VIA E-MAIL TO capacityperformance@pjm.com

September 17, 2014

PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403

Re: Comments of NextEra Energy Resources, LLC (“NextEra”) regarding the Capacity Performance (“CP”) Proposal

I. Introduction

NextEra Energy Resources, LLC (“NextEra”) appreciates the opportunity to submit these comments to PJM on its Capacity Performance (“CP”) Proposal on behalf of its PJM member companies. NextEra is the competitive generating subsidiary of NextEra Energy, Inc. NextEra’s subsidiaries own and operate approximately 18,000 MW of generation in primarily 24 states and Canada, including approximately 10,000 MW of wind energy generators. In PJM, NextEra’s subsidiaries currently own and operate approximately 1,400 MW of generation capacity. NextEra Energy Power Marketing, LLC, a subsidiary of NextEra, is one of the nation’s leading electricity and natural gas marketers, providing a wide range of electricity and natural gas commodity products and marketing and trading services to electric and natural gas utilities, municipalities and cooperatives, as well as to owners of electric generation facilities. As a generation owner and active wholesale and retail supplier of electricity products, NextEra has a strong interest in ensuring that the CP Proposal, to the extent it is implemented next year, appropriately limits costs placed on load-serving entities to only what is necessary for reliability given that commercial arrangements have already taken place. As an owner of gas-fired generation, NextEra is also concerned about PJM’s proposed CP qualification requirements and officer certifications. Lastly, NextEra is further concerned that the CP Proposal as it stands today effectively precludes participation by wind resources and non-pumped storage resources. NextEra seeks to ensure that the CP Proposal is workable for all resources that can appropriately provide value and assist PJM in meeting its stated reliability concerns.

II. Summary of Concerns

In light of the reliability issues during the Polar Vortex event of January 2014, PJM has proposed sweeping reforms to its Reliability Pricing Model (“RPM”) capacity market to address what it perceives as immediate reliability concerns. While NextEra understands PJM’s motivation to take action, there are significant impacts that must be considered before any rules are finalized. First, PJM’s proposal to immediately implement these reforms (the “Transition”) has disastrous consequences on entities that
have already purchased capacity in past Base Residual Auctions (“BRAs”). Purchasers of capacity had and still have full expectations that what they purchased would meet PJM’s resource adequacy requirements. The fact that PJM is stating such capacity is deficient should not be retroactively placed back on those that purchased that capacity. Further, it is not clear what changes PJM is realistically expecting resources to provide in the 2015/16 Delivery Year or beyond to 2017/18 and 2018/19. Given the fast track nature of this process, it is overly ambitious to expect any real operational changes in the capacity that is being supplied in the short term, particularly in the first year.

In addition, the costs in the intervening Delivery Years in the Transition will likely be higher if and when resources price in the costs of firm transport, which to the extent it is available, is extraordinarily expensive as described herein. Costs of dual fuel and other longer-term investments, all of which are more likely to be seen in the BRAs going forward, are expected to be on average less than half that. In light of these concerns, and as more fully discussed below, NextEra suggests that PJM refocus its Enhanced Liaison (“EL”) Committee process on the development of a targeted solution to address its stated reliability concerns for the winter of the 2015/2016 Delivery Year, deferring changes to the RPM to the May 2016 Base Residual Auction (“BRA”). NextEra believes that will give all stakeholders more time to vet market designs that would more appropriately value the service that all types of resources can provide, as discussed further herein, and give the region time to work through very complex gas-electric interactions. Simply put, what is achievable for the interim Delivery Years is different than what may be achievable for future Delivery Years. Instead of being distracted by broader reforms for future Delivery Years, PJM and its stakeholders should use the next 4-6 months to design any needed solutions for the 2015/2016 winter that better respect existing commercial arrangements, incent appropriate operational changes, reflect realistic fuel supply options for gas-fired generators, and fairly value wind and storage capacity.

III. Applying the Same Framework for 2018/19 for the Next Three Years is Bad Policy

a. The Transition Amounts to Retroactive Ratemaking

FERC prohibits PJM from making changes that would upset the terms on which existing resources secured capacity in the BRA and/or Incremental Auctions, as it would alter the terms on which existing resources agreed to capacity supply obligations. Similarly, PJM’s proposal to procure CPR as an additional product would do to purchasers of capacity exactly what the rule against retroactive ratemaking prohibits with respect to generation, i.e., changing the market outcomes on which entities have relied to make commercial decisions. Neither PJM nor FERC is in a position to undertake all of the necessary accommodations to remediate such detrimental reliance. Therefore, any changes that would take effect for the Delivery Year after the BRA for that Delivery Year has been conducted would amount to retroactive ratemaking prohibited by FERC.

b. Feasible Solutions to PJM’s Stated Needs cannot be completed in the First Half of 2015
PJM proposes to address its reliability concerns for the winter of the 2015/2016 Delivery Year through an additional incremental auction that leaves in place existing BRA results and separately procures the replacement CP product to meet ~85% of capacity needs. PJM observed generation forced outage rates at more than three times the expected forced outage rate during the past winter peak period. While fuel interruptions and problems with gas supply contributed to the high forced outage rate, other causes had to do with the aging fleet and mechanical generator failures caused by units being unprepared for such low temperatures. To its credit, PJM has initiated stakeholder processes and is hoping in the short-term to address issues concerning generator performance in several areas, including gas unit commitment procedures and generator testing prior to winter conditions.

If the goal of the CP proposal is to incent generators to take actions that increase performance, those actions must be possible over the relevant time horizon otherwise the effort will pointlessly increase prices with little improvement to reliability. This is of particular concern during the transition, when gas-fired generators will have limited options for alternative fuel arrangements. At a minimum, assuming all air permits are granted and there are no other regulatory or legal issues, it would generally take a resource at least a year to a year and a half to re-commission dual fuel capabilities – potentially longer if the unit has never had that capability. Put clearly, there is little to no chance that PJM will see any dual fuel capability entering an Incremental Auction for the 2015/16 Delivery Year. There also remains doubt as to how much dual fuel will enter the two subsequent Incremental Auctions.

Equally troubling is that the CP incremental auctions are specifically designed to make additional payments to many resources for doing what they would otherwise have done, contrary to FERC precedent. Entities with on-site fuel can simply re-enter an incremental auction and receive additional payments without having to demonstrate any operational changes. As FERC has recently made clear, add-on capacity programs must not be designed “to incent resources to make the same fuel procurement decisions they would have made, and been compensated for, absent the Program.”¹ Yet that is exactly what PJM’s transition auction proposal does. While the Interday Cycling Asset Class and Intraday Cycling Asset Class might have to make operational changes to meet the new economic minimum requirements for the CP product, the Base Load Asset Class would make no operational changes whatsoever. The Interday Cycling Asset Class would also be required to provide flexibility to PJM that the Base Load Asset Class would not, yet both would receive the same payments. As a result, baseload assets such as nuclear units would receive additional payments for the same level of performance PJM is already receiving under their existing capacity supply obligations.

c.  Expensive Firm Transport Costs will likely have a Higher Impact in the Transition

¹ ISO New England, 148 FERC 61,179 at P 43 (2014) (approving ISO-NE Winter Reliability Program limiting participation to market participants that would use payments to procure additional fuel).
The CP proposal would have a significant impact on capacity costs for wholesale and retail load serving entities during the transition period. While largely undefined in PJM’s proposal, the proposed transition begins in the 2015/2016 Delivery Year, approximately nine months from now, with PJM indicating it will procure sufficient CP resources to meet ~85% of its capacity needs. Given the limited detail we have regarding parameters and mechanism by which PJM intends to procure the CP product for the transition, ranges for estimates regarding impact on LSE cost – and therefore end use customers – are wide but in any case material. If PJM were to procure the 85% CP resource level for the 2015/16 Delivery Year at a clearing price near $190/MW-day,² LSEs would bear roughly $10 Billion in additional capacity payments relative to the projection from the most recent incremental auction. Based upon estimates from the Independent Market Monitor (“IMM”), firm transport with an intraday option, to the extent it is available, is extraordinarily expensive – with the IMM using estimates of $180/MW-day in its own sensitivity analysis. Costs of dual fuel and other longer-term investments, all of which are more likely to be seen in the BRAs going forward, are expected to be on average less than half that.

**d. PJM’s Transition Disrupts Existing Commercial Contracts**

PJM’s Transition proposal has disastrous consequences on existing commercial contracts. A significant share of PJM load for Delivery Year 2015/2016 and other transition years has already been procured in wholesale auctions. Specifically, roughly two-thirds of New Jersey’s Basic Generation Service has already been procured for the Delivery Year 2015/2016. In addition, many suppliers have entered into various hedging arrangements to support their load books. Wholesale and retail suppliers have likely priced capacity costs into many of their existing contracts using forecasts based upon the clearing results of the existing Base Residual and existing Incremental Auction structure of the RPM. LSEs priced their contracts in good faith that the capacity they would be purchasing would deliver the reliability required by PJM’s existing planning criteria. While the final cost would not have been known prior to the last Incremental Auction, based on the competitive nature of these markets over the past several years it is clear LSEs have been comfortable assuming the price risk of the BRA/IA structure and pricing and/or hedging accordingly.

Based on our limited understanding of the transition mechanism, we believe the impact to final LSE capacity cost may be several orders of magnitude higher than the typical incremental auction cycle if implemented as proposed. This potential market disruption will not only cause material economic loss for LSEs, but may ultimately reduce market interest and competition for the sale of load contracts. These costs will assuredly have down-stream impacts and the final burden of this program will paid by end use customers in one fashion or another. Imposing this level of regulatory risk on LSEs will chase them from the market, resulting in less competition and higher consumer costs.

e. **PJM’s CP Proposal Discounts Actions Already Underway**

Economic incentives are already encouraging generators to invest in equipment upgrades so they can maximize performance during times of system stress. We are doing so with our own units. Taken together, rule enhancements and economic incentives will lead to improved generator performance in future winters. PJM should not ignore this reality by rushing to procure ~85% of its capacity needs for the winter of 2015/2016 through the CP incremental auctions.

In addition, the CP Proposal fails to send the right incentives to resources that already have a capacity supply obligation. First, it presumes that the level of forced outages would be the same as during the past winter and discounts the fact that resources are already making improvements in overall operations in order to prevent what happened during the polar vortex from happening again. Second, the CP incremental auctions would result in many resources receiving additional CP payments without making any operational changes or equipment investment, in direct contradiction to FERC precedent.

f. **PJM should seek Targeted Solutions to address its Stated Concerns**

In order to mitigate the significant market disruptions, it is necessary for PJM and stakeholders to reach an agreement on a workable set of rules for the transition period that mitigates the impact to LSE capacity cost and end-use customers while still bringing reliability up PJM’s desired level. Specifically, PJM and stakeholders ought to evaluate solutions targeted to address the identified concerns for the winter of the 2015/2016 Delivery Year, such as a narrow RFP or other type procurement. If PJM is looking for units to firm up oil or gas supplies or enter into additional fuel arrangements, it can implement a narrow transitional program with realistic operational requirements tailored to the particular months in which it has concern.

Another potential solution if PJM is looking to procure a CP product would be reducing the period for which CP resources would be initially procured and gradually expanding to cover the entire year through the transition period. For example, the 2015/2016 Delivery Year might only have a CP requirement during the December to February period. In addition, the percentage of performance capacity could be gradually expanded through the transition period. For example, PJM may be satisfied with CP resources representing a much lower percentage of capacity for the winter of the 2015/2016 Delivery Year. Another solution PJM and stakeholders should consider would be to allocate the incremental cost of procuring the CP product directly to customers on the transmission and distribution system during the transition period, i.e., moving the costs from market charges to wire charges. This is a competitively neutral outcome for wholesale and retail LSEs alike. It would allow PJM to procure the amount of CP resources it views necessary and end use customers would pay only the required cost to support new requirements. Under the current proposal, LSEs would likely have losses on previously secured contracts, but are likely to include large risk premiums on new contracts for delivery during the transition period to cover the material price risk the new incremental auction process represents.
Sending the charges directly to customers will avoid added risk premiums from wholesalers and retailers.

By focusing the current EL process on identifying appropriate solutions for pressing reliability needs during the transition, the broader redesign of RPM capacity products could follow a more reasonable development schedule and be implemented in the May 2016 BRA. This would better respect existing commercial arrangements entered into by LSEs while resolving PJM’s concerns on an interim basis until the new CP product is implemented through a BRA.

IV. Over the long-term, the Capacity Product needs to work for Multiple Types of Resources

a. PJM needs to acknowledge the Realities of Gas-Fired Generators

PJM proposes that resources qualify for the CP product only if they are able to operate at the Installed Capacity (ICAP) value for at least 16 hours per day for three consecutive days throughout the delivery year. In order to satisfy this criterion, PJM expects that CP resources will have fuel on-site in the case of coal, or oil backup for gas-fired resources. In the case of gas-fired resources it is assumed appropriate transportation arrangements will ensure delivery of fuel when it is needed through any combinations of firm transportation, storage, balancing agreements, use of park and loan service, either directly or through a third party via asset management agreement.3 As currently proposed, however, PJM’s requirements present substantial difficulties for its gas fleet.

The proposed CP requirements effectively require units to obtain no-notice intraday service from their supplier. While a few pipelines today offer that type of service for limited volumes, it is not generally available throughout PJM’s territory and would need to be negotiated and developed in order for the unit to demonstrate eligibility for the CP product. While in the realm of possibility for some units, it is unrealistic to expect every pipeline-connected generator to complete such negotiations by late spring when the CP proposal would be implemented. As a result, an undefined amount of pipeline-connected gas-fired generation would be disqualified from providing the CP product in the 2015 BRA and incremental auction.

Further, approximately 40 percent of the gas-fired generation in PJM has to take service from local distribution companies (“LDCs”), either through a lateral connection or on the distribution system. As a general matter, even with a lateral, these generators have some level of interruptible service. Power plants are generally not considered “critical customers” for purposes of LDC tariffs. This means that as currently drafted, approximately 40 percent of the gas-fired generation in PJM may not be eligible for the CP product unless the generator already has on-site storage and/or dual-fuel capability. Conversion of existing generation to dual-fuel capability is not possible in some states given air

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permitting restrictions. And while it might be possible for some units to develop the on-site storage for future Delivery Years through the 3-year forward BRA process, regulatory and commercial realities make it practically impossible for an LDC-connected gas-fired unit (or really any gas-fired unit) to do so in time for a May 2015 implementation date of the CP proposal. The same is true for new laterals to the interstate pipeline, which take a minimum of two years to be sited and constructed even assuming that regulators would allow a bypass of the LDC and that land permits would be obtainable (questionable in densely-populated Eastern PJM states). As a result, PJM’s current proposal would presumptively disqualify a substantial portion of PJM’s generation fleet from the CP product for at least the next upcoming BRA in May 2015.

The proposed CP flexibility requirements also would limit PJM’s ability to optimize the number of resources that it can use to manage system needs each day. As noted above, the Interday Cycling Asset Class would have new – and unrealistic – economic minimum requirements not imposed on baseload units such as nuclear generation. Even with equipment upgrades and operational improvements, achieving an economic minimum of 50% of economic maximum would be impossible for some units without exceeding steam temperature limits. Based on our experience and taking into account environmental limitations as well, a more realistic target would be in the 75% range. Unless this aspect of the proposal is changed the number of gas-fired units eligible for the CP product will be further restricted in every auction.

As currently structured, the CPR proposal cannot achieve PJM’s stated goals. Insufficient resources will qualify for the CP product and the auction will not clear, leaving out resources that want to participate but that have not had enough time to address PJM’s proposed operational requirements. This is not a theoretical concern. NextEra’s Sayreville plant was critical to maintaining reliability during the days following Super Storm Sandy. Yet Sayreville takes gas service from an LDC whose state-approved supply tariff does not categorize Sayreville as a critical customer. Even though it has no recent history of interruptions, the LDC does not currently have (nor is NextEra currently aware of) an option to offer non-interruptible service to generators.

Again, NextEra is sensitive to PJM’s reliability concerns but believes that any solution proposed by PJM must be realistic and workable. By delaying implementation of BRA changes to May 2016, PJM can address these gas-related issues and use the time to develop a transition mechanism tailored to its immediate reliability needs for winter 2015/2016. As noted above, this transition must be designed to incent resources with an existing capacity obligation to make different fuel or operational decisions than they otherwise would have made. PJM should not be giving free money to resources that will not make any operational changes from their existing obligations.
b. **Eligibility requirements for wind and storage resources also should be revised**

PJM does not propose changing existing RPM rules with respect to variable generation such as wind and solar. Under current rules, the Unforced Capacity (UCAP) rating for variable generation is based on the average of June through August peak hour output over 3 calendar years. This was designed under the current RPM rules to acquire sufficient capacity to meet summer peak load conditions. Under the CP proposal, however, PJM will calculate the amount of combined CP, Base, Extended Summer and Limited DR products necessary based on both winter and summer peak load conditions. Output from wind resources is significantly higher in winter months than in summer months, yet PJM does not take that into consideration in the CPR proposal. Given the increased emphasis on winter operations, PJM should revise its UCAP rating to reflect separate averages for peak hour output for the winter (December to February) and summer (June to August) months.\(^4\)

Similarly, storage resources can provide significant flexibility during winter months yet will be precluded from participation as capacity resources due to the duration requirements of the CP product, which at this point would only allow pumped storage to participate as a practical matter. A primary concern underlying the CPR proposal is the availability of fuel, but storage’s fuel source is the grid itself. Storage capacity is immediately available to PJM and should be valued accordingly, either as a stand-alone resource or when paired with other resources such and wind and solar. A straightforward way to access the flexibility available from storage through the CP proposal would be to define an additional class of CP resources for storage that eliminates the duration requirement while keeping all other intraday operational requirements the same.

c. **The Officer Certification should be Eliminated or Significantly Altered**

PJM proposes that an officer certify that any resource offering to provide the CP product satisfies the eligibility criteria for the product. At first blush, the officer certification seems reasonable, since it assures PJM in the planning horizon that sufficient resources with the characteristics necessary will be available in the Delivery Year. Upon closer inspection, though, the rush to implement the CP proposal makes the officer certification a very bad idea.

In order for an officer to provide the proposed certification, all the commercial and regulatory concerns discussed above would have to be addressed before the resource is offered into a BRA or incremental auction. Because there is not enough time to negotiate relevant agreements, obtain necessary approvals, and install related equipment before the May 2015 BRA or yet-to-be-scheduled 2015/2016 incremental auction, this requirement would limit the ability of a large number of resources.

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\(^4\) A more accurate, although data intensive, approach would be to use an effective load carrying capability (ELCC) method for calculation of UCAP. But at a minimum, the UCAP for wind should consider its contribution toward both the summer and winter peak load conditions.
from offering the CP product. The likely result would be that insufficient CP resources are available to meet PJM’s procurement targets, with prices clearing at the top of the VRR curve and PJM being artificially short of capacity.

A simple fix would be to eliminate the officer certification. This would allow resource owners to assume the risk associated with achieving the operational requirements for CP requirements prior to the start of the relevant Delivery Year, instead of the auction for that Delivery Year. Granting additional time to address commercial and regulatory concerns will allow more resources to offer the CP product. At the same time, resources owners would be subject to the proposed performance penalties if they did not achieve the level of operations required for CP product.

If PJM desires a greater level of assurance, an alternative would be for the resource to outline how it intends to achieve the operational requirements for the CP product as part of its qualification. Similar officer certification requirements are currently in place for demand response resources. This approach also would provide flexibility as to timing, while allowing PJM to consider on a case-by-case basis whether it has any concerns with respect to the resource’s future availability. Where appropriate, PJM also could monitor the resource’s progress in achieving the CP requirements as the relevant Delivery Year approaches.

V. Conclusion and Recommendation

Although PJM is pursuing the CP proposal to improve the performance of capacity resources in every Delivery Year, its most immediate reliability concerns are for the winter of 2015/2016 and the timing of solutions for that winter should be driving the stakeholder process. Instead, PJM appears to be aiming for FERC approval of new BRA and incremental auction rules in time for both the May 2015 BRA and a yet-to-be-determined new incremental auction to be conducted prior to June 1, 2015, i.e., the start of the 2015/2016 Delivery Year. The result is that stakeholders had 28 days from the release of PJM’s proposal to digest and provide comments on the most significant change to the RPM capacity market since its implementation in 2007. This simply is not sufficient time for all market participants to ensure an appropriate and methodical implementation of this proposal.

We believe it is prudent for PJM to plan for required BRA changes to be implemented in the 2019/2020 Delivery Year with interim Delivery Years addressed through a better defined transition mechanism. PJM dedicates several pages of its August 1 Problem Statement to reliability concerns for the winter of 2015/2016, concluding that there would be a loss of load event if the 2015/2016 winter experiences the same levels of forced outages that were seen this past winter given scheduled

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retirements. PJM provides no analysis of the 2018/2019 Delivery Year. PJM’s singular focus on the winter of 2015/2016 suggests that changes to the BRA rules could just as easily be implemented in May 2016 for the 2019/2020 Delivery Year, with the 2018/2019 Delivery Year addressed like the other interim transition years. That is, the timing of solutions for the winter of 2015/2016 should be driving the stakeholder process.

NextEra acknowledges that this shift in focus might only result in a few additional months to develop proposals to address the 2015/2016 winter and beyond. But that is much needed time to answer the significant open questions that remain unresolved and ensure that customers are not harmed by unintended consequences that are likely if we continue on this unnecessarily expedited trajectory. Important aspects of the proposal are undefined or unworkable and neither suppliers nor load are able to understand the commercial implications of moving forward. While we are sensitive to PJM’s concerns regarding resource performance and the implications for reliable operations, basing the timing of rule changes on the most immediate reliability need – the winter of the 2015/2016 Delivery Year – will lead to a more a workable set of rules.

NextEra appreciates PJM careful consideration of these comments. We look forward to working with PJM and our fellow stakeholders as we move forward.

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