Group	3/21/2017	
Full Working Group Written Comments Due	Working Group	TBD	
File Final On-Line Dashboard Recommendations Report	***Co-Chair***	***4/14/17***	

Recommendation to Steering Committee on Continuation of Working Group Activity:			
Develop List of Items to Potentially be Addressed by Working Group in the Future	Co-Chairs	Q4 2017	
Provide Comments on List of Items to Potentially be Addressed by Working Group in the Future and Discuss Whether the Group Should Continue	Co-Chairs Working Group Members	Q4 2017	
Finalize Recommendations to Steering Committee on Future Working Group Activities	Co-Chairs	Q4 2017	
Provide Recommendation to Steering Committee Regarding the Continuation of Working Group Activities	***Co-Chairs***	***No later than Q1 2018***	

Revisions:

This Work Plan is a living document and the Working Group will revise it on a regular basis to include additional tasks assigned to the Working Group and to reflect any changes to the Working Group schedule. Revisions to this Work Plan will be included as a component of the Written Update to the Steering Committee. In instances where the Working Group determines that it will be unable to meet the deadlines established by the CEAC Steering Committee, it will comply with the revision process outlined in the CEAC Work Plan and update this Work Plan accordingly.

Metrics, Tracking and Performance Assessment Working Group

Draft Performance Metrics Report – Phase 1

I. OVERVIEW OF PERFORMANCE METRICS REPORT CONTEXT AND PURPOSE

The Clean Energy Advisory Council (CEAC) Metrics Tracking and Performance Assessment (MTPA) Working Group was tasked with developing common definitions and methods for tracking and reporting various performance metrics, including metrics that would be applicable to market transformation activities. This work was intended to be informed from the review of current data tracking requirements to be completed by the E^2 Working Group that preceded the CEAC, as well as information gathering on best practices in market transformation measurement. The work will identify both initiative[1] specific and broad market-level metrics to effectively gauge progress.

The MTPA Working Group undertook a collaborative approach to review existing sources of information and insights, discuss best practices, and arrive at common definitions and methods. This report outlines the sources examined and the information and insights gleaned from them. The report specifies a common definition for each key metric as well as the methodology proposed to be used to derive the metric.

Early in the development and scoping of the Performance Metrics task, the MTPA Working Group identified a need to separate the work into two phases. Phase 1, the topic of this report, deals with basic performance metrics that can now begin to be tracked and reported in a common manner by all program administrators. Phase 2, which will be a separate future deliverable from the MTPA Working Group, will address market transformation and other broad metrics.

II. PHASE I – BASIC CLEAN ENERGY PERFORMANCE METRICS

Basic clean energy performance metrics are defined in this report to include energy savings, system demand reduction, renewable energy generation, participant bill savings, greenhouse gas emission reductions and private investment. Each of these terms is defined in more detail in the following sections of this report.

[1] The word initiative is used throughout this report for consistency and is synonymous with the word program, but also inclusive of other work beyond the traditional definition of program, such as tariffs, auctions, work with City/State on codes, education campaigns, prepay billing, etc.

Process and Sources Examined

The MTPA Working Group undertook a process to solicit expertise and information from a variety of sources to inform this report. Initially, NYSERDA's Clean Energy Fund methodology and factors for reporting on key performance indicators were reviewed. This included methods and sources for statewide-average and utility-specific bill savings factors for electric and gas, measure life assumptions, emissions factors for electric, gas and oil, and definitions related to accounting for private investment. The group also reviewed typical electric bill data as a source for determining bill savings factors. DPS and NYSERDA shared methods for factoring CO_2 emissions, and staff from NYSERDA's Energy & Environmental Analysis group and DPS' Office of Regulatory Economics provided input on developing and reporting of emissions factors based on New York Independent System Operator (NYISO) analysis.

The MTPA Working Group also intends to review the E^2 Working Group: Data Tracking Subcommittee's Summary Report as part of this process.[2] The Summary Report is currently being finalized by the Data Tracking Subcommittee and, once finalized, will be reviewed to inform the final version of this report and/or future activities of the MTPA Working Group.

Metrics: Common Definitions, Methods and Reporting Recommendations

This section outlines the metrics to be tracked in a common manner by all program administrators for ratepayer funded initiatives, including common definitions, derivation methodology and reporting recommendations.

Energy Savings (MWh, MMBtu)

The MTPA Working Group notes the definitions described below represent the existing practice employed by NYS program administrators in reporting energy savings for the current suite of ratepayer funded clean energy initiatives. To the extent outcome oriented metrics are established, the MTPA Working Group recommends these definitions and methods be reassessed to ensure alignment with such approaches. The MTPA Working Group also recognizes that the following methods for estimating savings and establishing baselines are incomplete and not inclusive of all current methods in use. The MTPA Working Group will provide a more comprehensive description in the final version of this report.

Energy savings for energy efficiency programs are defined as the expected reduction in electricity consumption or fossil fuel use, based on a comparison of a defined baseline measure or system and the efficient measure or system installed through the program.

Energy savings are expressed at the site, not source, and therefore are exclusive of any transmission and distribution losses that occur. The MTPA Working Group is examining whether source savings may apply in any limited circumstances, such as the Con Edison steam system.

[2] The E^2 Working Group: Data Tracking Subcommittee was tasked with reviewing the Energy Efficiency Portfolio Standard (EEPS) data tracking obligations to identify relevance and/or potential gaps to inform guidance for post-2015 energy efficiency programs.

Both annual and lifetime energy savings should be reported, with lifetime savings determined based on the Effective Useful Life (EUL) of the measure.[3] EUL could be applied to annual savings at the measure, project or initiative level. Program administrators should determine the appropriate level of application based on the type of initiative and data available.

The appropriate baseline for the calculation of energy savings can vary depending on whether the situation involves new construction or existing buildings, and whether the replacement is normal replacement on-failure or early replacement. Exceptions and other considerations are also noted below.

I. New Construction (NC) - The baseline determination for new construction or substantial renovation is the typical measure or system that would have been installed without the program. This is defined as the applicable minimally compliant state or municipal energy efficiency code or federal standard that applies to the measure or system being installed. The energy savings calculated in this approach are referred to as incremental savings. Lifetime energy savings are calculated using the EUL of the energy efficient measure or system.

$$Annual\ Savings_{NC} = Baseline\ Measure\ Consumption - Energy\ Efficient\ Measure\ Consumption$$

$$Lifetime\ Savings_{NC} = Annual\ Savings_{NC} \times EUL_{efficient}$$

II. Existing Buildings - The baseline determination for existing buildings depends on the type of measure being installed and the replacement scenario of the measures. For non-lighting measures, the baseline is defined by the replacement scenario for the measure installation as described below:

a. Normal Replacement (normal) – The calculation of energy or demand savings for measures or systems installed when the existing equipment has reached the end of its EUL, or has become non-operational. An existing measure or system is defined as the on-site existing measure or system being replaced, or the applicable minimally compliant state or municipal energy efficiency code or federal standard that applies to the measure or system being installed. The baseline for Normal Replacement is defined as the applicable minimally compliant state or municipal energy efficiency code or federal standard that applies to the measure or system being installed. "Deemed" or "fixed" energy savings calculations often assume a normal replacement scenario. Lifetime energy savings are calculated using the EUL of the energy efficient measure or system:

$$Annual\ Savings_{normal} = Baseline\ Measure\ Consumption - Energy\ Efficient\ Measure\ Consumption$$

$$Lifetime\ Savings_{normal} = Annual\ Savings_{normal} \times EUL_{efficient}$$

[3] Effective Useful Life (EUL) is an estimate of the median number of years that efficiency measures installed are considered effective at reducing energy consumption or demand.

b. Early Replacement$_{(early)}$ – The calculation of energy or demand savings for measures or systems installed prior to the existing equipment reaching the end of its EUL. This approach can accelerate energy efficiency savings in the programs by promoting the early-retirement of inefficient long-lived technologies. Since Early Replacement measures are being taken out of service "early," it is appropriate to use the existing measures' operating characteristics as the baseline for annual savings and for savings associated with the period of time the existing measure would have continued to operate, also known as its Remaining Useful Life[4] (RUL). RUL savings are referred to as full-savings.

Full savings are only claimed for the RUL of the existing measure. The savings associated with the balance of years (Balance of Years = EUL – RUL) the new efficient measure operates until it reaches its EUL reverts to applicable minimally compliant state or municipal energy efficiency code or federal standard; this is referred to as incremental savings. This approach for the calculation of energy savings is referred to as Dual Baseline and is detailed below.

Lifetime energy savings are calculated using the Dual Baseline over the EUL of the energy efficient measure or system.

$$Annual\ Savings_{early} = Baseline\ Measure\ Consumption - Energy\ Efficient\ Measure\ Consumption$$

$$Lifetime\ Savings_{early} = (Annual\ Savings_{early} \times RUL_{existing\ (at\ retirement)}) + [(Code/Standard\ Compliant\ Equipment\ Annual\ Consumption - Energy\ Efficient\ Measure\ Annual\ Consumption) \times (EUL_{efficient} - RUL_{existing})]$$

c. Add-on equipment - This scenario applies to measures that improve the efficiency of an existing system but do not replace it. Examples of such measures include pre-rinse spray valves, pipe insulation, many types of controls, and variable frequency drives. The baseline is the pre-existing system without the measure, and dual baseline consideration typically does not apply. The exception is that dual baseline principles do apply if the equipment receiving the add-on is likely to fail prior to the end of the add-on equipment life and the replacement's energy use is expected to materially differ.

III. Exceptions

a. Special Circumstance$_{(special)}$ – This replacement scenario typically addresses equipment operated beyond its expected EUL by customers who are influenced by initial costs more than by life-cycle economics, customers lacking capital, customers with split-incentives (such as landlord cost for tenant benefit), customers with short time horizons, and other factors which tend to prevent long-range economic decision-making with regard to the installation of high efficiency measures or systems. Additional detail on this scenario will be provided in the MTPA Working Group's final report.

[4] The RUL is an estimate of the median number of years remaining at the time of retirement of the existing measure or system that efficiency measures installed under the program are considered effective at reducing energy consumption.

b. Lighting Policy$_{(lighting)}$ - For lighting measures, the issue of determining the age of the existing lighting equipment to be replaced was addressed in the July 18, 2011 Commission Order[5], which instructed that the Technical Resource Manual (TRM) was to be modified with the addition of a Commercial and Industrial Lighting Policy; this lighting policy is found in Appendix O of the current TRM version 4. The lighting policy addressed issues of determining the age of the existing lighting equipment to be replaced and the correct approach for valuing savings from lighting replacements. The Policy states: "*The baseline condition is assumed to be the existing [and operational] lighting fixture in [all applications other than new construction or extensive renovations which trigger the building code]*." This defines the energy savings baseline analysis independent of the operational fixtures age. This approach reflects the frequent impracticality of determining the age of lighting fixtures.

$$Annual\ Savings\ (kWh)_{lighting} = Baseline\ Measure\ Consumption\ (kWh) - Energy\ Efficient\ Measure\ Consumption\ (kWh)$$

$$Lifetime\ Savings\ (kWh)_{lighting} = Annual\ Savings\ (kWh)_{lighting} \times EUL_{efficient}$$

c. Low-Income - Low-income programs typically use the existing equipment's operating characteristics as the baseline due to the nature of replacement cycles in this population. This will be further examined by the MTPA Working Group for the final report.

d. Enabling Programs – Certain types of enabling programs may not have the information needed to appropriately apply a dual baseline. For example, programs supporting the installation of energy management systems or building management systems (EMS/BMS) and energy management practices may lead to the installation of energy efficiency measures, some of which may be replaced early in their life cycle. In this case, the program may lack information to apply a dual baseline and instead base energy savings on the EMS/BMS data.

IV. Other Considerations

a. Fuel Switching - Fuel switching is also present in some current initiatives. For example, combined heat and power (CHP) replaces grid electricity with electric energy produced on site using natural gas or another fuel, and electric vehicles replace gasoline use with grid electricity. Data tracking and reporting on fuel switching initiatives or measures should not only take account for the energy displaced from one source, but also the new energy requirements from the other source, to the extent such information is available to program administrators and can reasonably be collected. However, this accounting should be done in a manner that is transparent and does not confuse or co-mingle the new energy requirements with energy savings. Program administrators should separately report energy requirements by type associated with fuel switching rather than netting these energy requirements against the initiatives or portfolio level energy savings values (e.g.,

[5] Case 07-M-0548 Order Approving Modifications to the Technical Manual (Issued and Effective July 18, 2011)

natural gas use for CHP systems should not be netted out of natural gas savings for an initiative or portfolio as a negative value, but rather tracked and reported as a separate value, when possible).

b. Ancillary Savings – Ancillary Savings represent the savings from a fuel type different than that of the measure being installed). This scenario is being examined by the MTPA Working Group and will be further detailed in the final report.

Additional detail on how to address measure baselines, measure savings calculations, and the calculation of measure benefit–cost ratios are found in Appendices M, N, and O of the Technical Resource Manual (TRM), Version 4.[6] The MTPA Working Group recommends that these Appendices be reviewed for continued relevancy and updated as needed, by the program administrators making use of such Appendices, to make the benefit-cost calculation methodologies in the Appendices consistent with the "*Order Establishing the Benefit Cost Analysis Framework*" and with the benefit-cost handbooks filed by the electric utilities as a requirement of that Order. [7]

System Demand (MW) Reductions

Peak demand reduction, expressed in units of MW, is measured as the difference between the existing demand of equipment or systems prior to installation of energy efficiency measures and the reduced demand of equipment or systems after installation of energy efficiency measures, as measured during peak hours on the hottest annual non-holiday weekday occurring during June, July or August. [8] Peak demand reduction is aggregated and reported at the initiative level by Program Administrators.

Note that energy efficiency and other distributed energy resources could also affect local peak demand such as network demand or local load area demand with a resultant impact to the distribution system. Such MW reductions may or may not be coincident with the System MW.

Renewable Generation (MWh and MW Capacity)

Renewable generation will include, but may not be limited to, solar photovoltaic, wind, anaerobic gas digester, fuel cells and solar thermal measures. Other measures may be added in the future.

Both the capacity and annual/lifetime renewable generation should be reported for renewables. Typically, a capacity factor is applied to the MW capacity to estimate the annual generation. It is acceptable to apply

[6] New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs – Residential, Multi-family, and Commercial/Industrial Measures. Effective January 1, 2017. http://www3.dps.ny.gov/W/PSCWeb.nsf/All/72C23DECFF52920A85257F1100671BDD?OpenDocument

[7] Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, "Order Establishing the Benefit Cost Analysis Framework (Issued and effective: January 21, 2016).

[8] New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs – Residential, Multi-family, and Commercial/Industrial Measures. Effective January 1, 2017. http://www3.dps.ny.gov/W/PSCWeb.nsf/All/72C23DECFF52920A85257F1100671BDD?OpenDocument

a capacity factor at the project or initiative level, based on the type of initiative and the best-available data.

With the advent of the Clean Energy Standard, beginning in 2017 the New York Generation Attribute Tracking System (NYGATS) will be the source of record, where applicable, for reportable information on system generation. NYGATS is an online certificate tracking system that records information about electricity generated, imported and consumed in New York State.

Lifetime generation should be determined based on annual savings and the effective useful life of the measure. NYSERDA's current renewable measure lives are shown in Table 1 and are recommended for use by all program administrators to encourage consistency.[9]

Table 1. NYSERDA Renewable Measure Lives (Note: measure lives may be modified in the final version of this report, following further analysis by NYSERDA, DPS and the MTPA Working Group)

Measure	Assumed Measure Life
Anaerobic Digester Gas	10
Fuel Cells	10
Small Wind	20
Solar PV	25
Solar Thermal	15

Participant Bill Savings ($)

An estimate of Participant Bill Savings is intended to satisfy the Commission authorized metric of affordability, as measured by reductions in customer energy bills as described in the Clean Energy Fund and Utility Energy Efficiency Order(s).[10] The MTPA Working Group recommends the use of the term 'participant bill savings' to better describe the metric and to avoid any misconception that the metric represents a bill impact analysis across all customers.

Participant Bill Savings will be defined as the estimated retail value of the avoided energy use or of the total clean generation produced by a renewable energy system. Annual and lifetime participant bill savings values for each initiative will be estimated by multiplying the energy savings/clean generation by sector-specific (residential, small commercial and industrial) energy supply and delivery cost factors, which are based on only the volumetric portion of the bill wherever possible. The factors will be updated annually based on utility publication[11] of typical bill data for both electricity and natural gas and

[9] Measure life for NYSERDA CEF Initiatives as of January 17, 2017.

[10] Case 14-M-0094, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016); Case 15-M-0252, In the Matter of Utility Energy Efficiency Programs, Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016-2018 (issued January 22, 2016).

[11] Electric Utility Ten Year Historic Ave Monthly Bill Information is updated annually and located on the Department's website.

NYSERDA-published data[12] on other costs. The EUL of the measure will be used to determine the number of years in lifetime participant bill savings, similar to the energy savings approach, as described above.

Utilities are expected to update typical bill information through calendar 2016 as soon as reasonably possible during 2017. The MTPA Working Group plans to issue an addendum to this report in 2017 (specific date to be added in the final report), providing common bill savings factors for all program administrators, based on 2016 typical bill information.

Green House Gas (GHG) Emission Reductions

The Commission expressly endorsed the objective of GHG emission reductions, as measured in tons of Carbon Dioxide Equivalent (CO_2e) reduced, in direct support of State and Federal policies responding to the risk of climate change, and established a minimum CO_2e tons reduced for NYSERDA's Clean Energy Fund. While the Commission did not set explicit secondary GHG emission targets for the utilities' 2016-2018 energy efficiency programs, it found it necessary to track consistent metrics for both CEF and utility initiatives in order to assess the performance of utility energy efficiency initiatives in their contribution to the overall achievement of State Energy Plan (SEP) goals.

The MTPA Working Group notes the Commission authorized NYSERDA's GHG emission reduction target measured in tons of CO_2e reduced, while expressing the unit of measure for utility energy efficiency programs to track GHG emission reductions in tons of CO2 reduced. Further, New York's State Energy Plan "80 by 50" and other interim goals are based on CO_2e.[13] The MTPA Working Group provides a detailed discussion below on these units of measure and a proposed recommendation that will allow for the Commission's stated objective of consistent metrics and reporting across all rate-payer funded programs.

CO_2e is inclusive not only of carbon dioxide (CO2), which constitutes the vast majority (greater than 99%) of emissions from all point sources except wood, but also trace amounts of methane (CH4) and nitrous oxide (N2O). Emission factors can be used to translate annual and lifetime electricity, natural gas and other fuel use reductions or clean generation into emission reduction values in metric tons. Emission factors are calculated for the point source of combustion (either electricity generation or on-site combustion in the case of fuels), not a lifecycle basis.

The MTPA Working Group examined the difference in emission factors between CO_2e and CO2, and confirmed the difference to be negligible for the majority of fuel sources. Therefore, to support the Commission's stated objective of tracking progress towards state policy goals, which are expressed in CO_2e, the MTPA Working Group recommends utilizing metrics tons of CO_2e as the common unit of measure for GHG emission reductions across all programs. Further, the MTPA Working Group recommends the adoption of the CO_2e factors identified in Table 2 and provided to program administrators through Staff Guidance for consistent use across all program administrators. The MTPA

at:http://www3.dps.ny.gov/W/PSCWeb.nsf/All/0B9E6D4CE48E09EE852578570055E27B?OpenDocument; Gas Utilities will provide comparable information beginning in 2017.

[12] https://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Patterns-and-Trends
[13] https://energyplan.ny.gov/

Working Group does however make one exception for electricity savings, and recommends using a factor that constitutes only CO2, since the best available source for a NY-relevant electric emission factor is expressed only in terms of CO2, see Attachment A.[14] The MTPA Working Group finds that the very minor difference between a CO2 and CO_2e factor[15] is likely well within the error band of these estimates, and therefore recommends that all emission reductions from all sources can be summed up and presented in reporting as CO_2e, provided appropriate footnotes are included to explain the difference in the electricity derived factor.

In the case of fuel switching scenarios, when information is available to program administrators regarding the fuel switch, emission reductions reporting should be fully net. That is, all energy savings (displacement) and new energy requirements should be included in the calculation, to the extent such information is available to program administrators and can reasonably be collected.

[14] The marginal electric emission factor represents the change in the tons of CO2 produced by the bulk system when system load levels are reduced by 1% due to distributed energy resources. Annual and average emission factors for a variety of scenarios are calculated by the Department of Public Service utilizing the New York State Independent System Operator (NYISO) CARIS2 Base Case model and General Electric's Multi-Area Production Simulation Model (MAPS). This analysis is included in Attachment A of this report. The MTPA Working Group has examined this information and recommends using the 2017-2034 average provided for the "NY Load/Energy Down 1%" forecast for the NY, PJM, New England and Ontario area.

[15] The average electric grid carbon intensity represents a reasonable proxy comparison of the difference between CO2 vs CO2e emissions from the electricity grid. Average grid CO2 emissions are 485.12 lbs-CO2/MWh while average grid CO2e emissions are only slightly higher at 485.92 lbs-CO2e/MWh.

Table 2. Emission Factors CO_2e New York State GHG Emission Factors [1]

Fuel Type	Transportation	Buildings
	(lb CO_2e/MMBtu)	**(lb CO_2e/MMBtu)**
Coal	N/A	203.1
Natural Gas	117.2	117.2
#2 Oil/Distillate/ Diesel	162.9	162.9
#4 Oil	N/A	164.5
#6 Oil/Residual	166	166
Kerosene	N/A	161.2
Propane	136.1	136.1
Gasoline	158	N/A
Wood[2]	N/A	18.2
Steam [3]	N/A	106.1
	(lb CO_2/MWh)	**(lb CO_2/MWh)**
Electricity	1,103	1,103

1. Unless otherwise indicated, all factors derived from U.S. EPA State Climate Energy Program's State Inventory Tool (SIT) Modules, February 2016 release (https://www.epa.gov/statelocalclimate/state-inventory-and-projection-tool).
2. Wood is biogenic, so the carbon is considered net zero. Emission factors derived from non-CO2 gases.
3. This steam emissions factor should only be used for steam from the ConEd network. It is derived from NYC's GHG Inventory: City of New York, Inventory of New York City Greenhouse Gas Emissions, April 2016, by Cventure LLC, Cathy Pasion, Mikael Amar and Yun Zhou, Mayor's Office of Sustainability, New York, 2016.

Private Investment ($)

The Commission has required NYSERDA and the utilities to report private investment in clean energy technology and solutions resulting from ratepayer funded initiatives, as a metric of the growth in the State's clean energy economy.[16] The MTPA Working Group recommends that the private investment metric include all non-ratepayer funds, both private and public, including customer out-of-pocket costs, contributing to the State's clean energy economy.

Private investment can include both direct and indirect investment and can occur on an immediate to long-term time frame. Private investment can come from direct incentive/service initiatives (e.g., non-ratepayer rebates or incentives, technical assistance or pilots funded at specific customer sites, etc.) and

[16] Case 14-M-0094, supra, Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016); Case 15-M-0252, supra, Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016-2018 (issued January 22, 2016).

also from business development and innovation/research initiatives. For purposes of this Phase I report, the MTPA Working Group is addressing only direct private investment from incentives and service initiatives, which is the area in most need of common definition and inside of the scope of Phase I. Indirect private investment will be addressed by the MTPA Working Group in Phase II.[17]

Direct Immediate Private Investment is to be reported by utility and NYSERDA initiatives. This includes co-funding of pilots or projects at specific locations, including hard costs for efficiency/renewable/distributed generation, hard costs for metering and monitoring equipment like EMS/BMS, and soft costs of systems, like those supported by NYSERDA's Real Time Energy Management and Strategic Energy Management initiatives, that occur during the time frame of program administrator engagement on the pilot or project. Utilities and NYSERDA have historically maintained information on total project cost to assess projects and overall initiative cost effectiveness. This information on total project cost can be used to estimate private investment levels for the purposes of this metric.

If applicable, based on the type of initiative, (e.g., where engagement with the customer is over a longer time period or enabling information/equipment is reasonably anticipated to impact actions longer term) and if such information is available, Direct Long Term Private Investment may be reported by program administrators. This includes subsequent funding at specific pilot or project locations of measures taken as a result of prior supported investment in hard costs for metering and monitoring equipment like EMS/BMS, and soft costs of systems like Real Time Energy Management and Strategic Energy Management. E.g., long term investment driven by the data and system for managing energy use, which could include installation of high efficiency equipment during the stated measure life (e.g., 8 years for RTEM). The Direct Long Term Leverage/Private Investment could occur within or beyond the term of the program administrator intervention/involvement at a specific facility. This type of leveraged investment may be tracked by the initiative, through continued contact with the entities it engages, or a factor that may be applied for reporting purposes may be derived through evaluation work, on an appropriate interval for measuring change.

Depending on the nature of the initiative and the type of private investment, program administrators may either track, estimate (using factors or deemed cost values) or use evaluation to ascertain leveraged investment. It is recommended that program administrators use a collaborative process, in the context of the MTPA Working Group or other appropriate venue, to share high-level information on private investment factors for common measures and initiatives, to ensure administrative efficiency and consistency in making estimates for reporting purposes.

[17] Indirect private investment is the dollar value of market activity spurred by the program investments, which can occur while the program administrator is engaged in the market or afterward. There is no direct program funding associated with this activity in the market. Indirect private investment will be measured and reported based on market evaluation or other methods. As such, indirect private investment is best dealt with in the context of Phase II Market Transformation Metrics.

Private investment will be determined on the basis of total project cost, rather than the incremental costs to upgrade to high efficient equipment on early or normal replacement schedules. Private investment will be determined on the basis of incremental (e.g., above code) cost for new construction. Total project costs (or incremental costs, in the case of new construction) should be inclusive of installation/labor costs wherever possible, and supported by adequate data (e.g., capturing information on an application form and reported to the program administrator for collection in a program tracking database). Funds associated with implementation or administration of the initiative are not included in the calculation of private investment. However, a general factor for these types of program administrator expenditures may be considered by the MTPA Working Group in Phase II. For example, program administrators performing effective outreach and education, may create messaging that resonates with customers, spurring energy efficiency investments at a future date.

Attachment A

DPS ESTIMATES USING THE NYISO 2016 CARIS 2 BASE CASE

Short Tons Of CO2 Per MWH of Load Change--Incremental, Decremental, & Average

NY Load/Energy Down 1%	2017dn	2018dn	2019dn	2020dn	2021dn	2022dn	2023dn	2024dn	2025dn	2026dn	2027dn	2028dn	2029dn	2030dn	2031dn	2032dn	2033dn	2034dn	Avg 2017-2034
NY, PJM, New England, Ontario	0.47	0.57	0.54	0.56	0.50	0.56	0.40	0.22	0.66	0.52	0.74	0.49	0.82	0.65	0.57	0.53	0.62	0.51	0.55
NY	0.32	0.36	0.29	0.33	0.27	0.25	0.29	0.41	0.33	0.29	0.45	0.28	0.29	0.32	0.28	0.34	0.29	0.27	0.31

NY Load/Energy Up 1%	2017up	2018up	2019up	2020up	2021up	2022up	2023up	2024up	2025up	2026up	2027up	2028up	2029up	2030up	2031up	2032up	2033up	2034up	Avg 2017-2034
NY, PJM, New England, Ontario	0.32	0.28	0.35	0.56	0.55	0.54	0.65	0.66	0.46	0.82	0.69	0.83	0.50	0.43	0.74	0.62	0.42	0.57	0.55
NY	0.30	0.26	0.33	0.28	0.24	0.32	0.34	0.31	0.33	0.30	0.35	0.42	0.31	0.31	0.38	0.35	0.32	0.29	0.32

Average	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Avg 2017-2034
NY, PJM, New England, Ontario	0.40	0.42	0.44	0.56	0.53	0.55	0.53	0.44	0.56	0.67	0.71	0.66	0.66	0.54	0.65	0.57	0.52	0.54	0.55
NY	0.31	0.31	0.31	0.31	0.25	0.29	0.31	0.36	0.33	0.30	0.40	0.35	0.30	0.31	0.33	0.34	0.31	0.28	0.32

NOTES
Impacts are relative to the NYISO 2016 CARIS2 Base Case based on CO2 changes in New York and neighboring regions (PJM, New England, Ontario) divided by assumed 1% changes in NYS energy requirements

SOURCE: DPS Office of
Regulatory Economics

Clean Energy Advisory Council

Metrics, Tracking and Performance Assessment Working Group

Discussion of the Performance Metrics Report, Phase 1

February 7, 2017

Agenda

- Metrics report goals and context
- Meeting goals
- Content review

METRICS REPORT GOALS & CONTENT

- Define key terms for initiative tracking & reporting across ratepayer funded programs
  - Phase I: Basic metrics to gauge progress
  - Phase II: Metrics and measurement for market transformation

Context

Meeting Goal

- Input on Phase 1 draft report from CEAC and associated stakeholders

Content Review

Baseline Definitions

- Types of baseline
  - New construction
  - Normal replacement
  - Early replacement with or without dual baselines
  - Add-on
- Exceptions
- Other considerations

Metrics and their Basis

- Energy Savings
  - Savings at the site, not source or T&D-burdened
  - Annual and lifetime
  - Positive and negative values tracked and reported without comingling of effects (fuel switching and interactive effects)
- Demand Savings - Definition retained from NYTM

  Peak hours on the hottest annual non-holiday weekday occurring during June, July or August
- Renewable Energy Generation
  - Annual and lifetime kWh generation; EULs provided
  - MW demand inclusive of project- or initiative-level capacity factor

METRICS AND THEIR BASIS *(CONT.)*

- Participant Bill Savings
  - Retail value of energy saved/generated
  - Rates based on typical customer bill data to be provided yearly by utilities
  - Volumetric charges only
  - Changed terminology from Customer Bill Savings to avoid confusion regarding what this metric represents
- Greenhouse Gas Emission reductions
  - Metric tons Carbon Dioxide equivalents
  - Common factors to be applied across all initiatives and updated periodically

METRICS AND THEIR BASIS *(CONT.)*

- Private Investment
  - Dollar value of non-ratepayer funds invested
  - Hard and soft costs
  - Generally based on total clean energy project cost, unless new construction
  - Must be supported with adequate data

Next Steps

1/24 Draft Phase 1 metrics report delivered to CEAC Steering Committee

2/7 This meeting to collect comments from CEAC Steering Committee

2/28 Proposed final Phase 1 report

Q1 Phase 2 outline

Q3 Phase 2 draft and final report

Steering Committee Update

Voluntary Investment and Other Market Development Working Group

A Revised Work Plan reflecting the updates described below and highlighting those activities expected to occur prior to the February 7, 2017 Clean Energy Advisory Council (CEAC) Steering Committee Meeting is attached. The revisions to the Working Group's Work Plan affect the CEAC Work Plan.

Research and Recommendations Report:

Recent Progress:

The VIOMD WG held a call on Friday, February 3, 2017 to discuss the group's next task to "develop recommendations for incentives and/or other approaches that foster voluntary investments in energy efficiency, renewable energy and DER." Several factors contribute to the group consensus and recommendation forgoing this report. First, the Working Group remains concerned that the report as proposed and as scheduled would likely provide little additional insight or substance beyond what will be learned and disseminated through existing proceedings, programs or activities, all of which require broad communication of findings and conclusions. Second, the Working Group believes that the Pilot Parameters Report, and the development and implementation of a Clean Energy Fund Investment Plan, provides both the Commission and the CEAC with the opportunity for substantive outcomes and learning opportunities that will be able to inform future Commission and CEAC activity. And third, there exist multiple opportunities for members of the VIOMD and members of the CEAC to continue collaboration and information sharing through Commission proceedings and utility and Clean Energy Fund program activities. Therefore, for the above reasons, the VIOMD WG recommends forgoing the report. Should the Steering Committee find new opportunities where the VIOMD WG can add value and understanding in future circumstances to help facilitate voluntary investment market development, the VIOMD WG is available for such future engagement.

Community Choice Aggregation Report:

Recent Progress:

The CCA subgroup held a one-hour call on Wednesday, January 25, 2017. The group focused its discussion on cost savings and customer expectations as well as the degree to which DER should be included in a CCA project. The group decided that their efforts will focus three types of CCA models. The models fall along a spectrum and are not meant to suggest one, rigid solution. The three models under focus: (1) supply-side contract (today's model), (2) a model which incorporates DER, and (3) a model that falls between options one and two. The subgroup recognized that models will vary based on the location of the project and the goals the project's participants. The subgroup plans to convene once every three weeks for one hour through June. A CCA-specific Work Plan will be submitted in the next monthly update.

Voluntary Investment & Other Market Development Working Group Work Plan

Background:

By order issued January 21, 2016 (January CEF Order),[1] the New York Public Service Commission (the Commission) established the Clean Energy Advisory Council (CEAC). The Commission required that the CEAC address specific issues and provide the Commission or Staff with recommendations and reports regarding such issues. To comply with the Commission directives, the CEAC developed a structure that relies upon Working Groups to conduct the necessary research and analysis and to prepare reports regarding their findings and recommendations.

The CEAC established the Voluntary Investment & Other Market Development Working Group to develop strategies to maximize energy efficiency, renewable energy and distributed energy resources (DER) deployment, identifying approaches for adoption in the non-residential sectors, which may also include approaches that encourage and recognize voluntary investments in clean energy technology and solutions that help accelerate and increase achievement of the Clean Energy Standard and State Energy Plan (SEP) goals more broadly.

Overview:

To complete the work assigned by the Steering Committee in accordance with the schedule established in the Voluntary Investment & Other Market Development Working Group Scope, the Working Group expects to meet every two weeks for two hours. The Working Group expects most of its meetings to be conducted as both in-person meetings and webinars. Between meetings, the Working Group members will conduct work through email.

The Working Group intends to provide updates regarding progress and working schedule to the Steering Committee at the Steering Committee's public meetings.

[1] Case 14-M-0094 et al, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016).

Schedule:

Task	Responsibility	Due Date	Status
Updates to Steering Committee:			
Send Written Update to Steering Committee	*Co-Chairs*	*7/6/16*	*Completed*
Send Written Update to Steering Committee	*Co-Chairs*	*8/10/16*	*Completed*
Send Written Update to Steering Committee	*Co-Chairs*	*9/12/16*	*Completed*
Send Written Update to Steering Committee	*Co-Chairs*	*10/13/16*	*N/A*
Send Written Update to Steering Committee	*Co-Chairs*	*10/27/16*	*Completed*
Send Written Update to Steering Committee	*Co-Chairs*	*11/23/16*	*N/A*
Send Written Update to Steering Committee	*Co-Chairs*	*12/6/16*	*N/A*
Send Written Update to Steering Committee	*Co-Chairs*	*1/3/17*	*Completed*
Send Written Update to Steering Committee	*Co-Chairs*	*1/31/17*	*Completed*
Voluntary Investment Pilot Parameters Report:			
Send Draft Outline to Working Group	Co-Chairs	7/8/16	Completed
Finalize Outline	Working Group	7/13/16	Completed
Send Outline to Steering Committee	*Co-Chair*	*8/10/16*	*Completed*
Submit Amended Work Scope to Steering Committee	Co-Chairs	10/17/16	*Completed*
Send Draft (v1) Outline to Working Group	Co-Chairs	10/18/16	Completed
Send Revised Draft (v2) Outline to Working Group	Co-Chairs	10/24/16	Completed
Send Revised Draft (v1) Report to Working Group	Co-Chairs	11/1/16	Completed
Send Revised Draft (v2) Report to Working Group	Co-Chairs`	11/10/16	Completed
Finalize Draft Report	Working Group	11/22/16	Completed
Send Draft Report to Steering Committee	*Co-Chairs*	*11/23/16*	*Completed*
Incorporate Steering Committee Feedback into Report	Co-Chairs	12/1/16	Completed
Send Revised Draft (v3) Report to Working Group	Co-Chairs	12/1/16	Completed
Finalize Report	Working Group	12/20/16	Completed
File Final Voluntary Investment Report	***Co-Chairs***	***12/21/16***	***Completed***
FILE VOLUNTARY INVESTMENT PROPOSAL	***DPS***	***3/1/17***	
Consideration of Additional Work Scope[2]			
Discuss & Prioritize Additional Tasks	Working Group	January, 2017	Completed
~~Assign Working Group Member~~	~~Working Group~~	~~TBD~~	
~~Send Draft Scope & Justification to Working Group~~	~~Co-Chairs~~	~~TBD~~	
~~Finalize Draft Scope & Justification~~	~~Working Group~~	~~TBD~~	
~~*Send Draft Scope & Justification to Steering Committee*~~	~~*Co-Chairs*~~	~~*TBD*~~	

[2] In accordance with the Working Group's Work Scope, the Working Group may propose additional objectives, tasks, and deliverables to the Steering Committee at any time. However, no later than 90 days following the completion of the previously assigned deliverables, the Working Group must provide the CEAC Steering Committee with a recommendation to either adopt additional scope or fold the Working Group.

Task	Responsibility	Due Date	Status
~~Incorporate Steering Committee Feedback into Scope~~	~~Co-Chairs~~	~~TBD~~	
~~Send Revised Scope to Working Group~~	~~Co-Chairs~~	~~TBD~~	
~~Finalize Revised Scope~~	~~Working Group~~	~~TBD~~	
~~***File Revised Work Scope***~~	~~***Co-Chairs***~~	~~***TBD***~~	

Revisions:

This Work Plan is a living document and the VIOMD WG will revise it on a regular basis to include additional tasks assigned to the Working Group and to reflect any changes to the Working Group schedule. Revisions to this Work Plan will be included as a components of the Written Update to the Steering Committee.

Steering Committee Update

EE Procurement and Markets Working Group, Matter #16-01006

Energy Efficiency (EE) Market Procurement Recommendations Report:

Recent Progress:

The Energy Efficiency (EE) Procurement and Markets Working Group has been hard at work in the new year, meeting biweekly in New York City and Albany. As noted in the last update, the work has shifted to the deliverables of Work Stream 2, focused on business models for energy efficiency procurement in an animated market.

A full day, in-person meeting is scheduled for February 10, in New York City; the focus of that day will be to discuss in detail the structure and market flows of various business models, the implications for the different market actors in different sectors, while ensuring that the methods comply with key market principles and REV policy goals. A second all-day meeting may be scheduled in March, as needed and appropriate.

The group is using the Report on Market Procurement Methods prepared for the Working Group by the Joint Utilities, described in the last update, as a starting point for this next phase of work. Led by Megan Fisher, the group has formed three subgroups to help deepen discussion and help organize for the production of draft sections for the final report. Subgroups include:

1. Large commercial sector – considering business models targeting large commercial customers, pros and cons of procurement via various methods (i.e. RFP, auction/bid, or standing tariff) and how those will comply with REV principles
2. Residential sector – same as above from residential perspective
3. Online marketplace/platform services - explore potential platform services, including financing, and include REV demo project lessons

The subgroups will be meeting ahead of the full-day session and will fully explore specific procurement models as applied to their sectors in advance of the Feb. 10 meeting. The Working Group had previously prepared some analytical tools to help understand various scenarios and combinations of market actors and methods. First, we established Foundational Market Principles, providing a sort of checklist to use throughout the exercises. A second tool is a set of market flow diagrams indicating money, information, and benefits flows to various parties; a third is a business model template, laying out the stakeholder relationships and value propositions in each example from the points of view of the utility, the market actor, and REV policy goals.

These tools will help direct the work of the subgroups in advance of the full-day meeting. The goal is to come out of the full day meeting with a strong start in the preparation of sections of the draft report, which the Working Group will be developing over the next weeks and months.

As noted in the last update, the Steering Committee granted our request for an extension of the draft report until April 20, and for the final report until May 19.

Areas of ongoing discussion:

The group has been focused on methodology issues for the past few meetings, trying to figure out the best approach to a fruitful exploration of business models for energy efficiency in a REV environment. Do we start with procurement methods and parse them through the various filters of the different market and utility actors? Or do we begin with the parties and explore the methods from those points of view?

The scope of the group as written in the CEAC order tasks us with considering 'multiple alternative approaches for utility procurement of energy efficiency as a utility system resources as well as related opportunities for new commercial business models that drive delivery of energy efficiency.' The method we have chosen to pursue, as described above, should accommodate that scope, and the group appears willing to work at trying to ultimately satisfy both the procurement and the market actor perspectives. We will also be considering both energy reductions and load reductions, testing how flows differ with each focus, as directed by the original scope. And we will be assessing the various models in light of the Foundational Market Principles, as well as through the lens of REV policy goals, as noted above.

Updates to the Work Plan:

First, the Working Group is grateful to the Steering Committee for granting the requested extensions. Updates to the work plan below include:

- An in-person, all-day meeting on Feb. 10 to further the group's work and make progress toward draft sections of the report
- Due dates and review cycles for sections and versions of the draft report

Expected Coordination/Task Dependencies:

We may Coordinate with REVConnect representatives to possibly attend one of the full day meetings.

Energy Efficiency Procurement & Markets Working Group Work Plan

Background:

By order issued January 21, 2016 (January CEF Order),[1] the New York Public Service Commission (the Commission) established the Clean Energy Advisory Council (CEAC). The Commission required that the CEAC address specific issues and provide the Commission or Staff with recommendations and reports regarding such issues. To comply with the Commission directives, the CEAC developed a structure that relies upon Working Groups to conduct the necessary research and analysis and to prepare reports regarding their findings and recommendations.

The CEAC established the Energy Efficiency Procurement & Markets Working Group to develop strategies to create vibrant markets for energy efficiency as an attractive business opportunity. This Working Group initially is responsible for developing (1) recommendations for an energy efficiency target or set of targets which will support an earning opportunity metric for utilities and (2) options for and a recommended approach to developing a sustainable market for procuring energy efficiency as a demand reducing resource. In each instance, the Working Group will document its research and recommendations, including any alternative viewpoints, in a final report which shall be filed with the Commission for consideration.

Overview:

To complete the work set forth in the Working Group Scope filed with the Commission on June 20, 2016, the Working Group expects to meet biweekly. Between meetings, the Working Group members will carry out work through sub-groups tasked with conducting research and analysis that the Working Group has organized into “work streams.”

The Working Group intends to provide updates regarding progress and working schedule to the Steering Committee at the Steering Committee’s public meetings.

[1] Case 14-M-0094 et al, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016).

Schedule:

Task	Responsibility	Due Date	Status
Updates to Steering Committee:			
Send draft of written update to Working Group	*Steering Committee Designee*	*7/5/16*	*complete*
Send written update to Steering Committee	*Steering Committee Designee*	*7/6/16*	*complete*
Send draft of written update to Working Group	*Steering Committee Designee*	*8/8/16*	*complete*
Send written update to Steering Committee	*Steering Committee Designee*	*8/10/16*	*complete*
Send draft of written update to Working Group	*Steering Committee Designee*	*9/8/16*	*complete*
Send written update to Steering Committee	*Steering Committee Designee*	*9/12/16*	*complete*
			N/A
			N/A
Send draft of written update to Working Group	*Steering Committee Designee*	*10/25/16*	*complete*
Send written update to Steering Committee	*Steering Committee Designee*	*10/27/16*	*complete*
Send draft of written update to Working Group	*Steering Committee Designee*	*12/2/16*	*N/A*
Send written update to Steering Committee	*Steering Committee Designee*	*12/6/16*	*N/A*
Send draft of written update to Working Group	*Steering Committee Designee*	*12/21/16*	*complete*
Send written update to Steering Committee	*Steering Committee Designee*	*1/3/16*	*complete*
Send draft of written update to Working Group	*Steering Committee Designee*	*1/27/16*	
Send written update to Steering Committee	*Steering Committee Designee*	*1/31/16*	
Energy Efficiency (EE) Targets and Metrics Recommendations Report:			
Work stream 1.1 - Subgroup to compile background, foundational data, and analysis of EE potential in NYS			
Work stream 1.2 - Subgroup to identify and analyze options for EE targets, metrics, and alternative utility earnings opportunities			
Work stream 1.3 - Subgroup to assemble and analyze available data to balance goals across metrics: energy efficiency, peak reduction, load factor			
Coordinate with Metrics, Tracking, and Performance Assessment Working Group	Co-Chairs and Work stream subgroup 1.2	ongoing	*in progress*
Send Draft Outline, interim data tables, and key questions from work stream 1.1 to other Working Group members	Work stream subgroup 1.1	7/13/16	*complete*

Task	Responsibility	Due Date	Status
Send Draft Outline and key questions from work stream 1.2 to other Working Group members	Work stream subgroup 1.2	7/13/16	*complete*
Send Draft Outline and key questions from work stream 1.3 to other Working Group members	Work stream subgroup 1.3	7/13/16	*complete*
Written feedback on Draft Outlines from Working Group members to subgroups	All Working Group Members	7/19/16	*verbal feedback @ 7/21 mtg*
Create Report Outline compiled of work stream 1.1-1.3 Draft Outline	Co-Chairs	7/20/16	*complete*
All day working session	All WG Members	7/21/16	*complete*
Send Revised Work Stream Outlines to other Working Group members, for comment by 8/2/16	Work stream subgroups 1.1-1.3	7/29/16	*complete*
Finalize Report Outline	Co-Chairs/ Work stream leads	8/5/16	*complete*
Send Outline to Steering Committee	*Co-Chair*	*8/10/16*	*complete*
Incorporate Steering Committee Feedback Report Outline	Work stream subgroups	8/22/16	*complete*
All day working session	All WG Members	8/30/16	*complete*
Send Draft (v1) report section from work stream 1.1 to other Working Group members	Work stream subgroup 1.1	9/21/16	*complete*
Send Draft (v1) report section from work stream 1.2 to other Working Group members	Work stream subgroup 1.2	9/26/16	*complete*
Send Draft (v1) report section from work stream 1.3 to other Working Group members	Work stream subgroup 1.3	9/28/16	*complete*
Written feedback on Draft (v1) report from other Working Group members to Co-Chairs and work stream leads	All Working Group Members	10/5/16	*complete*
Finalize Draft Report	Co-Chairs/ Work stream leads	10/7/16	*complete*
Send Draft Report to Steering Committee, present on 11/20	*Co-Chair*	*10/11/16*	*complete*
Full day working session Incorporate Steering Committee Feedback into Report and send to other working group members	All Members drafting leads	10/19/16 10/26/16	*complete*
Feedback on Draft (v2) Report sections from other Working Group members	All Working Group Members	10/28/16	*revised*
Send Revised Draft (v2) Report to Working Group	Work stream subgroups 1.1-1.3	10/31/16	
Finalize Report	Co-Chairs/ Work stream leads	11/2/16	
File Final Energy Efficiency Targets and Metric Recommendations Report	***Co-Chair***	***11/3/16***	***revised per Scope***
Energy Efficiency Market Procurement Recommendations Report:			
Work stream 2.1 - Subgroup to identify and analyze alternative "approaches" to utility procurement of energy EE (MWh,			

Task	Responsibility	Due Date	Status
MW, and Dth) including recommendations regarding potential future EE market states. Work Stream 2.2 – Subgroup to determine how to find and monetize the total value in a unit of energy efficiency in order to create cash flows for securitization			
Share relevant insights from initial analysis that inform work streams 1.1 - 1.3	Work stream subgroup 2.1	ongoing	*in progress*
Discuss revised Work Plan with refined work stream subgroups (as appropriate) during 8/30/16 meeting	Work stream 2.1 lead	8/30/16	*complete*
Finalize revised Work Plan and work stream subgroups	Work stream 2.1 lead/ Co-Chairs	9/9/16	*complete*
Send revised Work Plan to Steering Committee	*Co-Chair*	*9/13/16*	*complete*
Send Draft Outline from work stream 2.1 and 2.2 to other Working Group members	Work stream subgroup 2.1 and 2.2 leads	10/12/16	*complete*
Written feedback on Draft Outline from Working Group members to subgroups	All Working Group Members	10/17/16	*complete*
Create Report Outline	Co-Chairs	10/19/16	*complete*
All day working session	All WG Members	10/19/16	*complete*
Revised Work Stream Outline	Work stream subgroup 2.1 (+)	10/21/16	*complete*
Finalize Report Outline	Co-Chairs/ Work stream lead	10/25/16	*complete*
Send Outline to Steering Committee	*Co-Chair*	*10/26/16*	*complete*
~~Revise outline based on Steering Committee Feedback and JU business and procurement model concept document; assign sections to~~Assign new subgroups	~~All Working Group Members~~Co-chair	~~2/3~~1/30/17	revised
Prep for all-day meeting	All WG Members	2/9/17	revised
All day working session	All WG Members	~~TBD~~2/10/17	revised
All day working session	All WG Members	TBD 3/10/17	revised
Subgroups submit report sections	Subgroup leads	3/13/17	revised
Send Draft (v1) report ~~section~~ to full Working Group	~~Work stream subgroups~~Co-Chair	3/2~~7~~4/17	revised
Written feedback due on Draft (v1) report ~~from other Working Group members to subgroup responsible for each section~~	All Working Group Members	~~4/5~~4/3/17	revised
Send Draft (v2) report to full Working Group	Co-Chair	4/7/17	revised
Written feedback due on Draft (v2) report	All Working Group Members	4/16/17	revised
Finalize Draft Report	Co-Chairs/ ~~Work stream~~ subgroup leads	4/19~~13~~/17	revised
Send Draft Report to Steering Committee	*Co-Chair*	4/20/17	
Incorporate Steering Committee Feedback into each Report sub-section and send to working group members creating (v~~2~~3)	Co-chair and subgroups leads	5/5/17	revised

Task	Responsibility	Due Date	Status
Feedback on Draft (v~~2~~3) Report sections from other Working Group members	All Working Group Members	5/1~~1~~2/17	revised
~~Send Revised Draft (v2) Report to Working Group~~	~~Work stream subgroups~~	~~5/16/17~~	revised
Finalize Report	Co-Chairs/ Work stream leads	5/18/17	revised
File Energy Efficiency Market Procurement Recommendations Report	***Co-Chair***	***5/19/17***	
Consideration of Additional Work Scope:[2]			
Discuss & Prioritize Additional Tasks	Working Group	6/9/17	
Send Draft Scope & Justification to Working Group for Feedback	Assigned Member(s)	6/23/17	
Revise Draft Scope & Justification	Assigned Member(s)	6/30/17	
Send Revised Scope to Working Group	Assigned Member(s)	7/5/17	
Finalize Revised Scope	Working Group	7/19/17	
File Revised Work Scope	***Co-Chair***	***7/21/17***	

Revisions:

This Work Plan is a living document and the Working Group will revise it on a regular basis to include additional tasks assigned to the Working Group and to reflect any changes to the Working Group schedule. Revisions to this Work Plan will be included as a component of the Written Update to the Steering Committee. In instances where the Working Group determines that it will be unable to meet the deadlines established by the CEAC Steering Committee, it will comply with the revision process outlined in the CEAC Work Plan and update this Work Plan accordingly.

[2] In accordance with the Working Group's Work Scope, the Working Group may propose additional objectives, tasks, and deliverables to the Steering Committee at any time. However, no later than 90 days following the completion of the previously assigned deliverables, the Working Group must provide the CEAC Steering Committee with a recommendation to either adopt additional scope or fold the Working Group.

Steering Committee Update
Clean Energy Implementation & Coordination Working Group

A Revised Work Plan reflecting the updates to the Work Plan described below is attached.

E^2 Transition Recommendations Report:

Recent Progress:

Complete

Multiple Incentives Inventory & Recommendations Report:

Recent Progress:

Complete

Utility / NYSERDA Coordination Report:

Recent Progress:

The final report has been completed and was filed on January 31, 2017.

Updates to the Work Plan:

The statuses of specific tasks have been updated.

Expected Coordination/Task Dependencies:

The CEI&C Working Group expects that coordination will be necessary with the ***Metrics, Tracking and Performance Assessment Working Group*** as it finalizes its Utility / NYSERDA Evaluation Coordination Recommendations Report to ensure a consistent approach to coordination.

Consideration of Additional Work Scope:

Updates to the Work Plan:

The CEI&C Working Group will implement the recommendations and findings from the Coordination Report in an on-going basis. If the Working Group identifies any additional work scopes outside of this collaboration work, they will be presented to the Steering Committee.

Program Administrator Coordination:

Recent Progress:

The CEI&C Working Group held its first coordination meeting on January 18, 2017 to test the collaboration process set out in the Coordination Report. During this initial meeting, the Working Group reviewed the updated Incentive Inventory to set a baseline of current and upcoming initiatives. Ongoing monthly and quarterly meetings will focus more narrowly on specific segments, programs, or technologies.

Clean Energy Implementation & Coordination Working Group Work Plan

Background:

By order issued January 21, 2016 (January CEF Order),[1] the New York Public Service Commission (the Commission) established the Clean Energy Advisory Council (CEAC). The Commission required that the CEAC address specific issues and provide the Commission or Staff with recommendations and reports regarding such issues. To comply with the Commission directives, the CEAC developed a structure that relies upon Working Groups to conduct the necessary research and analysis and to prepare reports regarding their findings and recommendations.

The CEAC established the Clean Energy Implementation & Coordination Working Group to coordinate planning and implementation among New York's clean energy program administrators, in consultation with DPS Staff to better support New York's clean energy policy objectives, provide clarity to the market, and serve ratepayers.

Overview:

To complete the work assigned by the Steering Committee in accordance with the schedule established in the Clean Energy Implementation & Coordination Working Group Scope, the Working Group expects to meet once a week. The Working Group expects most of its meetings to be conducted as teleconferences, however, if necessary, the Working Group will also conduct webinars and in-person meetings. Between meetings, the Working Group members will conduct work through email.

The Working Group will seek public input regarding the Multiple Incentives Report and the Utility / NYSERDA Coordination Report. The Working Group will announce the specific processes and timelines for public input for each report in Matter 16-01005.

The Working Group intends to provide updates regarding progress and working schedule to the Steering Committee at the Steering Committee's public meetings.

[1] Case 14-M-0094 et al, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016).

Schedule:

Task	Responsibility	Due Date	Status
Updates to Steering Committee:			
Send Written Update to Steering Committee	*Co-Chair/Secretary*	*7/6/16*	*Complete*
Send Written Update to Steering Committee	*Co-Chair/Secretary*	*8/10/16*	*Complete*
Send Written Update to Steering Committee	*Co-Chair/Secretary*	*9/12/16*	*Complete*
Send Written Update to Steering Committee	*Co-Chair/Secretary*	*10/27/16*	*Complete*
Send Written Update to Steering Committee	*Co-Chair/Secretary*	*1/3/16*	*Complete*
Send Written Update to Steering Committee	*Co-Chair/Secretary*	*1/31/16*	*Complete*
E^2 Transition Recommendations Report:			
Send Draft E^2 Activity List to Working Group	Katie Mammen	5/26/16	Complete
Finalize Activity List	Working Group	6/3/16	Complete
Send Draft (v1) Report to Working Group	Katie Mammen	6/10/16	Complete
Finalize Draft Report	Working Group	6/29/16	Complete
Send Draft Report to Steering Committee	*Co-Chair*	*7/1/16*	*Complete*
Incorporate Steering Committee Feedback into Report	Katie Mammen	7/20/16	Complete
Send Revised Draft (v2) Report to Working Group	Katie Mammen	7/20/16	Complete
Finalize Report	Working Group	7/20/16	Complete
File Final E^2 WG Transition Recommendations Report	***Co-Chair***	***8/1/16***	***Complete***
Multiple Incentive Inventory:[2]			
Send Draft (v1) Inventory to Working Group	Chris Corcoran	5/26/16	Complete
Send Inventory Additions/Corrections to Chris Corcoran	All Members	6/22/16	In-Progress
Send Revised Draft (v2) Inventory to Working Group	Chris Corcoran	6/27/16	Complete
Send Program/Initiative List to Working Group	Chris Corcoran	6/27/16	Complete
Finalize Program/Initiative List for Inventory	Working Group	7/1/16	Complete
Send Program/Initiative List to Steering Committee	*Co-Chair*	*7/6/16*	*Complete*
Incorporate Steering Committee Feedback into Inventory	Chris Corcoran	7/15/16	Complete
Send Revised Draft (v3) Inventory to Working Group	Chris Corcoran	7/15/16	Complete
Send Inventory Additions/Corrections to Chris Corcoran	All Members	7/29/16	Complete
Send Revised Draft (v4) Inventory to Working Group	Chris Corcoran	8/1/16	Complete
Finalize Draft Inventory	Working Group	8/5/16	Complete
Send Draft Inventory to Steering Committee	*Co-Chair*	*8/8/16*	*Complete*
Incorporate Steering Committee Feedback into Inventory	Chris Corcoran	8/18/16	Complete
Send Revised Draft Inventory (v5) to Working Group	Chris Corcoran	8/18/16	Complete
Send Inventory Additions/Corrections to Chris Corcoran	All Members	8/24/16	Complete

[2] The Multiple Incentive Inventory, although shown separately for purposes of this Work Plan, is a component of the Multiple Incentive Recommendations Report. Therefore, the Incentive Inventory and Multiple Incentive Report deliverables will be sent to the Steering Committee and Filed in DMM as a single document.

Task	Responsibility	Due Date	Status
Send Revised Draft Inventory (v6) to Working Group	Chris Corcoran	8/26/16	Complete
Finalize Inventory	Working Group	8/29/16	Complete
File Final Incentive Inventory	***Co-Chair***	***9/13/16***	***Complete***
Multiple Incentive Recommendations Report:			
Assign Working Group Member	Working Group	6/3/16	Complete
Send Draft Outline to Working Group	Gayle Pensabene	6/15/16	Complete
Finalize Outline	Working Group	7/1/16	Complete
Finalize Method for Public Input	Working Group	7/1/16	Complete
Send Outline to Steering Committee	*Co-Chair*	*7/6/16*	*Complete*
File Public Input Process Announcement	***Co-Chair***	***7/6/16***	***Complete***
Send Draft (v1) Report to Working Group	Assigned Members	7/8/16	Complete
Incorporate Outline Feedback into Draft Report	Assigned Members	7/15/16	Complete
Send Revised Draft (v2) Report to Working Group	Co-Chair	7/15/16	Complete
Public Comment Due	Public	7/22/16	Complete
Incorporate Public Comment into Draft Report	Assigned Member	7/29/16	Complete
Send Revised Draft (v3) Report to Working Group	Co-Chair	7/29/16	Complete
Finalize Draft Report	Working Group	8/5/16	Complete
Send Draft Report to Steering Committee	*Co-Chair*	*8/8/16*	*Complete*
Incorporate Steering Committee Feedback into Report	Assigned Member	8/24/16	Complete
Send Revised Draft (v4) Report to Working Group	Assigned Member	8/24/16	Complete
Finalize Report	Working Group	9/12/16	Complete
File Final Multiple Incentives Report	***Co-Chair***	***9/13/16***	***Complete***
FILE MULTIPLE INCENTIVE GUIDANCE	***DPS***	***10/3/16***	***Complete***
Utility / NYSERDA Coordination Report:			
Assign Working Group Member	Working Group	8/17/16	Complete
Send Draft Outline to Working Group	Assigned Members	9/14/16	Complete
Finalize Outline	Working Group	9/23/16	Complete
Send Outline to Steering Committee	*Co-Chair*	*10/27/16*	*Complete*
Send Initial Draft (v1) Report to Working Group	Assigned Member	10/25/16	Complete
Incorporate Steering Committee Feedback into Report	Assigned Member	11/4/16	Complete
Finalize Initial Draft Report	Working Group	11/14/16	Complete
Finalize Method for Public Input	Working Group	11/14/16	Complete
File Public Input Process Announcement	***Co-Chair***	***11/14/16***	***Complete***
Public Comment/Input Due	Public	11/23/16	Complete
Send Draft Report (v2) to Working Group	Assigned Member	11/30/16	Complete
Finalize Draft Report	Working Group	12/1/16	Complete
Send Draft Report to Steering Committee	*Co-Chair*	*12/2/16*	*Complete*
Incorporate Steering Committee Feedback into Report	Assigned Member	1/18/17	Complete
Send Revised Draft Report to Working Group	Assigned Member	1/18/17	Complete

Task	Responsibility	Due Date	Status
Finalize Report	Working Group	1/25/17	Complete
File Final Utility/NYSERDA Coordination Report	***Co-Chair***	***1/31/17***	***Complete***
~~**Consideration of Additional Work Scope**[3]~~			
~~Discuss & Prioritize Additional Tasks~~	~~Working Group~~	~~2/2/17~~	
~~Assign Working Group Member~~	~~Working Group~~	~~2/2/17~~	
~~Send Draft Scope & Justification to Working Group~~	~~Assigned Member~~	~~2/16/17~~	
~~Finalize Draft Scope & Justification~~	~~Working Group~~	~~3/9/17~~	
~~*Send Draft Scope & Justification to Steering Committee*~~	~~*Co-Chair*~~	~~*3/10/17*~~	
~~Incorporate Steering Committee Feedback into Scope~~	~~Assigned Member~~	~~3/22/17~~	
~~Send Revised Scope to Working Group~~	~~Assigned Member~~	~~3/23/17~~	
~~Finalize Revised Scope~~	~~Working Group~~	~~4/6/17~~	
~~***File Revised Work Scope***~~	~~***Co-Chair***~~	~~***4/7/17***~~	

Revisions:

This Work Plan is a living document and the Working Group will revise it on a regular basis to include additional tasks assigned to the Working Group and to reflect any changes to the Working Group schedule. Revisions to this Work Plan will be included as a component of the Written Update to the Steering Committee. In instances where the Working Group determines that it will be unable to meet the deadlines established by the CEAC Steering Committee, it will comply with the revision process outlined in the CEAC Work Plan and update this Work Plan accordingly.

~~[3] In accordance with the Working Group's Work Scope, the Working Group may propose additional objectives, tasks, and deliverables to the Steering Committee at any time. However, no later than 90 days following the completion of the previously assigned deliverables, the Working Group must provide the CEAC Steering Committee with a recommendation to either adopt additional scope or fold the Working Group.~~

Steering Committee Update
LMI Clean Energy Initiatives Working Group

A Revised Work Plan reflecting the updates to the Work Plan described below and highlighting those activities expected to occur prior to the March 2017 Clean Energy Advisory Council (CEAC) Steering Committee Meeting is attached.

Report on Alternative Approaches to Providing LMI Clean Energy Services:

Recent Progress:

The co-chairs of the working group presented a summary of the draft report on alternative approaches to providing LMI clean energy services to the Steering Committee on January 10, 2017. Based on input received from the Steering Committee, which is reflected in the Steering Committee Meeting notes, the working group made revisions to the report. The report was due to be filed on January 31, 2017, however several working group members requested additional time so that they could include their opinions or comments on the report in the Working Group Member Comments section, where their views differ from the material presented in the report. The report will be filed in DMM on February 3, 2017.

Updates to the Work Plan:

The work plan was updated to reflect that the file date for the final report is February 3, 2017.

Expected Coordination/Task Dependencies:

The LMI Working Group has identified the need to discuss the potential for the development of a low-income or affordability EAM with the Energy Efficiency Procurement & Markets Working Group. The working group will consider this dependency as part of the discussion on the continuation of working group activities. If the working group decides that the working group activities should continue, the chairs of the LMI working group will have an initial discussion on this topic with the chairs of the Energy Efficiency Procurement & Markets Working Group.

Recommendation Regarding Continuation of Working Group Activities

Recent Progress:

The Working Group has not discussed the continuation of Working Group activities and will contemplate the continuation of activities after the completion of the Report.

Updates to the Work Plan:

With the extension on the date for the Report filing, the work on the recommendation regarding the continuation of Working Group activities was also shifted out, to March 2017. Once a date

for the CEAC meeting in March 2017 is identified, the specific dates for the development and delivery of the recommendation will be determined.

Low & Moderate-Income (LMI) Clean Energy Initiatives Working Group Work Plan

Background:

By order issued January 21, 2016 (January CEF Order),[1] the New York Public Service Commission (the Commission) established the Clean Energy Advisory Council (CEAC). The Commission required that the CEAC address specific issues and provide the Commission or Staff with recommendations and reports regarding such issues. To comply with the Commission directives, the CEAC developed a structure that relies upon Working Groups to conduct the necessary research and analysis and to prepare reports regarding their findings and recommendations.

The CEAC established the LMI Clean Energy Initiatives Working Group (Working Group) to provide a venue for NYSERDA, the utilities, and other interested stakeholders to actively evaluate alternate approaches for the delivery of services to LMI customers that can improve customer value, for the customers served as well as for the ratepayer funding invested.

The Working Group is tasked with developing a set of recommendations on alternative approaches to providing LMI clean energy services by assessing the strengths and weaknesses of the current approaches to providing these services, and identifying and assessing alternative approaches deployed in other jurisdictions. In addition, the Working Group will make a recommendation to the Steering Committee on the continuation of Working Group activities, beyond the submission of the recommendations report.

Overview:

To complete the work assigned by the Steering Committee in accordance with the schedule established in the LMI Clean Energy Initiatives Working Group Scope, the full Working Group expects to meet bi-weekly, with subgroups meeting on a more frequent basis. The Working Group expects most of its meetings to be conducted via webinar and teleconference, however, where necessary the Working Group will schedule in-person meetings. Between meetings, the Working Group members will conduct work through email.

The Working Group will provide updates on progress and working schedule to the Steering Committee at the Steering Committee's public meetings.

[1] Case 14-M-0094 et al, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016).

Schedule:

Task	Responsibility	Due Date	Status
Written Updates to CEAC Steering Committee			
Send written update to Steering Committee	Co-Chair/Designee	7/6/16	Complete
Send written update to Steering Committee	Co-Chair/Designee	8/10/16	Complete
Send written update to Steering Committee	Co-Chair/Designee	9/12/16	Complete
Send written update to Steering Committee	Co-Chair/Designee	10/27/16	*Complete*
Send written update to Steering Committee	Co-Chair/Designee	12/6/16	*Complete*
Send written update to Steering Committee	Co-Chair/Designee	1/3/17	*Complete*
Send written update to Steering Committee	Co-Chair/Designee	2/1//17	*Complete*
Report Out to CEAC Steering Committee			
Report out to the Steering Committee	Designee/Alternate Designee	6/16/16	Complete
Report out to the Steering Committee	Designee/Alternate Designee	7/13/16	Complete
Report out to the Steering Committee	Designee/Alternate Designee	8/17/16	Complete
Report out to the Steering Committee	Designee/Alternate Designee	9/19/16	Complete
Report out to the Steering Committee	Designee/Alternate Designee	*11/3/16*	Complete
Report out to the Steering Committee	Designee/Alternate Designee	1/10/17	Complete
Report out to the Steering Committee	Designee/Alternate Designee	2/7/17	Complete
Report on Alternate Approaches to Providing LMI Clean Energy Services			
Develop subgroup structure	Working Group	7/7/16	Complete
Develop the Report Outline and send to the Working Group for review	Co-Chairs	7/7/16	Complete
Feedback on the Report Outline from the Working Group due	Working Group	7/21/16	Complete
Finalization of the Report Outline	Working Group	7/25/16	Complete
Send the Report Outline to the Steering Committee	***Co-Chairs***	***8/10/16***	***Complete***
Finalize approach for soliciting stakeholder input	Working Group	8/17/16	Complete
Components of the First Draft finalized by Working Group (e.g.: assessment of current initiatives and recommendations)	Co-Chairs	11/23/16	*Complete*
Revisions to First Draft incorporated and sent to the Steering Committee for comment	***Co-Chairs***	***12/21/2016***	***Complete***
Finalize Report	Working Group	1/30/2017	Complete
File Report in DMM	***Co-Chairs***	***2/3/2017***	**Complete**

Task	Responsibility	Due Date	Status
Recommendation Regarding Continuation of Working Group Activities			
Provide recommendation to the Steering Committee	Working Group	March 2017	Not started
Provide a draft revision to the workscope, including tasks and deliverables, to the Working Group	Co-Chairs	March 2017	Not started
Finalize revised workscope, including tasks and deliverables	Working Group	March 2017	Not started
Submit final revisions to workscope, including tasks and deliverables to Steering Committee	Co-Chairs	March 2017	Not started
File revised workscope in DMM	Co-Chairs	March 2017	Not started

Revisions:

This Work Plan is a living document and the Working Group will make revisions when necessary to include additional tasks assigned to the Working Group and to reflect any changes to the Working Group schedule. Revisions to this Work Plan will be included as a component of the Written Update to the Steering Committee. In instances where the Working Group determines that it will be unable to meet the deadlines established by the CEAC Steering Committee, it will comply with the revision process outlined in the CEAC Work Plan and update this Work Plan accordingly.

Clean Energy Advisory Council
Steering Committee Public Meeting/Call Schedule

Calendar Year 2017:

Date	***Time***	***Location***
Tuesday, January 10th	*10:00 a.m. – 12:00 p.m.*	*Call / Webinar*
Tuesday, February 7th	*1:00 – 3:00 p.m.*	*Meeting - Albany, NY*
~~*Tuesday, March 21st*~~	~~*10:00 a.m. – 12:00 p.m.*~~	~~*Call / Webinar*~~
Thursday, April 27th	*1:00 – 3:00 p.m.*	*Meeting – Albany, NY*
~~*Thursday, May 25th*~~	~~*10:00 a.m. – 12:00 p.m.*~~	~~*Call / Webinar*~~
Thursday, June 22nd	*1:00 – 3:00 p.m.*	*Meeting – Albany, NY*
Tuesday, October 24th	*1:00 – 3:00 p.m.*	*Meeting – Albany, NY*

For those unable to travel to attend the in-person meetings, the meetings will also support participation via teleconference and/or webinar.

In-person meetings occurring in Albany, NY will be held in the 19th Floor Board Room of the Department of Public Service office located at Three Empire State Plaza, Albany, New York. The Department will also provide video to its Buffalo and New York City offices.

In-person meetings occurring in NY, NY will be held in the Board Room of the Department of Public Service NYC office located at 90 Church Street, New York, NY. The Department will also provide video to its Albany and Buffalo offices.