

NORTHEAST TRANSMISSION DEVELOPMENT

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Via Email (rtep@pjm.com)

July 8, 2014

The PJM Board of Managers
PJM Interconnection, L.L.C.
955 Jefferson Avenue
Valley Forge Corporate Center
Norristown, PA 19403-2497

RE: PJM Artificial Island Project Selection

Dear PJM Board of Managers:

We write regarding the PJM Interconnection, L.L.C. (“PJM”) Staff’s request that you approve the Hope Creek – Red Lion transmission solution (“Staff Solution”) to address identified system stability needs related to Artificial Island. We commend the Board of Managers and the PJM Staff for initiating a competitive process with the policy goal of finding the more efficient or cost effective project. This process has resulted in the identification of several alternatives that could address the stated system needs. While we know the PJM Staff and its consultants have worked tirelessly over the past year to evaluate these alternatives, the resulting Staff recommendation falls short from a transparency perspective and fails the above-stated policy goal. We strongly believe that the Staff Solution, if implemented, will materially disadvantage the PJM system and electric consumers in PJM when compared to the Southern Crossing solution proposed by Northeast Transmission Development,¹ a member of the LS Power Group of companies (the “LS Power Solution”).

It appears that the Staff’s recommendation was founded upon the conclusion that the Staff Solution and the LS Power Solution are equivalent to each other from a cost standpoint. This conclusion was simply incorrect and inconsistent with the information presented by the independent consultants engaged by Staff.² While PSE&G estimated the cost of its project to be \$297 million and we estimated the upper end of the LS Power Solution to be \$148.6 million, the Staff attributed construction costs in the range of \$211 - \$257 million for either project. We appreciate that predicting the costs of constructing a project of this type is a difficult task, and that it is not unusual for actual costs to exceed the estimate. However, even taking into account the uncertainties inherent in any cost estimation process, there are real and

¹ LS Power Proposal “5A” consisting of a new connection between Salem and Silver Run (new) with an overhead or submarine crossing of the Delaware River.

² GAI Consultants, Inc. estimates the cost/mile for overhead 500 kV to be \$5 million/mile versus Staff’s stated assumption of \$3.6 million/mile. GAI Consultants included an adder of \$1 million/mile due to the specialized construction practices required given the extensive wetlands and limited access for the Staff Solution, which Staff did not appear to consider. UC Synergetic, LLC identifies \$56 million in compensatory mitigation required for a comparable crossing of federal lands as is required for the Staff Solution, which Staff did not appear to consider.

material differences between the reasonably expected costs of constructing the Staff Solution as compared to the reasonably expected costs associated with the LS Power Solution, and these differences were not in our view properly accounted for in the selection process.

In order to remove any cost uncertainty from the selection process, and to guarantee that the ratepayers receive the benefit of the real and material cost advantages offered by the LS Power Solution, we will agree to cap the construction cost of the LS Power Solution (overhead or submarine) at \$171 million. This approach, which could be implemented by way of a covenant in the Designated Entity Agreement for this project, will guarantee \$40 to \$90 million of savings relative to the Staff's cost estimate for the Staff Solution and almost \$130 million relative to the significantly higher cost estimate provided by PSE&G, the entity to which PJM proposes to assign the Staff Solution.³ Please note that the \$171 million figure mentioned above is a cap on the amount of construction costs we would be permitted to claim. If the actual construction costs come in at or below our upper-end estimate of \$148.6 million, which we continue to believe is reasonable, the savings to the ratepayers will be significantly greater.

Moreover, the Staff's recommendation appears to reflect Staff's difficulty in consistently applying non-cost evaluation criteria in accordance with the PJM Operating Agreement.⁴ As identified in Exhibit A, the LS Power Solution is either superior or equal to the Staff Solution for each of the criteria listed in the PJM Operating Agreement. Although we understand that achieving a high degree of certainty while evaluating proposed alternatives is a challenging undertaking, it appears that Staff may have made certain arbitrary judgments regarding critical aspects of the LS Power Solution (as compared to the Staff Solution) that are not supported by the PJM Operating Agreement criteria. For instance, the Staff did not appear to appropriately consider key factors that favor the LS Power Solution such as schedule, right-of-way, route diversity, black start, market efficiency, feasibility, and system outage requirements.⁵ We urge the Board of Managers to reconsider how these criteria were applied, in order to ensure compliance with the PJM Operating Agreement.

In summary, relative to the Staff Solution, the LS Power Solution will:⁶

- Be \$40 to \$130 million lower in cost based on a firm construction cost cap (and offer even greater savings if, as expected, construction costs come in below the agreed cap);

³ It is important that the Board look independently at Staff's cost estimate assumptions. In 2012, in selecting among competing projects, PJM estimated the cost of the Byron – Wayne transmission project to be \$109.6 million relative to Commonwealth Edison's original estimate of \$275 million and subsequently revised estimate of \$140 million. After approval from PJM, Commonwealth Edison filed for incentive rates at FERC estimating the cost to be \$277 million. See *FERC ER14-1556*.

⁴ The PJM Operating Agreement identifies four criteria that PJM should consider in determining the more efficient or cost effective solution. See *PJM Operating Agreement, Schedule 6, Section 1.5.8(e)*

⁵ PJM previously identified route diversity and right-of-way requirements as key differentiating factors for project selection among alternatives in Illinois in 2012. See *TEAC Recommendations to the PJM Board, PJM Staff Whitepaper, October 16, 2012*.

⁶ See *Northeast Transmission Development Comments in response to the PJM RTEP – 2013 Artificial Island Proposal Window dated June 2, 2014*.

- Provide \$35 million more in market efficiency benefits;
- Be able to be placed in service one to two years earlier;
- Require no new private rights-of-way;
- Utilize a new route (for which all private rights-of-way have been secured), thereby avoiding placement of the critical outage and contingency in the same corridor;
- Provide black start benefits;
- Avoid outages of the 5015 (Hope Creek – Red Lion) 500 kV transmission line; and
- Not face the potentially insurmountable risks associated with significant wetland impacts and the crossing of the Supawna Meadows National Wildlife Refuge.

Based on the foregoing, we believe that the ratepayers in the PJM system will receive materially greater economic benefits and assume less execution risk if the PJM Board selects the LS Power Solution as the most efficient and cost effective solution to the identified need, and designates it as the Designated Entity to construct and own the project. As noted above, we are offering to guarantee these benefits by agreeing to cap the construction cost of the LS Power Solution. In any case, we stand ready to advance this project with the utmost priority immediately upon assignment from the PJM Board.

Respectfully,

NORTHEAST TRANSMISSION DEVELOPMENT, LLC



Paul Thessen
President

cc: Terry Boston
Michael Kormos
Steve Herling
Paul McGlynn
Mark Sims
Pauline Foley

Exhibit A

PJM OPERATING AGREEMENT CRITERIA

LS Power Solution vs. Staff Solution

In accordance with the PJM Operating Agreement,¹ PJM shall consider the following criteria in determining the more efficient or cost effective solution.

1. *The extent to which a [project] would address and solve the posted violation, system condition, or economic constraint.*

PJM has identified that both projects address and solve the system condition identified through the Artificial Island Proposal Window.

2. *The extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to Section 1.5.7(d) of this Schedule 6.*

Although neither project meets the 1.25:1 ratio, the LS Power Solution has been identified to have \$35 million more in market efficiency benefits than the Staff Solution. In addition to higher benefits, the LS Power Solution will be lower cost and, based on LS Power's cost guarantee, will be supported by a firm construction cost commitment. As a result, the Benefit/Cost Ratio for the LS Power Solution is more than double the Benefit/Cost Ratio for the Staff Solution.

3. *The extent to which the [project] would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region.*

The LS Power Solution has numerous secondary benefits identified by PJM including providing black start benefits, route diversity, and higher economic efficiency benefits.

The Staff Solution, in contrast, has several detriments as it will create more NERC Category-D contingencies, locate the critical contingency and outage for the Artificial Island stability issue within the same corridor, and require an extensive outage of the 5015 (Hope Creek – Red Lion) 500 kV transmission line.

Staff has characterized the 500 kV transmission line as "more robust" and providing greater power transmission capacity. The characterization of "more robust" is unrelated to the issue being resolved – PJM has found that all of the solutions are comparable in resolving the stability concern. While a 500 kV transmission line will be rated at a higher capacity, the market efficiency analysis proves the LS Power Solution to be of a greater market benefit.

4. *Other factors such as cost-effectiveness, the ability to timely complete the project, and project development feasibility.*

¹ See *PJM Operating Agreement, Schedule 6, Section 1.5.8(e)*.

Other factors also clearly favor the LS Power Solution.

The LS Power Solution will be \$40 to \$130+ million lower cost and be able to be placed in service one to two years in advance of the Staff Solution.

All of the private right-of-way has been secured for the LS Power Solution as compared to over 8 miles of new right-of-way that would need to be acquired for the Staff Solution.

Both solutions require a crossing of the Delaware River. The LS Power Solution has mitigated the risk associated with permits and approvals given that both an overhead and submarine installation could be considered. Development of the Staff Solution may not be feasible given the potentially insurmountable risks associated with tens to hundreds of acres of wetland impacts and the crossing of the Supawna Meadows National Wildlife Refuge.²

Staff has identified space may be somewhat more limited or constrained at Salem as compared to Hope Creek; however, there are no physical limitations preventing expansion of either substation. Furthermore, the LS Power Solution could originate at Hope Creek to the extent it was beneficial.

² PJM has identified a technically viable, cost-comparable alternative (LS Power Solution) that addresses the Artificial Island electrical reliability issues without crossing the Supawna Meadows National Wildlife Refuge or impacting tens to hundreds of acres of wetlands. The existence of a practicable alternative that avoids these impacts will make it difficult, if not impossible, to obtain the necessary freshwater wetlands permit in New Jersey and right-of-way grant from the U.S. Fish and Wildlife Service that would be required for the Staff Solution.