Demand Response in Organized Electric Markets
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Comments of Old Dominion Electric Cooperative

Old Dominion Electric Cooperative is a not-for-profit generation & transmission cooperative whose member service territory is completely within the PJM footprint. As an electric cooperative operating in organized markets since Day One, we believe our experiences and insights can be helpful in moving forward with meaningful and cost-effective demand response. We are also a member of NRECA and appreciate their support of our presence before you today. Our remarks today are on behalf of Old Dominion.

Old Dominion appreciates the opportunity to appear before the Commission in this proceeding. For this discussion, we will focus on three barriers to cost-effective demand response.

First, a primary barrier to demand response is the lack of a common vision of the desired end state for demand response in a wholesale competitive marketplace. While there is no doubt there are many in our industry who do have a clear vision of this end state, our sense is perspectives differ and there is no ***common*** vision. Many questions arise as to the details of implementation, such as should demand "respond" to energy prices, be viewed as another "resource" or something in between? Should demand response receive payments in addition to the benefit the responder directly receives? What issues are appropriately addressed at the wholesale level versus the retail level and which stakeholder group (RTO/ISO, NARUC, FERC, States, Market Participants and customers) should take ownership and responsibility for each implementation issue?

Old Dominion is optimistic that PJM's recent implementation of a Demand Response Steering Committee will help focus the conversation and provide such a vision. In fact, this committee has already begun work on consensus guiding principles.[1] This is a critical step in ensuring that there is a common vision and an ***achievable*** end state with which we, the consumers, can agree. If we are in agreement, we can effectively move forward to implement; if not, we have an opportunity to compromise and then move forward. Absent articulation of such a clear end state, however, we will be guaranteed to miss our goal.

Clear vision of the desired end state will provide the opportunity to get into the details of implementation and therein awaits the question of how to determine comparability of resources. A list of initial questions that could be helpful in resolving this issue may be found in Attachment A of this document.

Old Dominion suggests the Commission continue to work with NARUC and other stakeholders to set the stage for developing a consensus vision that recognizes and builds on

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[1] See "PJM Demand Response Steering Committee Draft of Proposed Guiding Principles" May 8, 2008 http://www.pjm.com/committees/drsc/downloads/20080509-item-03-proposed-guiding-principles.pdf

the various efforts already underway and that provides a clear definition of the roles and responsibilities of each market participant (RTO, EDC, LSE, CSP, State, Federal, Consumers).

> ***Old Dominion's Vision***
> Old Dominion believes the purpose of demand response is to provide customers with a tool that can help drive down costs and improve service for consumers. Demand response enables informed customers to consciously choose to modify their behavior in accordance with their perspective of economic utility.
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> Demand response should increase market efficiency, be cost-effective and verifiable, and result in lower costs to all loads without transferring wealth between different loads.
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> We also believe that demand ***responds*** to energy prices; in some limited cases it can serve as a Demand Resource (with an incoming revenue stream) for grid ***ancillary services***, but generally it is a reduction in usage with the benefits of that reduction realized ***by the customer*** by avoiding or reducing their usage during peak price periods. Thus, we agree with the PJM Market Monitor's assessment that customers already paying LMP should receive no payment for reducing usage.[2]
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> However, when Demand Resources are paid to overcome the current deficiencies of demand elasticity and improve market efficiency, payment should be made for similar performance on a comparable basis with the same obligations and benefits of Supply Resources, where the provision of such products by Demand Resources is valid load reduction that can be measured and verified and is consistent with the operational characteristics of the Demand Resource.
>
> Demand response rules and protocols should be developed as part of a coherent stakeholder process that ensures that demand response policies both complement and take into account existing programs and systems. This is necessary to ensure that demand response is measurable and verifiable and that cross subsidization or "double dipping" does not occur between wholesale and retail programs so that there are true benefits to the system.

Old Dominion offered a number of suggestions in its NOPR comments to further describe this vision, as well as identifying additional barriers to demand response. These comments may be found in Attachment B of this document.

Second, for an electric cooperative like Old Dominion, demand response programs developed by RTOs may have ***unintended consequences*** due to our organizational structure and consumer

[2] See "MMU White Paper: PJM Demand Response Program", December 4, 2007, page 7 http://www.pjm.com/committees/drsc/downloads/20080509-item-01-whitepaper.pdf
"There should be no program payments to customers who already pay the LMP as part of their price because there is no market failure to address in this case. The payment of LMP by customers is the goal of the program. There are no additional resource savings achieved by customers paying market prices who curtail. The program would send a significantly distorted price signal to customers who already pay LMP."

focus of our member-consumers. Cooperatives are consumer-owned LSEs with an obligation to provide their consumers with reliable power at the lowest reasonable cost over the long term. To accomplish that goal, cooperatives ***engage in both risk and portfolio management on behalf of their members. Demand response has long been a part of that portfolio management.***

Nationally, cooperatives on average control about six percent of their load through demand response and cooperatives that are most actively using demand response can control 15%, 25%, and even up to nearly 50% of their peak demand across all customer classes.[3] An organized competitive wholesale market was not a prerequisite to this type of performance. Cooperatives' single-minded focus on its consumer-owners makes cost-effective demand response a natural reaction to the cost of supply.

Unintended consequences of RTO developed programs at the wholesale level could include cost shifting among members, or misalignment of the risk/reward, cost/benefit relationship. The RTO price signal may not reflect the portfolio of the cooperative. Additionally, moving demand response previously behind the meter (and invisible to the RTO) in front of the meter yields a false positive as the RTO accounts for "new" incremental demand response.

Demand response programs developed and administered in organized electric markets must recognize the unique role of electric cooperatives and accommodate this business model in the program design.

Third, Old Dominion believes that implementing pricing reforms during periods of scarcity absent resolution of the ultimate vision of demand response (as discussed in the first item above) is premature. ***We agree wholeheartedly with Commissioner Kelly*** that, "absent appropriate resource adequacy requirements and the necessary demand response infrastructure to give consumers the ability to respond to higher prices, it is not responsible to allow energy supply offer caps and demand bid caps to rise without regard to the impacts on consumers." [4]

While Old Dominion is amenable to further enhancement of the current scarcity construct in PJM[5], we are continually frustrated by the reality that the current state of the PJM regional transmission grid precludes experiencing actual resource scarcity. With the expansion of PJM beyond its original "classic" footprint, lack of adequate transmission infrastructure to face the majority of generation supply with demand became the primary constraint Transmission constraints create congestion and, in PJM, invoke mitigation that achieves a generous short-term competitive result of marginal cost plus ten percent. ***A transmission grid incapable of facing many buyers with many sellers prevents scarcity from occurring naturally.***

Old Dominion is ***not*** amenable to discussing elimination of bid caps during scarcity. First, absent a shared vision of the end state for demand response as discussed above, it is impossible to know the proper "price", the right penetration of demand response and other factors necessary to determine if bid caps should be eliminated. Second, prices approaching the cap in PJM are for the most part infrequent. A quick look at 2007 hourly LMP's in the Dominion zone reveal

[3] NRECA NOPR Comments at p9
[4] NOPR, Commissioner Kelly Concurring and Dissenting Statement at 1
[5] Old Dominion is willing to discuss a more gradual ramp up to scarcity pricing in PJM.

that there were only 35 hours (0.4%) when prices exceeded $300/MWh and only six hours (.07%) where price exceeded $500/MWh. And this is a competitive result even if mitigated at cost plus 10%.

Old Dominion believes we need to ask "what are the demand response barriers that are keeping us from achieving scarcity naturally." Only after removing those demand response barriers should we consider removing price caps.

As an electric cooperative, Old Dominion has been and will continue to be committed to implementing cost-effective demand response programs that can provide real benefits to our consumer-owners. We look forward to actively participating in this and other forums to promote demand response for the benefit of all consumers.