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September 22, 2014

VIA ELECTRONIC FILING

Hon. Kathleen H. Burgess
Secretary to the Commission
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223
secretary@dps.ny.gov

Re: New York State Public Service Commission Matter 14-00581/14-M-0101 – Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision

Dear Secretary Burgess:

This firm represents The Microgrid Resources Coalition (“MRC”). MRC is pleased to submit the enclosed Comments as to the *DPS Staff Proposal on Track One Issues* in regards to the above captioned matter.

Please feel free to contact me at the above number if you have any questions in this matter.

Very truly yours,



C. Baird Brown
Attorney for MRC

CBB/BCP
Enclosure

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Proceeding on Motion of the Commission
in Regard to Reforming the Energy Vision**

Case 14-M-0101

**DEVELOPING THE REV MARKET IN NEW YORK
DPS STAFF PROPOSAL ON TRACK ONE ISSUES
Comments by the Microgrid Resources Coalition**

Dated: September 22, 2014

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II A. SUMMARY STATEMENT

The MRC remains enthusiastic about the REV Proposal put forth by the Public Service Commission (the “**Commission**”). We support its linked goals of promoting widespread distributed energy resources (“**DER**”) deployment and the evolution of traditional utilities, as we believe that both developments will increase choice and deliver value for energy customers. The goals are also linked in that they each require adoption of policies that support competitive and utility investment in DER and in distribution and communication infrastructure. Utility investment has traditionally been supported by regulated rates that permit recovery of investments. Competitive private investment by contrast typically depends on revenue (or savings) to be achieved through project operation. Investment in DER faces risk that particular projects cannot achieve operation, or that their revenue streams will be compromised once operation is achieved.

The Commission’s powers to influence competitive private investment in DER are indirect but substantial. The most important ones affect the ability to operate at all: barriers to entry such as delays and inappropriate cost allocations for interconnection; standby tariffs that don’t accurately reflect the value of service; and lack of historic customer information against which to measure investment value. Second, recognizing that the biggest incentive for DER is behind-the-meter savings, The Commission has jurisdiction over the structure of the basic energy tariff and the ability of the customer to respond to differential power value. Third, the Commission can facilitate the ability of DER to sell energy, capacity or ancillary services to the grid, but such sales will only support investment if the DER owner faces markets for those services that are sufficiently broad and liquid and have firm legal underpinnings so that they

provide reasonable assurances of future revenue streams. To effectively support investment, markets must also be transparent and free of market power.

By contrast, it is directly within the Commission's power to support utility investment in whatever it concludes will serve the creation of the DSP platform. The MRC asks that the Commission not authorize utility investment (as opposed to unregulated affiliate investment) in areas that crowd out private investment or at levels above those justified by net benefits to customers.

The staff proposal can be read to endorse a future in which utilities serve as local independent system operators running markets for many services. However, while the staff expresses concerns about competitive issues, there is no structural assurance that the DSPs would be independent or that they would not invest in DER at a competitive advantage using rate-base investment. The MRC is concerned that such markets may well have a low potential to support competitive investment in DER. While DSP markets may have a role to play, we strongly suggest keeping it simple at the outset. We do believe, on the other hand, that there is substantial potential for utilities to provide a physical and informational platform that lowers barriers to entry for DER, and integrates them in the system to the benefit of customers - both those who own or contract for DER and those who don't.

We see the REV proceeding as a way to accelerate an evolution that is inherent in the changing technological, communication and social circumstances. Recognizing the tremendous effort involved, the MRC is happy to provide assistance in helping to prioritize the short term actions identified in the Staff Proposal.

II B. Market Structure

While the Staff Proposal is principally focused on markets, there is comparatively little discussion about how markets are to be defined. The candidates include:

1. **DER Equipment and Services Markets.** These are broad, largely unregulated markets for DER the sale of equipment to a customer or the installation and operation of such equipment on a customer's behalf. These include markets for DER equipment such as building controls, lighting and HVAC improvements and geothermal, solar, storage or CHP equipment (the "DER Infrastructure Markets"). While installation of some of this equipment is appropriately regulated as to interconnection standards, and may be further regulated if electricity sales beyond the meter are involved, the relationship between the customer and the DER provider behind the meter is appropriately unregulated.
2. **RTO Wholesale Markets.** These markets have been rapidly expanding under the impetus of FERC Orders 745, 755 and 784 and were beginning to be viewed as a stable source of revenue in some RTOs prior to the decision of the United States Circuit Court for the District of Columbia vacating Order 745.
3. **Aggregation Services for Wholesale Market Products.** This function has been performed in some RTOs by competing, independent third party aggregators, and Staff suggests it can be performed by DSPs.
4. **Long-Term Procurement Processes.** Procurement processes can be developed for long-term distribution system improvement needs that may be met by DER. Such processes will require transparency both as to the needs of the distribution system and in the procurement process itself. However, properly designed

(including assurances of competitive neutrality in the selection process), such processes could provide revenue certainty for long-term services that supports financing.

5. **Incentive Tariffs.** Tariff incentives such as time of day pricing or demand response tariffs can produce a competitive response in both investment and operations. Such tariffs, if they promise to be in effect for the long-term, can provide incentives for customers to seek out equipment and services from DER providers and can provide a basis for financing energy management improvements. Such tariffs can help create and realize value in both wholesale and distribution systems, and behind the meter. By contrast, the risk of escalating standby tariffs can drive out investment.

6. **Local DSP Markets.** DSPs could establish markets for services needed by the distribution system. The Staff report does not identify any particular local market services requirements. Local voltage/VAR support may be an example, but it seems unlikely to have a significant revenue impact. There may also be a basis for a market in short-term substation relief (in contrast to the long-term solutions contemplated in Item 4). If a DSP proposes to develop a market (other than an RTO Pass Through market as discussed below at III. D), it should file a plan with the Commission, show the need for the market, demonstrate appropriate scale and scope, evaluate conflicts with participation in wholesale markets, and detail how market power will be mitigated.

The MRC strongly believes that supporting the DER Infrastructure Markets (Example 1) should be REV's first priority. These markets mostly are not and, we believe, need not be mediated by DSPs. (The exception is energy efficiency markets, but see our comments at Section V.) However, the RTO markets (Example 2), distribution system procurement processes (Example 4), and incentive tariffs (Example 5) can, if well designed and stable, provide support to the DER Infrastructure Markets by serving as a basis for financing. As an example, most DER services are consumed behind the meter. The energy tariff that the customer faces is typically a far larger incentive for DER investment than market revenues. However, sales of services to the grid can become a meaningful incentive if markets can be relied upon.

The MRC generally supports the Staff-articulated market design principles, especially transparency, a level playing field, and removing barriers to entry. However, we have some reservations about the high expectations for the benefits of markets:

1. A principal point of encouraging DER is to permit customers to take charge of and manage their energy demand. Neither system tariffs, nor markets run by the RTO or DSP, can optimize for the customer.
2. The RTO day-ahead energy market can be said to be "optimized" in the sense of solving for the lowest prices by taking demand as fixed and the bulk power system as a set of fixed constraints. However, it is generally not possible, mathematically, to optimize for multiple goals without imposing *a priori* policy priorities on the solution. Both customers and the system have multiple goals including reliability, resiliency and environmental outcomes in addition to pricing efficiency.

3. In the long-term the system is not fixed. Indeed we are trying to encourage revamping of the system, but that is an interactive planning process, not optimization. In that context, we hope that decisions will be made by customers, not for them. Properly designed tariffs, practices and procedures can facilitate good decisions by customers and competitive DER providers.

II C. Overview of Market Participants

A great deal of DER requires no active involvement by the DSP or RTO. Behind the meter solar installation, once it meets interconnection requirement does not need to be scheduled or dispatched. Residential smart thermostats may give a homeowner the ability to actively manage his or her load (and active management by a large number of homeowners would benefit the grid), but again there is no need for central communication or control. The DER owner is responding to long- or short-term signals from the tariff and the distribution company is using typical load-forecasting techniques. If DER is large enough and “smart” enough to respond to dispatch signals for market products, and elects to participate in such markets, then interaction with the RTO and/or the DSP is required, and the system (as represented by the RTO and DSP) is entitled to know if the DER is capable of providing the services on which the system will rely. For the most part the DSP does not need to facilitate customer behavior in response to tariffs.

If a DSP were to facilitate by establishing, as in the Staff’s example, a demand response market, the MRC believes that the Staff is too sanguine about the unmediated results. A utility acting as a market intermediary for the RTO market and a utility managing its load bid may well face substantially different incentives. Load is typically bid day ahead and would reduce the system-wide, day-ahead price. Demand response is typically bid as generation in the real-time

market (and paid as such). One must be cautious in assuming that both should be encouraged. The results, for customers, would be substantially different. Indeed, one way to achieve the impartiality that the Staff hopes for in DSPs is to remove them entirely from the business of selling retail electricity, which would remove the load bid option. This assumes that the Commission's efforts in Part II assure utilities of adequate revenues to support their investment in wires, reliability infrastructure, communications systems, and data management capacity independent of energy sales.

III A. Incumbent Utilities as DSPs

The MRC supports utilities acting as DSPs with adequate separation from their unregulated affiliates and limitations on rate-base investment to mitigate market power. Over the years, customers have supported major investments in utility infrastructure through their tariff payments. It should be a major focus of this proceeding to assure that that investment is conserved and enhanced for the benefit of customers as it evolves to continue to meet customer needs.

III B. Customer Engagement

Having concluded that with adequate market power protection utilities can be DSPs, the MRC sees no reason that they can't also act as data platforms. The proposed exchange would only be as good as the underlying utility data systems. The MRC supports a move by utilities to implement metering capability and the supporting data management systems that will make real-time historical usage data available to customers and provide data on system conditions that would justify DER investment. The Commission should support investment in this capability, and should strongly encourage rapid implementation.

What could be useful, rather than a second layer of data management, is an independent audit function for utility data collection and dissemination to assure transparency and accuracy of data.

The MRC does not support having customer data disseminated as a default option. Opting out is bound to be daunting to some customers, and those may be the customers that most need the privacy and integrity of their data assured. What customers **do** need is to be able to assure that their data **is** disseminated when and to whom they specify. This is a key to supporting the DER Infrastructure Markets.

III B. Multi Customer DER

Several threads in this section of the Staff Proposal raise questions about multicustomer DER, but no collective policy is advanced. The MRC feels that this is a central question that deserves its own specific focus in any policy adopted by the Commission. The MRC believes that there are several possible models, which help to bring the questions into focus:

1. **Facilities owned by a common landlord.** This model need not be limited to a single building, but can include a shopping mall or a multibusiness campus. Either the owner, a third party DER provider, or a customer cooperative would be permitted to own wires within such a natural enclave, submeter the various “tenants”, and face the grid as a single integrated customer that meets thermal as well as electric loads within the larger facility. Public rights of way should not be permitted to be a barrier.

2. **Utility-owned DER.** A utility could implement and own certain types of DER on its own property or system. For example, San Diego Gas and Electric installed energy storage and islanding capability for a canyon community on a radial feed to increase reliability. Utility implementation is unlikely to capture the full thermal benefits of an integrated microgrid, but it is a natural extension of the utility's function as a distribution company. This should be subject to usual prudence considerations and, where applicable, competitive solicitation for solutions. See Section IV.

3. **Utility/private partnerships.** Such "partnerships" are typically formed through contractual relationships. In this example, the utility would own and maintain the wires and install or permit installation of islanding capability, but would allow a third party DER provider to operate generation as well as to provide thermal management and smart load management behind the common meter at the islanding breaker. The MRC would not recommend that a DSP act as the DER provider in such an arrangement, but (subject to anti-competitive behavior rules) an unregulated affiliate could engage in this business.

Community Choice Aggregation is an additional avenue to the wires-sharing approach in Example 3, and a local ESCO could be formed to produce a similar result. Islanding capability, however, would still need to be separately negotiated with the utility. The Commission should consider setting standards for third party islanding of a local portion of the distribution system. Firm long-term contractual relationships will be critical to permit investment in these solutions.

One reaction of utilities to the sorts of suggestions outlined above is to seek to avoid loss of load. It should be clear that Part I cannot succeed without a Part II that compensates utilities independent of “own load”. In all the examples, the utility still owns and operates a distribution system that provides services to customers behind every meter. In considering DER, the services **from** the grid and **to** the grid must all be thoughtfully enumerated and valued. It is the experience of members of the MRC that a sophisticated microgrid can often provide both reliability in excess of the surrounding grid and ancillary services in excess of its needs.

III D. Wholesale Market Interactions

RTO Wholesale markets are working well where they have been implemented. In the view of the MRC, the first step (subject to the Order 745 litigation) is to fully implement orders 745, 755, 784, and the next step is to remove barriers to DER participation in other capacity and ancillary services markets. The RTO markets are comparatively deep and liquid; FERC is working to standardize them across RTOs; and secondary markets are (or were) beginning to develop that could provide long-term DER infrastructure investment incentives.

DSP-run markets will necessarily be smaller and less liquid unless they are a direct pass-through of RTO market prices adding only appropriate costs of service (a “Pass Through Market”). More experimentation and fragmentation of markets will destroy incentives. If a DSP runs a market to purchase a product for ultimate resale of the to the RTO, but runs it as a profit center because it has a monopoly, it will only distort the RTO markets.

If Order 745 remains stricken, however, having a DSP run a Pass Through Market for RTO products may well be helpful.

The MRC believes that the DSP does have a role in testing and inspection to insure that all system-critical infrastructure can perform, including DER bid in from behind the meter. Measurement and verification, however, is a different and very complex matter, especially for microgrids, which have multiple ways to respond to market signals with different cost consequences and baselines. RTOs are struggling with this as it is. Having two levels of regulation with the potential for conflicts will only destroy investment incentives. Let RTOs define the products in their markets. The Staff report also cites NY ISO as saying that it needs visibility into DER market participants. Where possible DER should be in direct communication with the NYISO. As an example, one of our members provides regulation services to PJM with a two-second delay from PJM's signal. A DSP filter can only degrade the information flow.

IV. Benefit/Cost Analysis

Benefit/Cost Analysis will be helpful in designing incentive tariffs, and it provides a framework to evaluate public policy goals such as carbon reduction. However, the respective roles of markets and benefit/cost analysis need more definition. As an example, bidding processes for DER projects that improve distribution system function are a better way of establishing cost than manufacturers' information. More importantly, customers should be able to make their own benefit/cost analysis when considering operations behind the meter based on behind the meter benefits as well as the tariffs and markets they face. Benefit/Cost Analysis should be augmented with and, where possible, supplanted by, competitive procurement and customer-based solutions.

V. Markets

The MRC believes that the same rules should apply to DSP ownership of renewable energy generating facilities as apply to any generating facilities. We note that states such as California and New Jersey have achieved far greater rates of penetration with private ownership programs, and don't feel that a contrary case has been made in the Staff Report. Further, including renewable energy resources in microgrids that can locally manage intermittency and power quality will often be better for the grid than standalone projects.

Similarly, energy efficiency projects pay for themselves, and, other than appropriately quantified system benefit payments to energy efficiency providers and support for lower-income ratepayers, there is generally no need or basis for charging all customers for the benefit of some. Management of energy efficiency measures that employ variable controls behind the meter will generally be much better accomplished by the customer than by a DSP. There may well be a role for DSPs in facilitating energy efficiency transactions in the DER markets through providing on bill repayment options (with third party capital).

One of the MRC's key principles is technology neutrality. We support the technology goals listed in V. B.

The MRC supports public private partnerships and strongly supports the interconnection discussion at V. C. There needs to be a maximum time frame for the DSP to act.

We are pleased with the microgrid discussion at V. D., but we are concerned that it is not well integrated with the rest of the proposal. The discussion recognizes the value of microgrids to the larger grid, but doesn't address how microgrids will be able to capture that value. The careful assessment of services to and from customers with DER and the real cost and benefits of

those services needs to precede the discussion of all the forms of markets discussed under II.B. above.

VI. Mitigating Market Power

The MRC is generally supportive of the Staff's discussion of market power mitigation. As the Staff recognizes most of the "advantages" of Utility DER that it cites are really the disadvantages: "Given their knowledge of distribution system needs and capabilities, and customer usage, incumbent utilities can readily identify where DER can be sited most efficiently." This can lead, as Staff point out, to the ability of utilities to undercut competitors who do not enjoy the utility's lower cost of capital. The MRC is far more concerned about utilities seeking to include new activities in their regulated arms than it is with utilities transferring activities to unregulated subsidiaries in search of higher returns. In general, the MRC hopes that the DSP platform provides encouragement and assistance to DER providers in physically enhancing the system, and provides customer information (at customer's request) and system information that allows DER providers to compete on a level playing field. We hope that utility disincentives to effective energy efficiency programs that truly reduce load can be eliminated in Track II. In the transition, continued vigilance against the exercise of market power is critical.

VII. Policy Recommendations

The MRC generally favors the policy recommendations set forth in this section, but we have a few reservations:

1. As discussed above, we oppose customer data release on an opt-out basis. We do think that making data available to customers and for release at customer request is the highest priority. We are concerned that the negotiations involved in setting up a collective exchange will be a way of saying yes while doing no. Please direct the DSPs to move quickly to collect the right underlying data and develop the ability to distribute it.
2. The MRC is not opposed to demand response tariffs (but see our comments at III. D on markets that are not Pass-Through Markets). However, we would give time of day usage tariffs an equally high priority.
3. The MRC strongly believes that the Commission should not seek oversight of DER providers (other than aggregators). An additional level of regulation beyond safety and fair business practices could easily cripple the DER Infrastructure Market. DSPs should verify DER assets providing services to the grid, but the Commission should not undertake to regulate equipment and service providers. This is a vast undertaking that can only serve to establish prohibitive barriers to smaller, innovative suppliers. The Commission, appropriately, has a consumer protection function, but the MRC strongly suggests consultation with the New York Attorney General as to appropriate structure, and also consultation with the United States Environmental Protection Agency about its struggles in implementing the Energy Star program.
4. The Staff needs to provide a much clearer articulation of the relationship between Benefit/Cost Analysis, markets, and customer choice.

5. As discussed above, the MRC does not support blanket authorization for utility renewable energy and energy efficiency programs.

The MRC believes that the highest priorities include:

1. Carefully evaluating the services provided to customers who host DER behind the meter and the services provided by the DER;
2. Determining the critical barriers to entry by DER and addressing those specific barriers;
3. Focusing on the infrastructure platform of the DSP (before the market platform), and providing transparency about critical system needs that can be addressed by DER; and
4. Recognizing that this is a topic for Track Two, helping the DSPs move out of the rate-base paradigm.

We reiterate our willingness to support prioritization of next steps.

Respectfully submitted,



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For the Microgrid Resources Coalition

Dated: September 22, 2014