

August 21, 2015

VIA ELECTRONIC FILING

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

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

Dear Secretary Burgess:

The Clean Coalition hereby submits for filing these comments on the July 1, 2015, “Staff White Paper on Benefit-Cost Analysis in the Reforming the Energy Vision Proceeding.”

Respectfully submitted,

/s/ Brian Korpics

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**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NEW YORK**

**PROCEEDING ON MOTION OF THE COMMISSION
IN REGARD TO REFORMING THE ENERGY VISION.**

Case 14-M-0101

**CLEAN COALITION COMMENTS ON STAFF WHITE PAPER ON BENEFIT-
COST ANALYSIS IN THE REFORMING THE ENERGY VISION
PROCEEDING**

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I. INTRODUCTION

On July 1, 2015, the New York Department of Public Service (“DPS”) issued its Benefit-Cost Analysis (“BCA”) White Paper that lays out a framework for considering utility proposals within the Reforming the Energy Vision (“REV”) proceeding. In the White Paper, the DPS solicited comments on various aspects of the framework, including individual components and application of the BCA. The Clean Coalition appreciates this opportunity to provide input on the White Paper. We offer insights from our work in California and have included specific comments on applying the BCA framework, valuing externalities, including option value in the analysis, applying an appropriate discount rate, valuing functions of distributed energy resources (“DER”), importing lessons from California’s Distribution Resources Plans proceeding, considering interconnection practices, and valuing non-energy benefits.

II. DESCRIPTION OF PARTY

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources—such as local renewables, advanced inverters, demand response, and energy storage—and we establish market mechanisms that realize the full potential of integrating these solutions. The Clean Coalition also collaborates with utilities and municipalities to create near-term deployment opportunities that prove the technical and financial viability of local renewables and other DER.

III. COMMENTS

a. Application of the BCA Framework

The Clean Coalition respectfully urges the DPS to develop the BCA framework with the degree of specificity required to derive market prices. Further work should be done on the framework to ensure that it can be consistently applied to different scales and types of investments or tariffs. It would benefit all parties to this proceeding if these tasks

were completed prior to tariff development and the initial filings of the utilities' Distribution System Implementation Plans. Going forward, market prices should be published annually for each geographic area, and utilities should publish short-, mid-, and long-term marginal distribution capacity costs at the sub-nodal level.

b. Valuing Externalities

The Clean Coalition applauds DPS's work to consider out-of-market public costs and benefits. One of the most important results of this White Paper will be to begin the process of internalizing external damage costs of bulk power generation in order for society to realize the full range of benefits resulting from greater deployment of renewables. To best support this objective, the Clean Coalition recommends that the DPS adopt Approach #2 to quantify the value of externalities. As the DPS notes, applying this detailed marginal damage cost approach "may provide the most complete, rational and defensible approach for valuing the damage attributable to emissions of carbon dioxide and other pollutants."¹

c. Option Value

Two different methods to evaluate DER investments exist. First, the deterministic valuation approach assumes only one estimate of program savings impacts, number of participants, program costs, and avoided costs. This methodology assesses cost effectiveness by comparing the net present value of avoided costs to the program costs. Alternatively, the option value approach recognizes variability in different components of the valuation. The deterministic method undervalues investment in DER because it does not accommodate alternate outcomes and low-probability but high-consequence reliability events. However, the option value approach incorporates these considerations by analyzing co-variance among key components, such as how weather and demand co-vary and influence energy prices. This approach is being incorporated into the valuation methodology for demand response in a California Public Utilities Commission

¹ N.Y. Dep't of Pub. Serv., Staff White Paper on Benefit-Cost Analysis in the Reforming the Energy Vision Proceeding at 31 (July 1, 2015).

proceeding,² and it has also been applied in a Public Utilities Commission of Nevada proceeding.³

d. Discount Rates

The White Paper recommends the use of a single discount rate reflecting the utility weighted average cost of capital (“WACC”), either averaged across utilities or specific to each utility. The discounting of future costs can result in increasingly shortsighted decisions as the discount rate rises, including the accumulation of unfunded future liabilities. For this reason, the Clean Coalition recommends careful review of the applicable discount rate, leveraging the lowest cost of capital available on behalf of ratepayers, which may be realized through public bonds or financing, and avoiding incurring obligations associated with higher costs—as found in regulated allowable Returns On Investment that often exceed the WACC available to the public or utilities. Further, because benefits from the REV proceeding are more long-term in nature, a lower, societal discount rate is preferable.

Regardless of the adopted discount rate, the future costs to which the rate should be applied must include the risk and hedge value associated with the alternatives being compared, including the option value previously discussed, as these represent real costs to the ratepayer.

e. BCA Methods for Valuing DER functions

The DPS should examine and adopt the methods for valuing the benefits of DER as detailed in the Compliance Report of the California Public Utilities Commission’s

² Load Modifying Resource Demand Response Valuation Working Group Compliance Report (May 1, 2015) (filed in Rulemaking 13-09-011 Order Instituting Rulemaking to Enhance the Role of Demand Response in Meeting the State’s Resource Planning Needs and Operational Requirements), *available at* <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K289/152289927.pdf>.

³ Kenneth Skinner, NV Energy Demand Response Program Insurance (Option) Value, Comparative Analysis and Description (June 17, 2014) (filed in Docket No. 14-07 Application of Nevada Power Company d/b/a NV Energy for Approval of its 2014 Annual Demand Side Management Update Report as it relates to the Action Plan of its 2013-2013 Triennial Integrated Resource Plan: Technical Appendix), *available at* http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2010_THRU_PRESENT/2014-7/39345.pdf.

Load Modifying Demand Response Working Group.⁴ While this working group focused on Demand Response, particularly on demand response that was not participating in wholesale markets, the functions and services provided to the electric grid and the methods for establishing the value of these functions are technology agnostic and broadly applicable to any resource in relation to its performance profile and location. The Report was the product of a large and representative group of experts including utilities and the California ISO. In the report, the working group evaluated a comprehensive list of benefits and proposed valuation methodologies. As the report notes, methods for determining distribution-level locational marginal value have already been developed, and products implementing these are commercially available.

The White Paper appropriately recommends a methodology be developed to: 1) characterize DER resource profiles; and 2) determine to what degree those resources reduce energy or capacity and ancillary service needs. We note that it is essential to first determine the local energy, capacity, and ancillary service needs of the system. Values should be evaluated as synergistic portfolios rather than as individual facilities or technologies because complimentary installations can greatly increase the range and reliability of functions. One example of this is variable distributed generation with local load management, such as PV generation and EV charging that can automatically respond to grid conditions or pricing signals.

As improvements in data availability and methodologies are ongoing, the BCA should be updated regularly. A biennial update will provide an opportunity to review the application of modifications before adopting revisions.

f. California's Distribution Resources Plan Proceeding

The California Public Utilities Commission's Distribution Resources Plan ("DRP") proceeding can provide the DPS with developments related to identifying and evaluating location-specific opportunities for net ratepayer benefits associated with

⁴ Load Modifying Resource Demand Response Valuation Working Group Compliance Report (May 1, 2015) (filed in Rulemaking 13-09-011 Order Instituting Rulemaking to Enhance the Role of Demand Response in Meeting the State's Resource Planning Needs and Operational Requirements), *available at* <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K289/152289927.PDF>.

DER.⁵ The DRP proceeding is establishing the methodologies for the utilities to begin effectively planning for higher penetrations of DER within the distribution grid. On July 15, 2015, the utilities filed DRP proposals that “identify optimal locations for the deployment of distributed resources.”⁶ The filings define customer and distribution grid needs through both location-specific valuation and Integration Capacity Analysis (“ICA”) maps.

The ICA maps contained in the utilities’ initial DRP filings analyze circuits and line sections for areas with capacity for DER deployment that will not trigger power, frequency, or voltage violations. This means that the maps identify areas of the grid where DER can be deployed cost effectively without requiring any grid upgrades. Evaluation of DER hosting capacity throughout each utilities’ electric system will provide important input to BCA methods and results—indicating the ability to accommodate various portfolio options, the comparative system upgrade costs, and the savings of alternate portfolios. The DER capacity of each line section, circuit, and substation that is currently available with minimal upgrades is established through the DRPs, and these results can be utilized in evaluating DER portfolios and net ratepayer benefit opportunities.

g. Interconnection Practices

Adopted BCA methods should consider interconnection practices, which may be reviewed and amended as necessary to streamline the approval process and ensure predictable and reasonable costs. Uncertainty, delays, and excessive burdens in the application, review, and development of Interconnection Agreements can greatly hinder the deployment of DER and add significant costs. “Plug and play” interconnection practices—as seen in the California Distribution Resources Plan proceeding—will reduce costs and development risk for the utility in evaluating and successfully procuring DER portfolios.

⁵ Cal. Pub. Util. Comm’n Rulemaking 14-08-013 (filed Aug. 14, 2014), *available at* http://delaps1.cpuc.ca.gov/CPUCProceedingLookup/f?p=401:56:10392604284397::NO:RP,57,RI R:P5_PROCEEDING_SELECT:R1408013.

⁶ CAL. PUB. UTIL. CODE § 769(b).

h. Non-Energy Benefits

Various non-energy benefits can and should be quantified in the BCA framework. Qualitative measures should be eliminated to the extent practicable, or they should be substituted with placeholder values. BCA work performed by the National Renewable Energy Laboratory has identified a number of quantifiable non-energy benefits, such as water use, land impacts, economic development, disaster recovery, and fuel-supply and other security risks.⁷ Further, the Clean Coalition has quantified other non-energy benefits, including direct and indirect job creation benefits, for its analysis of a community microgrid project in California.⁸

IV. CONCLUSION

The Clean Coalition appreciates this opportunity to comment on the BCA White Paper.

Respectfully submitted,

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Dated: August 21, 2015

⁷ See Nat'l Renewable Energy Laboratory, *Methods for Analyzing the Benefits and Costs of Distributed Photovoltaic Generation to the U.S. Electric Utility System* (Sept. 2014), *available at* <http://www.nrel.gov/docs/fy14osti/62447.pdf>.

⁸ Clean Coalition, *An Energy, Economic, and Environmental Benefits Analysis for High Penetrations of Renewable Energy in San Francisco's Bayview-Hunters Point Area* (2013), *available at* http://www.clean-coalition.org/site/wp-content/uploads/2013/12/HPP-Benefits-Analysis-19_jb-20-Dec-2013.pdf.