

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the
Commission Regarding an Energy
Efficiency Portfolio Standard

Case 07-M-0548

EnerNOC, Inc. Responses to Staff's Questions

Pursuant to the June 15 Ruling on Scope and Schedule in the above-captioned proceeding, EnerNOC, Inc. (“EnerNOC”) respectfully provides the following comments and answers to the questions posed by staff. In a separate filing and by July 20, EnerNOC will respond to Judge Stein’s questions outlined in her June 22, 2007 letter to the parties.

I. Overview

While EnerNOC responds to some of the specific questions below with specific answers, we think it is important to begin with a general overview that provides a context for this debate.

On June 27, 2007, the New York Independent System Operator held a symposium entitled **“The Future is Now: Energy Efficiency, Demand Response and Advanced Metering.”** Nearly 200 energy professionals attended this important event, including many of the New York State Department of Public Service staff and parties participating in this proceeding, including presiding Administrative Law Judge Stein.

Honored with an opportunity to speak, EnerNOC emphasized the importance of the topics of the symposium in developing a robust and efficiency energy system. More specifically, we explained the interrelation of Energy Efficiency (“EE”), Demand Response (“DR”), including Distributed Generation (“DG”) and Advanced Metering Infrastructure (“AMI”).

Simply put, revenues available to DR and DG through participation in ISO or utility emergency and peak load reduction programs provide a mechanism for customers to pay for the installation of advanced meters. Those meters, in turn, provide a continuous stream of customer usage data that allow the customer or a third party energy manager to identify customer usage patterns and, from that, energy savings and efficiency opportunities. In essence, together, DR, DG, AMI and EE facilitate increased energy awareness and energy savings opportunities for the customer that otherwise would not exist.

From a market efficiency standpoint EE, DR and AMI are also interlinked. EE reduces the need to run baseload generators, primarily coal. DR and DG, on the other hand, help to flatten the peaks and increase the load factor of the system. This simultaneously reduces the need to operate some of the least efficient and most highly polluting peaking resources on the system and at the same time allows the most efficient and cleanest combined cycle facilities to operate most efficiently. Finally, the mass deployment of AMI and the requirement that DR aggregators report actual load reductions in real-time will allow dispatchable and/or price-responsive loads to increase competition in the energy and ancillary services markets, thereby reducing prices and mitigating the possible exercise of market power by generators.

The linkage extends into the environmental realm as well. EE advocates tout the fact that *the cleanest kilowatt-hour is the one never used*. DR providers add to this the fact that *the cleanest power plant is the one you don't have to build*. AMI advocates can add to this *the cleanest system is the one operated most efficiently*.

The first part of our theme, therefore, is that EE cannot be considered in isolation and that an Efficiency Portfolio Standard that focuses solely on kWh reductions and fails to encourage kW reductions and support or accommodate advanced metering initiatives will be about as effective as a one-legged stool. All three legs, EE, DR and AMI will be necessary if New York is to have a chance of meeting the aggressive “15 x 15” goal.

The second theme is far simpler: *markets for procuring EE and DR work. Use them.*

Extensive experience with the NYISO's demand response programs have conclusively demonstrated that third party aggregators have been the most effective marketers of demand response, enrolling significantly more customers and MW than all of the utilities combined. Having just been opened to aggregators, we believe that the ConEd Enhanced Rider U Local Distribution Load Relief Program will show immediate and significant participation. The same results have followed everywhere in the country that ISOs/RTOs have created reasonable programs and opened them to participation by all.

New York's experience in the late 1980s and early 1990s with DSM programs showed similar results; provided with reasonable compensation, third party ESCOs can be as effective or even more so than regulated utilities.

In seeking to attain the "15 x 15" goal, New York should continue to rely on third party specialists to market and implement its efficiency and demand response priorities. Utilities can be excellent overseers of the programs in their territories and can help to guide the aggregators and ESCOs using their vast base of customer knowledge, but placing utilities in the role of competitors to the third party suppliers is fraught with risks for unfair competition. Instead, utilities are properly charged with meeting certain goals, then being required to meet those goals through tariff offerings, requests for proposals, or other competitively-neutral approaches.

Of course, utilities should be fairly compensated for fulfilling these responsibilities and even provided with appropriate incentives for doing it in a particularly effective or efficient manner. However, these are issues that are most appropriately addressed in the context of individual utility rate proceedings.

II. Questions and Responses

GOALS:

1. What approaches hold the greatest potential to contribute to New York achieving the overall target of 15 percent electricity consumption reduction by 2015?

A combination of building and appliance standards, targeted energy efficiency programs, demand reduction programs and support for advanced metering initiatives would provide the best integrated approach for reaching the “15 x 15” targets.

3. What are the most appropriate methods and processes for establishing program specific goals and for measuring progress towards long term goals (including program monitoring, measurement, and evaluation)?

It can be challenging to establish program specific goals. We think that building upon the 2003 NYSERDA analysis of EE and renewable resource development would be an appropriate starting point. This analysis suggests that aggressive targets can be economically achieved.¹ After establishing program specific goals, one tested resource for the evaluation of efficiency programs is California’s Standard Practice Manual.² Additionally, monthly and annual reporting by utilities will allow allows all stakeholders to both remain informed and provide market-based solutions toward achieving established goals. These reports should contain progress toward goals along with program expenditures to date.

PROGRAM ELEMENTS:

8. What role should outreach and education play in an enhanced energy efficiency effort and what changes in approach should be made in various demographic or market segments from the methods now being used?

Customers need to understand better the inter-relationship between DR and EE, especially the ways in which the former enables and facilitates the latter.

9. What role could innovative rate design play in enabling greater penetration of energy efficiency and how might this vary by market segment? Should energy tariffs recognize and differentiate between the relative level of energy efficiency designed into new buildings?

Time-of-use tariffs or inclining block rates can help to provide appropriate signals and incentives for customers to effectively respond to prices. Costs that are incurred on a volumetric basis should be collected volumetrically through energy charges rather than through fixed costs on customer bills.

12. What role should a) distributed generation, b) demand response, and c) combined heat and power play in reaching New York’s energy efficiency goals?

¹ See, <http://www.nysesda.org/sep/EE&ERpotentialVolume1.pdf>.

² See, <http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+policy/std+practice+manual.doc>.

All three have important roles to play. DG, while sometimes environmentally unfriendly, is sometimes the easiest way to attract customers into NYISO and utility DR programs. Oftentimes, DG represents the “foot in the door” that forms the initial basis for a relationship between a customer and aggregator. For example, as the DG customer gains experience with the programs, it might become willing to make changes in its operations to provide load curtailment not supported by onsite generation. Eventually, using the data provided by the advanced meters funded by its DG and curtailment efforts, the aggregator and customer will work together to take advantage of EE opportunities, changing consumption in response to price and possibly exploring 3rd party commodity supply. This is what EnerNOC markets as *Total Energy ManagementSM*. Combined Heat and Power should be treated comparably to EE, with appropriate recognition of the fuel consumed and pollutants emitted.

IMPLEMENTATION:

14. What could be an appropriate role for utilities with respect to the delivery of energy efficiency programs within their service territories?

Allowing utilities to manage a cost-effective portfolio of programs – implemented by third party providers - to meet established goals. How might that role vary by market segment? If the utilities are overseeing a portfolio, any market segment variation should be captured by individual programs allowing the utilities to focus on goals and not program implementation.

16. What role should the private sector (e.g., financing and educational institutions) play in program development and implementation?

Private third party providers who routinely operate programs around the country can more cost-effectively design, implement, and manage demand side programs because it is core to their business. A competitively-solicited portfolio of programs from private providers avoids the need for expenditures on additional utility and institutional resources to achieve the same goals.

How should these efforts be coordinated with utility and government entities’ programs? Are there additional incentives (or tax relief) that could be provided by Federal, State and Local governments which would enable greater penetration of energy efficiency initiatives?

Private third party providers can leverage the range of incentives to achieve the greatest penetration of efficiency goals.

17. Should utilities (or other entities) receive incentives for implementing successful energy efficiency programs? If so, what is the appropriate level and form that these incentives should take and should such incentives be performance based?

Yes. Utilities should not confront rate designs that penalize them for reducing either energy use or peak load. In fact, to the extent that they are performing their other tasks in a prudent fashion, utilities should be rewarded for reducing consumption and load by being permitted a higher return on equity.

COSTS AND BENEFITS CALCULATION:

22. How should the expected benefits and costs of various design options be measured and compared? What externalities should be included and why? What expenditures or benefits should be characterized as transfer payments and perhaps excluded from the analysis? Why?

The California Standard Practice Manual could be a valuable resource. In addition, the Energy Efficiency Evaluation model used by all CA investor-owned utilities includes 8760 avoided costs to capture some time and locational aspects of energy savings and provides more benefit to those EE measures that reduce peak demand.³ A similar methodology for evaluating the cost effectiveness of DR is currently being developed under an open California rulemaking process.⁴

FUNDING:

25. What constitutes a reasonable level of funding for the electric and gas energy efficiency programs? How, and from whom, should the various program costs be funded, allocated and recovered?

Simply as a point of reference, in 2005, CA allocated \$2 billion for 2006-2008 funding to be allocated to a diverse portfolio of EE programs.⁵ New York's challenges, especially those regarding air pollution, are at least as severe as California's; therefore it could be argued that expenditures proportionate to California's (on a population, load, or energy usage basis) would be appropriate.

³ See, http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+policy/evaluatorsprotocols_final_adoptedviaruling_06-19-2006.doc.

⁴ See, California Public Utilities Commission R.07-01-041.

⁵ See, http://www.cpuc.ca.gov/PUBLISHED/NEWS_RELEASE/49757.htm.

Utilities should collect EE funding through volumetric surcharges to ensure that non-participants have an incentive to reduce their energy usage.

III. CONCLUSION

For the forgoing reasons, the Commission should pursue an EPS design that recognizes the interrelationship between energy efficiency, demand response (load curtailment and distributed generation), and advanced metering infrastructure, setting hard portfolio standards for the first two and encouraging the latter wherever possible.

Sincerely,

A handwritten signature in black ink, appearing to read "Aaron Breidenbaugh". The signature is fluid and cursive, with a large, stylized flourish at the end.

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