Comments of the York County Solid Waste and Refuse Authority: Capacity Performance Proposal

The York County Resource Recovery Center (York or the Facility) is a 38.1 MW nameplate waste-to-energy facility capable of generating enough renewable energy to power about 20,000 homes. The York County Solid Waste Authority (the Authority) is a public entity whose mission is to serve the residents of York County, Pennsylvania with efficient and environmentally sound management of solid waste. The Facility generates electricity using about 1,344 tons of municipal solid waste daily and currently provides both capacity and energy to the PJM system. During the polar vortex and winter storms of January 2014, York was able to continually provide supply to the grid due to the presence of on-site fuel and the reliable operation of the asset. As such, York has been a consistent and reliable resource to PJM. The Authority finds that based on the Facility’s reliable performance and the Authority’s role in serving the public interest, PJM’s proposed Capacity Performance Resource (CPR) construct fails to recognize the reliable delivery of supply from the Facility, and fails to take full advantage of resources such as the Facility. In light of this, the Authority recommends that the following changes are implemented in order to reform CPR into a workable market design.

I. PJM Should Retain the Unforced Capacity (UCAP) Measurement for Both Payment and Penalty Assessment in All Aspects of the Reliability Pricing Model (RPM)

PJM intends to require a company officer to certify that “Capacity Performance Resources” are able to operate at their Capacity Performance Installed Capacity (ICAP) value for at least 16 hours per day for three consecutive days throughout the delivery year.” Despite the fact that York consistently meets the current UCAP obligations, and could certify to the CPR requirements, the provision to provide full ICAP value during scarcity events subjects the unit to unacceptable risk.

As PJM is well aware, capacity is the ability to deliver energy when called by PJM. This purely economic concept exists to provide sufficient revenues to incent resources to build and maintain generation resources. Inherent in this design is the notion that capacity markets are designed to incentivize the most efficient resources to be available to provide reliability by naturally biasing revenues to favor the best performing resources. This is accomplished by deducting the forced outage rate from the physical installed capacity (ICAP) value for a resource. Indeed, as the Market Monitor correctly states in its report on RPM fundamentals, reducing net capacity payments to generators that underperform provides “a direct incentive to have low forced outage rates.”

However, forced outages or forced derates are a natural function of the operation of a generating unit. In certain cases, no additional amount of operations and maintenance expenditures would improve the unit’s performance. This is exactly the case for waste-to-energy assets similar to York.

York relies on a consistent stream of solid municipal waste as fuel. While the resource maintains sufficient fuel onsite to provide supply for extended periods of time, the quality of that fuel can vary significantly.

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1 PJM Capacity Performance Proposal at P.8.
3 Id. at 11.
The actual composition of the waste coupled with rainfall and other factors can result in the resource being unable to provide supply at its nameplate capacity during all hours of the delivery year. York has no control over these factors. Unlike natural gas fired resources, York has no ability to contractually firm the quality of its fuel supply. As a result, the Facility would be exposed to PJM’s penalty regime without reasonable recourse.

York notes that it believes that it is very capable to provide CPR capacity as required by PJM. However, the requirement to offer the entire ICAP capability of the unit during all hours of the delivery year leaves the resource exposed to significant penalty risk that is likely outside of the resource owner’s control.

Moreover, requiring York and others to offer at their ICAP value could exacerbate PJM’s concerns with both reliability and the over-reliance on uplift. PJM would effectively set an unobtainable goal for York’s supply. If the resource failed to meet its ICAP value due to fuel composition, PJM would be forced to rely on output from other units to fill the void out of merit order. The end result would be an overestimate of the fleet capability coupled with the need to run resources outside of economic merit order. Ultimately load would be harmed by this change.

Conversely, retaining the UCAP measure for both payment and penalty allocation preserves both the performance incentive and risk management tool necessary to allow York to reliably perform as a CPR resource when called by PJM. PJM would be provided with the reliability assurance that the necessary capacity would be available during all hours when needed by PJM. Second, York would be able to properly hedge the risk associated with fuel-quality variability by offering into RPM at a rate that reflects the historic performance of the resource. Any ill-conceived withholding or gaming concerns should be assuaged by the notion that York relies on the capacity payment to remain revenue positive. Artificially increasing the unit’s forced outage rate would directly impact York’s economic viability. Therefore, PJM should retain the UCAP performance obligation in RPM.

II. The “Non-Performance Penalty Offset” Provision Improperly Discriminates Against Smaller Resources Similar to York

PJM proposes that a “Capacity Market Seller may offset the penalties applied to its Capacity Resource via energy production from an uncommitted unit . . . defined as a unit for which all or part of the unit’s capability does not have an RPM commitment for either the Capacity Performance or Base Capacity products for the Delivery Year . . . and applies to units in the Generation Owner’s portfolio.”

On its face, this provision appears to state that the penalty offset would be available only to those resource owners that have uncommitted units within their portfolio. This restriction dramatically increases the penalty exposure for unit owners like the Authority, which only have a single resource within their portfolio.

A more equitable and appropriate market design would continue to reflect RPM’s current accommodation of transactions for capacity between buyers and sellers. Currently, PJM provides for unit-specific bilateral transactions defined as the transfer of the “rights to or control of a specified amount of installed capacity from the Seller to the Buyer.”

Auction Specific MW Transactions are similar transactions that entail the “physical MW of capacity from a seller to a buyer at the location of the physical resource identified as

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4 PJM Capacity Performance Proposal at P. 28.
5 PJM Manual 18: PJM Capacity Market at Sec. 4.6.1, P. 62.
supplying the transaction.” A fundamental difference between the two products is the allocation of the performance obligation between buyers and sellers.

PJM should explicitly state that the Non-Performance Penalty Offset includes available capacity purchased through the existing bilateral contracting mechanism. Leveraging this market-based mechanism will create parity between small resources like York and the larger utility holding companies which provides significant value to both load and PJM; and would improve the ability of renewable resources and other desirable source categories to participate in the CPR market.

Failing to recognize opportunities within the RPM market design to properly manage risk exposure through the Non-Performance Penalty Offset inherently favors market-share consolidation, thus providing an incentive to consolidate generation supply into a few large players. This incentive erodes competition between market participants, raising both market power and design concerns. As market consolidation increases, PJM will be forced to increase mitigation to arrive at competitive market outcomes. Forcing an administratively induced competitive outcome is not synonymous with true competition where market fundamentals foster competition, resulting in the truly lowest cost service to ratepayers.

Secondarily, increased market consolidation erodes PJM’s stakeholder voting construct whereby a diverse group of stakeholder interests cast independent votes to amend the regulatory construct in which the entities participate. Inherent in this democratic construct is the notion that large and small entities from all sectors have an equal stake in the outcome. Consolidation of supply interests threatens that balance by reducing the overall number of members representing supply side interests. As the number of individual members in the sector decreases, so does PJM’s ability to gain a sector weighted majority vote for a given item. This decreased ability to build consensus erodes confidence in the markets ability to successfully self-govern. As such, PJM should take steps to ensure that all market participants are able to participate in RPM on equal footing. PJM should revise its proposal and expand the Non-Performance Penalty Offset to allow bi-lateral transactions between unaffiliated buyers and sellers (as permitted under current rules).

III. Conclusion

PJM should amend its proposed CPR construct to accurately recognize the reliable service provided by York and similar facilities. The construct would be significantly improved by adopting the specific reforms proposed herein. York welcomes the opportunity to discuss this matter further with PJM.

Respectfully submitted,

[Signature]

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