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May 1, 2015

VIA ELECTRONIC MAIL

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

Re: Case 14-M-0101 In the Matter of the PSC March 17, 2015 Notice Soliciting Comments on Microgrids

Dear Secretary Burgess:

The Northeast Clean Heat and Power Initiative (“NECHPI”) hereby submits for filing its attached comments in response to the above-referenced Notice on Case 14-M-0101 in the Matter of the PSC March 17, 2015 Notice Soliciting Comments on Microgrids.

These comments are primarily authored by Henrietta de Veer, Ph.D., of Adaptive Energy Strategies LLC and Co-Chair of NECHPI’s Policy/Regulatory Committee and incorporate the inputs and review of the Executive Committee of NECHPI, which represents more than fifteen major companies and organizations in the Combined Heat and Power (“CHP”) industry. Various members of NECHPI, including Ms. de Veer, Ruben Brown (also co-chair of NECHPI’s Policy/Regulatory Committee, Matt Cinadr (Senior Consultant to E Cubed), and Herbert Dwyer (President, ASI Energy, Inc.) actively participated in many of the committees in Track I of the proceedings, including those specific to microgrids, and will continue to be directly involved in Track II initiatives and activities. As a matter of information, Ms. de Veer, Mr. Brown and Mr. Cinadr represent NECHPI on NYISO’s Business Issues Committee, Management Committee, and Market Operations Committee, respectively.

Respectfully submitted,

/s/

Nicholas M. Martin  
Executive Director



**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

**CASE 14-M-0101 - Proceeding on the Motion of Comments in  
Regard to Reforming the Energy Vision in Response to the PSC  
March 17, 2015 Notice Soliciting Comments on Microgrids**

**REPLY COMMENTS  
Of  
NORTHEAST CLEAN HEAT AND POWER INITIATIVE (“NECHPI”)**

**MAY 1, 2015**

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## REPLY COMMENTS OF NORTHEAST CLEAN HEAT AND POWER INITIATIVE (“NECHPI”)

May 1, 2015

Northeast Clean Heat and Power Initiative (NECHPI) is a 501(c)(6) business league functioning primarily in the seven northeastern states of New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire and Maine. Until 2012, it was simply a voluntary association. To be exempt, a business league's activities must be devoted to improving business conditions of one or more lines of business as distinguished from performing particular services for individual persons. It must be shown that the conditions of a particular trade or the interests of the community will be advanced. NECHPI's comments submitted here adhere to this standard.

### Comments

The Northeast Clean Heat and Power Initiative (“NECHPI”) has been an active party in all aspects of the Reforming the Energy Vision (“REV”) proceedings and has provided many comments as to the general proposals surrounding REV as well as to the more specific issues surrounding microgrids. Members of NECHPI participated actively in REV committees throughout the summer of 2014, including numerous microgrid committees analyzing various regulatory and policy barriers to their deployment. In particular, Ms. de Veer, Co-Chair of NECHPI’s regulatory/policy committee wrote up for these committees a number of white papers outlining specific issues to address as the regulatory framework evolved to support microgrids. We thought it worth restating some of our observations made in previous filings to give some context to our specific comments in response to the New York State Public Service Commission (“PSC”)’s February 26, 2015 order that solicited comments by May 1<sup>st</sup>, 2015 on the role of microgrids in the new DSP marketplace.

As the PSC is already aware, there is emerging a body of literature covering a variety of possible business models to support the rapid increase in distributed energy resources (“DERs”) in general and microgrids in particular. Many of the discussions circle around new “utility” models that will allow them to take advantage of many of the new markets forces and competition to provide new products and services to customers.

Many industry analysts believe that microgrids may provide at least a partial solution for utilities trying to develop new revenue streams that offset losses to their traditional base by providing a portfolio of services and products that utilities can offer customers. They may include providing services targeting electric vehicles, products monetizing various environmental attributes, or utility-owned or –directed

microgrids that provide differentiated energy services to customers (i.e., varying levels of power quality reliability). The concept of a “distributed services platform provider” (“DSPP”) model, as enacted by the PSC in previous orders, will require a significant shift for utilities where the paradigm of the centralized grid has been entrenched for 100 years.

Business model approaches will package available technologies into distributed-energy resources (“DERs”)/microgrids, jointly with advanced information, communications and control technologies, in a manner that delivers value meeting the needs of end consumers, market agents and system operators, while generating a return to service providers. What business models are best suited to make use of different configurations of DESs/microgrids in power system contexts to deliver value to all stakeholders? A key question is whether the aggregation of separate DERs into microgrids has advantages over individual responses of different components of the network on a stand-alone basis and if so, what is the added value captured through aggregation.

The potential advantages of microgrids include the following:

- Aggregation of DERs can reduce the risk for each individual DER to not meet its market commitments;
- Aggregating otherwise relatively inflexible DER products to one DER product bundle furthermore increases the possibility for DER units to take part in the markets for system services;
- Aggregating DERs can exploit arbitrage potentials if existing network charges preferentially treat larger devices from the same type or aggregations of devices of different types.

Four key aspects of DSPP regulation include the following:

- Remuneration of distribution network companies that better accounts for the costs and savings offered by a high penetration of DERs;
- Allocation of network costs to its users to provide a level playing field for all DESs (this includes redesigning network tariffs and compensation mechanisms);
- Identification of new roles of the DSPP (functions and services with economic value) in a system with larger penetration of DERs; and
- Reassessment of industry structure and interactions between network operators (TSO/ISO and DSOs) and other market actors given increasing penetration of DESs

NECHPI has previously observed that microgrids are unique from a financing perspective because of the diversity of kinds of assets, with very different “financeability” profiles and perceived levels of risk. This is critically important, because if microgrids cannot be financed, then none of our activities and comments matter. These financing issues translate into complexity in terms of how a financing package is put together, particularly one that is standardized, transparent, and based on a methodology which investors will understand.

There are different classes of investors: 1) short-term versus long-term; 2) asset- versus cash flow-oriented; 3) high risk/high reward versus low risk/lower expected reward; 4) equity, debt, sub debt and other financing instruments; 5) securitized approaches using public vehicles such as MLPs and REITs; 6) P3s; 7) socially responsible investment funds, etc. Each one of these has different investor profiles, different investment requirements, and so on. It may be possible to craft a structure that includes “layers” of investors meeting different sets of requirements, but it will not be easy. Credit quality of the offtaker is usually critical, and it is a reason that utilities are generally thought to be key to the success of many microgrids. Thus, addressing regulatory barriers surrounding microgrids will be a condition precedent to attracting successfully the range, quality and depth of investors needed to support their development and deployment.

NECHPI is ready to work closely with the PSC and utilities to develop compensation mechanisms that will support microgrids in a standardized, transparent manner, with no “hidden” costs as found in tariffs today, and we look forward to the start of Track II when these issues are addressed fully. Using a standard methodology should help all of us quantify and then monetize costs and benefits to microgrids’ advantage and then to develop tariffs tailored for a microgrid, a specialized feed-in tariff (“FIT”), and/or other appropriate compensation mechanisms. NECHPI’s major concern remains, however, that we are in the middle of the NY Prize Community Microgrid Competition, and many of these issues are unaddressed and ambiguous, at best.

We should mention that a number of NECHPI’s members are actively involved in the development of proposals in response to the NY Prize Community Microgrid Competition, and we would argue that resiliency is the critical aspect of community microgrids under NY Prize requirements. CHP has repeatedly demonstrated its ability to provide resiliency under outages and severe weather events (witness its performance under Hurricane Sandy and other natural disasters) as well as many other grid and load-management services.

However, for those of us involved in NY Prize, it is becoming clear that, unless there are better specified standards as to what are acceptable performance and operating characteristics of qualifying microgrids, it will be difficult to ensure that customers receive safe and adequate service at just and reasonable rates and that these microgrids advance REV-related objectives. It is also clear that there will be many feasibility studies undertaken, most of which will not and should not pass muster if standards associated with “qualifying microgrids” had already been in place.

In addition, our members have observed that different investor-owned utilities across the state are handling the support of applications very differently, and in some cases, with substantial reluctance, and it is hard to get concrete information on specific issues needing to be addressed during the process. An additional problem is that we are aware of many potential and actual applications that have no real basis as technically and financially viable projects. We regret that the PSC’s request for comments was not

solicited before NY Prize was released because we believe that there are going to be many projects undertaking feasibility studies which, if a regulatory structure were already in place, they would not have happened in the first place and are highly unlikely to be candidates during the second and third phases.

We reference and fully support the Pace Energy and Climate Center's comments filed on this Order concerning the need to establish and define several configurations that will be "presumptively permissible" and should be carried out to encourage minimal regulatory burden. NECHPI strongly recommends that, if the PSC issues presumptively-allowable microgrid configuration templates, as mentioned in its February 26<sup>th</sup>, 2015 Order, it needs to: 1) define what is meant by this; and 2) do so as quickly as possible. We also would maintain that there should be technological aspects to the template, most particularly over the foreseeable future since so many technologies are not yet able to provide the levels of reliability, resilience and power quality at an affordable cost required for a community microgrid.

In our estimation, CHP is one of the few technologies, if not the only one, available today that is commercially feasible, represents a scalable and replicable technology, provides significantly reduced levels of GHG emissions, and is able to provide resiliency along with many of the grid and load-management services being sought by the REV proceedings. As a result, we maintain that all of the "presumptively permissible" templates should incorporate CHP as the primary baseload generation source as a requirement.

PSC has asked how microgrids should be regulated to provide safe and adequate service at just and reasonable rates. To the extent that microgrids can provide services under a power-purchase-agreement ("PPA") format, offered to more than one customer, NECHPI advocates for minimal regulation. The CHP marketplace has already proven the concept that customers can be informed and opt into this kind of service without the PSC regulating rates. Again, we reference and support Pace Energy and Law Center's approach and supporting arguments about minimizing the regulatory burdens associated with microgrids.

Further, the PSC asks how microgrids can be regulated to ensure that they advance REV objectives. Aside from incorporating CHP into the "presumptively permissible templates," an obvious mechanism is that REV will create markets that reward assets that advance its objectives, like any other resource. In the microgrid context, the only element that changes is that the PSC wants to be sure that all groups of people, entities, facilities, private-sector developers and others can compete equally in these markets.

So, if the microgrid has a CHP asset that can provide grid services, the PSC needs to make sure: (a) the microgrid as a whole can play in the market; (b) the individual property with CHP installed on it can play; and (c) any specific subset of microgrid customers served by the CHP can play. The key is to enable



maximum operational flexibility so that the most appropriate resources and entities are able to take advantage of these markets. As we have emphasized in other filings associated with the REV proceedings, CHP is able to provide a range of grid services – from baseload and blackstart to ramping, operational flexibility, resiliency and dynamic load management – and ultimately, tariffs need to be developed that allow each distributed resource to compete according to its capabilities to perform to provide these services. Ultimately, these tariffs will transition into fully functioning markets where energy is bought and sold freely through real-time transactive systems managed by the DSPP.