

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C.

Docket Nos. ER11-3322-000

Panel 1: Discussion on Reliability Issues

**PREPARED OPENING REMARKS OF
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**Technical Conference on Performance Measurement of Demand Response in the
PJM Capacity Market
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Good Morning. My name is Marie Pieniazek. I am the Chief Operating Officer for Energy Curtailment Specialists, Inc. (ECS). I want to thank the Commission and staff for the opportunity to participate in this important technical conference. ECS is a large privately held demand response provider with market operations in the United States and Canada. ECS was founded ten years ago to provide both wholesale markets and Investor Owned Utilities with reliable demand response resources.

I have the opportunity to talk to you this morning about three of the four reliability issues you have posed to this panel. In my opinion, PJM has decided to advocate for a market design that appears to reject load aggregation in favor of a far more granular view of reliability than PJM assumes in planning or operations. Rather than looking at load within a zone to meet the reliability needs of the region, PJM has suggested it needs to look at the load of individual retail customers with whom it has no relationship. I confess I am not an operator, but in my years in the industry, I am not aware of any circumstance in which an ISO plans and operates on the basis of the loads of each individual end user. Rather, I have always understood that it looks at the

loads within a zone in the aggregate, and plans and operates for those loads. In the brief time I have with you this morning, I would like to explain why I think departing from this approach to focus on individual end-use customer load does not make sense and will most certainly reverse the great strides that have been made in expanding load response for the benefit of the market and consumers.

PJM appears to be concerned that Curtailment Service Providers (CSPs) are somehow signing up customers they know cannot reduce to their committed levels in order to facilitate aggregation. First, ECS does not condone or participate in the practice of a CSP registering resources that it knows cannot perform, if this is in fact occurring. Second, this view of “over-performance” by an individual end use customer resource as compared to its cap on the Nominated Value, based on the customer’s peak load contribution (PLC), ignores the fact that PJM relies on aggregated performance of a CSP’s portfolio of resources within a particular zone, and should therefore be indifferent to how such performance is aggregated so long as the reductions are accurately measured. Third, the PJM add-back rules, under the Guaranteed Load Drop (GLD) option, do not accurately reconstitute the load to reflect the portfolio effects of aggregating over-performing and under-performing customers relative to their verified baseline, since the rules use PLC to cap over-performance of individual resources, while not limiting under-performance.

First, while CSPs should not be enrolling customers they intentionally know will not reduce during emergency events, it is important to recognize that some customers, no matter what the CSP does to ensure a pre-identified customer interruption, may nevertheless reduce more or less than the expected amount, and potentially may be unable to reduce at all during an event. This risk is borne by CSPs, such as ECS, and is an important consideration during ECS’s

PJM ILR or DR registration process. Aggregation of ECS's portfolio of customers is, in fact, a critically important tool to manage this overall risk, and is based on consideration of several factors.

Fundamental to the aggregation principal is an acknowledgement that not every customer within a CSP's portfolio will achieve 100% performance when called upon. By aggregating customers into portfolios that are defined zonally in a way that corresponds with the planning and operational needs identified by PJM, CSPs are able to manage under- and over-performance of individual customers within their portfolio to ensure PJM receives the load interruption in the zone it is counting on while at the same time mitigating the risk for the CSP. In so doing, the CSP is able to enter into contracts with its customers, contracts which I recognize are retail contracts and not subject to FERC jurisdiction, without requiring a penalty to individual customers for non- or under-performance, and still capturing the value of full performance for the benefit of its customers. ECS is certain, based on its experiences in this business, that many customers are willing to undertake load interruptions but are not willing to accept a financial risk associated with non- or under-performance and would not participate in PJM's demand response programs if they were required to accept such a risk. Eliminating the CSPs' ability to use aggregation to mitigate this risk for all of their customers will surely dampen participation for CSPs and their customers.

Furthermore, aggregation benefits PJM, as it maximizes program performance during curtailment events. Individual demand response customers may have no program incentive to perform beyond their nominated values, which means that for each individual customer that under-performs, there is little likelihood that another will just *happen* to over-perform such that PJM is still provided with the level of reduction that it is counting on. If a CSP is given the

flexibility to manage its portfolio in the aggregate, however, by encouraging over-performance of individual customers in order to off-set potential under-performance by others, it can maximize the level of aggregate reduction that is provided in response to an emergency event, thereby fulfilling its capacity obligation to PJM and benefiting the overall program.

As PJM has recognized in its Response to Notice of Topics for Staff Technical Conference, individual customer loads can exceed the PJM forward forecast. In our experience, there are many factors that may affect a demand response customer's load consumption during an emergency event, some of these include a customer's individual business needs, its operations at the time of the event, the type of equipment the customer utilizes, the economic conditions at the time of events, and weather conditions, but PLC is not one of them. Rather, PLC is a cap that may have little or no relationship to the amount a customer can reduce during a PJM system emergency.

With regards to either the customer baseline load (CBL) or PLC being a more accurate capacity market performance measurement, I would like to first clarify what my understanding of CBL is in this context. I'm assuming that CBL is referring to the five baseline methodologies under PJM's GLD method. These baseline methods are comparable day, same day, economic CBL, regression analysis, and measuring the direct output of a behind the meter generator.

It is ECS's opinion that the PLC is at its core a variable designed for use by EDCs to spread the cost of capacity allocated to them across their retail customers. ECS submits that PLC is not a definitive basis for defining whether PJM, during an actual event, has received the load interruption on which it has relied. In certain cases, the PLC *may* represent the appropriate baseline and those customers for which that is the case have the Firm Service Level (FSL) baseline available to them. However, the PLC, which is based on an averaging methodology of

five peak hours in the prior year that are likely to be different than the hour in which a curtailment event occurs, should not be mandated as the only baseline to determine what a demand response customer would have consumed absent that particular event. The PJM capacity procurement process determines the amount of capacity that will be procured for the system three years in advance of the delivery year and PLC is irrelevant to that determination. The PLC, rather, is a static measure, based on historical load ratio shares, that has no connection to changes in factors affecting the customer consumption at the time of system emergencies. It is the ultimate load reduction from expected levels during that event, not the PLC, that should be looked to for reliability purposes.

Should the CBL (or GLD) method be eliminated and the PLC be the *only* measurement for capacity market performance, this will essentially eliminate a “down from” baseline approach and place all demand response customers participating in the capacity market into a “down to” methodology. Again, PJM has recognized that individual customer loads may exceed forward forecasts, and therefore recognized that individual customer loads vary from year to year. Utilizing only the PLC method will eliminate the ability for a customer to choose between a “down to” or a “down from” baseline approach to align its business operations with the appropriate baseline methodology.

ECS believes that eliminating the “down from” baseline method will cause some individual demand response customers to drop out of the program merely for the fact that their business operations cannot support that baseline methodology. If customers that have been operating higher than their previous years’ PLC depart PJM’s demand response program as a result of the proposed rule change, this will eliminate load curtailment needed by PJM during system emergencies from demand response.

I would like to turn now to the question of whether PJM's add-back process accurately reflects over-performing customers' ability to compensate for under-performing customers within a portfolio aggregation to meet capacity commitments. If the Commission finds it necessary to tie capacity obligations and PLC, then ECS suggests using the total aggregate PLCs of the customers in a CSP's portfolio (by EDC) as a performance measure. It is ECS's opinion that as long as the total aggregate performance of a portfolio does not exceed its total aggregate PLC (by EDC), then the total aggregate capacity delivered (at the EDC level) will "match up" with the capacity that has been procured for the aggregate portfolio of customers. For the reasons described previously in my testimony, it is ECS's opinion that further limiting the CSP's ability to aggregate within a portfolio by limiting individual end-use customer performance to PLC will not further improve system reliability and will only serve to introduce significant risk for CSPs and their customers, thereby decreasing program participation.

The current PJM add-back rules do not accurately reflect the effects of portfolio aggregation of over-performing and under-performing of customers, since the PLC rules cap over-performance, while not limiting under-performance. If this is the underlying issue, the PLC rules should be modified to remove the individual end-use customer resource cap on over-performance. If the add-back is meant to reconstitute demand to reflect a customer's curtailment during a PJM emergency load management event, then capping performance of individual end-use customer resources to the PLC cannot produce an accurate reflection of the over- and under-performance within a CSP's portfolio.

ECS would like to thank you the Commission and staff for the opportunity to participate in this important discussion today. I look forward to your questions.