Dated: October 28, 2014

GENERATION COALITION 1 COMMENTS ON PJM’S CAPACITY PERFORMANCE PROPOSAL

In response to PJM’s request for stakeholder comments from coalitions in its Enhanced Liaison Committee proceeding for Capacity Performance, NRG Power Marketing LLC, Dynegy Marketing and Trade LLC, Topaz Power Marketing, L.P., Northampton Generating Station LP and Invenergy, LLC (collectively, the “Companies”) submit the following comments. The Companies own or operate over 24,000 MW of generation plus imports in PJM and also provide retail electricity and demand response services in PJM. PJM Staff made significant positive changes to the August 20, 2014 initial proposal in developing the updated October 7, 2014 Capacity Performance Proposal (the “Proposal”). These changes have allowed the Companies to re-evaluate their initial opposition, and the Companies now support the basic concept behind the Proposal. Such support is conditional on review of final tariff language.

At a high level, the Companies’ support for the Proposal is predicated primarily on the ability to reflect the following two factors in their premium capacity market bids: (i) the long-term costs of physical infrastructure needed to meet the Capacity Performance requirements; and (ii) the risks associated with effectively offering to be 100% available during every peak demand event hour, given the proposed non-performance penalties.

I. COMMENTS ON THE PROPOSAL

A. The Proposal, as Drafted, Largely Supports PJM Reliability Goals.

Two key questions for the Board to consider are (i) whether system reliability will improve if the Proposal is implemented; and (ii) whether we are creating a functioning market

1 Asset Manager for MEG Generating Company, LLC; Bayonne Plant Holding, L.L.C.; Camden Plant Holding, L.L.C.; Elmwood Park Power, LLC; Newark Bay Cogenetration Partnership, L.P.; Pedricktown Cogeneration Company LP; Sapphire Power Marketing LLC; York Generation Company, LLC; Raven Power Marketing LLC; C.P. Crane LLC; H.A. Wagner LLC; and Brandon Shores LLC.
that will drive market participants to invest in the PJM Region’s electrical and gas/oil infrastructure. While the details of the final proposal matter, the answer is “yes” to both questions. The reforms proposed by PJM provide generators with a natural price signal to improve fuel availability and fortify operations to withstand extreme weather. As always, good market design should drive companies to want to meet the public policy goals established by the Board and by FERC. This proposal, thus far, appears to meet those requirements.

Even though we are only weeks into the Proposal, the Companies are already evaluating substantial incremental investment in a variety of new infrastructure. The potential investments already under consideration include:

- Operational and equipment improvements to improve performance in cold weather;
- Firm gas transportation on new and existing pipelines;
- Increases in on-site backup fuel storage and fuel delivery arrangements; as well as
- Other strategies.

The types of investments, while clearly beneficial to grid reliability and local economies, can only be justified if the PJM Board, and later FERC, put into place a solid bidding and capacity market price formation regime—one that allows generators to fully reflect their long-run operational, maintenance, investment and risk costs into their bids. For example, the Board must clarify that these investments (e.g., a 10-year firm gas transportation contract), even after initially “sunk,” can be reflected in future offers. This will take clear leadership from the Board to retain the Net CONE offer cap proposed by PJM, as well as tariff provisions that provide clear guidance to regulators that these costs are appropriately incorporated into capacity offers.
B. The Companies’ Support is Contingent on a Number of Key Elements.

i. The Ability to Reflect Investment Costs and a Risk Premium in Offer Prices is Crucial.

Generators must be able to reflect the investment and operations costs referenced above in their offer prices. Additionally, with a potential penalty of 1.5 times net CONE, all generators taking on capacity performance obligations will assume the substantial penalty risk of potentially having to pay a punitive penalty on top of losing an entire year’s capacity payments. Generators must be allowed to determine their appetite for penalty risk and reflect those company-specific decisions in their capacity offer prices.

An example helps illustrate the risks faced by generators under the Proposal. A 200 MW generator could face potential penalties of more than three times its expected capacity revenues, assuming the following factors (i) a PJM-established Net CONE value of $350/MW-Day; and (ii) $150 MW-day clearing price. This hypothetical unit would expect to receive almost $11 million in capacity revenues for the year. However, under PJM’s proposal, such a unit would risk $38 million in potential penalties (under the currently proposed 1.5x net CONE penalty cap) if the unit experiences unexpected challenges and is unable to run. Even assuming a $300/MW-Day clearing price, the 200 MW generator would be weighing an approximate $22 million annual payment against a potential $38 million penalty. Notably, under the current proposal, the potential outage could be created by an event entirely outside the generator’s control.

In light of these significant risks, the PJM Proposal to implement an unmitigated offer cap equal to the Net CONE established for a given CONE Area is entirely reasonable. Such a cap will provide generators the opportunity to reflect both the infrastructure investment costs necessary to meet the Capacity Performance requirements as well as incorporate an appropriate risk premium. The Net CONE offer cap is an elegant and market-based solution to the problems
associated with a proposal that would otherwise have PJM evaluating each individual entity’s risk profile. Measuring risk is a highly individualized calculation, and as New England ISO has learned in their implementation of its Performance Incentives proposal, it is a tricky path to navigate successfully.

Consistent with the underlying design of RPM and all of the wholesale markets, generators will also be subject to the risk of zero capacity revenue if their offer prices are too high to clear the market. The net CONE offer cap is a fundamental aspect of this Proposal on which the Companies base their support.

ii. The Elimination of the Short Term Resource Procurement Target is a Key Component.

PJM’s Proposal to eliminate the Short Term Resource Procurement Target (the “Holdback”) is another key factor in the Companies’ support of the Proposal. The 2.5% Holdback rule, which withholds 2.5% of the demand in RPM Base Residual Auctions, has been a fundamental flaw of PJM’s capacity market for many years. No other organized market has such a withholding policy. It has caused PJM to intentionally procure less capacity in each PJM capacity auction and has in effect led to the suppression of capacity prices. As noted by PJM, eliminating the Holdback will enable PJM to procure “the necessary quantity of resources that will possess the required fuel security, reliability and flexibility needed to effectively meet the reliability needs of the system.”\(^2\) Since the stated goal of the Capacity Performance proposal is the same, the time has come to eliminate the Holdback. Simply put, with the implementation of Capacity Performance it is more important than ever that capacity prices in the BRA accurately reflect market conditions to incent the necessary investment. Retaining the Holdback will only dilute capacity price signals and work counter to the goals of Capacity Performance.

\(^2\) PJM Proposal at 33.
Other market participants may suggest that it is imprudent to eliminate the Holdback at the same time PJM is removing demand response from the capacity market. However, as noted by PJM, demand response will remain in the market as a demand side tool and the Capacity Performance product will make up for any shortfall. The Holdback simply amounts to an unnecessary market inefficiency and prevents the market from reflecting accurate prices. As such, the Companies support, and their support for the Proposal is materially based on, the elimination of the Holdback.

iii. Flexibility Requirements as an Eligibility Element Were Appropriately Removed.

In the first round of comments filed in September 2014 on Capacity Performance, many of the Companies urged PJM not to use flexibility criteria (i.e., run-hour thresholds, startup and notification times, minimum run time and minimum down time) as pre-qualification requirements for eligibility as a premium capacity resource. The use of these criteria (i) excluded a large percentage of reliable baseload resources from qualifying for the premium capacity product, (ii) discriminated between resources by relying on arbitrary parameters that do not contribute to grid reliability or promote more efficient capacity market functionality and (iii) reduced fuel diversity. The Companies appreciate that PJM heard these concerns and, as a result, modified the proposal to eliminate the unnecessary flexibility requirements as Capacity Performance eligibility requirements. The Companies support the Proposal’s use of performance standards (startup and notification time of less than 24 hours and setting parameters based on the physical limitations of the unit during Hold and Cold Weather Alert periods) rather than flexibility criteria as determinants of eligibility.³ Importantly, however, as noted below, if a resource is physically incapable of meeting such performance standards, it should not be required

³ See PJM Proposal pp. 4-5, 22-23.
to participate as a Capacity Performance resource pursuant to a must-offer obligation. There must be an exemption to the must-offer obligation for a company that knows it is 100% unable to meet the Capacity Performance obligations due to existing physical limitations of the facility.

iv. Reducing the Number of Capacity Products is Important

The Companies support the change from four capacity products in the August Proposal (Base, Capacity Performance, Extended Summer and Limited DR) to two capacity products in the current Proposal (Base and Capacity Performance). In light of the Electric Power Supply Association v. FERC (“EPSA”), Case No. 11-1486 (D.C. Circuit 2014) decision, demand response should not be included as a capacity product in PJM’s Proposal. Demand response providers with capacity obligations are required to offer into the energy markets. Since, under EPSA, demand response can no longer participate in the energy markets, PJM should not include demand response as a supply resource in its new capacity market construct. As PJM noted in its DR Whitepaper,4 to achieve market certainty, PJM should start incorporating demand response on the demand side of the equation. Limiting the capacity performance proposal to two products, neither of which is based on demand response, will alleviate some of the market uncertainty surrounding demand response and will avoid injecting more uncertainty into the market by continuing to rely on an illegal market product. Therefore, the Companies support the use of solely the base and premium capacity products in the Proposal.

v. The Stop Loss Provision was a Good Addition to the Proposal.

Another key element of the Proposal leading to the Companies’ support is the stop-loss provision under which the penalty to be applied for any single outage event cannot exceed an escalating value based upon the duration of a single outage event during which a Capacity

---

4 “The Evolution of Demand Response in the PJM Wholesale Market” issued October 6, 2014
Performance resource is unable to meet its obligations. The inclusion of the stop-loss provision is an important and necessary change from the initial Proposal, which puts some parameters and limits on the increased risk generators will face. With the large amount of revenue at risk (potentially 1.5 times the delivery year Net CONE), the stop-loss provision will prevent one unfortunate outage event from accruing excessive, punitive penalties on a continuous basis.

B. Some Aspects of the Proposal Warrant Improvement.

While the Companies can support the basic construct of the existing Proposal provided that the above key elements are retained and other material changes are not made to the Proposal, we urge PJM to improve some other aspects of the Proposal. The Companies note, however, that if the below changes are made, it is important that PJM does not modify the key elements described above.

i. PJM Should Reduce the Penalty Cap.

The penalty cap, which is set to 1.5 times the delivery year net CONE, remains too high and may cause some generators unwilling to assume these extreme risks to leave the market. Importantly, even with a capacity clearing price at or below Net CONE, the high penalty cap could still leave generators seriously exposed to losses. As noted in the earlier example, even if prices were to clear at Net CONE, a generating unit could still potentially lose a significant multiple over its maximum revenue if it suffered a catastrophic failure. In this scenario, the underperforming generator could be faced with operating at a loss for the rest of the year and may be more inclined to leave the market in the event of a major outage. As another example, a 200 MW unit could face a $150/MW-day clear price, notwithstanding a Net CONE Offer Cap, and in such case it would receive $11 million in annual capacity revenues and face a $38 million annual penalty cap. In order to cover this potential loss, the generator would have to receive

---

5 PJM Proposal at 28-29.
over $191/MWh energy market margin over a 1000 hour period to cover both the lost capacity revenue and applicable penalty.

While the Companies may have the willingness, as a part of the total package, to accept a strong penalty cap construct (i.e., a cap in excess of the annual capacity credits), the Board should direct Staff to improve the penalty cap structure by, for example, lowering the cap relative to Net CONE (e.g., 1.25 x Net CONE).

ii. PJM Should Include Force Majeure Provisions in the Proposal.

Some form of force majeure should be reflected in the penalty structure. Penalty pricing regimes should be designed to drive generator behavior. However, when generators incur penalties for reasons outside of their control, there is, by definition, nothing they can do to prepare or avoid the outcome. If PJM insists on maintaining a penalty structure for force majeure events, at a minimum, PJM should limit the penalty associated with any single force majeure event from exceeding the actual capacity credits received. Such a mechanism requiring a generator to pay back the capacity revenues earned if the unit is forced out by a hurricane that leaves the transmission system intact is harsh, but more equitable than paying a punitive penalty on top of giving up the revenues a generator earned in the capacity market. Being penalized for an “act of God” beyond capacity revenues received is patently unreasonable.

iii. PJM Should Include a “Carrot” Element to Reward Real-Time Performance.

The Board should require Staff to include symmetry between the penalties for real-time performance deficiencies and real-time performance incentives. As the Proposal is currently structured, there is little balance between the “carrot” and the “stick.” Under the current Proposal, Capacity Performance resources that adequately perform during hot and cold weather alerts, emergency events and shortage events do not receive any additional incentive to perform
outside of the previously determined capacity payment. One proposal would be for the Board to adopt what FERC already approved in New England, such as returning penalties incurred by underperforming resources back to high performing units to further encourage reliable performance. While the penalty “stick” of high penalty rates may encourage resources to be available during extreme weather events, some “carrot” is necessary to encourage resources to go above-and-beyond in real time operations.

C. The Companies’ Support is Contingent on Review of the Tariff Language.

While the Companies generally support the current Proposal, the Companies note they are taking on faith that PJM will resolve and further explain the many open items in a just and reasonable fashion when the full tariff language is drafted. Should PJM’s provision of future details result in adverse changes to the Proposal, the Companies reserve their right to withdraw support.

Chief among the outstanding issues are the demand response rules and the transition mechanism. The Companies generally support PJM’s proposal to shift demand response from the supply side of the capacity market to the demand side of the equation as a curtailment commitment as set forth in the October 6, 2014 DR Whitepaper. The Companies also support the gradual transition mechanism for the interim years proposed by PJM in which PJM would among other things:6

- procure up to 10,000 MW of additional capacity for the winter of 2015/2016 and address gas and electric market timing issues; and

- for 2016/17 and 2017/18 hold an auction to procure a transitional version of the Capacity Performance product that has a modified penalty structure.

---

6 See PJM Proposal at 33-35.
However, as PJM refines the concepts surrounding both the demand response and transition mechanism proposals, the details matter and the Companies are eager to learn the nuances of the proposals.

Along the same lines, the Companies await and reserve final judgment on the Proposal until PJM issues the tariff language and details surrounding all of the elements of the Proposal. Particularly, the Companies are interested in reviewing the tariff language reflecting the must-offer obligation for Capacity Resources and tariff language offering clarity on the exemptions to the must-offer obligations for resources that are incapable of providing the flexibility required for Capacity Performance in their current form. It is important to the Companies that resources unable to meet the obligations of Capacity Performance are not forced to offer their resources as premium capacity resources. Such requirement could easily prompt the unnecessary removal of the resource from the market. It also forces the resource to take on an unreasonable risk.

Finally, the Companies will carefully review the tariff language pertaining to how PJM will (i) better define cold and hot weather alerts and provide notice for these events; (ii) measure and assess real-time performance; (iii) calculate and allocate penalties; and (iv) capture the many nuances of the Proposal. The Companies ask the Board to prompt PJM staff to provide tariff language reflecting the Proposal’s details in short order.

II. CONCLUSION

The Companies are generally supportive of the Proposal and urge the Board to retain the key elements discussed above, make the improvements discussed herein and encourage PJM staff to promptly issue tariff language.

Respectfully Submitted,

Generation Coalition 1