

June 8, 2007

The PSEG Companies' Comments
To the May 9, 2007 Presentation of the
PJM Transmission Expansion Advisory Committee

The following comments are submitted on behalf of Public Service Electric and Gas Company ("PSE&G") and PSEG Energy Resources & Trade LLC ("ERT") (collectively referred to herein as the "PSEG Companies") with respect to the May 9, 2007 presentation made by PJM Interconnection, LLC ("PJM") at its Transmission Expansion Advisory Committee ("TEAC").

I. **Summary**

The PSEG Companies are encouraged by the fact that PJM appears to be improving its economic planning process. The process outlined at the May 9 TEAC meeting partially incorporates the outcomes of PJM's Reliability Pricing Model ("RPM") into the planning horizon. This is a significant improvement and must be recognized as such. The PSEG Companies have been concerned from the outset that the lack of meaningful generation forecasting in the transmission planning process will result in an imbalanced and flawed process sending the wrong price signals to merchant generation and demand response programs with resulting damage to competitive markets. For example, if RPM is sending signals to build more generation in constrained areas in PJM, PJM's transmission planning needs to reflect that fact and not assume that RPM will fail. The RPM process needs to be harmonized with transmission planning so that the two are not working at cross purposes and are instead working to achieve the optimal planning solutions. The May 9 TEAC is the first step in the right direction to accomplish this needed coordination.

While the May 9 TEAC took a significant step forward by considering future generation scenarios in the transmission planning beyond just simply relying upon generation with signed interconnection agreements, there is more work to be done on this point. The TEAC presentation set forth three generation scenarios for potential inclusion and only one of the three proposed generation scenarios for economic transmission modeling even considers the impact of PJM's own RPM process. RPM, whose objective is to ensure that the right generation gets built in the right places, needs to be part of transmission planning and PJM must not assume that it will fail. Otherwise, there is a significant disconnect between transmission and generation planning. Another flaw is that PJM is not modeling RPM outcomes at all for reliability transmission planning. This is inconsistent with RPM itself which is a reliability, not an economic, model intended to ensure that sufficient generation exists in constrained areas to reliably serve load within those areas. The PSEG Companies believe that RPM must be fully coordinated into transmission planning analyses for reliability projects as well as economic projects by projecting out the results of the RPM model over the planning period.

In addition, while PJM outlines various metrics that it will consider in evaluating the efficacy of economic transmission projects, PJM does not make clear that rate-based economic transmission will not be built unless there is a net benefit to consumers. Further, PJM has not adequately factored environmental externalities into its analysis of economic transmission projects.

II. **Background**

PSE&G is an electric and natural gas public utility company under the laws of the State of New Jersey and one of the founding members of the PJM Power Pool. PSE&G is presently engaged in, among other things, the transmission and distribution of electricity and the distribution of natural gas in New Jersey. PSE&G owns and operates transmission facilities in the PJM ISO and provides distribution service

to over 1,860,000 retail customers in an area extending from the Hudson River opposite New York City, south to the Delaware River at Trenton and west to Camden, New Jersey.

ERT markets power and energy and certain ancillary services at market-based rates in PJM, the NYISO, MISO and NEISO. ERT purchases power from its affiliates which own or control approximately 12,000 MW of installed capacity in the PJM region.

Both PSE&G and ERT are members of PJM and have actively participated in FERC proceedings and in PJM committees and stakeholder groups addressing issues regarding transmission planning and transmission construction in PJM. Moreover, PSE&G actively participates in the TEAC, as well as the PJM Planning Committee.

III. Comments

A. Economic Transmission Planning

The May 9 TEAC presentation is significant, as PJM devotes considerable attention to setting forth the principles that PJM will apply to its economic transmission planning process going forward. This process will determine which reliability projects are enhanced or accelerated and may consider stand-alone economic transmission projects. The presentation is also significant as it represents the first time that PJM has proposed to use forecasted generation scenarios in its economic planning process. The PSEG Companies are encouraged by these developments, and by PJM's recognition that RPM outcomes should be a component of economic transmission planning. Nonetheless, the scenarios set forth in the presentation have some flaws. These flaws are enumerated below:

Generation Scenarios

Insufficient Modeling of RPM Outcomes: PJM identifies three generation scenarios (G1, G2 and G3) that it proposes to use in its market simulation analysis. G1 represents "generation added in proportion to location and type of existing generation." The G2 scenario represents "generation added in proportion to location and type of queued generation." Finally, the G3 scenario represents "50% of required generation added to eastern and southwestern MAAC in proportion to existing generation in these regions and 50% of required generation added in proportion to location and type of queued generation." *See Slide 6 of Market Efficiency Analysis.*

G1 and G2 are insufficient because neither scenario includes sensitivity studies for expected RPM outcomes. G3 is an improved approach as it contains a 50% locational component from RPM, but retains a 50% component that only looks at queued generation. PSEG believes that any generation scenario that does not model RPM, and its objective to site generation within constrained areas, is flawed. As a result, we propose an alternative generation scenario that assumes that sufficient generation is committed, including new entry, to satisfy the reliability needs of the transmission constrained area – i.e. a scenario that assumes that PJM's RPM is working. To do otherwise undermines the purpose and impact of RPM, and skews the analysis in favor of economic transmission build to the detriment of competitive generation and demand response solutions. Further, as Slide 7 of the Market Efficiency Analysis portion of the TEAC presentation illustrates, using G1, G2 or G3 has a significant difference on the results obtained.

Improper Focus on Existing, As Opposed to Queued, Generation: The G1 and G3 scenarios are flawed, as they only look at "existing" generation – i.e. generation with signed Interconnection Service Agreements ("ISAs") attached to the projects. This is a flaw that understates future generation amounts.

Metrics

PJM has identified the following seven (7) metrics that it will utilize in evaluating the efficacy of a particular economic transmission project: (a) total production costs (fuel costs and variable O&M); (b) total load payments (total load times load Locational Marginal Prices); (c) total generator revenue

(generator megawatts times generator Locational Marginal Prices); (d) zonal load payments (zonal load megawatts times zonal Locational Marginal Prices); (e) zonal Financial Transmission Rights credits; (f) total Transmission System losses; and (g) total capacity payments. Moreover, PJM has recently told FERC that it expects the change in total system production costs will be the primary metric utilized to test the net social benefit of an economic transmission project. PSEG believes that this approach is flawed for the following reasons:

Lack of Explicit Cost/Benefit Analysis for Economic Transmission Projects: PJM has failed to expressly state that every economic transmission project must be justified by an actual cost/benefit analysis. That is, PJM will compare the total costs of the project, including upgrades necessary to bring the project on line, with the actual benefits of the project. In the absence of such an analysis, no rate-based economic transmission project can be justified on a meaningful basis and the goal of building the right transmission in the right places cannot be achieved.

Primary Metric Should Be Net Benefit to Load: With respect to determining the benefits of the project, the test that should be applied is net benefit to load. Currently transmission costs in PJM are charged to load. Thus, in order to determine the net social impact of an economic transmission project, one must look at the impact on the parties that are paying – load. Determining impacts on generators on either side of the constraint is simply not relevant in determining whether load should pay for a new economic transmission project. The only valid measure of the net social benefit of a transmission project is to examine whether load in the entire PJM system will pay less once the economic transmission project is built. To calculate this, PJM should examine the total load payment and subtract the total FTR credits. Looking only at total load payments, without netting out FTR credits, is not appropriate.

Improper Application of The Metrics Used: Certain slides contained in the Market Efficiency Analysis portion of the May 9 TEAC presentation raise questions. For example, with respect to Slide 13, it is unclear why the projection of annual production cost savings increases in a linear fashion over time. This approach seems unduly speculative and can be addressed by simply modeling RPM outcomes, as is partially done in the G3 scenario. With respect to Slide 14, with its projection of annual congestion cost savings, the congestion cost savings are measured only on a total basis. Yet, how much is hedged by FTRs vs. unhedged? Looking only at the total savings is not a valid metric. The same argument applies to Slide 15, and its projection of annual load payment savings. No FTR hedging is included in this analysis. Regarding Slide 19, the NPV cost and benefit is calculated over a 10, 20 and 30-year period. Yet, simply calculating the net present value of annual benefits for 10, 20 and 30 years and comparing to the net present value of the upgrade revenue requirement does not go far enough to be considered a robust, cost/benefit analysis. The net present value of the upgrade revenue requirement should be based upon the same life as the transmission asset (typically 40 years), but the present value of the annual benefits should not be assumed to be more than 5 or 10 years because there is no guarantee of this benefit lasting beyond this point in time. Finally, with respect to Slide 22, PJM looks at RPM benefits, but it appears that the G2 scenario, rather than the G3 scenario, was used. PJM should explain further the basis for this approach.

Failure to Properly Model Environmental Externalities as a Metric: While PJM indicates that it has modeled carbon as a sensitivity in its analysis (see Slide 6), this is very unclear. In any event, it does not appear that PJM has made a national carbon cap and trade program an express assumption or sensitivity in its analysis.

Reliability Transmission Planning

With respect to transmission planning for reliability, PJM has not applied its generation scenarios. This needs to be corrected. RPM is designed to address reliability needs and just as it should be modeled for economic transmission planning, it is also critical that these outcomes also be modeled for reliability transmission planning. RPM focuses on making sure that generation exists in constrained areas where it is needed to ensure that the needs of load are met reliably. PJM's reliability transmission planning focuses on

making sure that transmission is built in areas where it is needed to satisfy load's reliability needs. The two processes must be harmonized; otherwise neither process will function optimally and effectively. PJM should not presume that RPM will fail, but rather should appropriately forecast the results of RPM as it is forecasting increases in load over the planning horizon.