UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

State Policies and Wholesale Markets Operated by ISO New England Inc., New York Independent System Operator, Inc., and PJM Interconnection, L.L.C.	Docket No. AD17-11-000

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Statement of Andrew Ott, President & CEO, PJM Interconnection, L.L.C.

This year, PJM is celebrating its 90th anniversary having been founded in 1927. Equally important, this year marks the 20th year since launch of PJM's competitive wholesale electricity markets. Those markets have weathered many events over the years and continually have produced efficient and competitive prices for customers. Indeed, the operation of markets in the 13-state PJM region has resulted in annual savings to the region of $2.6 Billion.

By the same token, the markets have proven, over time, their ability to serve as a nimble and flexible tool to implement a host of state and federal public policies. Just since their inception in 1993, the markets have absorbed significant external events ranging from:

- the development of retail choice and default service auctions in the majority of our states; to
- implementation of EPA's Mercury and Air Toxics rule and similar state environmental regulations each of which had a profound impact on the existing generation fleet; to
- the integration of new renewables and demand response technologies stimulated by state Renewable Portfolio standards and goals adopted in 11 of our 13 states and the District of Columbia.

The issues the Commission raises today are not new issues—they've been ones we have confronted, albeit in different forms, since the inception of the markets. As a result, I am confident that the markets are incredibly resilient and can continue (as they have in the past) to once again adapt to meeting the expressed desires of states to promote particular state public policies. For this reason, I view this entire exercise as not considering the question of "*whether* the markets should recognize state policies" but rather more as a "*how*" question; i.e., how can policy initiatives and market rules be designed in a manner which achieve the considerable benefits that competitive markets can bring in achieving those state policy goals in the most efficient manner possible.

The most recent iteration of state policies has involved explicit legislatively-driven subsidies for specific generating units. This is in notable contrast to the type of legislative efforts we have seen in the past which were more focused on providing policy support applicable to given types of nascent technology (as opposed to specific units) through renewable portfolio standards or research and development support.

At PJM, we are tackling the larger issue of addressing direct state subsidies and policy initiatives through three separate initiatives, two directly related to the issue at hand and a third, energy price formation, that - can have tangential benefits in addressing the first two initiatives. Specifically, PJM has been contemplating:

- Initiative #1: Working to proactively offer options to state policymakers that would allow states voluntarily, on either a regional or sub-regional basis, to pursue public policy objectives which can be monetized and then included in wholesale market prices within those states while still preserving an orderly and competitive economic dispatch across the entire footprint;

- **Initiative #2**: In a more responsive mode, considering market reforms to ensure that individual state actions (and, in particular unit-specific subsidies) not unduly impact the overall competitiveness of the wholesale markets and the investment signals they are designed to produce; and

- **Initiative #3**: Energy market and grid operating reforms that can lessen the perceived need for individual state action. As I note below, this initiative is not specifically tied to state actions and is an action we will be pursuing on a parallel track.

At a high level, I will touch on each of these below. I note that on January 26, 2017, PJM stakeholders endorsed a "Problem Statement" and are moving forward with a stakeholder process to address the impact of state reforms on PJM's capacity market.[1] PJM intends to utilize that process to further refine certain of these proposals to the extent they fit within the stakeholder-adopted problem statement. For those that do not neatly fit within that Problem Statement, PJM will be launching additional initiatives to raise these issues. And PJM will be reaching out to the states to further explore interest in and the details of regional or sub-regional approaches to address the policy issues they seek to address.

Initiative #1: Supporting State Actions through Development of a Regional and Sub-Regional Template.

Consistent with what we have heard from a number of state policymakers, given the interconnected nature of the grid and the integrated nature of the PJM markets, regional and even sub-regional approaches are far preferable to individual state initiatives targeted to particular units. Groups of states coming together can allow for implementation of policy initiatives that harness the competitive forces already at work through the regional dispatch to deliver cost effective and efficient means to implement a given policy goal. Moreover, regional and even sub-regional solutions can effectively address the very issue the Commission points out in its April 13 Supplemental Notice, namely the conflict in a multi-state RTO/ISO:

"if one state's policy priorities come into conflict with another state's policy priorities" [2]

In essence, a state subsidizing a particular unit essentially is "exporting" the effects of its policy choice on all of the investments in neighboring states with a price suppressive effect not only on generation but also demand response, energy efficiency and other emerging technology initiatives that those neighboring states may wish to embrace. Moreover, the subsidizing state's actions can work to erode investment throughout the region as those subsidized units now can bid below their actual costs in order to maximize their revenues through the combination of clearing prices in the market and the state subsidy as an added revenue source.

For this reason, PJM believes states in the region coming together to design a common policy initiative that can be priced in the wholesale electricity markets is a preferable approach. Nevertheless, given the diversity of our footprint, this does not necessarily require uniform agreement among 13 states and the District of Columbia. We believe that certain important state policies can be advanced effectively by a critical mass of states (even if not every state in the footprint) through agreement on

[1] A copy of the Problem Statement adopted by stakeholders can be found at http://pjm.com/~/media/committees-groups/task-forces/ccppstf/postings/ccppstf-problem-statement.ashx.

[2] *State Policies and Wholesale Markets Operated by ISO New England Inc., New York Independent System Operator, Inc., and PJM Interconnection, L.L.C.*, Supplemental Notice of Technical Conference, Agenda at 3, Docket No. AD17-11-000 (Apr. 13, 2017) (April 13 Notice).

a common set of rules that: (i) enable state policies, (ii) preserve efficient economic electricity pricing, and (iii) largely avoid, through rule design, the impacts of those policy choices on non-participating states. [3]

The April 13 Notice asks whether it is preferable for such initiatives to be monetized within the market or outside of the market. The $2.6 billion annual consumer savings resulting from the markets which I noted above provides strong evidence that a solution within the market itself can deliver the benefits of that public policy choice far more efficiently and cost effectively than if undertaken outside the markets.[4]

In fairness, our discussions with the states and stakeholders are at their beginning stage. The overall goal would be to offer a structure to a willing subset of states (if not the entire region) that would impose a cost on the emission externality or environmental attribute. This cost would be reflected in offers from generators in the energy market and in so doing become an element in PJM's wholesale electricity prices. Importantly, PJM is exploring "border adjustment mechanisms" that would address "leakage" challenges that arise with such a sub-regional approach. These measures would preserve PJM's ability to economically dispatch generation over the full PJM region, while isolating the pricing impact of the policy choice to only those consenting states in the subregion. In this way, all resources can still competitively participate in the full market while the incremental costs of the particular policy attribute are paid only by those citizens of the state which has chosen to compensate that policy initiative.

There is uncertainty surrounding Commission's jurisdiction in the context of pricing emission externalities. PJM believes a proposal of this nature, if presented to states as option they can choose or reject, can be adopted by states and their affected utility systems, with active PJM facilitation, independent from the rules of the RTO regulated by the FERC.

Initiative #2: Market Reforms in Response to Individual State Subsidies.

The above initiative is one that involves states and PJM coming together to design policy initiatives that work within the wholesale market structure. But we have recently seen state initiatives that have been undertaken unilaterally and which involve out-of-market-direct ratepayer subsidies to particular distressed units. Even when well-intentioned, these efforts can have a price suppressive effect on the entire market.

PJM has addressed these types of situations previously through a flexible market design. For example, states that can meet their needs from capacity wholly within a designated service territory can effectively price capacity in their state through the Fixed Resource Requirement (FRR) mechanism. By the same token, PJM worked with public power to provide a self-supply exemption to Minimum Offer Pricing Rule (MOPR) and similarly accommodated state-specific traditional regulatory mechanisms as additional exceptions to the MOPR process. Nevertheless, state actions subsidizing particular units while

[3] For example, the five states in the PJM region that have adopted retail choice and also are home to nuclear plants could come together as a sub-region to support a multi-state initiative to ensure that the existing nuclear investment is sustained during this period of low energy prices.

[4] Although the Regional Greenhouse Gas Initiative (RGGI) is a prime example of a multi-state initiative undertaken outside the market, RGGI has had to wrestle with both pricing and "leakage" issues both of which are issues that can be more directly addressed through solutions that work within a market structure. One example of a market structure that could enhance the policy goals of a sub-region of states would be the application of a border adjustment so as to ensure appropriate pricing both within the affected area and outside that area.

those units remain in the market for additional revenues, can, through its price suppressive effect, lead to "exporting" the impacts of that state initiative well beyond that state's borders. As a result, past solutions may not work for this particular form of subsidization. On the other hand, those units can serve as valuable capacity resources to serve the larger region's reliability needs.

To address these new forms of subsidization PJM put forward at its August 2016 Grid 20/20 Forum a "Capacity Market Repricing" proposal to allow the quantities of those subsidized resources to be recognized as capacity for purposes of meeting the PJM installed reserve margin (so as to avoid the "paying twice" problem) while insulating the overall market clearing price from the impact of those subsidies. PJM's capacity market repricing proposal is a work in progress intended to address the impacts of individual state actions on the capacity market. I need to be clear---it is by definition a less preferable solution, particularly on a stand-alone basis, than the regional and sub-regional initiative outlined above. But the Capacity Market Repricing proposal is designed to address the subsidizing state "exporting" the adverse impacts of its decision on the entire market.

The Capacity Market Repricing proposal principally is focused on the capacity market. Further work will need to be undertaken to address impacts on energy market prices. In any event, the Capacity Market Repricing proposal and/or alternatives to that proposal are directly the subject of the stakeholder process presently underway in PJM---a process where PJM intends to work with stakeholders to develop market adjustments. In the *Calpine* MOPR Complaint case in Docket No. EL16-49-000, PJM sought a directive from the Commission to bring such a proposal to the Commission by a specified date certain. Although this request has yet to be acted upon by the Commission, PJM still believes such a directive will help move the stakeholder process along, demonstrate the Commission's seriousness in addressing the issue and provide an important signal to the marketplace of the Commission's intentions to ensure timely resolution of these issues. As a result, we continue to urge affirmative support from the Commission for these efforts including directives that help to sustain momentum on these issues.

Initiative #3: Energy Market Reforms and Focus on Resilience.

Although not directly related to state actions, I would be remiss if I did not note that PJM is simultaneously looking at various operational and pricing changes to enhance the resilience of the system and improve transparent price formation.

PJM's Grid Resilience Initiatives: Along these lines, on March 30, 2017 PJM issued a paper entitled "PJM's Evolving Resource Mix and System Reliability" which noted PJM's present level of reliability but also underscored the need to focus on system resilience as the system becomes more dependent on natural gas and its underlying pipeline infrastructure. Part of enhancing the system to be more resilient to potential high risk and 'black sky' events obviously focuses on enhancing the transmission system through the planning process. But we are *equally* looking at a set of operational reforms where, under certain circumstances, PJM would commit additional reserves or otherwise operate the system more conservatively. This effort has commenced through the Grid 20/20 Forum we just held on April 19.

PJM's Price Formation Initiatives: Similarly, we are encouraged by the Commission's price formation initiatives. I have, in a variety of public forums, raised a variety of measures that should be discussed to build on the Commission's present set of price formation reforms. These discussions would focus on addressing issues such as allowing all units that are needed to serve load to set LMP rather than, in certain cases, being relegated to recovering their costs through uplift.[5] Other initiatives we wish to discuss include the impact of negative pricing and other means to price the value of diversity to address some of the resilience issues I noted above. Although PJM is prepared to raise these issues with stakeholders and state policymakers as well as this Commission, these issues are not limited to the PJM region. As a result, we seek Commission support for addressing these issues on a national level to supplement and support our PJM-specific initiatives.

These actions are all independent of the effort to address state initiatives and will move forward expeditiously. But obviously such actions can also have the impact of more appropriately valuing various resource's contribution to reliable operations while still maintaining the competitive outcomes that are the bedrock of PJM's market design. We intend to continue to work with the Commission and stakeholders on these issues but note that they could have an impact on lessening the perceived need of state policymakers to take initiatives to support particular generating units.

The Overall Role of the RTO.

The Commission's April 13 Notice asks a number of questions on the role of the RTO and its markets given various state policy initiatives. From the earliest days of formation of the power pool, the reserve margin needed to ensure resource adequacy was set at the regional level rather than individual state level in order to harness the ability of the larger region to efficiently utilize resources across a very large footprint so as to achieve the reliability goal at efficient prices. The importance of undertaking that function as a region, and the customer savings that it provides, is as relevant today as it was in the earliest days of PJM, especially given our increased dependency on interstate pipelines and renewable resources distant from load centers. Thus, there is an important continuing role for the RTO in that important task.

Similarly, a number of states in our footprint moved toward restructuring in the 1990's. As part of that effort, states allowed for competition and regional markets to establish resource adequacy in lieu of state-driven Integrated Resource Plans and embraced use of a competitive spot market energy price for voluntary purchases of energy and for overall price transparency. This important role of the RTO markets also has not changed and none of the states that have considered unit-specific subsidies has indicated intent to simply reregulate the electricity industry in its state.[6] As a result, here too, we believe the RTO plays a critical role and will continue to do so in developing ways to accommodate state public policy initiatives.

PJM and its markets, with the support of stakeholders and states have led the way in finding solutions to vexing industry issues over these past ninety years. We know we need to continue to dialogue on these important issues and engage in sometimes difficult but always respectful and well-intentioned explorations of solutions. We are committed to redoubling our efforts on this important task and appreciate this dialogue as one of many we will continue to have on these important issues. I look forward to your questions and comments.

[5] We note that the Commission's recent Fast-Start Resource Notice of Proposed Rulemaking in Docket No. RM17-3-000 begins to address these issues by allowing Fast-Start Resources potentially to set price through LMP. We believe it is prudent to begin to address this issue on a larger scale rather than simply limiting the class of units eligible to set price to Fast-Start Resources.

[6] In fact, given that many of the restructured states in PJM's footprint are net importers from the rest of the PJM region, the ability of a single state to control its destiny through reregulation itself raises many practical questions.