

## FirstEnergy Response to May 23, 2006 TEAC Meeting Material

FirstEnergy appreciates the opportunity to respond and comment on the significant effort PJM has undertaken over the past year to develop a 15 year integrated plan over the entire PJM footprint. It is important to FirstEnergy for PJM to get the expansion plan refined, given the significant effort, coordination, and resources that will be required of FirstEnergy once the Board approves these projects.

### Summary Comments:

The project documentation provided seems insufficient for comprehensive TEAC comments. We believe that more than a mere list of facilities and cost allocation should be provided with supporting rationale/justification. The documentation for the projects should provide a definition of the reason for a project other than it is a contingency violation in a given year, and should include an evaluation of potential alternatives considered. Finally, there should be an identification of benefits and consequences of implementation, including the potential for deferral.

In developing a refined expansion plan, the PJM staff should consider the inter-linkage among projects, as well as consider the potential for operational or other strategies that would avoid the extremely low probability (less than one day in 20 years of occurrence) contingencies, thereby allowing enhanced coordination of over-lapping upgrades; i.e., manage the risk for a year or two while building a new line. Thus, it appears that a probability of the contingency occurrence would be a beneficial aspect of the project documentation. The Transmission Owners should be given the ability to provide such input to the RTEP process, including alternative project coordination approaches or operational strategies, pending completion of capital reinforcements.

PJM should consider a retooling of the RTEP process. There appear to be generation projects in the Queue process that could mitigate the need for reinforcements. PJM should consider updating such resources and also providing a summary of their impacts to the Board.

PJM should consider how potential congestion costs will impact the operation of the PJM system, due to the simultaneous work that is expected to be required, in the development of the RTEP.

PJM should consider clarifying how the existing RTEP proposal and the proposed 500 kV plans are coordinated and complement one another. For example, are the proposed 500 kV plans achievable within the defined schedule of need? Have generation and operating procedure solutions been considered? Are there significant reliability risks and economic impacts during their implementation?

To summarize our concerns, First Energy believes that 1) there is insufficient information to realistically comment on the RTEP materials presented at the TEAC meeting, 2) there is an apparent overlapping of RTEP projects that has not been considered, and 3) PJM should be open to interim operating measures, especially for low probability events and implementation coordination of overlapping projects.

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Regarding cost allocation, FirstEnergy continues to have significant concerns about PJM's cost allocation methodology including low project and allocation thresholds, allocation of costs to load only, and the basis upon which costs are allocated to load.

## General Comments

During the May 23<sup>rd</sup> TEAC meeting the PJM staff identified fifteen RTEP baseline reinforcements to the FirstEnergy transmission system that will be recommended for approval by the PJM Board of Managers. Although FirstEnergy participated in discussions surrounding these items, and at a basic level understands why they are being proposed, we have some higher level concerns with the process and there are a number of points that FirstEnergy would like to address with the RTEP and 15 Year Study proposals.

As further information, the results of the PJM 15 Year Study were also discussed with some potential 500 kV projects identified that, if implemented, will be a responsibility of FirstEnergy to construct. While not all of these 500 kV projects will proceed, there is an effort in progress to expedite a right-of-way study for the purpose of defining a recommended RTEP 500 kV plan by the year's end. The PJM Board of Managers would then be asked for its approval. Although FirstEnergy will generally only have a shared cost responsibility for the proposed PJM RTEP and 500 kV projects, it is anticipated that they will require a total capital investment exceeding \$500 million during the next eight years. While FirstEnergy fully supports the PJM RTEP process, the magnitude of this unplanned expenditure raises a practical question of whether such a large investment makes sense and is prudent, and how it will be effectively rolled into the impacted TO budgets and engineering and construction programs. Before proceeding, FirstEnergy must be certain that the RTEP plan provides the best value (also considering generation solutions) that it is fully justified, and that the rise in customer rates that will result from its implementation is not being applied to interim measures that do not have long term value. However, it is not clear that the PJM RTEP plan meets these needs or is the most efficient and expedient solution to the system problems that have been identified.

FirstEnergy does not dispute the fact that the proposed RTEP projects will resolve the criteria violations identified. The issue is whether they "all" are required to meet the long term security goals of the transmission system, and may represent 'stranded investments' when the longer range reinforcements are implemented; i.e., a new 500 kV lines or new generation. The focus of the RTEP plan should be on the development of projects that build progressively - one on another to achieve the desired goal. Therefore, once the ultimate build out plan is determined, the whole system development plan should be reassessed to determine potential elimination of some of the shorter term fixes by interim operating measures and acceleration of the ultimate build out plan components. The recommended plan implements numerous projects that mitigate individual criteria violations without a targeted focus towards a long range expansion plan. It is not until the 'right' overall 500 kV projects are implemented that this occurs. In that sense they are independent and not coordinated with the earlier RTEP projects.

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## Specific Project/Cost Allocation Comments

With respect to Northern New Jersey, for example, if the PJM staff believes that a Portland - Jefferson - Roseland 500 kV line will resolve all identified thermal and reactive criteria violations, FirstEnergy and other Transmission Owner should fully commit their efforts in that direction. In this way the interim projects defined by the RTEP process may not be needed. Another consideration is that with a limited work force, the PJM requirement for Jersey Central to complete thirteen 230 kV line re-conductor projects and multiple substation projects in addition to constructing a new 60 mile 500 kV path and substation by 2014 is a rather formidable task. The key element is that PJM must be willing to consider interim operating measures during construction of the ultimate 500 kV solution. Since the driver for most RTEP projects is a condition beyond normal operations, the reliance on interim operating measures for the improbable scenarios identified should be acceptable on a short-term basis.

The PJM staff has also set in motion another plan that is yet to be proven feasible. The 500 kV project at Airydale has been recommended that includes a 500 kV substation with 1000 MVAR of switched shunt capacitors and a 600 MVAR dynamic reactive device. However, FirstEnergy has yet to determine a feasible site for this substation. FirstEnergy is actively pursuing the site selection process, but it is possible that this project will be found infeasible if a suitable property is not found. Further, FirstEnergy previously identified a potentially preferred solution, a Clymer alternative that required the construction of a short 500 kV line. This alternative may better integrate with the future 500 kV expansion plan that is being recommended, but was rejected earlier on the basis of cost and implementation time vs. the Airydale project proposal. Since a dynamic reactive resource is now recommended at Airydale, the PJM staff should reconsider the Clymer option; that is, why build the \$50 million Airydale project when in 4 years a new 500 kV line would be constructed to eliminate its need?

Another example is the PJM RTEP project in Jersey Central to install a 600 MVAR dynamic reactive resource at Whippany. FirstEnergy has communicated that the Whippany substation is bounded by a road, river, railroad, flood plain and district office that limits its ability to support a facility that requires a large footprint. Therefore, a new site will be necessary for this alternative, further increasing the cost and implementation time versus implementation at an existing site and possibly making an alternative proposal preferred. Further, the PJM staff has not provided a convincing argument that switched shunt capacitors will not provide the same support as a dynamic reactive device. Since switched shunt resources can be installed in a distributed manner, they are easier to install and a significantly less expensive alternative.

FirstEnergy questions the cost allocation of Allegheny Power projects to Met-Ed. The Germantown - Taney 138 kV tie line is the only link between Met-Ed and Allegheny Power. This line can be opened whenever a constraint occurs as an accepted procedure in all RTEP analyses. Therefore, it seems that Met-Ed's cost responsibility should be re-evaluated. An example of this scenario is the PJM RTEP project (b0373) that dictates a conversion of the Doubts - Monocacy 138 kV facilities to 230 kV operation. Met-Ed has been assessed a 12% cost allocation for this Allegheny Power project.