STATE OF NEW YORK

PUBLIC SERVICE COMMISSION

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

REPLY COMMENTS

Acadia Center, Association for Energy Affordability,

Citizens for Local Power, Citizens Campaign for the Environment,

Environmental Advocates of New York, Environmental Entrepreneurs,

Natural Resources Defense Council, The Nature Conservancy,

New York League of Conservation Voters, New York Public Interest Research Group,

Pace Energy and Climate Center, and Sierra Club

Dated: November 23, 2015

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Reply Comments to New York State Department of Public Service

Track 2 White Paper

Case 14-M-0101

November 23, 2015

I. INTRODUCTION AND SUMMARY

On July 28, 2015 the New York State Department of Public Services Staff ("Staff") filed a White Paper ("White Paper")[1] in response to the Commission's April 2014 Order Instituting Proceeding regarding Case 14-M-0101. The Staff invited parties to submit comments on several recommendations pertaining to Track 2 of the Reforming the Energy Vision ("REV") proceeding by October 26, 2015, and reply comments by November 23, 2015.

Acadia Center[2], Association for Energy Affordability, Citizens for Local Power, Citizens Campaign for the Environment, Environmental Advocates of New York, Environmental Entrepreneurs, Natural Resources Defense Council, The Nature Conservancy, New York League of Conservation Voters, New York Public Interest Research Group, Pace Energy and Climate Center, and Sierra Club, filing jointly as the Clean Energy Organizations Collaborative ("CEOC"),[3] appreciate the opportunity to provide these reply comments on the White Paper. This document builds upon many points raised in previous filings from CEOC members,[4] and was prepared with the assistance of Synapse Energy Economics, Inc.

In our initial comments, CEOC described a set of guiding principles that were used to inform our recommendations.[5] We continue to use these principles to inform our recommendations in these reply comments. They include the following:

1. Emissions reduction must be central to the Commission's new ratemaking policies.

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[1] Case 14-M-0101. Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, Developing the REV Market in New York: Staff White Paper on Ratemaking and Utility business Models (July 28, 2015).

[2] Acadia Center will be filing additional, separate reply comments in this proceeding.

[3] The Pace Energy and Climate Center and the Alliance for Clean Energy New York co-convene an independent group called the Clean Energy Organizations Collaborative on REV-related matters. This collaborative is made up of national and state-based environmental organizations, clean energy companies and organizations, renewable energy industry trade associations, consumer groups, energy efficiency providers, and academic centers. The CEOC seeks to ensure environmental outcomes that are consistent with New York's overall pollution reduction goals; break down existing barriers to clean energy services; and inform its members on market and rate design issues.

[4] Case 14-M-0101. Core Principles for Reforming the Energy Vision and Creating a Clean Energy Fund from Columbia's Sabin Center for Climate Change Law, Environmental Defense Fund, Natural Resources Defense Council and Pace Energy and Climate Center (May 27, 2014).

[5] CEOC, *Initial Comments*, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, October 26, 2015, pp. 7-9.

2. The Commission must strongly support and expand energy efficiency.
3. The Commission must ensure that all customers are allowed to and encouraged to benefit from REV innovations.
4. Distributed Energy Resources ("DER") must be fully valued.
5. Utility financial incentives should be aligned with REV objectives.
6. Market mechanisms must be demonstrated to be effective before they are relied upon.

Our reply comments highlight some of the most important areas where other parties' comments were consistent with our own and build upon those ideas, and respond to the comments that diverged from our own. Below we provide a summary of our recommendations for some of those key topics.

Properly calculating the full value of DER is widely accepted as a critical element necessary to implement REV reforms successfully. CEOC believes that Staff should articulate more explicitly what values will be included in the "D" portion of "LMP+D." In the White Paper the Staff noted that values can include load reduction, frequency regulation, reactive power, line loss avoidance, and resilience, as well as capacity requirements and emission avoidance.[6] CEOC recommends that the Staff clarify and expand upon this description by explicitly stating that the value of "D" should include the following components:

- All relevant retail service benefits, such as load reduction, impact on installed capacity requirements, avoided retail costs due to avoided system costs (including costs of both transmission and distribution-level infrastructure and line losses), reactive power benefits for the distribution system, and frequency regulation and voltage support for the distribution system.
- All relevant public policy benefits, such as avoided environmental externalities, reliability benefits, resiliency benefits, and economic development benefits.

We note that the term "Value of D" is misleading in that the value of "D" includes numerous retail service benefits and public policy benefits. We recommend that in establishing the value of DER, Staff keep each individual component of the value of DER separate, rather than blending them all into a single non-transparent value. Furthermore, in addition to

[6] Staff White Paper, p. 91.

calculating the retail value of DER (the value that Staff has referred to as "LMP+D," which includes both sets of components above), Staff should also calculate the total value of DER that includes the value that DERs may have as bulk transmission resources. While owners of DERs cannot receive retail credit to the extent that DERs act as wholesale transmission resources, Staff should recognize the full value that DERs provide to the bulk transmission system and use that value, in addition to the full distribution system value of DER, for system planning purposes.

CEOC still firmly believes that New York's net energy metering ("NEM") practices should remain in place, including particularly the bill crediting mechanism. We do not agree with the Joint Utilities' claim that crediting NEM customers at retail rates overvalues distributed generation resources. In fact, a proper estimate of the full value of DER might very well reveal that the current practice of crediting customers at retail rates undervalues distributed generation, as was recently found in Maine and in a separate report on 11 value-of-solar studies nationwide, which concluded that these studies show that "individuals and businesses that decide to 'go solar' generally deliver greater benefits to the grid and society than they receive through net metering."[7]

CEOC also disagrees with the Joint Utilities' recommendation to increase fixed customer charges. Efficient price signals to customers will be absolutely essential to meet the Commission's REV goals of promoting DER, and efficient price signals must reflect the forward-going, long-term marginal costs over the life span of generation transmission and distribution facilities.

CEOC agrees with several parties, including AARP, the Solar Energy Industries Association ("SEIA") and The Alliance for Solar Choice ("TASC"), that demand charges pose significant risks that must be carefully scrutinized by the Commission. Demand charges can pose undue burdens on low-income and low-usage customers; do not necessarily truly reflect system costs; can result in over-recovery of distribution system costs; may not provide customers with price signals that they can easily understand and respond to; and can dramatically reduce

[7] Environment America Research and Policy Center. *Shining Rewards: The Value of Rooftop Solar Power for Consumers and Society*. June 2015. http://www.environmentamerica.org/reports/amc/shining-rewards.

customer incentives to adopt DER, particularly DER that is not dispatchable, such as photovoltaic systems.

II. MARKET-BASED EARNINGS IN A FULLY DEVELOPED MARKET

A. Platform Service Revenues, Customer Enhancements, and Synergy Opportunities

Staff Recommendation 1: Utilities should develop MBEs opportunities, and should further analyze potential revenue streams from platform services.

A number of parties express concern about the monopoly position of the utility and the competitiveness of markets for which utilities may earn market based earnings ("MBEs"). Energy Technology Savings, Inc. maintains that utilities should enable but not compete in the market where third party groups provide services.[8] The National Energy Marketers Association finds that most of the possible market-based services that the utilities may offer from which they will earn MBEs, as listed in the White Paper, should be viewed as competitive services that should be rendered by competitive entities.[9] Comverge and EnergyHub state that utilities are monopoly service providers, and thus platform access fees ought to be subject to the same cost-of-service regulation safeguards as those fees associated with basic electric service.[10] Comverge and EnergyHub also maintain that if utilities are expected to generate revenues by providing data analysis, this could limit their incentive to make raw data available to customers and third parties to perform their own analyses. Thus, clear rules would need to be implemented to ensure that third parties can still access raw data at a reasonable cost.[11]

Because MBEs can pose a risk to the development of the DER market if they are not designed and implemented correctly, the Advanced Energy Economy Institute ("AEEI") provides a framework to distinguish between different types of MBEs and proposes rules and

[8] Energy Technology Savings, Inc. Comments, p. 3.
[9] National Energy Marketers Association Comments, p. 4.
[10] Comverge and EnergyHub Comments, p. 4.
[11] Ibid., p. 4.

safeguards to ensure they have the intended effect.[12] AEEI's framework includes definitions of 1) Competitive Services and 2) Platform Service Revenues ("PSR"). PSRs are further divided into a) Essential Platform Services (related to monopoly function) and b) Value-Added Platform Services (supporting growth of the DER market).[13] AEEI indicates that utilities should not be able to earn MBEs for competitive services, and should only be able to earn MBEs for some PSRs, including all essential platform services but only a limited number of value-added platform services.[14] If the utility is allowed to engage in competitive services, AEEI states that there should be minimum requirements to ensure fair competition and separation of the distributed system platform ("DSP") provider from the arm of the utility that would provide competitive services. AEEI provides a list of such requirements.[15]

CEOC concurs with AEEI, EnergyHub and Comverge that rules and oversight regarding affiliate transactions will be needed. In addition, as we indicated in our initial comments on the White Paper, CEOC maintains that the Commission should establish appropriate metrics for determining whether market power exists and clarify what entity will be responsible for monitoring the markets, and what that entity's responsibilities will be.

B. Benefits of the MBE Model (REC#2)

<u>Staff Recommendation 2:</u> PSRs and other MBEs in a full-scale market should supplant some or all EIMs.

AEEI recommends, and CEOC concurs, that "MBEs should not make up a significant portion of utility revenues until the Commission and market participants are confident that the model is working correctly."[16] Further, AEEI maintains that Earnings Impacts Mechanisms

[12] AEEI Comments, p. 11.
[13] Ibid., p. 12.
[14] AEEI indicates that EE services are competitive, not value-added, services, which should be provided by third parties via competitive solicitation. (AEEI Comments, p. 14)
[15] Ibid., p. 16.
[16] Ibid., p. 11.

("EIMs") should be the priority so that the utility is focused on building DSP capabilities rather than opportunities to maximize MBEs.[17]

The Joint Utilities maintain that the diversity, magnitude, and timing of MBEs are currently unknown,[18] and that MBEs are not likely to moderate customer rate impacts as suggested in the Staff White Paper, at least in the near-term. The Joint Utilities further state that MBE revenues are "inherently uncertain and cannot be reasonably estimated in advance of the results from demonstration projects and actual experience."[19] Thus, the Joint Utilities maintain that the Commission "should not include MBEs when establishing a utility's cost-of-service revenue requirement;" MBE opportunities should "supplement but not substitute for cost-of-service ratemaking."[20] CEOC concurs that there is significant uncertainty about MBEs but maintains that this uncertainty can be taken into account during rate cases without making MBEs fully supplementary to the cost of service. CEOC suggests that very conservative estimates of potential MBEs should be used for determining total revenue requirements. Once actual MBEs are known, utilities could refund ratepayers for excess earnings, or increase revenue requirements to cover any shortfall, in the next rate plan period. Projections of MBEs and their relationship to total utility revenue should be developed through fully-litigated rate case proceedings. We expect and the Staff should encourage the utilities to provide details on tracking and allocating costs and revenues associated with MBEs in their DSIPs, or in another proceeding, prior to their next rate case.

III. MODIFICATIONS TO THE UTILITY/DSP REVENUE MODEL

A. Capital Expenditures and Operating Expenses (REC#4)

<u>Staff Recommendation 4:</u> Clawback mechanisms should be modified to encourage cost-effective use of operating resources or third-party investment.

Staff proposes to modify the Clawback mechanism in order to provide utilities with incentives to reduce costs through investments in operational or DER alternatives. CEOC agrees

[17] Ibid., p. 20.
[18] Joint Utilities Comments, p. 2.
[19] Ibid., p. 10.
[20] Ibid., p. 2.

with the Joint Utilities, AARP, and numerous other parties who noted in their comments that providing utilities with incentives to make cost-effective alternative investments is an important element of the effort to reduce system costs and ensure that customers benefit from REV.

In order to protect customers from inflated capital cost forecasts, CEOC proposed that utilities only be allowed to retain 20 percent of any savings relative to the utilities' capital cost forecasts. Given that the incentive provided by the modified Clawback mechanism would last for three to five years at most, we recognize that this incentive by itself will likely not be adequate to make the utilities fully indifferent to investments in traditional capital investments versus operational or DER alternatives. However, we expect that the incentive from the modified Clawback mechanisms would be paired with other EIMs that, in combination, would serve to make the utilities indifferent to the type of investment made.

We agree with many commenters who note that determining the correct incentive level will be difficult, particularly since multiple incentives (EIMs and the Clawback) will be combined. For this reason, CEOC encourages further analysis, including an analysis of the magnitude of incentives provided by other EIMs, prior to modifying the Clawback mechanism. As stated by IREC, "the central question at hand is what mechanisms need to be put in place to create economic incentives for utilities that can replace the amount of revenue they otherwise would have derived from traditional capital investments."[21] No mechanism should provide an incentive that is greater than the benefits that the cost savings deliver to ratepayers, nor should it be so small as to be ineffective.

B. Public Policy Achievement (REC#5)

<u>Staff Recommendation 5:</u> Utility-sponsored energy efficiency should transition from general resource acquisition to targeted and market-based approaches, with goals informed by the ETIP, DSIP, and State Energy Plan processes.

AEEI states that minimum energy efficiency targets are necessary; that better evaluation, measurement and verification (EM&V) methods must be developed to accurately measure energy efficiency; and that we need to determine how to value the benefits of energy efficiency, as well as a clearer path for transitioning from an EEPS to a market-based system.[22] CEOC

[21] IREC Comments, p. 4
[22] AEEI Comments, p. 23.

agrees. In particular, utilities should not only be subject to minimum energy efficiency targets, but also pursue energy efficiency aggressively in order to achieve New York's public policy objectives. Further, the Commission should require the utilities' DSIPs to include increased budgets and more robust investments in energy efficiency, and should require utilities to meet the Track One Order energy efficiency targets. In addition, the Commission should ensure sustained ratepayer investment in NYSERDA and utility-run energy efficiency programs until new market-based approaches have a proven track record of performance.

C. Earnings Impact Mechanisms, Scorecards, and Outcomes (RECs #6-10)

AARP has concerns about EIMs and performance based ratemaking, and states that it is aware of negative consequences for consumers when similar policies have been developed in other states.[23] The Utility Project argues against using performance based ratemaking because it may result in unnecessarily higher rates: "EIMs were being proposed to incentivize behavior that the PSC already has the legal authority to order into existence. Using EIMs would result in bill impacts that are unnecessary."[24] Similarly, the City of New York states, "Utilities need not be rewarded for carrying out their core functions of providing reliable electric service and … serving their customers' needs."[25] On the other hand, the City of New York also agrees that in some circumstances, performance-based incentives may make sense (such as asking utilities to open up space for third party competition).[26]

CEOC agrees that performance incentive mechanisms, if used, must be carefully designed to avoid increasing burdens on those who are least able to manage them. However, while the Commission may have the authority to compel the utilities to undertake certain actions, this type of command-and-control regulation is not always the most effective means of achieving the desired results. Well-designed financial incentives can offer relatively low-cost, low-risk ways to monitor and guide the development of the DER market and transition to a clean and efficient electricity industry. In some cases, financial incentives can produce better results than

[23] AARP Comments, p. 6.
[24] Utility Project Comments, p. 10.
[25] City of New York Comments, p. 13.
[26] *Id.*, pp. 13-14.

mandates. As reported in a 2015 ACEEE study, industry experts who were interviewed agreed that shareholder incentives influence utility behavior and decision making. The study found that, "in aggregate, having an energy efficiency performance incentive policy appears to be at least somewhat associated with higher levels of energy efficiency effort (program spending) and achievement (energy savings) compared to states without an energy efficiency incentive policy."[27] As an example, Comverge and EnergyHub state that their most effective DR implementations have been executed in collaboration with utilities that are eager and willing partners with financial incentive to drive cost effective outcomes.[28]

There are ways of designing utility incentives that are more protective of consumers. The Institute for Policy Integrity advocates for a marginal incentive rate and performance target set at a level such that the incremental social benefit from increased performance is equal to the incremental social cost from increased performance.[29] The City of New York recommends that incentives should be based on benefits and values created.[30] CEOC agrees with both the Institute for Policy Integrity and the City of New York, and notes that many states are moving away from incentives for energy efficiency performance based on program spending.[31] Basing incentives on benefits more accurately reflects what average consumers are likely to experience, as compared to basing incentives on spending. Furthermore, CEOC reiterates the need for metrics that reflect participation in DER programs, to promote a wide-reaching distribution of benefits across ratepayers.

The Joint Utilities state that EIMs should be consistent with the Joint Utilities' REV Outcomes Incentives Framework, which uses a benefit-cost approach to set targets once it is established that the utility has meaningful influence over the outcome.[32] Similarly, the Exelon Companies take the position that revenues necessary for core grid operations should not be tied

[27] Nowak, Seth, Brendon Baatz, Annie Gilleo, Martin Kushler, Maggie Molina, and Dan York. 2015. Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency. ACEEE.
[28] Comverge/Energy Hub Comments, p. 4.
[29] Institute for Policy Integrity Comments, p. 11.
[30] City of New York Comments, pp. 13-14.
[31] Nowak, Seth, Brendon Baatz, Annie Gilleo, Martin Kushler, Maggie Molina, and Dan York. 2015. Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency. ACEEE.
[32] Joint Utilities Comments, p. 3.

to outcomes that are highly-dependent on customer choice (e. g., participation in TOU rates).[33] The City of New York states that EIMs should not be given for actions taken by third parties (for example, low-income customers choosing to participate in DER).[34]

CEOC appreciates the Joint Utilities' proposal for a uniform framework for consideration of EIMs and scorecards, and believes that such a framework is very useful given the wide range of issues involved here. We agree with these parties that to the extent possible, metrics should be largely free from arbitrary influence, and should incent outcomes that the utility has some control over. We do, however, recognize that almost all metrics will be influenced to some degree by factors other than utility actions. Further, even some of the examples given by parties of actions outside of utility control, such as customer participation in TOU rates, can be influenced by the utilities. A utility could achieve higher participation in TOU rates by, for example, improving its efforts to educate customers regarding the benefits of a TOU rate structure. Given the importance of performance incentives for bringing about REV reforms, and the potential benefits of those reforms, the fact that practically no metric is entirely within the utility's control should not deter their use. To address these parties' concern about arbitrary influence, the weight given to EIMs could reflect the extent to which they are under the influence of the utility, as determined in an open stakeholder process.

Multiple Intervenors strongly support implementation of a self-direct EE policy.[35] As expressed in our utility ETIP/BMP comments,[36] such a program must include robust monitoring, reporting, and verification components to guard against potential abuse. The current program framework requires participants to self-report on progress to the utilities; instead, program participants should be required to report directly to Staff, and reports should be shared with interested parties and the public and integrated into program cycle reviews.

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[33] The Exelon Companies Comments, p. 13.
[34] City of New York Comments, p. 27-28.
[35] Multiple Intervenors Comments, p. 18.
[36] In the Matter of Utility Energy Efficiency Programs, 15-M-0252, CEOC and EE for All Revised Initial Comments at 12, September 28, 2015.

<u>Staff Recommendation 7:</u> EIMs should be developed for peak reduction, energy efficiency, customer engagement and information access, affordability, and interconnection.

AARP notes that specificity regarding the data to be tracked for particular EIMs is lacking.[37] CEOC agrees that more specificity is needed regarding the design of EIMs and scorecard metrics, including precisely how the metrics will be defined and measured, what the targets will be, and what the magnitude of any financial rewards or penalties will be. CEOC proposed some data metrics in our initial comments for consideration in this proceeding.[38]

Below, CEOC highlights specific EIM comments and proposals by other parties.

<u>Peak Reduction</u>

The Joint Utilities argue that the peak reduction target suggested by Staff is aggressive and may be very costly. To the knowledge of the Joint Utilities, a three percent annual reduction target for all New York utilities—or approximately 545 MW per year—is higher than the results of any utility program, other than certain situations related to emergency conditions (California in 2001, and Japan following the Fukushima disaster).[39] The Joint Utilities also call into question the cost effectiveness of this goal. ConEdison estimates that it costs $5 million to reduce 1 MW of bulk system peak based on the DMP portfolio. Applying this to the entire peak reduction proposed by staff, the statewide cost would be $24 billion, relative to benefits of only $8.5 billion.[40] CEOC urges Staff to scrutinize these numbers and set peak reduction targets based on its own assessment of what is cost effective and reasonably achievable. Most importantly, efforts to reduce peak should not come at the expense of pursuing aggressive energy efficiency.

Comverge and EnergyHub note that it is unclear whether Staff proposes to measure performance over the top 10 peak load days or whether Staff intends to use the top 100 peak hours of each year as the basis for valuing peak load reduction. Comverge and EnergyHub

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[37] AARP Comments, p. 6.
[38] CEOC Comments, p. 28-29.
[39] Joint Utilities Comments, p. 18.
[40] Ibid., p. 19.

strongly urges against using the top 100 peak hours as the basis for valuing peak reduction, as it may lead to frequent dispatch of demand response ("DR") and major customer attrition from programs.[41] CEOC agrees that such a metric could result in customer fatigue with DR programs and that the metric should be designed to avoid this outcome.

The Joint Utilities state that peak reduction incentives should be reward only.[42] To the extent that the Joint Utilities are concerned that peak energy consumption involves many factors out of the control of the utilities, CEOC recommends reducing the relative weight given to EIMs in proportion to a rough measure of the extent to which they are under the influence of the utility, as determined in an open stakeholder process, rather than including only reward incentives.

Customer Engagement and Information Access

Comverge and EnergyHub support EIMs and scorecards but suggest they should be better aligned with best practices around marketing, customer outreach, and DR program design. Noting that several utilities outside of New York have seen relatively limited traffic on their online marketplaces, Comverge and EnergyHub state that online portals may not drive huge adoption of residential DR measures. If constructed in New York, Comverge and EnergyHub maintain that these marketplaces should be launched in beta as early as possible in their development, at which point utilities should log key performance metrics—e.g., unique visits, time on site, click-throughs, page views, etc., to enable iterative changes to be made early enough to drive successful implementation. Furthermore, New York should move quickly from number of customers contacted to industry standard digital marketing metrics like open rates, click-through rates, and conversions.[43] CEOC agrees, and appreciates Comverge and EnergyHub's recommendations and insight in this area.

The City of New York notes that requests have been made to utilities for years to give consumers greater access to usage information, and that the utilities should not be rewarded for doing so at last.[44] The Interstate Renewable Energy Council argues that "[t]he bar here for

[41] Comverge and EnergyHub Comments, p. 5.
[42] Joint Utilities Comments, p. 20.
[43] Comverge and EnergyHub Comments, p. 6-7.
[44] The City of New York Comments, p. 29.

creating a reasonable online portal seems to be set too low – creation of a good online portal should be required as a minimum. Like with interconnection and other data access, creating a reasonable method for customers to access information about their energy use is fully within the utilities' control and should be required. The EIM should instead focus on how many customers actually use the portal to manage their energy use in a way that reduces their bills, as discussed later in the White Paper. Customer engagement may be difficult to track and measure, but the Commission should endeavor to identify more meaningful metrics if there is going to be any positive EIM added in this area."[45] CEOC maintains that it will be important to monitor performance of all metrics, including customer engagement and information access metrics, over time and to make adjustments as needed. In addition, tying executive bonuses to scorecard performance, as recommended in our initial comments, will incentivize corporate level interest in the development of the customer interface.[46]

Affordability

The Joint Utilities recommend that, prior to adopting any metric, the Commission should consider providing new tools and policies that would enable utilities to more effectively manage and reduce bad debt write-offs. According to the Joint Utilities, such tools and policies could include: (1) implementing prepayment mechanisms to foster "pay-as-you-go" programs; (2) deployment of advanced metering infrastructure ("AMI") to provide customers with more granular and timely usage data enabling them to consider their energy usage and costs on a weekly basis to help them manage their usage and prioritize their utility payments with other expenditures; and (3) restructuring eligibility rules for assistance programs to eliminate the requirement that a customer must be in arrears and at risk of turn-off to qualify. Finally, the Joint Utilities note that some of their recommendations may require legislative changes.[47]

CEOC agrees that eligibility rules should be reviewed to assess whether there are ways to improve access to services before customers are at the point of service termination. However, CEOC is not convinced that AMI is needed to achieve the goals of the Affordability metric.

[45] Interstate Renewable Energy Council Comments, p. 13.
[46] CEOC Comments, p. 39-40.
[47] Joint Utilities Comments, p. 25.

Further, CEOC has deep concerns regarding "pay-as-you-go" programs. As noted in a report by the National Consumer Law Center, such programs may permit utilities to "sidestep critical consumer protections that have evolved over decades while altering the utility's incentives to interact creatively and constructively with payment-troubled customers."[48]

Multiple Intervenors maintain that if an EIM is created for affordability, it should not be focused only on low-income customers, but rather on all customers.[49] CEOC agrees that affordability metrics should be formulated so as to incentivize affordability for all customers. At the same time, Staff should recognize that affordability for low-income customers is especially important given the heightened impact that rates have on those customers, and set metrics so as to provide a greater incentive to limit rate impacts on those customers.[50]

Carbon

Reduction of carbon emissions is fundamental to the objectives of REV, and New York State and the Public Service Commission have been a leading voice in how to combat the threat of climate change. Multiple Intervenors maintain that carbon reduction is not a suitable EIM.[51] CEOC disagrees. Several other parties join us in the conclusion that CO_2 reductions should constitute an EIM, including the Institute of Policy Integrity, the City of New York, and Environmental Defense Fund.[52] Utilities have considerable influence over the success (or failure) of initiatives that have large impacts on carbon emissions and creating an EIM for carbon emissions reductions could help advance a model that could be exported to other jurisdictions.

Energy Efficiency

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[48] Howat, John and McLaughlin, Jillian. (2012) *Rethinking Prepaid Utility Service: Customers at Risk*. National Consumer Law Center. Available at: http://www.nclc.org/images/pdf/energy_utility_telecom/consumer_protection_and_regulatory_issues/report_prepaid_utility.pdf.

[49] Multiple Intervenors Comments, p. 26.

[50] CEOC Comments, p. 28-29 and 35.

[51] Multiple Intervenors Comments, p. 34.

[52] While we do not necessarily adopt the specific arguments of each of these parties surrounding how the carbon emissions EIM should be designed, we agree on the fundamental concept that a carbon emissions EIM must be included and is critical to achieving REV's goals.

Energy Efficiency for All recommends that there should be an EIM for total energy efficiency participation.[53] CEOC maintains that energy efficiency is critical for helping customers experience system benefits. Therefore, CEOC recommends that energy efficiency have an EIM reflecting participation. EE for All also suggests that there be an EIM for DER penetration in environmental justice (EJ) communities.[54] CEOC agrees that special attention should be paid to EJ communities in distributing benefits, in conjunction with incentivizing participation by all customers. As EE for All explains in their comments, EJ communities can be identified for purposes of this EIM by using GIS data and mapping tools provided by the NYS Department of Environmental Conservation.[55]

Electric Vehicles

Sierra Club points out that widespread adoption of electric vehicles (EVs) in New York is necessary for the State to achieve the state's energy goals, and that utilities have an important role to play in advancing EV adoption.[56] Sierra Club further recommends that a separate docket be established within the REV proceeding to address the integration and expansion of EVs in New York.[57] CEOC agrees. Advancing vehicle electrification aligns well with the REV goals. The transportation sector accounts for 40% of the fossil fuel-related GHG emissions in New York State.[58] New York's dependence on oil to fuel our cars, trucks and buses presents a huge challenge. According to the State Energy Plan, "… the use of petroleum in the transportation sector continues to be a significant source of air pollution in New York, exacerbating problems with ozone, particulate matter, and benzene. In addition, the transportation sector accounts for more than one-third of the State's GHG emissions. New Yorkers still spend more than $20 billion each year on gasoline and diesel fuel imported from out-of-state."[59] Electric vehicles

[53] EE for All Comments, p. 10, CEOC Comments, p. 30.
[54] EE for All Comments, p. 9.
[55] Ibid., p. 11.
[56] Sierra Club Comments, p. 2-3.
[57] Sierra Club Comments, p. 4.
[58] CEF Information Supplement, p. 142.
[59] 2015 New York State Energy Plan, p. 44.

charged in New York can reduce carbon pollution from vehicles by 75 percent or more.[60] Smart EV charging integration with the grid will also help avoid peaks, improve overall customer affordability and improve customer engagement.

The electric vehicle EIMs recommended in our initial comments[61] will be important for ensuring that vehicle charging is managed in a way that protects the grid and animates DER functions, such as participation in demand response and time of use rates. However, the recommended EV metrics may not on their own be sufficient for advancing the amount of electric vehicle recharging stations needed to support widespread EV adoption. CEOC concludes that a scorecard metric should be added to the EIM to encourage expansion of electric vehicle charging infrastructure.

The design of the EV infrastructure metric should 1) target areas typically underserved by private, third-party charging service providers including disadvantaged communities, multifamily buildings, workplaces, and DC Fast Charging for public access where needed to build confidence in the range of pure battery EVs and to ensure broad access to low-cost electric transportation; 2) consider what portions of the infrastructure (from service to the charging station location to the electric vehicle service equipment used to plug in the vehicle) should be owned and/or managed by the electric utilities[62]; and 3) should be informed by the results of REV demonstration projects using managed EV charging.

<u>Staff Recommendation 8:</u> Initial EIMs should represent a mix of positive and symmetrical adjustments. Longer term positive EIMs should be contingent on an overall customer bill impact metric, which should be proposed by utilities.

Multiple Intervenors do not support the creation of new EIMs or increasing reliance on incentive-based ratemaking.[63] Multiple Intervenors are concerned about "business as usual"

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[60] Electric Power Research Institute and Natural Resources Defense Council, Environmental Assessment of a Full Electric Transportation Portfolio: Volume 1: Background, Methodology, and Best Practices. EPRI, Palo Alto, CA: 2015. Report 3002006875.
[61] CEOC Comments, p. 28-29.
[62] The determination can be informed by the utility applications for infrastructure deployment currently being evaluated by the California Public Utilities Commission.
[63] Multiple Intervenors Comments, p. 22.

scenario comparisons to quantify the effects of EIMs, since the Commission is pursuing REV, and not business as usual.[64] Also, Multiple Intervenors are concerned about potential bias and information asymmetry when utilities are directed to design EIMs that are intended to reward utilities.[65] While we understand that establishing a baseline will be a complex undertaking, we note that this analysis is frequently done in various settings, including utility planning and regulation. CEOC agrees that utility bias will be important to consider, and that EIMs and scorecards should be established within an open stakeholder process. Further, CEOC agrees with the City of New York that research is necessary to set sensible benchmarks and decide on appropriate metrics,[66] and that financial incentives should not be given to utilities until baseline analysis or benchmarking is performed.[67]

CEOC agrees with the City of New York, AARP and Multiple Intervenors that many EIMs should include rewards and penalties. Multiple Intervenors state that if new EIMs are created at all, they should be done as simply as possible.[68] AARP,[69] the Institute for Policy Integrity,[70] and Multiple Intervenors[71] indicate that EIMs should include both rewards and penalties. Multiple Intervenors raise the issue of equity between utilities and customers, arguing that if customers are financially responsible, utility shareholders should be so as well. In contrast, the Joint Utilities state that "In general, but particularly at the outset of REV, EIMs and program incentives should be reward-only with conservative targets structured in a way that provides utilities strong incentives to outperform the targets."[72] The City of New York indicates that a mix of symmetrical and asymmetrical mechanisms makes sense; asymmetrical incentives may make sense when asking utilities to open up space for third party competition.[73]

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[64] Ibid., p. 30.
[65] Ibid., p. 30.
[66] City of New York Comments, p. 26.
[67] Ibid., p. 15.
[68] Multiple Intervenors Comments, p. 25.
[69] AARP Comments, p. 6.
[70] Institute for Policy Integrity Comments, p. 11.
[71] Multiple Intervenors Comments, p. 25.
[72] Joint Utilities Comments, p. 14.
[73] City of New York Comments, p. 13-14.

Joint Utilities do not explain why reward-only conservative targets would do more to incentivize good performance than reasonable targets and symmetric reward/penalty structures.[74] Symmetrical rewards generally achieve the appropriate balance between protecting customers while preserving utilities' ability to make necessary investments. Nevertheless, CEOC appreciates that in certain cases, penalties can introduce and perpetuate considerable contention in the process of setting and assessing performance against metrics, and thus recommends that penalties not be applied in those limited areas that require especially extensive collaboration, such as energy efficiency, and opening up markets that were previously only occupied by the utility. Furthermore, CEOC generally agrees with the Institute for Policy Integrity that the formulas for incentive payments should be smooth,[75] although CEOC notes that there are good reasons for using a deadband in certain circumstances.[76]

AARP appreciates the intent to link utility shareholder incentives with an overall customer bill impact metric, but believes the details for calculating this metric are lacking.[77] The Joint Utilities, in contrast, assert that a total customer bill metric should not be used as a gateway to determine whether utilities can receive reward-only incentives for outperformance of approved targets. The Joint Utilities note that two thirds of the total customer bill is outside the control or influence of the utility, including wholesale supply charges, taxes, and fees – and that changes in these costs could diminish the effect of incentives designed to encourage utilities to achieve the REV outcomes.[78] CEOC recommends reducing the weight given to EIMs in proportion to a rough measure of the extent to which they are under the influence of the utility, as determined in an open stakeholder process.

<u>Staff Recommendation 9:</u> EIMs should be established on a multi-year basis, accompanied by interim reviews and reporting metrics, unless it is demonstrated that single-year mechanisms are preferable on a case-by-case basis.

[74] *See* Joint Utilities Comments, p. 14.
[75] Institute for Policy Integrity Comments, p. 2.
[76] CEOC Comments, p. 25.
[77] AARP Comments, p. 6.
[78] Joint Utilities Comments, p. 3.

Generally, objectives should correspond to the terms of DSIPs and rate cases; annual objectives should be used only when there is significant benefit to a shorter time-frame. Multiple Intervenors recommend that the Commission refrain from mandating single-year or multi-year EIMs, in order to retain flexibility to consider EIMs of different designs.[79] While Multiple Intervenors recognize that well-designed EIMs can be more impactful in a multi-year period than just one, Multiple Intervenors express concern about using multi-year projections in some cases, to the extent that EIMs are used at all. For example, a multi-year basis is probably not good for new programs without existing data, and any perverse outcomes associated with the implementation of a poorly designed EIM may have a larger detrimental impact over multiple years than over just one.[80] AARP takes the position that if performance-based ratemaking is adopted, annual performance objectives and results should be used.[81] CEOC acknowledges that some areas may call for annual objectives. This is particularly likely to be the case for new programs that lack performance data. However, emphasis on annual objectives and results, when not clearly needed, could be distracting. Annual objectives and results would divert utilities' attention and drain time, energy, and financial resources away from the long-term investments that will support state policy goals. Accordingly, annual objectives should only be used where using a shorter time horizon would yield significant benefits. In general, objectives should correspond with DSIP or rate case terms.

<u>Staff Recommendation 10:</u> Scorecard measures should be developed for system utilization and efficiency, DG, energy efficiency, and dynamic load management penetration, carbon reduction, market development, MBEs use, opt-in TOU rate efficacy, customer enhancement, customer satisfaction, and conversion of fossil-fueled end uses.

The Joint Utilities maintain that although scorecards can be a useful tool to track progress towards REV objectives, they should not have a direct or indirect financial impact on utilities (i.e., should not be used as a basis for rejecting rate case extensions nor determine ESM

[79] Multiple Intervenors Comments, p. 32.
[80] Multiple Intervenors Comments, p. 31-32.
[81] AARP Comments, p. 7.

earnings).[82] Further, the Joint Utilities recommend using their proposed Incentive Framework for identifying and vetting Scorecards.[83] CEOC sees value in the Joint Utilities' proposed Incentive Framework, but disagrees with the suggestion that scorecards should not have any financial implications. In its initial comments, CEOC recommended that recovery of the expense of utility executive bonuses from ratepayers should be contingent on the utility meeting minimum performance standards for certain scorecard metrics.[84] If Staff refrains from attaching any financial implications to scorecard metrics, scorecards will do much less to incentivize utility behavior, and less will be gained from the Staff and utility investments of time and effort in designing and monitoring scorecard metrics.

D. Earnings Sharing Mechanisms (REC#11)

<u>Staff Recommendation 11:</u> ESMs should be tied to a performance index.

The Joint Utilities maintain that the earnings sharing mechanism (ESM) should not be linked to performance under existing metrics, new metrics, or Scorecards. They argue that the Commission has not linked incentive metrics to ESM results in the past and it should not do so in the future. The Joint Utilities state that it is inappropriate to link ESM results to existing or new metrics for which discrete incentives already exist, and that such an approach is likely to dilute the efficiency incentive created by ESMs.[85] CEOC disagrees. Linking the ESM to performance will ensure that customers directly experience the benefits of improved performance (e.g. reduced costs, increased system efficiencies, or customer participation in DER) before utilities obtain amplified earnings for that improved performance.[86] Further, the CEOC recommends that the Commission establish a performance threshold, using the same performance metrics that are used in the ESM, to determine whether utility management is eligible for utility management bonuses in each year.[87]

[82] Joint Utilities Comments, p. 28.
[83] Ibid., p. 4.
[84] CEOC Comments, p. 12.
[85] Joint Utilities Comments, p. 3.
[86] CEOC Comments, p. 39.
[87] Ibid., p. 39.

E. Capital Expenditures to Implement REV (REC#12)

Staff Recommendation 12: Plans to invest in DSP-related capabilities should be given pre-approval, where appropriate.

Pre-approval of utility investments poses a particular challenge for both utilities and customers. Pre-approval of REV-related investments provides utilities with greater regulatory certainty, particularly for new types of technologies that utilities have little experience with. Without some degree of regulatory certainty, utilities may be reluctant to take on DSP-related functions and activities outside of their traditional scope. However, pre-approval also shifts risk to customers. As AARP notes, "If the risk of investing is removed from utilities (and thus shifted onto consumers), then it will no longer make sense to reward utilities with a rate of return."[88]

While pre-approval may not be strictly necessary to implement REV, it is likely to significantly speed the rate at which utilities embrace certain REV-related technologies. For this reason, CEOC continues to support the balanced approach outlined in the Staff White Paper whereby limited pre-approval is given, but investments are still subject to a prudency review. Further, pre-approval should only be provided for investments that are directly linked to DSP functions and to implementing DER. No pre-approval should be given for traditional utility investments, including meter upgrades (e.g., AMI).

F. Long-Term Rate Plans (REC#13)

Staff Recommendation 13: Three-year rate plans should be retained with an opportunity for two-year extensions to allow rate plans to be in effect for up to five years. Any extension beyond three years should be accompanied by interim reviews, scorecards, and performance metrics.

Many of the parties support rate plans of three years. EE for All recommends that the PSC limit rate plans to three years in order to protect ratepayers from utilities extending the plan when most profitable.[89] AARP prefers 3 year plans with no extensions.[90] The Utility Project

[88] AARP Track 2 Comments, page 8
[89] EE for All Comments, p. 3.
[90] AARP Comments, p. 8.

opposes multi-year rate plans because they reduce transparency and accountability in utility ratemaking.[91] CEOC agrees, at least for the first few rate cycles, that transparency and flexibility to make adjustments will be especially important. CEOC recommends that Staff implement fixed rate plan periods limited to three years, at least for the first few cycles of rate plans, to prevent placing too much risk on customers who are under-served or are experiencing utility revenue over-recovery.

The Joint Utilities maintain that any extensions beyond three years should not be based on satisfactory price and earnings levels, adherence to capital plans, or compliance with various performance measures related to REV. CEOC suggests that rate plan extensions should not be permitted at all.[92] Extensions put ratepayers at greater risk, prevent making adjustments that will help the market develop, and can be gamed if utilities are able to unilaterally invoke one. The Joint Utilities further state that longer-term rate plans would require an appropriate ROE that corresponds to level of risk and uncertainty of a longer stay-out period.[93] CEOC maintains that any adjustment to ROE should take into account both increases and reductions in risk associated with REV reforms. Reward-only EIMs, for example, would only reduce risk for utilities.

IV. ACCURATELY VALUING DER

A. Determining the System Value of DER (REC#14)

Staff Recommendation 14: A method of calculating the value of DER, based on a formula of LMP+D (location-based marginal prices plus distribution value) should be adopted.

Calculating the value of DER ("LMP+D") is widely accepted as a critical element for implementing REV. As noted in Staff's White Paper, "While the LMP is already well established and transparent, the value of D is not. Values can include load reduction, frequency regulation, reactive power, line loss avoidance, and resilience. Other values not directly related to the distribution system are installed capacity requirements (ICAP) and emission avoidance."[94]

[91] The Utility Project Comments, p. 7.
[92] CEOC Comments, p. 42.
[93] Joint Utilities Comments, p. 31.
[94] Staff Track 2 White Paper, page 91

CEOC supports the full quantification of these values when determining the value of DER. All of these values are important, but we especially wish to note the widespread agreement of many parties, including CEOC, Acadia Center, Vote Solar, and Environmental Defense Fund, that the value of DER value should include the benefits that accrue to society from DER investments, including avoided air emissions. Various methods are available to estimate the hourly and locational marginal emission rates (and thus the emissions actually avoided by DER), including linear regression models, as detailed in the recently released paper *Carbon-Tuning New York's Electricity System: Uncovering New Opportunities for CO2 Emissions Reductions*,[95] attached to these comments.

To underscore the need to include environmental externalities in the value of DER, CEOC used the term "LMP+D+E" in our initial comments. However, there are numerous other benefits that should also be included in the value of DER. We recommend that Staff clarify and expand upon the list of values to be included in the value of "D." Specifically, Staff should explicitly state that the value of "D" must include the following sets of components:

1. All relevant benefits to retail customers, such as load reduction, impact on installed capacity requirements, avoided retail costs due to avoided system costs (including costs of both transmission and distribution-level infrastructure and line losses), reactive power benefits for the distribution system, and frequency regulation and voltage support for the distribution system.
2. All relevant public policy benefits, such as avoided environmental externalities, including carbon emissions, resiliency benefits, and economic development benefits.

Each of these components should be analyzed at the most granular level that is reasonable in order to accurately credit DER for its net benefits to the system. This will help to ensure efficient investment levels in the appropriate resources.

We note that the term "Value of D" may be misleading in that the value of "D" includes numerous retail service benefits and public policy benefits. We recommend that in establishing

[95] Martin, N. (2015) Carbon-Tuning New York's Electricity System: Uncovering New Opportunities for CO2 Emissions Reductions. Pace University School of Law, Pace Energy and Climate Center.

the value of DER, Staff keep each individual component of the value of DER separate, rather than blending them all into a single non-transparent value.

Unbundling the value of DER into separate components will not only improve transparency, but will also ensure that if the PSC's authority to credit DER providers for any particular component is challenged, that component will be easily severable from the remaining components. Maintaining the separability of values will also help Staff accurately value DER, and allow for maximum flexibility in designing market operations and regulatory mechanisms, should adjustments need to be made to how an individual component is calculated, or should special rules or market mechanisms be needed to most effectively set the price for that component.

Furthermore, in addition to calculating the retail value of DER (the value that Staff has referred to as "LMP+D," which includes both sets of components above), Staff should also calculate the total value of DER that includes the value of bulk transmission services that may be provided by DER (including the value of revenues that could be obtained by these resources through sales into NYISO's ancillary services markets or any other relevant wholesale markets). While owners of DERs cannot receive retail credit to the extent that DERs act as wholesale transmission resources, Staff should use the total value of DER (i.e. the value that includes *all* benefits of DER, including revenues to be obtained in wholesale markets) for system planning purposes. Because some services, such as frequency regulation and voltage support, qualify as either retail or wholesale in nature depending on whether they are acting at the distribution system level or the bulk transmission system level, Staff should make clear that the values credited as part of "D" include only the value of DERs as distribution-level products. Accordingly, Staff should make clear that DERs may also sell ancillary services into NYISO's wholesale markets, as applicable. Amounts earned by DERs in those markets will not constitute double credit, because any compensation received in those markets will be for a separate set of benefits than the set of benefits for which they are given retail credit. Properly valuing DER avoids issues of double-counting.

CEOC disagrees with Multiple Intervenors that calculating distribution level marginal costs is premature, given the uncertainty of some of the values. While it may be difficult to

accurately quantify all of the benefits and costs of DER, many techniques are available to develop estimates or proxies. Such data is far superior to ignoring the impacts of DER, which effectively assigns a value of zero to such impacts.

Numerous questions remain regarding precisely how LMP+D is calculated, and the details may have significant impacts on DER incentives and the ability of DER to allow utilities to avoid traditional capital investments. Joint utilities note that DER must be identified and installed sufficiently in advance of normal planning and traditional utility project construction cycles in order to defer or avoid traditional capital projects.[96] Comverge/Energy Hub suggest that the price signal of "D" should be sent far enough in advance to facilitate investments in DERs, since "the cost of obtaining information about the distribution network to make accurate speculative investment decisions is high."[97] At the same time, Comverge/Energy Hub also notes that price signals should reflect short-term needs in order to guide DER operations. CEOC agrees that it will be important for price signals to include projections of the future value of DER in order to ensure that DER shows up when it is needed, as well as short-term price signals for DER operation. For this reason, it may be useful to segment the price signals into those components that can be set far enough in advance to drive investments (e.g., the reliability benefits of DER), and another set of components that vary from day-to-day, or hour-by-hour (e.g., LMP and certain distribution-level benefits that vary by time of day). To the extent that values for some benefits could be set using different methodologies that provide either predictable or varied price signals (e.g. emissions reductions), Staff should implement valuation techniques and mechanisms that will provide developers of DER resources with clear and predictable price signals.

B. Potential Compensation Mechanism Reforms (REC#15)

<u>Staff Recommendation 15:</u> Net energy metering (NEM) should remain in place for on-site projects of mass-market customers. Remote and community projects should continue to use the bill crediting mechanism of NEM and an improved method of calculating credits for <u>net export</u> should be developed, based on LMP+D.

[96] Joint Utilities, page 36
[97] Comverge/Energy Hub, page 11

As stated in our initial comments, CEOC supports the continuation of the net metering bill crediting mechanism. The actual value of each kWh credit should reflect LMP+D, including public policy benefits and other relevant benefits discussed above. The actual value of LMP+D may be higher or lower than the retail rate.

The Joint Utilities also support the use of LMP+D for determining the amount of credit given to distributed generation and advocate strongly for the abandonment of current net metering compensation (i.e., compensation at the retail rate). The Joint Utilities assert that "the current NEM program significantly overvalues distributed solar generation."[98] This assertion is not credibly supported. Indeed, such a statement cannot be made without quantifying the value of LMP+D, and it is quite possible that customers will receive more credit when that credit is given based on the value of LMP+D than they receive under the current regime based on the retail rate.

Moreover, the Joint Utilities appear to rely on incomplete evidence to imply that current NEM customers are not paying their fair share of grid costs. Specifically, the Joint Utilities state that the credit received by NEM customers "is not adequate to service the largely fixed costs of the infrastructure required,"[99] and that distribution rates avoided by NEM customers are essentially "subsidized" by non-NEM customers.[100] It appears that the Joint Utilities base their analysis on the recovery of embedded (sunk) distribution system costs, without accounting for the fact that NEM customers are also reducing future distribution system costs (through avoiding or deferring such costs), and also providing other system and societal benefits, such as reducing greenhouse gas emissions. Because it does not include these benefits, the analysis presented by the Joint Utilities is misleading and at odds with the underlying goals of REV.

CEOC reiterates that distributed generation credits should be based on the full value of these resources, taking into account avoided system costs as well as avoided externalities. For

[98] Joint Utilities, page 39.
[99] Ibid.
[100] Ibid.

example, Maine's Value of Solar study[101] found that the twenty-five year levelized value of a solar PV system is more than $0.33 per kilowatt-hour:

25 Year Levelized		Gross Value A ($/kWh)	× Load Match Factor B (%)	× Loss Savings Factor (1+C) (%)	= Distr. PV Value D ($/kWh)	
Energy Supply	Avoided Energy Cost	$0.076		6.2%	$0.081	Avoided Market Costs $0.138
	Avoided Gen. Capacity Cost	$0.068	54.4%	9.3%	$0.040	
	Avoided Res. Gen. Capacity Cost	$0.009	54.4%	9.3%	$0.005	
	Avoided NG Pipeline Cost					
	Solar Integration Cost	($0.005)		6.2%	($0.005)	
Transmission Delivery Service	Avoided Trans. Capacity Cost	$0.063	23.9%	9.3%	$0.016	
Distribution Delivery Service	Avoided Dist. Capacity Cost					
	Voltage Regulation					
Environmental	Net Social Cost of Carbon	$0.020		6.2%	$0.021	Societal Benefits $0.199
	Net Social Cost of SO_2	$0.058		6.2%	$0.062	
	Net Social Cost of NO_x	$0.012		6.2%	$0.013	
Other	Market Price Response	$0.062		6.2%	$0.066	
	Avoided Fuel Price Uncertainty	$0.035		6.2%	$0.037	
					$0.337	

V. RATE DESIGN REFORMS

A. Rate Design Principles for REV (REC#16)

<u>Staff Recommendation 16:</u> The Commission should adopt the proposed rate design principles.

In our initial comments, CEOC highlighted the importance of adopting rate design principles that send efficient price signals. Rates should reflect long-run marginal costs and minimized fixed charges. We strongly opposed the suggestion made by some parties, particularly by the Exelon Companies, that higher fixed charges "would provide more efficient price signals

[101] Maine Public Utilities Commission. Maine Distributed Solar Valuation Study. Revised April 14, 2015. http://www.maine.gov/mpuc/legislative/reports.shtml.

for customers and DER for value provided and received, thereby encouraging economic DER integration and better aligning utility interests with public policy goals."[102]

The utilities' argument for fixed charges conflates two concepts: sunk costs and fixed costs. Sunk costs are those that the utility has already incurred and must recover, regardless of how much energy a customer uses. Few utility costs are truly "fixed," as most costs vary with energy or demand over the utility's planning horizon. This longer-term perspective is what is relevant for economically efficient price signals, and what should be used to inform rate setting.[103]

Further, there is no ratemaking or economic principle that dictates that rate design should mirror the utility's cost structure, which is an artifact of historical investments. Instead, rates should be reflective of long-run marginal costs in order to provide efficient price signals.

Price signals are extremely important for achieving the Commission's goals and encouraging customer and third-party investments in cost-effective DERs. Higher fixed charges distort such price signals. By reducing the value of a kilowatt-hour saved or self-generated, a higher fixed charge directly reduces the incentive that customers have to invest in energy efficiency or distributed generation. Customers who have already invested in energy efficiency or distributed generation will see the value of their investments unfairly reduced.

Finally, higher fixed charges tend to disproportionately burden low-income residential customers, as these customers tend to use less electricity than other residential customers. Data from the Energy Information Administration show that, in New York State, residential customers below the 150 percent poverty limit use an average of 5,431 kWh annually, whereas customers above the 150 percent poverty limit use an average of 7,039 kWh annually.[104] Joint Utilities state that "there is no correlation between low-use and low-income customers."[105] While different

[102] Exelon Track 2 Comments, page 18.
[103] Whited, M., Woolf, T., and Daniel, J. (forthcoming) Fixed Charges for Utility Customers: Trends, Myths, Problems, and Alternatives.
[104] Energy Information Administration, 2009 Residential Energy Consumption Survey.
[105] Joint Utilities Track 2 Comments, page 48.

sampling and analytical methods may yield different results on the question of correlation, there can be no debate that household energy burden increases as income decreases. As stated by EE for All, fixed charges are "antithetical to REVs goal of moving the utility industry to a market-based system."[106]

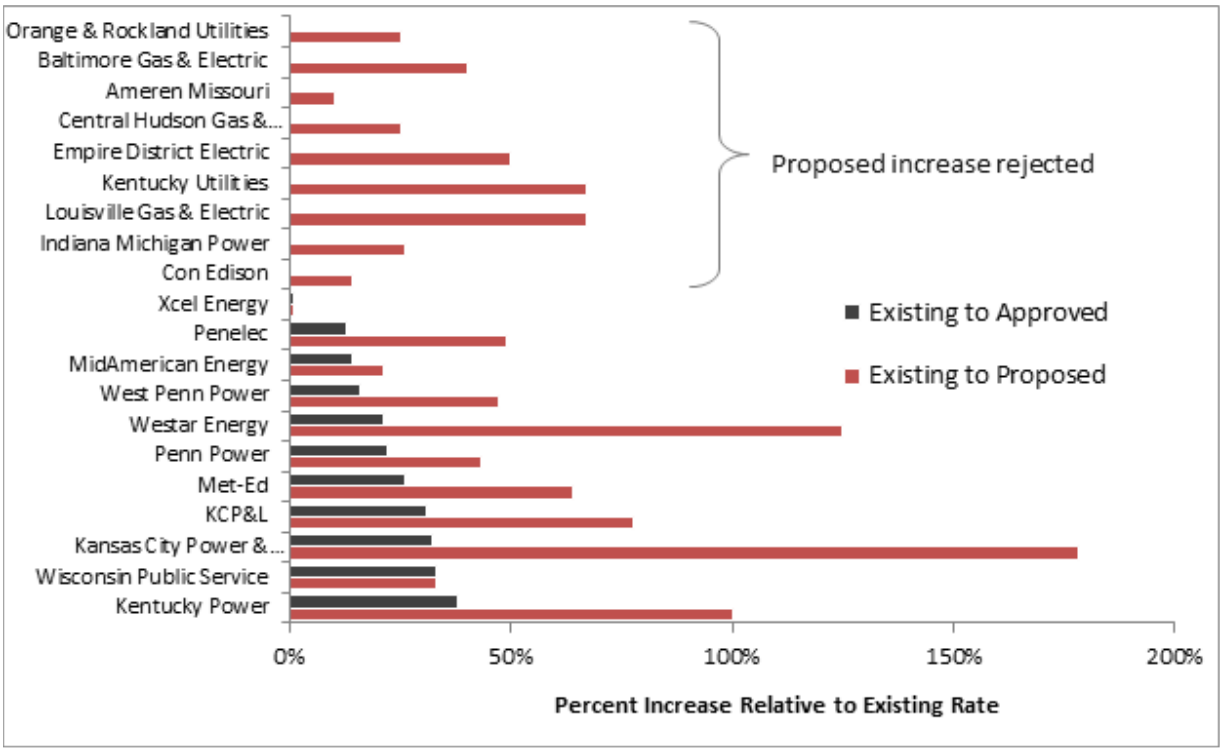
In sum, fixed charges are accompanied by myriad negative impacts, as has been well-documented in the literature.[107] For this reason, across the country, numerous recent proposals for higher fixed charges have been rejected or significantly reduced, as shown in the chart below.[108]

[106] EE for All Track 2 Comments, page 12.

[107] See, for example, Kind, P. (2015) Pathway to a 21st Century Electric Utility, Ceres, Inc.

[108] In Central Hudson Gas & Electric's most recent rate case, for example, the Commission rejected the proposal for fixed charges and noted Citizens for Local Power's argument that traditional rate design reliant on increased fixed charges "misse[s] 'an important opportunity to advance the goals of the REV proceeding.'" Case 14-E-0318. Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Central Hudson Gas & Electric Corporation for Electric Service. Order Approving Rate Plan, June 17, 2015, p. 56.

Figure 1. Recent proposed and approved increase in fixed charges[109]



B. Proposed Rate Design Reforms (RECs #17-22)

<u>Staff Recommendation 17:</u> Utilities should file tariffs for opt-in smart home or other time variable rates.

CEOC supports Staff's proposal and notes that many other parties also voiced their support.

<u>Staff Recommendation 18:</u> Opt-in TOU rates should be improved with outreach and education, and default TOU rates should be examined. Utilities should develop TOU rate demonstration projects. Utility proposals for AMI/AMF should include a demonstration of the value of AMI/AMF for TOU rate improvements.

[109] Direct Testimony of Tim Woolf on behalf of The Alliance for Solar Choice, Application of Nevada Power Company d/b/a NV Energy and Application of Sierra Pacific Power Company d/b/a NV Energy for Approval of a Cost of Service Study and Net Metering Tariffs, Docket Nos. 15-07041/42, October 27, 2015, page 36.

CEOC joins many other parties (including AARP, Acadia Center, Vote Solar, City of New York, IREC, SEIA, the GridWise Alliance and TASC) in strongly supporting TOU or other time-differentiated rates. CEOC agrees with the sentiment expressed by numerous parties that TOU rates are likely to improve efficient price signals, and offer a superior alternative to demand charges.[110]

CEOC concurs with EDF's observation that "opt-out time-variant pricing would likely to [*sic*] result in much higher levels of adoption than an opt-in approach."[111] For this reason, CEOC continues to support consideration of opt-out TOU rates. This position is also supported by the GridWise Alliance.[112] If an opt-out approach is not feasible, CEOC recommends that, instead of defaulting customers into a rate, each customer should be presented with their rate options, so that he or she must consciously opt in to a rate.[113] This method of rate determination would also address the concerns of intervenors such as AARP who oppose mandatory or default rates in order to ensure that customers "have choice" when determining their rates.[114]

CEOC also shares the concerns of several intervenors regarding the need to educate, empower, and protect customers when implementing TOU rates. To this end, CEOC supports Energy Democracy Alliance's recommendation that utilities collect and report data that can inform TOU development, such as a shadow billing analysis of how TOU rates would impact low- and moderate-income customers.[115]

Finally, we agree with the GridWise Alliance that the design of TOU rates will need to evolve as DER penetration increases and the needs of the system shift. The GridWise Alliance

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[110] For the early stages of market development, it may be appropriate to also explore options that *reward* customers for reducing load during certain hours, rather than simply increasing the price of electricity during certain hours. It is important to assess the ability of customers to respond to price signals prior to the widespread implementation of any rate design.
[111] EDF Track 2 Comments, p. 25.
[112] GWA Comments, p. 5.
[113] If, however, a customer does not wish to actively choose any rate, they should remain on their current rate. Under CEOC's proposal, no customer would be shifted into a TOU rate (or other alternative rate) without the customer making that conscious decision.
[114] AARP Track 2 Comments, p. 10.
[115] EDA comments, p. 6.

correctly points out that TOU rates that are not periodically re-examined could result in a "Duck Curve" or otherwise inefficient grid usage.[116]

Staff Recommendation 19: Each utility should examine its commercial and industrial rates to improve their reflection of the value of time variability.

CEOC supports Staff's proposal and notes that many other parties also voiced their support for examining these rates to ensure they properly reflect the value of time variability.

Staff Recommendation 20: Consistent with the Staff report on energy affordability, application of the anticipated low-income discount should be supplemented by locating it within a basic usage block.

CEOC reiterates that if Staff is not careful, certain REV rate design shifts may negatively impact low-income and other hard-to-reach customers. Staff should undertake significant efforts to ensure that these customers are protected. As such, CEOC agrees with AARP,[117] the City of New York,[118] and other parties that urge the Commission to undertake a comprehensive analysis of how customers will be impacted prior to making any rate design changes. The Commission should implement measures to protect these customers where necessary.

Staff Recommendation 21: Bill impact analyses should be performed for potential demand charge scenarios; these analyses should include impacts on low-income customers.

While demand charges can theoretically improve the price signals sent to customers, we reiterate our concerns that most mass market customers likely do not have the ability to effectively respond to such price signals at this time. We also note that customers who have installed certain types of DER, such as solar PV, generally have no more ability to respond to demand charges than customers without DER. For this reason, CEOC shares the concerns voiced by AARP regarding the potential for demand charges to have negative impacts on customers, and especially low-income customers. Accordingly, we support AARP's recommendation that any analysis of potential demand charge scenarios should include impacts on low-income customers.

[116] The GridWise Alliance, p. 16.
[117] AARP Comments, p. 11.
[118] City of New York Comments, p. 46.

In addition, we agree with TASC, SEIA that demand charges may negatively impact customer incentives for adoption of DERs. This impact should be investigated prior to implementing any demand charges. TASC correctly notes that where mass-market customers are unable to respond to demand charges, such charges "effectively operate as a fixed charge," with all of the attendant problems that higher fixed charges impose.[119]

EE for All's three key questions regarding demand charges may be helpful for outlining the scope of analysis required in order to ensure that customers are protected and incentives for DER are not diluted. The three questions are:

1) Whether customers, particularly low-income customers, have the information and resources needed to respond to demand charges,
2) Whether and how demand charges impact customer incentives to invest in DER, and
3) How to best design demand charges to reflect long-term marginal costs and the environmental benefits of DER.[120]

Staff Recommendation 22: Standby rates should be reviewed and modified to include a reliability credit and a wider application of the campus tariff.

A number of parties express concerns with standby rates. For example, TASC asks the Commission to modify standby rates to include a reliability credit and a wider application of the campus tariff, and to establish a permanent exemption for intermittent renewable generation and associated energy storage systems.[121] The City of New York calls for a comprehensive review of standby rates to ensure they don't continue to stand as a barrier to city targets, to DG development, and REV goals.[122] The City further states that the Commission should make re-examination and modification of standby rates a top priority.[123] Acadia Center notes that standby rates should be eliminated once DER pricing mechanisms are established.[124] Energy Technology

[119] TASC Comments, p. 18.
[120] EE for All Track 2 Comments, pp. 12-13
[121] TASC Comments, p. 20.
[122] City of New York Comments, pp. 8-9.
[123] *Id.*, p. 10.
[124] Acadia Center Comments, p. 11.

Savings indicates that standby service tariffs are concerning, because they could make projects unaffordable.[125] As noted in our initial comments, CEOC concurs, and believes that standby rates should eventually be replaced with a proper assessment of LMP+D.[126]

Thank you.

[Signatures to follow.]

Respectfully submitted,

[125] Energy Technology Savings Comments, p. 8.
[126] CEOC Comments, p. 51.

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