UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.	)	Docket No. ER11-3322-000

MOTION FOR LEAVE TO ANSWER AND ANSWER OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to Rules 212 and 213 of the Commission's Rules and Regulations, 18 CFR § 385.212 & 385.213 (2010), Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM ("Market Monitor"), moves for leave to answer and answers the protest filed by EnerNOC, Inc. ("EnerNOC") in this proceeding on April 28, 2011.[1] This proceeding concerns revisions needed to clarify the metrics used for the measurement and verification of the delivery of capacity by Demand Resources in the Reliability Pricing Model ("RPM"), which is the PJM Capacity Market design. EnerNOC makes a series of arguments that have nothing to do with the purpose of this proceeding. Accordingly, the Market Monitor provides this answer in order to develop a clear record and otherwise to assist the Commission in its decision making process.

[1] PJM Interconnection, L.L.C. is a Commission approved Regional Transmission Organization. Capitalized terms used herein and not otherwise defined have the meaning provided in the PJM Open Access Transmission Tariff ("OATT") or the PJM Reliability Assurance Agreement ("RAA").

I. ANSWER

A. EnerNOC's Arguments Relate to Demand-Side Participation in the Energy Markets, but this Proceeding Concerns the Participation of Demand Resources in the Capacity Market.

EnerNOC's fundamental mistake, which informs every aspect of its pleading, is summarized in its assertion (at 19) that "there is no way to separate capacity and energy."

Energy and capacity are distinct and different products. PJM administers distinct and different markets for these products. Different metrics apply to the measurement and verification of energy and capacity products. A demand-side resource may provide either product or both products in any given hour and receive compensation depending upon whether either product or both products are delivered. If both products are delivered in the same hour, the resource is entitled to compensation for both products. If either product or both products are not delivered, the resource is not entitled to compensation for the product not delivered. It is not just and reasonable to charge PJM customers for a product that is not delivered.

The PJM tariff defines capacity from Demand Resources and specifies the means to measure and verify delivery of capacity.[2] Those rules are inconsistent with EnerNOC's position,[3] so EnerNOC instead invokes a more general definition of "demand response."

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[2] RAA Schedule 5; OATT Attachment DD-1.

[3] The Market Monitor has addressed the best interpretation of the existing rules in its pleading in Docket No. EL11-20, which it incorporated into this proceeding by reference. *See* Comments of the Independent Market Monitor for PJM in ER10-3322-000 at 1–2 & n.1 (April 28, 2011) ("April 28th Comments"), referencing Comments and Motion for Hearing of the Independent Market Monitor for PJM dated March 2, 2011; Motion for Leave to Answer and Answer of the Independent Market Monitor for PJM dated March 3, 2011.

The sale of capacity by a demand-side customer in the PJM Capacity Market is an agreement to be interruptible. The customer agrees to not use capacity when it is needed by other customers (e.g. during an emergency) in return for not paying for that capacity (receiving an offsetting payment under the DR program). The reduction is mandatory. The sale of energy by a demand-side customer in the PJM Energy Market is a measurable reduction by a customer in energy usage in response to market prices in return for not paying the market price for that energy (receiving an offsetting payment). The reduction is voluntary.

A reduction in energy usage from a level that the customer would otherwise have used at that time based on the customer's actual circumstances at that time can, does and should receive demand-side compensation in the energy market. EnerNOC cites (at 17) to the Commission determination related to the energy markets that "a reduction in energy usage by a customer through demand response has the same value to the system as an increase in energy output." The Market Monitor agrees that payments for demand response in the energy market are appropriately based on a reduction in consumption compared to what otherwise would have occurred, provided that this counterfactual condition is accurately measured and verified.

EnerNOC recognizes (at 19) that "the Commission explicitly noted a distinction between capacity and energy markets with the respect to the applicability of Order 745," but nevertheless argues that there is no meaningful difference between energy and capacity "other than a temporal one." That is not correct.

B. EnerNOC Fails to Show that Peak Load Contribution (PLC) Is Unjust and Unreasonable, or That It Lacks Sufficient Rationale and Fails to Identify and Support Any Just and Reasonable Alternative.

The reference point for a reduction in energy usage is what the customer would have used under exactly the same circumstances had it not responded to the market price, and reduced energy usage. The measured reduction is the difference between what the customer would have used and what the customer actually used. In the Energy Market, this reference point is termed the Customer Base Line or "CBL." The customer, as a result, does not have to pay the market price for that reduction in energy usage (receives an offsetting payment equal to LMP.)

The reference point for a reduction in the use of capacity is the level of capacity which the customer has paid for. The measured reduction is the difference between what the customer paid for and what the customer actually used. The customer has agreed, by selling capacity as DR, to reduce its requirement for capacity below the level it paid for, when called on during an emergency. In the Capacity Market, this reference point is the PLC. The customer, as a result, does not have to pay the market price for that reduction in capacity usage (receives an offsetting payment equal to the market price of capacity).

The customer is not selling capacity back to the system. The customer is agreeing to not use a specified level of capacity and therefore not pay for that capacity. The payment for DR is the credit which offsets the payment for the level of capacity that the customer has agreed to not use.

The PLC is determined based on the customer's peak load in the year preceding the Capacity Market Delivery Year (measured using the 5 CP).

EnerNOC makes a superficially appealing, if hyperbolic, case that PLC is not used by PJM for load forecasting, that PLC is not used by PJM for the determination of the

amount of capacity purchased on behalf of customers and that therefore PLC should not be used as the baseline for the sale of DR or interruptibility in the Capacity Market.[4]

The lengthy discussion of PJM load forecasting is irrelevant to the issue here. The nature and significance of PJM's load forecasting necessarily changed with the introduction of the three year forward capacity market. PJM forecasts are now the basis for determining the amount of capacity that must be purchased for the entire system and thus for the RPM VRR curve for the RTO and each constrained LDA. PJM forecasts are based on historical peak loads and forecasts of some aggregate determinants of expected loads, including overall levels of economic activity.

EnerNOC notes (at 31–33) that PLC is used to allocate capacity costs based on a customer's PLC as a share of the sum of all customers' PLCs. PLC measures a customer's contribution to system peak load in the year prior to the delivery year. The total capacity procured by PJM three years in advance of the delivery year generally does not equal the sum of the PLCs. The mathematical result is that PLC is used to allocate the actual cost of the capacity procured for the delivery year, including any difference from the sum of the PLCs.

PJM could have developed and proposed an approach that would calculate adjusted PLCs based on the relationship between the level of capacity purchased for the delivery year based on the forecast and the sum of the PLCs. Such adjusted PLCs could be somewhat higher or lower than the measured PLC. If total purchased capacity were greater than the sum of the PLCs, the adjusted PLC would be greater than the PLC. If total

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[4] The Market Monitor responded to this point in its April 28th Comments at 3–7.

purchased capacity were less than the sum of the PLCs, the adjusted PLC would be less than the PLC. This approach would be more complicated and increase the difficulty of compliance for resources with lower adjusted PLCs. More importantly, there is no evidence that this approach would make any difference for the 2011/2012 delivery year, which is at issue here.

PJM's proposal (a compromise suggested by the Market Monitor) to use 1.25 times PLC as a transitional measure addresses this issue. EnerNOC is notably silent on this point. The use of 1.25 times PLC covers all cases where the allocated share of capacity costs could have exceeded the PLC. It therefore permits use of a benchmark for DR compliance of a MW level in excess of PLC, which makes it more favorable for CSPs. There is no evidence, and no suggestion by EnerNOC, that this 1.25 factor does not more than address the issue for the upcoming 2011/2012 delivery year. The use of the 1.25 factor is conservative, and tends to over measure actual reductions in capacity use because it does not address the fact that unadjusted PLC could also overstate the amount of reduction in capacity use if the sum of the PLCs were greater than the forecasted peak load for the delivery year.

The use of the 1.25 times PLC as a transitional measure is a reasonable compromise and clearly preferable to using a method that substantially over measures reductions in capacity use during the 2011/2012 delivery year. The 1.25 times PLC also permits time for a longer stakeholder process that could develop an improved PLC method in time for the next Delivery Year.

Although conservatively high, the 1.25 times PLC approach will prevent the application of an approach that significantly overstates the level of capacity actually provided by DR.

EnerNOC does not propose a solution to the allocation issue that it identifies. EnerNOC specifically argues (at 19–20) against the view that performance should be evaluated against the amount of capacity paid for. EnerNOC instead argues to continue an interpretation of the tariff that confuses energy and capacity and is clearly an inaccurate measure of the level of capacity reduction.

EnerNOC never addresses the real issue of mismeasurement of capacity reductions by demand side resources. The real issue results when customers which manage their PLCs directly become part of a CSP's portfolio and the CSP misapplies the Guaranteed Load Drop or "GLD" measurement and verification method.

Large, sophisticated customers have engaged in what was, and continues to be, a market based approach to DR, before there were formal DR programs. These customers understood that their payments for capacity were a function of their PLC and as a result these customers managed their PLCs by reducing load on days that were likely to be one of the 5 CP days. The result was that these customers avoided paying for the capacity associated with their actual peak loads and instead paid only for the capacity associated with their reduced loads on the 5 CP days. Equally important, the loads of these customers were reduced on peak days when the capacity that they avoided paying for was needed by customers who paid for that capacity. These sophisticated customers used this approach year after year and their reduced peak loads also reduced and continue to reduce the system peak loads. Such customers continue to use this approach today, which is sometimes referred to as peak shaving.

But, when a CSP provides incentives for such a peak shaving customer to become part of the CSP portfolio and therefore part of the PJM DR program in the Capacity Market,

the transition from peak shaving to DR creates the potential for substantial over measurement of capacity reductions on peak days.

As an example, if there is a customer with a 100 MW peak load that has historically managed its PLC to 20 MW, then the customer pays for only 20 MW of capacity. If that customer becomes part of a CSP portfolio offered in the DR program, under the GLD approach, EnerNOC asserts that it should be able to claim the difference between 100 MW and 20 MW as a reduction in capacity and be paid for this illusory reduction. It is clearly not a reduction in capacity and this simple example illustrates the point. The customer already managed its peak load and already avoided payment for capacity.

The customer in this example demonstrably would not have used 100 MW in the absence of the CSP's involvement. The customer would have continued to manage its load and avoid paying for capacity. EnerNOC appears to be arguing that because the customer had the right to use 100 MW, it would have used 100 MW, and that therefore 100 MW is the correct baseline. This is wrong. The correct baseline is what the customer would have used in the absence of the CSP's involvement and the PLC is the best available estimate of that baseline. EnerNOC has not asserted that its logic applies in the Energy Market. However, the extension of EnerNOC's logic to the Energy Market would mean that, on a lower load day, this customer's savings should be measured based on its right to use 100 MW, rather than on a calculation of what its usage would have been under the same market and weather conditions. This is equally wrong.

PJM's proposal would prevent egregious cases like this. EnerNOC argues a theory that supports these example outcomes even though EnerNOC's position on add backs in the membership process recognizes that there is an issue with such outcomes.[5]

EnerNOC's lengthy discussion of the definition of the 5 CP metric is also irrelevant to this proceeding. PLC is based on peak usage in the year prior to the Delivery Year, which is generally measured by the 5 CP metric. Regardless, the PLC determines the level of capacity that customers must pay for.

C. EnerNOC Raises Arguments Related to the Compensation Paid to Demand Resources, but this Proceeding Concerns the Measurement of the MW Quantity of DR Provided, Not the Level of Compensation for Capacity.

Demand Resources provide capacity, and are paid the same amount for that capacity as are Generation Capacity Resources. The current PJM market rules define three types of Demand Resources on the basis of the manner in which delivery of capacity provided by the resource is measured and verified. These include: Direct Load Control or "DLC," which is "[l]oad management that is initiated directly by the Provider's market operations center or its agent, employing a communication signal to cycle equipment;" Firm Service Level or "FSL," which is "[l]oad management achieved by a customer reducing its load to a pre-determined level;" and Guaranteed Load Drop or "GLD," which is "[l]oad management achieved by a customer reducing its load by a pre-determined amount."[6]

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[5] *See* meeting minutes from LMTF (September 8, 2010), which can be accessed at: <*http://www.pjm.com/~/media/committees-groups/task-forces/lmtf/20100908/20100908-draft-minutes-lmtf-20100819.ashx*.>

[6] RAA Schedule 5 § H; *see also* PJM Manual 18 (PJM Capacity Market) § 4.3.2.

Regardless of type, each of these resources delivers capacity and is paid the same for that capacity. Direct Load Control provides for measurement and verification by turning over control of the resource. This avoids the need for an indirect reference level because there is direct control of the load, as its name suggests.

The two other types, FSL and GLD, involve indirect measurement and verification of delivered capacity. Because these approaches attempt to measure and verify the same quantity of capacity, they should produce the same result. If these approaches frequently produce different results, this suggests that something is wrong with one or both methods of measurement and verification.

EnerNOC complains (at 2), "the GLD baseline would become entirely subordinate to PJM's static baseline method now as the Firm Service Level (FSL) baseline." EnerNOC claims, "no rational ARC would ever select the GLD baseline." EnerNOC criticizes PJM's rule change because, if implemented, FSL and GLD are more likely to produce consistent results and reduce the incentive to choose between them. When it comes to measurement and verification, consistent results between two instruments measuring the same thing is not a problem. On the contrary, getting the same results is a good thing.

Although PJM apparently has allowed CSPs the ability to use their method of measurement and verification, the tariff does not delegate this role to Market Participants. PJM is the public utility responsible to administer its tariff. There is an inherent conflict of interest in allowing Market Participants to evaluate their own performance.

EnerNOC's argument amounts to a claim that it has entered into contractual commitments on the basis of a flawed interpretation of the existing rules and in reliance on the continued use of a demonstrably incorrect measurement and verification method to verify the delivery of capacity, and that correction of this incorrect method amounts to a

retroactive change to its compensation. EnerNOC may receive less as the result of the correct measurement and verification, but the amount received for actual delivered capacity will not change. PJM reports, "Most CSPs do not engage in this practice, because they believe it is inconsistent with the present rules' limitation of DR/ILR certifications to no more than PLC."[7]

D. PJM's Proposal Does Not Interfere with Legitimate Portfolio Management by Curtailment Service Providers.

The Market Monitor agrees with EnerNOC's observation (at 44–45) that "[a] portfolio of customers is needed to maximize participation and is more reliably available to deliver a specified quantity of response that any single customer site that must be on call year-round," and that "[t]he ability to aggregate is in fact the core value proposition of ARCs participating in wholesale markets."

PJM's proposal in this proceeding is consistent with aggregation, and EnerNOC has not shown how proper measurement and verification will "fundamentally undermine aggregation." EnerNOC has not shown how PJM's proposal prevents "using the above-expected performance of one customer to offset the lower than expected performance of another." What EnerNOC actually argues for here is offsetting non-performance with non-performance, and that simply does not add up to a "value proposition" by any measure.

EnerNOC notes (at 46) a high level of aggregate demand response performance (99.4 percent) across five events in the summer of 2010, citing the 2010 State of the Market Report for PJM ("2010 Report"). This aggregate performance was calculated by the Market Monitor using PJM data which relied on reported compliance which used GLD measurement and

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[7] *See* PJM filing in ER10-3322-000 at 10 (April 7, 2011) ("PJM Filing").

verification protocols established for prior periods. The aggregate performance metric did not compare observed reductions to customer specific PLCs, including cases where a peak shaving customer was enrolled in the Load Management Program using the GLD approach. The sentence in the 2010 Report referenced by EnerNOC raises concerns about the bimodal distribution of performance across registrations within a portfolio. The issue is that there are a subset of customers which showed no response when called for mandatory curtailment and a subset of customers which showed compliance under the GLD method substantially higher than the customer PLCs.

For instance, in the 2010 Report, the Market Monitor noted (at 134) that 13 percent of registered customers showed a 0 MW reduction when called on for mandatory curtailment and 23 percent of registered customers showed a reduction less than 10 percent of their total committed MW. Perhaps more conclusively, the Market Monitor reported that nearly 20 percent of all GLD load reductions observed across the summer period of 2010 were associated with a registration showing overall reductions 200-300 percent greater than the associated PLC. That is, 20 percent of all GLD load reductions were associated with a customer that dropped load by an amount two to three times their peak load contribution for the prior summer.

The ability to aggregate portfolios across a geographical area has provided and will continue to provide a powerful risk mitigating tool to ARCs offering capacity related demand response services. However, when aggregation offsets resources which show little or no response, with high levels of response based on GLD from customers with managed PLCs, this is double counting.

E. The Proposal Clarifies the Current Rules for Measurement and Verification of the Delivery of DR; The Proposal Does Not Change Any Rate.

EnerNOC alleges (at 46) that "PJM seeks to change its filed rate methodology for capacity resources, and make such changes applicable to past RPM auctions retroactively." EnerNOC claims that the proposal "retroactively affects the compensation," citing Order No. 719's explanation that "customer baselines are an important factor in the appropriate compensation for demand response resources." Setting aside the fact that the Commission was discussing energy markets and not capacity markets in the cited material, the operative word is "appropriate." PJM's proposal does not change the mechanism for setting rates in RPM, nor does it affect the clearing prices that will apply in the 2011/2012 Delivery Year, or any Delivery Year.

PJM's proposal does not change any rule, but only clarifies and ensures consistent implementation of the rules for measurement and verification. The best interpretation of the current market rules interprets FSL and GLD consistently. PJM's proposal reaffirms this even though in practice it has allowed Market Participants to apply the rules in a manner inconsistent with the best current reading. The Commission's order of March 3, 2011, absolves PJM, Market Participants and the Market Monitor of the need to sort out past administrative problems and inconsistencies, but it avoided endorsement of any reading of the currently effective rules. EnerNOC has not shown that PJM's proposal materially changes any rule.

Even if PJM did propose changes to rules concerning measurement and verification of capacity, this does not mean any change to the rate paid for capacity itself. In the energy

market, a customer's bill may change as a consequence of adjustments to a meter reading result, but this does not amount to the retroactive ratemaking.[8] No ratemaking doctrine entitles customers to rely on payments based on inaccurate measurement for delivery of a product or service.

EnerNOC's claim (at 48) that CSPs have "confirmed contractual arrangements with participating customers to deliver demand response capacity to PJM" makes clear its real concern. Market Participants' contracts are not part of the PJM Tariff. The business practices of some CSPs are not entitled to protection under any ratemaking doctrine. CSPs must conform their contracts to the market rules.

F. PJM's Proposal Received Due Deliberation in the PJM Stakeholder Process.

EnerNOC's complaints (at 8–17) about the adequacy of the stakeholder process are misplaced. PJM moved quickly after months of delay to provide needed clarification to its measurement and verification rules prior to the commencement of the next Delivery Year on June 1, 2011.

The process was lengthy despite the fact that the problem is not particularly complicated, has harmful market and reliability impacts, and its solution requires clarification rather than alteration of the rules. PJM filed its proposal only after a process that lasted over twelve months, including 13 meetings of the Load Management Task Force and four meetings of senior committees to discuss the matter.[9] If anything, PJM and PJM

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[8] *See Exelon Corporation v. PPL Electric Utilities Corporation, et al.*, 114 FERC ¶61,298 at P 14 (2006) (correcting improperly billed invoices did not violate the ban on retroactive ratemaking).

[9] *See* PJM Filing at 19–20.

stakeholders should have acted more quickly because they share, together with the Market Monitor, a responsibility to prevent bad market outcomes.

The Market Monitor does not agree with EnerNOC's claim (at 12) that the process was antagonistic or irrational. Alternative proposals that would have considered reductions above PLC were considered and rejected, and the rules were appropriately refined. EnerNOC actively participated and had ample opportunity to make its views known.[10] A clear consensus emerged, but not one that EnerNOC wanted.

II. MOTION FOR LEAVE TO ANSWER

The Commission's Rules of Practice and Procedure, 18 CFR § 385.213(a)(2), do not permit answer to answers or protests unless otherwise ordered by the decisional authority. The Commission has made exceptions, however, where an answer clarifies the issues or assists in created a complete record.[11] In this answer, the Market Monitor provides the Commission with information useful to the Commission's decision-making process and which provides a more complete record. Accordingly, the Market Monitor respectfully requests that this answer be permitted.

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[10] *See* EnerNOC's presentation to the LMTF on July 28, 2011, which can be accessed at: <*http://www.pjm.com/~/media/committees-groups/task-forces/lmtf/20100728/20100728-item-02a-fsl-presentation.ashx*.>

[11] *See, e.g., N.Y. Indep. Sys. Operator, Inc.*, 121 FERC ¶61,112 at P 4 (2007) (answer to protest accepted because it provided information that assisted the Commission in its decision-making process); *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,318 at P 36 (2007) *(accepted answer to answer that "*provided information that assisted … decision-making process*"); California Independent System Operator Corporation*, 110 FERC ¶61,007 (2005) (answer to answer permitted to assist Commission in decision-making process); *New Power Company v. PJM Interconnection, L.L.C.*, 98 FERC ¶ 61,208 (2002) (answer accepted to provide new factual and legal material to assist the Commission in decision-making process).

III. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to this answer as it resolves the issues raised in this proceeding.

Respectfully submitted,

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Dated: May 17, 2011

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,
this 17th day of May, 2011.

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