

NORTHEAST TRANSMISSION DEVELOPMENT

400 Chesterfield Center, Suite 110
St. Louis, MO 63017

Via Email (rtep@pjm.com)

June 2, 2014

PJM Interconnection, L.L.C.
Attn: Steven Herling
955 Jefferson Avenue
Norristown, PA 19403

RE: PJM Artificial Island Proposal Window

Dear Steve:

LS Power, through its affiliate Northeast Transmission Development, LLC, has appreciated the opportunity to participate in the Artificial Island Proposal Window. LS Power commends PJM's efforts. As is clearly demonstrated from the work to date, customers can be expected to save hundreds of millions of dollars as a result of this first competitive solicitation under FERC Order No. 1000.

PJM's selection of both the project and sponsor for the Artificial Island solution will set the tone for implementation of FERC Order No. 1000. The importance of the precedent that will be set here cannot be overstated. Throughout the past several years, LS Power has asked PJM and FERC for the opportunity to compete and let the best project win.

PJM began with 26 proposals ranging in cost from \$116 million up to over \$1.5 billion. The nearly year-long evaluation process has culminated in PJM narrowing the list of preferred solutions to essentially twelve different projects that could be categorized into two options – a Southern Crossing Option and a Red Lion 500 kV Option. LS Power sponsored both a Southern Crossing Option (LS Power #5A) and a Red Lion 500 kV Option (LS Power #5B), both of which remain under consideration by PJM.

The analysis presented by PJM, along with the attached comments, clearly demonstrate that the LS Power-sponsored Salem – Silver Run 230 kV transmission project (Project #5A) should be selected as the preferred solution in response to the Artificial Island Proposal Window. LS Power Project #5A offers the least cost, risk and complexity of all of the solutions under consideration and is equal or superior to the other solutions in all of the key categories being evaluated by PJM – technical, cost, schedule, and operational. Of particular importance, LS Power #5A:

- Is the lowest cost solution;
- Is capable of achieving the earliest in-service date;
- Is the only solution that has all of the necessary private rights-of-way secured;
- Has the least impacts and complexity with the existing system (e.g. line crossings, outages, and common corridor issues);

- Does not place the critical outage and critical contingency within the same corridor;
- Provides black start benefits; and
- Does not face the significant and potentially insurmountable risks associated with the wetland impacts and the crossing of the Supawna Meadows National Wildlife Refuge.¹

Detailed comments for consideration by PJM in its selection of the appropriate project in response to the Artificial Island Proposal Window are attached. We stand ready to advance this project with the utmost priority immediately upon assignment from the PJM Board.

Please feel free to contact me at (636) 532-2200 or Sharon Segner at (202) 506-6967 with any questions you may have.

Sincerely,



Robert Colozza
Senior Vice President

¹ Attached to these comments in Exhibit B is a letter from outside counsel evaluating the risks associated with the right-of-way permit from the U.S. Fish and Wildlife Service for a transmission line crossing the Supawna Meadows National Wildlife Refuge and concluding that the permit is likely not obtainable, in part due to the existence of the viable Southern Crossing Options.

NORTHEAST TRANSMISSION DEVELOPMENT

a Member of the LS Power Group

COMMENTS



In Response to the:

PJM RTEP – 2013 Artificial Island Proposal Window

June 2, 2014

Table of Contents

Executive Summary.....	1
Introduction	2
Technical Analysis	3
Stability and Thermal	3
Market Efficiency	3
NERC Category-D Contingencies	3
Short Circuit	3
Cost Factors.....	4
PJM Estimates	4
Project Sponsor Estimates	4
Market Efficiency	4
Outage Costs	5
Other	5
Project Schedule	6
Project Sponsor Estimates	6
Independent Consultant Analysis	6
Permitting	7
Construction.....	8
Long Lead Time Materials	8
Other	8
Operational Impact	9
Route Diversity.....	9
Black Start	9
Artificial Island Facility Requirements.....	9
Ongoing Maintenance.....	9
Risks to Cost and Schedule	11
Project Complexity	11
Right-of-Way and Land Acquisition.....	11
Siting and Permitting.....	12
Southern Crossing Options	15
PJM Summary Matrix.....	16
Hope Creek – Red Lion 500 kV Solutions	18
Exhibit A – Hope Creek -Red Lion 500 kV Easement	
Exhibit B – Supawna Meadows National Wildlife Refuge Permit	
Exhibit C – Delaware State Route 9	
Exhibit D – Consolidated Summary	

Executive Summary

The analysis presented by PJM, along with the comments provided below, clearly demonstrate the LS Power-sponsored Salem – Silver Run 230 kV transmission project (Project #5A) should be selected as the preferred solution in response to the Artificial Island Proposal Window.

The nearly year-long evaluation process has culminated in PJM narrowing the list of preferred solutions to essentially twelve different projects that could be categorized into two options – a Southern Crossing Option and a Red Lion 500 kV Option.

In specific comparison to the Red Lion 500 kV Options, LS Power #5A is superior in all categories:

- **Technical.** While comparable from a stability and thermal perspective, the LS Power #5A performs better from a market efficiency and NERC Category-D contingency perspective.
- **Cost.** The LS Power #5A solution is the lowest cost solution under consideration based on PJM's analysis. It has the lowest capital cost, largest market efficiency benefits, and the least system outages and related costs. Furthermore, it does not have the risks presented by the Red Lion 500 kV Options associated with compensatory mitigation due to impacts to wetlands or the use of federal lands.
- **Schedule.** LS Power #5A is capable of being placed in service one to two years earlier than the Red Lion 500 kV Options. The substantial, and potentially insurmountable, risks and complexities associated with wetlands impacts and Supawna Meadows National Wildlife Refuge (NWR) adds at a minimum one to two years to the overall schedule for the Red Lion 500 kV Options. The Red Lion 500 kV Options also carry substantial schedule risk associated with outage requirements for the 5015 transmission line, which has historically been a difficult transmission line to schedule outages for.
- **Operational.** LS Power #5A avoids placing transmission elements consisting of both the critical outage and critical contingency for the identified Artificial Island issue within the same corridor. In addition, LS Power #5A provides benefits related to black start with limited concern to requirements at the Artificial Island or ongoing maintenance.
- **Risk and Complexity.** The LS Power #5A solution offers the least risk and complexity of all the solutions under consideration. Impacts and complexity with the existing system (e.g. line crossings, outages, and common corridor) are minimized and LS Power has secured the necessary private rights-of-way. In contrast, significant additional private right-of-way will be required for the Red Lion 500 kV Options regardless of the sponsor. In addition, LS Power #5A does not face the significant and potentially insurmountable risks associated with wetland impacts and the crossing of the Supawna Meadows NWR presented by the Red Lion 500 kV Options.

Furthermore, LS Power #5A offers the least cost, risk and complexity of the Southern Crossing Options under consideration.

- PJM estimates LS Power to have the lowest cost solution for both the overhead and submarine options.
- LS Power is the only entity that has secured an exclusive option to purchase the private real estate necessary for the switchyard and private rights-of-way to be located in Delaware.
- LS Power is the only entity that proposed both a submarine and overhead solution, offering flexibility in configuration to provide for maximum permitting flexibility.

Introduction

PJM issued a request for proposals in April 2013 seeking technical solution alternatives to improve PJM Operational Performance and to eliminate potential planning criteria violations in the Artificial Island area. In June 2013, PJM received 26 individual proposals from seven different entities ranging in cost from \$116 million to over \$1.5 billion.

PJM has narrowed the list of potential solutions to twelve different projects that can be categorized into essentially two options. Each option would include a new transmission line originating from Artificial Island and be paired with an SVC at either Orchard or New Freedom. The two options differ in that one would head westward across the Delaware River to interconnect with a new or existing 230 kV substation in Delaware (the “Southern Crossing Option”) and the other would follow the existing Hope Creek – Red Lion 500 kV transmission line in New Jersey to the north, cross the Delaware River near New Castle, and interconnect at the Red Lion 500 kV substation in Delaware (the “Red Lion 500 kV Option”). The overall lengths of the Southern Crossing Option and Red Lion 500 kV Option are approximately 6 miles and 17 miles, respectively.

LS Power sponsored both a Southern Crossing Option (LS Power #5A) and a Red Lion 500 kV Option (LS Power #5B), both of which remain under consideration by PJM. The analysis presented by PJM, along with the comments provided below, clearly demonstrate the LS Power-sponsored Salem – Silver Run 230 kV transmission project (Project #5A) should be selected as the preferred solution in response to the Artificial Island Proposal Window.

These comments are organized into sections consistent with the key criteria being evaluated by PJM in its selection of a project – Technical Analysis, Cost Factors, Project Schedule, Operational Impact and Risks to Cost and Schedule.

Technical Analysis

The Southern Crossing Options are technically superior to the Red Lion 500 kV Options. While the options are comparable from a stability and thermal perspective, the Southern Crossing Options perform better from a market efficiency and NERC Category-D contingency perspective, far outweighing the costs associated with limited breaker replacement related to short circuit for the Southern Crossing Options. The Southern Crossing Options also provide benefits related to black start operations, described under Operational Impact.

Stability and Thermal

All of the solutions under consideration perform comparably from a stability and thermal perspective, with the exception of the Hope Creek – Red Lion solutions, for which detailed stability information has not been presented. Any marginal differences in performance could be compensated through the use of different sized SVCs, which would be at a relatively small incremental cost.

Market Efficiency

The Southern Crossing Options perform better from a market efficiency perspective, providing ~ \$35 million more (NPV) in market efficiency benefits than the Red Lion 500 kV Options. This means that the Southern Crossing Options provide more relief to identified unhedgeable congestion in the system, which enables the market to operate more efficiently (i.e. utilize lower cost generation). In turn, this will translate to a lower energy cost for consumers. This benefit should be accounted for in the analysis of alternatives as it would not exist but for selecting the Southern Crossing Options.

NERC Category-D Contingencies

The Southern Crossing Options, aside from Dominion #1B, create no new NERC Category-D contingencies. Conversely, all of the Red Lion 500 kV Options would be located in a common corridor with the existing 5015 Hope Creek – Red Lion 500 kV circuit for essentially the entire route. This would create a new NERC Category-D contingency related to circuits within a common corridor. Additionally, most of the Red Lion 500 kV options involve crossings of existing 500 kV transmission lines, which would create additional NERC Category-D contingencies.

Short Circuit

The Southern Crossing Options, aside from Transource #2A, appear to cause three overdutied 230 kV breakers not seen with the Red Lion 500 kV Options. The cost associated with resolving the overdutied breakers will depend upon the specifics, but is expected to be minimal. Based on a review of comparable approved RTEP projects, the cost should be on the order of \$1 million.

Cost Factors

The LS Power #5A solution is the lowest cost solution under consideration. It has the lowest capital cost, largest market efficiency benefits, and the least system outages and related costs. Furthermore, it does not have the risks presented by the Red Lion 500 kV Options associated with compensatory mitigation due to impacts to wetlands or the use of federal lands. Risks associated with Cost Factors are discussed under Risks to Cost and Schedule.

PJM Estimates

PJM conducted a third-party cost review and identified the lowest cost solution to be the LS Power #5A solution.

The estimates provided by PJM for the Red Lion 500 kV Options appear to conflict with the estimates provided by its independent consultant. GAI Consultants, Inc. (GAI) estimates construction of the non-river crossing portion of the 500 kV transmission line to be \$4 million/mile plus an additional \$1 million/mile for access (swamp mats, crane helicopter, access roads).¹ In contrast, PJM states it uses an estimate of \$3.6 million/mile for the non-river crossing portion of the 500 kV transmission line.² Utilizing PJM's estimates for engineering, project management and contingency,³ the incremental cost that should be added to the Red Lion 500 kV Options is \$26.8 million to \$32.7 million.

PJM does not appear to account for costs associated with compensatory mitigation due to the crossing of the Supawna Meadows NWR for the Red Lion 500 kV Options as discussed further below. Based on recent experience, this may add an additional \$56 million to the estimated cost of the Red Lion 500 kV Options.⁴

Furthermore, PJM may not be accounting for costs associated with additional right-of-way acquisition that will be necessary for the Lower Delaware Valley participants (i.e. PSE&G, PHI, and Exelon) Red Lion 500 kV Options. Contrary to what has been presented, and as is discussed further in the Risks to Costs and Schedule section, additional right-of-way will be required for all of the Red Lion 500 kV Option sponsors. GAI estimates the cost for right-of-way acquisition to be \$7 million.⁵

Project Sponsor Estimates

According to the Project sponsor estimates, LS Power #5A is the lowest cost solution at ~ \$116 million (overhead).

Market Efficiency

The Southern Crossing Options perform better from a market efficiency perspective, providing ~ \$35 million more (NPV) in market efficiency benefits than the Red Lion 500 kV Options. This benefit should be accounted for in the analysis of alternatives as it would not exist but for selecting the Southern Crossing Options.

¹ GAI Consultants, Inc., Constructability Analysis (May 2014) at Table 4

² PJM Transmission Expansion Advisory Committee, April 2014 at Page 44

³ Id. at 45.

⁴ UC Synergetic, LLC, Constructability Analysis (4/30/2014) at Page 27

⁵ GAI Consultants, Inc., Constructability Analysis (May 2014) at Table 4

Outage Costs

PJM doesn't provide costs, but identifies the Southern Crossing Options perform better than the Red Lion 500 kV Options as it relates to outage costs. Specifically, all of the Red Lion 500 kV Options would require a significant outage of the 5015 (Hope Creek – Red Lion 500 kV) transmission line. The longest outage of this line in the last 15 years has been 8 days. PJM has estimated the Red Lion 500 kV Options under consideration to require 14 – 40 days of outage for the 5015 line.

Other

The Red Lion 500 kV Options all involve significant wetland impacts and a lengthy crossing of the Supawna Meadows NWR. Based on information presented by GAI, it appears that PJM may only be including ~ \$7 million in environmental mitigation costs associated with wetland impacts.⁶ Given the extensive wetland impacts, in combination with a crossing of federal lands, this would appear to be extremely understated. GAI did not appear to consider any costs associated with compensatory mitigation due to the crossing of the Supawna Meadows NWR. For the recent Susquehanna – Roseland 500 kV transmission line that crossed ~ 4 miles of federal lands, the utilities agreed to a compensatory mitigation package where the utilities would pay approximately \$56 million into a fund for the purchase or preservation of thousands of acres of land.⁷

⁶ GAI Consultants, Inc., Constructability Analysis (May 2014) at Table 4

⁷ UC Synergetic, LLC, Constructability Analysis (4/30/2014) at Page 27

Project Schedule

The Southern Crossing Options are capable of being placed in service one to two years earlier than the Red Lion 500 kV Options. The substantial, and potentially insurmountable, risks and complexities associated with wetlands impacts and Supawna Meadows NWR add at a minimum one to two years to the overall schedule for the Red Lion 500 kV Options. The Red Lion 500 kV Options also carry substantial schedule risk associated with outage requirements for the 5015 transmission line, which has historically been a difficult transmission line to schedule outages for. Risks associated with the Project Schedule are described under Risks to Cost and Schedule.

Project Sponsor Estimates

On average, according to the project sponsors, the Red Lion 500 kV Options are estimated to take over a year longer to place in service relative to the Southern Crossing Options.⁸ All of the Southern Crossing Options, aside from Dominion's, are estimated to take 42 months. In contrast, the average estimate for the Red Lion 500 kV Options is over 60 months.

Independent Consultant Analysis

PJM commissioned two different consultants to provide a review of the Southern Crossing Options and the Red Lion 500 kV Options. Each consultant uses different assumptions that, when normalized, clearly demonstrate the Southern Crossing Options can be placed in service one to two years in advance of the Red Lion 500 kV Options. GAI estimates the Red Lion 500 kV Options will take 66 months⁹ to complete while UC Synergetic, LLC (UC Synergetic) estimates the Southern Crossing Options will take 60 months.¹⁰

GAI estimates the permitting and regulatory approval activities for the Red Lion 500 kV Options to take 30 months whereas UC Synergetic estimates those activities to take 36-48 months for the Southern Crossing Options. This difference – favoring the Red Lion 500 kV Options – would clearly not exist had the same consultant evaluated both options. As detailed below, the permitting and regulatory approval process for the Red Lion 500 kV Options will be substantially more complex than for the Southern Crossing Options due to the additional impacts to wetlands and federal and state lands. UC Synergetic notes that the four mile section of the Susquehanna – Roseland Project that crossed federal lands took almost 4 years just to gain the necessary approvals and permits.¹¹ Given the added complexities associated with the wetlands impacts and Supawna Meadows NWR for the Red Lion 500 kV Options, and the recent history with the timing of the Susquehanna – Roseland federal approval, it would be reasonable that UC Synergetic would have estimated at least 48 months for a permitting timeframe for the Red Lion 500 kV Options.

GAI recognized the "... regulatory and permitting aspect of [the Red Lion 500 kV Option] carries the most schedule-related risk of any of the required activities."¹² Had GAI used a 48 month schedule for permitting of the Red Lion 500 kV Option, as would be comparable to the assumption by UC Synergetic, the overall schedule for Red Lion 500 kV Option would be increased from 66 months to 84 months. Even at an assumption of 36 months for permitting, comparable to the Southern Crossing Options, the

⁸ The average estimate of the Southern Crossing Options is 52 months whereas the average estimate of the Red Lion 500 kV Options is 66 months.

⁹ GAI Consultants, Inc., Constructability Analysis (May 2014) at Section 8.0

¹⁰ UC Synergetic, LLC, Constructability Analysis (4/30/2014) at Page 49

¹¹ UC Synergetic, LLC, Constructability Analysis (4/30/2014) at Page 20

¹² GAI Consultants, Inc., Constructability Analysis (May 2014) at Section 6.0

GAI estimated schedule for the Red Lion 500 kV Options would be increased to 72 months, which is one year longer than the UC Synergetic schedule for the Southern Crossing Options.

Permitting

PJM identifies that multiple permits including various state approvals in New Jersey and Delaware and an Army Corps of Engineers permit are required for each of the solutions. The Red Lion 500 kV Options, including LS Power #5B, have the added complexity of:

- Impacting an estimated 350 acres of forested wetlands;¹³
- Requiring a USFWS ROW permit to locate approximately 2.5 miles of the transmission line within the current boundaries of the Supawna Meadows NWR.¹⁴ An additional 1.5 miles of the transmission line would be placed in the approved acquisition boundary of the Supawna Meadows NWR.
- Requiring state approvals to locate approximately (i) 2 miles of the transmission line within the Alloway Creek Restoration Site, (ii) 1.2 miles of the transmission line within the Abbotts Meadow Wildlife Management Area, and (iii) 1.6 miles of the transmission line within the Mad Horse Creek Wildlife Management Area.¹⁵

This added complexity compared to the Southern Crossing Options – an individual permit related to the impact to wetlands and the granting of federal and state lands – will add a minimum of one to two years to the overall schedule for permitting and completion of the Red Lion 500 kV Options. In comparison, LS Power’s Southern Crossing Option will have no clearing of forested wetlands¹⁶ and will not impact a NWR or cross federal lands.

The still under construction Susquehanna – Roseland 500 kV transmission line was significantly delayed due to the process associated with obtaining permits and approvals for a crossing of federal lands. The project was placed on the Federal Rapid Response Team for Transmission to accelerate the permitting schedule, which still left the project approximately 3 years delayed relative to the identified need. According to PJM’s independent consultant, it took almost 4 years to gain the necessary approvals and permits for the federal lands.¹⁷

A key distinction here to the Susquehanna – Roseland situation is that viable alternatives to the Red Lion 500 kV Option clearly exist that would avoid the contemplated wetland impacts and crossing of the Supawna Meadows NWR. As such, it may not be feasible to obtain the necessary permits and approvals related to wetland takes and for crossing of the Supawna Meadows NWR. This issue is detailed further in the Risks to Costs and Schedule.

¹³ GAI Consultants, Inc., Constructability Analysis (May 2014) at Table 4

¹⁴ The Supawna Meadows NWR is part of the larger Cape May NWR and recognized as wetlands of international importance and an international shorebird reserve. The refuge currently owns approximately 3,000 acres. The tidal marshes that comprise nearly 80 percent of the refuge provide waterfowl with an important feeding and resting area, particularly during the fall and spring migrations. (<http://www.fws.gov/supawnameadows/>)

¹⁵ GAI Consultants, Inc., Constructability Analysis (May 2014) at Section 4.2.2.2

¹⁶ UC Synergetic, LLC, Constructability Analysis (4/30/2014) at Page 43.

¹⁷ UC Synergetic, LLC, Constructability Analysis (4/30/2014) at Page 20.

Construction

PJM identifies that all of the solutions under consideration may have construction schedules impacted by spawning/nesting seasons of endangered species. Additionally, PJM identifies the solutions involving a submarine cable require specialized equipment.

The Red Lion 500 kV Options are at far greater risk for impacts to the construction schedule, due to the extensive, unavoidable wetland impacts. As discussed by PJM, over 10 miles of the transmission line route for the Red Lion 500 kV Options traverse wetlands.¹⁸ These areas are likely to involve restrictions on construction from January through July associated with the identified concern of spawning/nesting seasons of endangered species. Additionally, specific construction practices to minimize impacts to the wetlands will have to be maintained along the entire route such as the extensive use of swamp mats and crane helicopters for structure installation.¹⁹

The issues that require specialized equipment do not present a material risk to the construction schedule for the alternatives that involve a submarine cable. While specialized, the practice of installing submarine cables is proven and does not present any additional schedule risk as compared to the overhead crossing alternatives. Similarly, the Red Lion 500 kV Options will require certain specialized equipment (e.g. crane helicopters).

Long Lead Time Materials

PJM identifies the auto transformer as a long-lead material for all of the Southern Crossing Options, and the submarine cable as a long-lead material for solutions involving a submarine cable.

The lead time necessary to procure the auto transformer or submarine cable is well known, such that it can be managed within the overall timeline for the project and does not create a risk of extending the estimated timeframes necessary to construct the Southern Crossing Options. All of the solutions under consideration will have critical path materials that will necessitate proper planning. The introduction of materials specific to the Southern Crossing Options does not present any additional schedule risk as compared to the Red Lion 500 kV Options.

Other

All of the Red Lion 500 kV Options necessitate an extensive outage of the 5015 (Hope Creek – Red Lion) 500 kV transmission line. As PJM identified, the longest outage for this line in the last 15 years was 8 days, well short of the 14 – 40 day estimated outage requirements associated with the Red Lion 500 kV Options. PJM further identified there have been numerous instances of curtailed or cancelled outages for the 5015 line due to system conditions. As a result, the Red Lion 500 kV Options have considerable schedule risk associated with the scheduling and availability of outages necessary to complete the 5015 transmission line outages required for construction and energization of the Red Lion 500 kV Options.

This issue is further complicated by the fact that the Red Lion 500 kV Options would be constructed in right-of-way adjacent to the 5015 transmission line for essentially its entire length. This may necessitate additional outages of the 5015 transmission line during construction of the new circuit to maintain necessary clearances during construction.

¹⁸ GAI Consultants, Inc., Constructability Analysis (May 2014) at Section 4.2.2.3

¹⁹ GAI Consultants, Inc. Constructability Analysis (May 2014) at Section 5.0

Operational Impact

The Southern Crossing Options provide superior operational benefits as compared to the Red Lion 500 kV Options. Most importantly, the Southern Crossing Options avoid placing transmission elements consisting of both the critical outage and critical contingency for the identified Artificial Island issue within the same corridor. In addition, the Southern Crossing Options provide benefits related to black start with limited concern to requirements at the Artificial Island or ongoing maintenance.

Route Diversity

The Southern Crossing Options provide a new outlet from Artificial Island that does not follow any existing high-voltage transmission line corridors. On the contrary, the Red Lion 500 kV Options will follow an existing 500 kV transmission line and will be located in a common corridor for essentially its entire route of ~ 17 miles.

The 500 kV transmission line that the Red Lion 500 kV Options are proposing to parallel is the 5015 (Hope Creek – Red Lion) 500 kV transmission line, which is the critical outage that necessitates the need for new transmission that is the subject of the Artificial Island Proposal Window. Furthermore, PJM has determined that the critical contingency to be evaluated during the 5015 line outage is the new transmission line that is selected in the Artificial Island Proposal Window. As a result, for the Red Lion 500 kV Options, the critical outage and critical contingency are proposed to be located within the same corridor. Placing transmission lines in a common corridor is generally less reliable than placing them in separate distinct corridors.

Black Start

PJM has identified that the Southern Crossing Options provide additional benefits related to black start service, which is required for the reliable restoration of the grid following a blackout. The Southern Crossing Options should provide added reliability and flexibility in system restoration and may prevent or delay the need to acquire additional black start generation resources in the region in the future.

Black start charges were \$107.5 million in 2013, up substantially from \$50.2 million in 2012. The cost for providing black start service will continue to increase as new black start resources are needed to replace generators that are deactivating or withdrawing from providing the service. PJM recently conducted several RFPs to secure new black start resources in Maryland and New Jersey, as well as an RFP RTO-wide.

The Red Lion 500 kV Options do not provide any black start related benefits.

Artificial Island Facility Requirements

All of the solutions originate at Artificial Island and will require a new connection to either the existing Salem or Hope Creek substations. The majority of the solutions originate at Salem, with two proposed solutions that would originate at Hope Creek. PJM identifies that space may be somewhat more limited or constrained related to expansion of the Salem substation relative to the Hope Creek substation; however, there are no physical limitations that prevent expansion of either substation.

Ongoing Maintenance

PJM identifies that all of the Southern Crossing Options would involve an auto transformer, the maintenance of which may increase line outage frequency. However, PJM has assumed a spare

transformer as part of all of the Southern Crossing Options, which should mitigate this issue and limit line outages associated with the transformer.

PJM identifies salt spray concerns with proximity to the Delaware River for all of the solutions that involve expansion of the southern side of the Salem substation. The equipment to be installed will be specially designed for its location in a coastal environment. While its location in proximity to the Delaware River may necessitate additional maintenance to an extent, it is manageable and should not present any material concern. This is typical of any transmission equipment located in a coastal environment. The existing Hope Creek and Salem substations contain transformers and other equipment that have a long history of operating in this environment.

The Red Lion 500 kV Options will predominately be placed in wetlands with no permanent access available for ongoing maintenance or emergency response. This will lead to increased operations and maintenance costs and reliability concerns associated with a longer lead-time necessary to access and restore the transmission line in the event of a failure. This is especially troublesome given the proposed placement of both the critical contingency and critical outage within this corridor since neither will have readily available access.

Risks to Cost and Schedule

The LS Power #5A solution offers the least risk and complexity of all the solutions under consideration. Impacts and complexity with the existing system are minimized and LS Power has secured the necessary private rights-of-way. Most importantly, the solution does not face the significant and potentially insurmountable risks associated with wetland impacts and the crossing of the Supawna Meadows NWR presented by the Red Lion 500 kV Options.

Project Complexity

PJM describes the complexity of each solution as it relates to interconnection with the existing system. The LS Power Southern Crossing alternatives are the least complex solutions being evaluated by PJM. The LS Power Southern Crossing alternatives require the least outages and modifications to the existing system and do not involve any high-voltage transmission line crossing. Simply put, the LS Power Southern Crossing alternatives merely involve interconnecting the new transmission line at each end point - a new tie-in at Salem and the proposed Silver Run 230 kV switchyard.

All of the other solutions involve the crossing of one or more 500 kV transmission lines, relocation of one or more existing 500 kV transmission lines, multiple interconnections or outages to the Artificial Island substations, and/or rebuilding an existing substation.

Right-of-Way and Land Acquisition

PJM identifies that utilities do not have eminent domain in Delaware and the Southern Crossing Options will require 1.5 – 3 miles of new rights-of-way in Delaware and land for a new substation. LS Power has acquired an exclusive option to purchase land for the new switchyard in addition to the privately owned rights-of-way required for the new transmission line. No other privately-owned right-of-way in Delaware is required, eliminating the risk associated with eminent domain in Delaware.²⁰

No other proponent of a Southern Crossing Option has secured land for a switchyard or any of the privately owned rights-of-way.

In performing additional due diligence of its Red Lion 500 kV Option, LS Power #5B, LS Power identified several right-of-way issues. PJM identifies that the Red Lion 500 kV Option may utilize the existing right-of-way associated with the 5015 (Hope Creek – Red Lion) 500 kV transmission line. While many of the transmission line corridors that exit the Artificial Island are 350 feet in width, two-thirds of the approximately 17-mile Hope Creek – Red Line corridor is only 200 feet in width.²¹ This 200' right-of-way was also confirmed through the review of easement documents, one of which is included as Exhibit A, for a select number of the private parcels the Hope Creek – Red Lion 500 kV crosses. While a 200' corridor is sufficient for a single 500 kV transmission line, as currently exists, additional right-of-way would be necessary to place a second 500 kV circuit parallel to the existing circuit. Additionally, other routing and design/construction considerations may necessitate the further expansion of right-of-way beyond what would typically be necessary for two parallel 500 kV circuits. This is a significant risk given the extensive wetlands and federal lands that are traversed by the existing right-of-way and multiple instances where the existing right-of-way is within a few hundred feet of residences. Furthermore, the

²⁰ As noted in its Detailed Constructability Submittal, Northeast Transmission Development may pursue additional private right-of-way to optimize the routing of the transmission line.

²¹ U.S. Nuclear Regulatory Commission, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 45 Regarding Hope Creek Generating Station and Salem Nuclear Generation Station, Units 1 and 2, at Page 2-19. MAYBE WE SHOULD ATTACHED THIS AS WELL?

critical nature of the existing 5015 (Hope Creek – Red Lion) 500 kV transmission line will limit the ability to take outages during construction, which may necessitate further spacing between the existing and proposed transmission line resulting in the need for additional rights-of-way. Finally, there are several areas where the existing 5015 line is in proximity to residences.

All of the Red Lion 500 kV Options will require significant new rights-of-way on private lands that are not currently controlled by any of the sponsoring entities. All of the Red Lion 500 kV Options will also require new federal and state rights-of-way which may represent a fatal flaw.

Siting and Permitting

In performing due diligence for its Red Lion 500 kV project, LS Power #5B, LS Power identified several permitting issues that may rise to the level of fatal flaws. The Red Lion 500 kV Options have extraordinary risks associated with siting and permitting not found with the Southern Crossing Options. This is both due to impacts to wetlands and also crossings of sensitive federal and state lands.

Wetlands

The Red Lion 500 kV Options all traverse approximately 10 miles of forested wetlands, which PJM has estimated to impact approximately 350 acres. In addition to the permanent impact at each tower location, traversing the wetlands will necessitate right-of-way clearing (within a forested wetland), temporary access roads, and staging areas required for construction.

The Red Lion 500 kV Options face the substantial risk that a freshwater wetlands permit would not be issued due to the fact that PJM has found that the Southern Crossing Options, which would have much smaller and potentially no impacts to freshwater wetlands, would be technically feasible, equally capable of addressing the Artificial Island reliability issues, and of a similar or lower cost.

Under the Freshwater Wetland Protection Act, when a non-water dependent activity like a transmission line is proposed to be located in a freshwater wetland, it is presumed there is a practicable alternative that avoids wetlands and that such alternative would have less of an impact on the aquatic ecosystem.²² The proponent has the burden of overcoming that presumption or a permit will not be approved.²³ The requirements for overcoming the presumption include a demonstration that “the basic project purpose cannot reasonably be accomplished using one or more other sites in the general region that would avoid or reduce the impacts on an aquatic ecosystem, and “that the basic project purpose cannot reasonably be accomplished by an alternative design that would avoid or reduce the adverse impact on an aquatic ecosystem.”²⁴

An alternative is “practicable” if it is “available and capable of being carried out after taking into consideration cost, existing technology, and logistics in light of overall project purposes,” and if it does not “have other significant adverse environmental consequences, that is, it shall not merely substitute other significant environmental consequences for those attendant on the original proposal.”²⁵

²² N.J.A.C. 7:7A-7.4(b)

²³ The same kind of presumption and practicable alternatives analysis applies to the extent the wetland impacts are under exclusive or joint Corps of Engineers jurisdiction under Section 404 of the Clean Water Act. See 40 C.F.R. § 230.10(a).

²⁴ N.J.A.C. 7:7A-7.4(c)

²⁵ N.J.A.C. 7:7A-7.2(b)

As noted above, PJM has found that at least one of the alternatives to the Red Lion 500 kV Options, i.e., LS Power #5A, is technically feasible, would satisfy the project purpose (addressing the electric reliability needs associated with Artificial Island), and is of a similar or lesser cost. LS Power #5A would avoid all or nearly all freshwater wetlands and would have no other notable impacts (incremental to the Red Lion 500 kV Options) to the aquatic ecosystem. Given these facts, there is no apparent basis upon which a wetlands permit could be issued for the Red Lion 500 kV Options.

In addition to feasibility issues, the process to obtain the necessary freshwater wetlands permit will require detailed studies, assessments and surveys of wetlands, threatened and endangered species, archaeological and historical resources, and migratory birds that, in some cases, could require multiple years of analysis.

Supawna Meadows NWR

The Red Lion 500 kV Options traverse 2.5 miles of the Supawna Meadows NWR, in addition to another 1.5 miles of land within the approved acquisition boundary of the Supawna Meadows NWR. The crossing of the Supawna Meadows NWR would require issuance of a right-of-way grant from the U.S. Fish and Wildlife Service ("FWS"), which manages the NWR. The issuance of a right-of-way grant from the FWS is a federal action which requires compliance with the National Environmental Policy Act (NEPA). As detailed in Exhibit B, there is a significant risk that the FWS will not issue such as right-of-way grant, and indeed that it may be legally barred from doing so. NEPA compliance requires an analysis of alternatives to the proposed federal action, including alternatives that avoid the impact. The fact that PJM has identified a technically viable, cost-comparable alternative that meet the basic project purpose (addressing the Artificial Island electrical reliability issues) without crossing the NWR (i.e. the Southern Crossing Options) further heightens the risk. If a right-of-way grant were to be issued, it would carry a high risk of appeal that would have a reasonable chance of success.

State Lands

The Red Lion 500 kV Options also require state approvals to locate approximately (i) 2 miles of the transmission line within the Alloway Creek Restoration Site, (ii) 1.2 miles of the transmission line within the Abbotts Meadow Wildlife Management Area, and (iii) 1.6 miles of the transmission line within the Mad Horse Creek Wildlife Management Area. While these new rights-of-way do not require NEPA compliance, they face similar permitting risks since a technically viable, cost-comparable alternative that meets the basic project purpose without impacting the sensitive resource is known to exist.

Delaware River

All of the solutions require a new crossing of the Delaware River. The Red Lion 500 kV Options propose to parallel an existing crossing, while the Southern Crossing Options would necessitate crossing at a new location. LS Power has proposed two alternatives for the Southern Crossing Options, one would be a new overhead installation and the other would be a submarine cable, which would eliminate any viewshed impacts.

Delaware State Route 9

The Southern Crossing Options will involve routing in the proximity of Delaware State Route 9, which is classified as a "Delaware Byway." As detailed in Exhibit C, there are no current or proposed regulations related to Delaware Byways which might restrict or prohibit the placement of transmission lines in or near a highway designated as a Delaware Byway. There are numerous instances of existing high-voltage transmission lines that cross or parallel Delaware State Route 9. In fact, the Red Lion substation, to which all of the Red Lion 500 kV Options will interconnect, is located adjacent to Delaware State Route

9. As a result, routing in the vicinity of Delaware State Route 9 does not create a material risk for the Southern Crossing Options.

Public Opposition

PJM identifies public opposition risk associated with the Delaware River crossing, which all of the solutions require. LS Power #5A mitigates this risk by having the flexibility to construct overhead or submarine as the permitting process may dictate. In contrast, the Red Lion 500 kV Options have no such mitigation as a submarine 500 kV solution is not feasible. The greater risk regarding potential public opposition is associated with the environmental impacts specific to the Red Lion 500 kV Options – crossing 10 miles of wetlands, 2.5-4 miles of a National Wildlife Refuge, and nearly 5 miles of state managed Wildlife Management Areas and Restoration Sites.

Southern Crossing Options

The LS Power solutions offer the least cost, risk and complexity of the Southern Crossing Options under consideration.

PJM estimates LS Power to have the lowest cost solution for both the overhead and submarine options. PJM estimates LS Power #5A (overhead) to be the lowest cost overhead solution, and lowest cost overall solution, estimated to be \$22 million - \$26 million lower cost than Dominion #1B. PJM estimates LS Power #5A (submarine) to be the lowest cost submarine solution as well, estimated to be \$9 million - \$11 million lower cost than Transource #2B and \$118 million - \$144 million lower cost than Transource #2A.

LS Power is the only entity that has secured an exclusive option to purchase the private real estate necessary for the switchyard and private right-of-way to be located in Delaware. As noted by PJM's independent consultant, "... one of the highest risks involves the acquisition of new right-of-way in Delaware... [where] Electric Utilities do not have eminent domain authority, subject to state law."²⁶

LS Power is the only entity that proposed both an overhead and submarine solution, offering flexibility in configuration to offset risk associated with permitting and public opposition.

PJM's independent consultant identifies additional siting/permitting concerns specific to the Transource proposals:

- The Transource solutions involve clearing 1.1 – 10 acres of forested wetland not encountered by the LS Power solutions;
- Transource's proposed substation location in Delaware is less than 1,000 feet from a registered historic building, may affect an archaeological site, and necessitates four (4) transmission line crossings of Delaware State Route 9.

Additionally, based on the figures presented within the independent consultant report, Transource's proposed 230 kV transmission lines cross the parcel of land that LS Power has an exclusive option to purchase.

PJM's independent consultant identifies concern with placement of the 230 kV transmission line in or adjacent to a Delaware Department of Transportation roadway. Delaware has consistently allowed transmission lines in highways as a matter of policy and state law.²⁷ Indeed, Delaware State Route 9 contains transmission lines in and along the highway today. Furthermore, Northeast Transmission Development identified multiple route options within its Detailed Constructability Submittal, only one of which would follow a roadway.

²⁶ UC Synergetic, LLC, Constructability Analysis (4/30/2014) at Page 19

²⁷ See Title 26, Section 901(a), Delaware Code: "(a) Any telegraph corporation, any telephone corporation or any corporation using lines or wires for the transmitting of electrical current, whether created by prior special act or organized under Chapter 1 of Title 8, may erect, construct, and maintain its telegraph or telephone lines or its wires for transmitting electrical current and the necessary fixtures for the same through and across or under any of the canals and canal lands, rivers or other waters **and also along any highways within the limits of this State**, outside of the highways within the limits of and maintained by incorporated cities and towns, subject to the approval of the public authority having charge or control of such highways and also subject to the right of the owners of the fee on such highways and to the owners abutting upon such highways to full compensation to the extent that their property is taken or burdened."

PJM Summary Matrix

PJM presents a consolidated summary of its criteria evaluation of the proposals and categorizes its review into three color coded categories – Green (positive or limited impact), Yellow (some impact), and Red (negative impact).

There are several areas in PJM’s consolidated summary that are inconsistent with information PJM has presented or should be modified based upon the information presented herein. An updated consolidated summary of the solutions under consideration is included as Exhibit D with the modifications compared to PJM’s summary described below.

Technical Analysis

Market Efficiency Results

The summary matrix includes incorrect benefit/cost ratios. Specifically, the benefit/cost ratio for the Southern Crossing Options should be 0.25 (matrix states 0.15) and the benefit/cost ratio for the Red Lion 500 kV Options should be 0.15 (matrix states 0.20). The Southern Crossing Options have been assigned a “Green” and the Red Lion 500 kV Options have been assigned a “Yellow”.

NERC Category-D Contingencies

The Red Lion 500 kV Options should be “Red” given all solutions would create a new NERC Category-D contingency consisting of both the critical outage and critical contingency.

Cost Factors

PJM Estimated Project Costs

The Red Lion 500 kV Options should be increased to be consistent with the independent consultant analysis, the need for compensatory mitigation, and the acquisition of right-of-way.

Project Schedule

Permitting

The Red Lion 500 kV Options should be “Red” given the additional permitting requirements associated with the wetlands impacts and crossing of the Supawna Meadows NWR and numerous state WMAs and a Restoration Site.

Construction

The Red Lion 500 kV Options should be “Red” given the specific construction practices that will be required within the wetland areas and higher likelihood of impacts associated with the spawning/nesting seasons of endangered species. The submarine Southern Crossing Options should be “Yellow” as there is limited impact to construction relative to an overhead river crossing.

Long lead time materials

The submarine Southern Crossing Options should be “Yellow” given that the procurement of materials can be managed within the overall timeline for the project and does not create a risk of extending the estimated timeframes necessary to construct the project.

Risks to Cost and Schedule

No Eminent Domain in Delaware

The LS Power #5A solutions should be “Green” given all of the private real-estate necessary has been secured.

New Right-of-way Required

The LS Power #5A solutions should be “Green” given all of the private real-estate necessary has been secured. All of the Red Lion 500 kV Solutions should be “Red” given they all require extensive new private and state/federal right-of-way.

Wetlands Impact

The LS Power #5A and Dominion #1B solutions should be “Green” given the independent constructability analysis identified no forested wetlands would be cleared.

Public Opposition Risk

The Red Lion 500 kV Options should be “Red” given the proximity to residences, wetland impacts and crossings of sensitive state and federal lands. The Transource #2B should be “Red” given the identified historic and archaeological sites at the proposed substation location. The overhead Southern Crossing Options should be “Yellow” given that there is an overhead crossing of the Delaware River, and the submarine Southern Crossing Options should be “Green”.

Delaware River Crossing

The LS Power #5A (submarine) and Transource #2B should be “Green” given the use of a submarine crossing of the Delaware River.

Operational Impact

Artificial Island Requirements

All of the solutions should be “Yellow”, with the exception of the Dominion #1C and PSE&G #7K which should be “Red” given multiple connections at Hope Creek and Salem.

Black start

The Red Lion 500 kV Options should be “Not Applicable” as there is no impact relative to black start service.

Route Diversity

The Red Lion 500 kV Options should be “Red” given that they parallel an existing transmission line for the entire route.

Ongoing Maintenance

The Red Lion 500 kV Options, aside from Dominion #1C, should be “Yellow” given the limited access available to the proposed transmission line due to wetlands. The Southern Crossing Options should be “Yellow” given the inclusions of a spare transformer to mitigate line outage risks.

Hope Creek – Red Lion 500 kV Solutions

The concept of a Hope Creek – Red Lion 500 kV solution, without a connection between Hope Creek and Salem, is a new solution identified by PJM. In fact, this solution was first introduced to the Transmission Expansion Advisory Committee (TEAC) in May of 2014, nearly a year after proposals were submitted and several months after detailed analysis was completed for the other alternatives.

PJM has not provided supporting information for the Hope Creek – Red Lion 500 kV solutions in regards to its technical performance. PJM provided detailed technical performance for all of the other solutions under consideration at the November and December 2013 TEAC, with additional technical details posted in an excel file in February 2014. PJM should provide comparable technical details for how the Hope Creek – Red Lion 500 kV solution would perform with and without an SVC. It remains unclear how well the solution performs without a new connection to Salem.

To the extent PJM elects to move forward with a Hope Creek – Red Lion solution, PJM should consider all proponents of Red Lion 500 kV Options for designation. It is troubling that the Hope Creek – Red Lion 500 kV solutions are termed to be Dominion and PSE&G solutions. While Dominion and PSE&G may have included a segment in their proposals that interconnected to Hope Creek and Salem, the solution being contemplated by PJM no better resembles the Dominion and PSE&G proposals as it does any other proposal for Salem – Red Lion. In fact, the solution has aspects from other proposals such as the interconnection to the Red Lion 500 kV substation, which is based on the proposals from LS Power, PHI/Exelon, and Transource.

The summary of modifications to arrive at the Hope Creek – Red Lion solution is troubling – PJM identifies that they modified the PSE&G proposal by 1) adding an SVC, 2) moving a connection at Salem or Hope Creek, 3) removing proposed breakers and 4) removing proposed transmission. While not noted by PJM, PJM also modified the proposed design and interconnection at the Red Lion switchyard. Similarly, PJM may have “modified” any of the other Salem – Red Lion 500 kV options to arrive at the contemplated Hope Creek – Red Lion 500 kV solution.

Exhibit A

Hope Creek – Red Lion 500 kV Easement

THIS INDENTURE, made this 27th day of April, in the year of our Lord one thousand nine hundred and seventy, between COLSON H. HILLIER AND BETTY C. HILLIER, his wife, residing at 914 Potts Lane, Bryn Mawr,

of the _____ of _____, in the County of _____ COMMONWEALTH and State of Pennsylvania, hereinafter sometimes designated as Grantors, and PUBLIC SERVICE ELECTRIC AND GAS COMPANY, a corporation of the State of New Jersey, having its principal office at 80 Park Place, in the City of Newark, in the County of Essex and State of New Jersey, hereinafter sometimes designated as Grantee, WITNESSETH:

That Grantors, in consideration of the sum of NINE THOUSAND FIVE HUNDRED----

Dollar(\$ 9,500.00), lawful money of the United States of America, to them in hand paid by Grantee, at or before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, have granted and conveyed and by these presents do grant and convey unto Grantee, its successors and assigns, the right, privilege, and authority to use a tract of land described below as a right-of-way, for the purpose of constructing, reconstructing, operating, inspecting, and maintaining perpetually thereon one or more lines for transmitting electrical energy, together with the necessary poles, towers, conductors, conduits, culverts, roads and other appurtenances, in, upon, over, under, across, and along said right-of-way, together with the right to remove all buildings and other obstructions within said right-of-way, and to trim, cut down and remove all trees or any excessive growth located within or adjacent to said right-of-way, which in the judgment of the duly authorized representatives of Public Service Electric and Gas Company, its successors and assigns, interfere with or endanger the construction, reconstruction, operation, inspection or maintenance of said facilities, and together with the right of access at any time and without prior notice, for any of the aforesaid purposes over the lands of Grantor to the said right-of-way; said right-of-way being situate in the Township of Elsinboro, in the County of Salem, and State of New Jersey, and described as follows:

Being a strip of land 200 feet wide, the side lines of said strip of land being parallel with and equidistant 100 feet measured at right angles from the monumented center line of Public Service Electric and Gas Company's Salem-Pennsville Right-of-Way, which center line is described as follows:

Beginning at a point in the dividing line between lands of Colson H. Hillier, et ux. and lands of Thomas G. Hilliard, Jr., distant therein South 20° 20' 30" West, 312.23 feet from its intersection with the center line of Port Elsieberg-Hancock's Bridge Road;

COUNTY OF SALEM
CONSIDERATION \$9,500.00
REALTY TRANSFER TAX \$9.50
DATE 5-4-70 BY [signature]

thence the following two courses and distances through and across lands of Colson H. Hillier, et ux.

- (1) North 47° 27' 06" West, 329.89 feet to an angle point,
- (2) North 1° 49' 07" East and crossing Fort Elfsborg-Hancock's Bridge Road, 2046.87 feet to a point in the dividing line between lands of Colson H. Hillier, et ux. and lands of George E. Webster, et ux., distant therein South 77° 27' 20" West, 298.77 feet from a corner in the same, said corner being distant South 1° 27' 20" West, 186.78 feet still measured along last mentioned dividing line between lands from a stone monument set in a corner common to lands of Colson H. Hillier, et ux., lands of George E. Webster, et ux., and lands of Louis Sanfilippo, et ux.

Being part of the lands described in a deed from Dora C. Smith, Widow, to Colson H. Hillier, et ux., dated April 29, 1964 and recorded April 29, 1964 in the Clerk's Office of Salem County in Book 461 of Deeds for said County on pages 424, etc.

The hereinabove description being drawn in accordance with a survey made by Taylor - Wiseman & Taylor, Engineers - Planners - Surveyors, Moorestown, New Jersey, Scale: 1" = 200' and dated October 30, 1969.

Grantee will promptly repair or replace all fences, gates, drains and ditches damaged or destroyed and will pay for all damage done to Grantor's growing crops or livestock caused by or resulting from the negligence of the Grantee, its servants, agents and employees in the construction, operation and maintenance of the aforesaid transmission lines, provided that all claims for damages shall be made at or mailed to the office of the Grantee at 80 Park Place, Newark, New Jersey, within thirty (30) days after the occurrence of such damage.

IN WITNESS WHEREOF, the said Grantors have hereunto set their hands and seals
 as and for the purposes hereinbefore expressed and intended as the same shall appear by the proper records of the County of Salem, New Jersey.

BOOK 525 PAGE 844

seal to be hereto affixed, the day and year first above written.

Signed, Sealed, and Delivered

in the presence of

Colson H. Hillier (L.S.)
COLSON H. HILLIER

Betty C. Hillier (L.S.)
BETTY C. HILLIER

John L. Duvall

By _____

(Seal)

Attest: _____

STATE OF *New Jersey* }
COUNTY OF *Hudson* } ss.

BE IT REMEMBERED, that on this *29th* day of *April*, in the year of our Lord one thousand nine hundred and *seventy*, before me, the subscriber, a *Notary Public* of the State of *New Jersey*, personally appeared COLSON H. MILLIER AND BETTY C. MILLIER, his ^{wife}, who I am satisfied are the persons mentioned in the within instrument and to whom I first made known the contents thereof, and thereupon they acknowledged that they signed, sealed, and delivered the same as their act and deed for the uses and purposes therein expressed. The full and actual consideration paid or to be paid for the transfer of title to realty evidenced by the within grant, as such consideration is defined in P.L.1963, c. 49, Sec. 1 (c), is \$ 9,500.00

This instrument was prepared by Jacob Levine.

Jean L. Denelsbeck
JEAN L. DENELSBECK
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires July 28, 1971

GRANT OF
RIGHT-OF-WAY

From

COLSON H. MILLIER, ET UX.

To

PUBLIC SERVICE ELECTRIC
AND GAS COMPANY

80 Park Place
Newark, New Jersey

DATED: *April 29* 1970

Received in the Clerk's Office
of Salem County on May 4, 1970
at 10:30 A.M. and recorded in
Deed Book #525, Page 18428c.

Thomas J. Givens
Clerk.

*SALEM COUNTY & MERCY
COUNTY & COUNTY CLERK
TO COURT CLERK
NEWARK, NEW JERSEY*

STATE OF }
COUNTY OF } ss.

BE IT REMEMBERED, that on this _____ day of _____, in the year of our Lord one thousand nine hundred and _____, before me, the subscriber, a _____, personally appeared _____ of the State of _____, who I am satisfied is _____ President of _____ the corporation named in and which executed the foregoing instrument, and is the person who signed said instrument as such officer for and on behalf of said corporation, and he acknowledged that said instrument was made by said corporation and sealed with its corporate seal as the voluntary act and deed of said corporation by virtue of authority from its Board of Directors. The full and actual consideration paid or to be paid for the transfer of title to realty evidenced by the within grant, as such consideration is defined in P.L. 1963, c. 49, Sec. 1 (c), is \$ _____

Exhibit B

Supawna Meadows National Wildlife Refuge

June 2, 2014

Ms. Sharon K. Segner, Vice President
Northeast Transmission Development, LLC
c/o LS Power Development, LLC
400 Chesterfield Center, Suite 110
St. Louis, MO 63017

Re: Supawna NWR Right-of-Way Assessment

Dear Ms. Segner:

You asked us to evaluate the risk associated with attempting to secure a right-of-way for a 500kV transmission line across the Supawna Meadows National Wildlife Refuge ("Supawna Meadows NWR" or "Refuge") from the U.S. Fish and Wildlife Service ("FWS"), which manages the Refuge. This letter contains that evaluation and concludes there would be a significant risk that the FWS would deny an application for the right-of-way, and that if even if a right-of-way was approved, such a decision would have a significant risk of being successfully appealed given its seeming inconsistency with governing regulations and policy.

Background

We understand that LS Power and several other entities have proposed various projects in response to a solicitation by PJM for technical solutions to address reliability and performance issues with the electrical transmission system in the Artificial Island area. Among the LS Power proposals are two projects that PJM has now determined are technically feasible and would address the reliability and performance issues. One of the projects, referred to as Alternative 5A or the Salem – Silver Run 230 kV project, includes a new transmission line that would not cross the Supawna Meadows NWR. The other, referred to as Alternative 5B, includes a new transmission line that would parallel the existing Red Lion to Hope Creek 500kV transmission line. We understand that this alternative would cross the federal land in the Supawna Meadows NWR, requiring a right-of-way from the FWS. In this evaluation we refer to this alternative as the "Red Lion alternative," the "Red Lion project" or the "Red Lion transmission line."

Notably, we understand that the other Red Lion alternatives deemed feasible and shortlisted by PJM (i.e., PHI/Exelon Alternative 4A, Transource Alternative 2C, Dominion Alternative 1C, and PSE&G Alternative 7K) would also include a new 500kV line paralleling

Ms. Sharon K. Segner
June 2, 2014
Page Two

the existing Red Lion to Hope Creek Line and would also require a FWS right-of-way to cross the Supawna Meadows NWR. Thus, the evaluation in this letter would apply to those alternatives as well.

Supawna Meadows National Wildlife Refuge Crossing

As noted above, the Red Lion alternative would include a transmission line crossing of the Supawna Meadows NWR and therefore require issuance of a right-of-way grant by the FWS, which manages the Refuge. We also understand that the line crossing will impact wetlands and other sensitive habitats and resources within the Refuge. We think there is a significant risk that the FWS will not issue such a right-of-way, and indeed that it may be legally barred from doing so.

As a matter of general policy, the FWS frowns upon the use of FWS-managed land for rights-of-way, and particularly for land within national wildlife refuges (where only Congress can approve an incompatible use). See FWS Manual, 340 FW 3.3 (“It is the policy of the Service to discourage the types of uses embodied in right-of-way requests. On areas in the National Wildlife Refuge System (System), if a right-of-way cannot be certified as compatible with the purposes for which a unit was established, it cannot be granted without authorization by Congress (50 CFR 29.21(g)).”¹ We think this policy backdrop creates an atmosphere that strongly inclines FWS decision makers to reject right-of-way applications unless it is very clear that they meet the more specific requirements discussed below, which bodes against approval of a right-of-way for the Red Lion transmission line. The fact that PJM has identified technically viable, cost-comparable alternatives that meet the basic project purpose (addressing the Artificial Island electrical reliability issues) without crossing the Refuge (e.g., LS Power’s Salem – Silver Run 230kV Project), will likely further strengthen that inclination.

With respect to the more specific requirements for obtaining a right-of-way through a FWS wildlife refuge, approval authority rests with the refuge manager (with, under certain circumstances, concurrence or approval of the refuge supervisor or Regional Chief). See FWS Manual, 603 FW 1.3 & 1.6.D. In order to grant a right-of-way, the manager makes at least one and possibly two determinations. First, is the proposed use an “appropriate” use of the refuge? Second, if the use is found appropriate, is it a “compatible” use of the refuge? We believe it is likely that under either test, the manager of the Supawna Meadows NWR would deny a request to issue a right-of-way for a crossing of the Refuge by a transmission line under the Red Lion alternative.

¹ While the regulation cited by this policy, 50 C.F.R. § 29.21, has since been replaced and the new regulation no longer specifically refers to congressional action requirements, it is clear that a use found incompatible by the FWS cannot be approved absent a change of law. See 16 U.S.C. § 668dd (d)(3)(A)(i) (“Secretary shall not initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use and that the use is not inconsistent with public safety.”)

The Red Lion Alternative is Likely Not an Appropriate Use

Under FWS guidance, to be deemed an “appropriate use” of refuge land a proposed use must meet at least one of the following criteria: (1) The use is a wildlife-dependent recreational use as identified in the Improvement Act; (2) the use contributes to fulfilling the refuge purpose(s), the Refuge System mission, or goals or objectives described in a refuge management plan approved after October 9, 1997; (3) the use involves the take of fish and wildlife under State regulations; or (4) the use has been found to be appropriate as specified in section 1.11 of the guidance. See FWS Manual, Appropriate Refuge Uses, 603 FW 1.6.

Because the Red Lion transmission line obviously would not fall under criterion 1 or 3, it would have to qualify as an appropriate use, if at all, under criterion 2 or 4. Under criterion 2, the proposed use must “contribute to fulfilling” the refuge purpose, the Refuge System Mission, or the goals or objectives in the applicable refuge management plan. The purposes of the Supawna Meadows NWR are to serve as “a property with particular value in carrying out the national migratory bird management program,” “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds,” and “as a refuge suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, and (3) the conservation of endangered species or threatened species.”² The FWS-stated mission of the National Wildlife Refuge System, which subsumes “general refuge purposes,” is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”³ Construction and operation of a transmission line does not contribute to fulfilling either the purposes of the Refuge or the mission of the National Wildlife Refuge System, and thus cannot be found appropriate on that basis.

The remaining factor under criterion 2 requires the proposed use to “contribute to fulfilling” the “goals or objectives in the refuge management plan.” The Supawna Meadows NWR adopted a comprehensive management plan in 2011. See Supawna Meadows National Wildlife Refuge Comprehensive Conservation Plan (July 2011)(“Plan”). The Plan has six goals, and for each goal there are one or more objectives which are essentially numerical targets for measuring whether the goal is being met⁴. The six goals are as follows:

² See Supawna Meadows National Wildlife Refuge Comprehensive Management Plan at 1-16 (FWS 2011).

³ See <http://www.fws.gov/refuges/about/mission.html>

⁴ Some examples of the objectives include, for goal #1, to “Maintain up to 2,293 acres of brackish tidal marsh, with primary management focus on the area northwest of Mill Creek, providing critical foraging habitat for Pea Patch Island wading birds (for example, little blue heron, glossy ibis, snowy egret, black-crowned night heron, least bittern), migrating shorebirds (for example, semi-palmated sandpiper, greater yellowlegs, dunlin), migrating and wintering waterfowl, and other species of conservation concern (for example, bald eagles)”, and for goal #3, to “Protect up to 346 acres of forested wetland habitat to benefit breeding wood thrush and wood ducks, migrating and

1. Protect, enhance, and restore biological integrity, diversity, and environmental health of tidally influenced habitats to support native wildlife and plant communities including species of conservation concern.
2. Protect, enhance, and restore biological integrity, diversity and environmental health of upland habitats to support native wildlife and plant communities with emphasis on migrating and wintering birds and other species of concern.
3. Protect, enhance, and restore biological integrity, diversity, and environmental health of non-tidal wetland habitats to support native wildlife and plant communities with emphasis on breeding, migrating, and overwintering birds and other species of conservation concern.
4. Provide opportunities for compatible, high-quality, wildlife-dependent public uses.
5. Protect cultural resources on the refuge.
6. Enhance refuge management through partnerships, friends, volunteers, and community outreach.

Construction and operation of a transmission line through the refuge would not “contribute to fulfilling” any of these goals, or the underlying objectives, and indeed would be directly contrary to most if not all of them. Thus, it is clear that a transmission line is not an appropriate refuge use under criterion 2.

That leaves criterion 4, which provides that a proposed use is appropriate if it meets at least one of three conditions set forth in 603 FW 1.11. The first two of these conditions are the same as criteria 1 and 2 discussed above (i.e., if the use is a wildlife-dependent recreational use, or contributes to fulfilling a refuge purpose, Refuge System mission, or refuge management plan), and as discussed above these conditions do not apply to a transmission line.⁵

The third condition is if “the refuge manager has evaluated the use following the guidelines in this policy and found it is appropriate.” The finding must be based on the evaluation of 10 listed criteria, which are in the form of questions. “If the answers to the questions . . . are consistently ‘yes,’ and if the refuge manager finds, based on sound professional judgment, the use is appropriate for the refuge, the refuge manager” may determine the use is

wintering rusty blackbird, breeding and wintering eastern screech owls, and other forest-dependent species of conservation concern.”

⁵ The use is appropriate if (1) it is a wildlife-dependent recreational use of the refuge, or (2) it contributes to fulfilling the refuge purpose(s), the Refuge System mission, or goals or objectives in a refuge management plan approved after October, 9, 1997. See 603 FW 1.11.A.

appropriate. “[I]f there is a ‘no’ response to criteria (b), (c), or (d), immediately stop consideration of the use. If the answer is ‘no’ to any of the other questions, we will generally not allow the use.” See 603 FW 1.11.A. (3) & 1.11.B.

Some of the questions ((a), (d), (f) – (h)) deal with such things as administrative resources, jurisdiction, public safety, or prior determinations, and are not considered here. The questions most relevant to a proposed transmission line through the Refuge are set forth verbatim below, with a brief analysis following each in italics:

(a) ***

(b) Does the use comply with all applicable laws and regulations? The proposed use must be consistent with all applicable laws and regulations (e.g., Federal, State, tribal, and local). Uses prohibited by law are not appropriate.

The answer to this question is probably “no,” given the likelihood that the State will not issue a wetlands permit for the Red Lion transmission line project due to the existence of practicable alternatives that would avoid all or most of the 300-plus acres of wetlands impacted by that project.

(c) Is the use consistent with applicable Executive orders and Department and Service policies? If the proposed use conflicts with an applicable Executive order or Department or Service policy, the use is not appropriate.

The answer to this question is likely no. Approval of a right-of-way for the Red Lion transmission line alignment would be inconsistent with E.O. 11990, Protection of Wetlands, which provides that “each agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.” Given the existence of practicable alternatives that would not impact any wetlands in the Refuge (and far fewer wetlands overall), the Red Lion project would be inconsistent with this Executive Order.

(d) ***

(e) Is the use consistent with refuge goals and objectives in an approved management plan or other document? Refuge goals and objectives are designed to guide management toward achieving refuge purpose(s). These goals and objectives are documented in refuge management plans, such as CCPs and step-down management plans. . . . If the proposed use, either itself or in combination with other uses or activities, conflicts with a refuge goal, objective, or management strategy, the use is generally not appropriate.

The answer to this question is no. Construction and operation of a transmission line across the refuge would be inconsistent with most or all of the goals and objectives of the Supawna Meadows NWR Comprehensive Conservation Plan, as previously discussed.

(f) ***

(g) ***

(h) ***

(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources? If not, we will generally not further consider the use.

The answer to this question is no.

(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D), compatible, wildlife-dependent recreation into the future? If not, we will generally not further consider the use.

The answer to this question is probably no. A transmission line through the Refuge would likely have some negative impact on hunting, birding, and other recreational use of the Refuge.

As indicated by the many "no" or "probably no" answers, we think it very unlikely that the field manager of the Supawna Meadows NWR would conclude that a right-of-way for the Red Lion transmission line would be an appropriate use under FWS guidance and policy. Indeed, given the directive in the guidance that a "no" answer to questions (b), (c), or (d) requires the field manager to "immediately stop consideration of the use," and a "no" answer to any of the

other questions means the field manager “will generally not allow the use,” it seems that issuance of the right-of-way would be legally indefensible. See 603 FW 1.11.A. (3) & 1.11.B.

Finally, we think that recent examples of uses rejected by the Supawna Meadows NWR, because they were determined not to be appropriate under the above-described guidance, are instructive. When it adopted its Comprehensive Conservation Plan in 2011, the Refuge concluded, applying the appropriateness factors in the guidance, that bike riding, dog walking, geo-caching, horseback riding, jogging, non-wildlife dependent group gatherings, and organized picnicking were not appropriate uses. See Plan at 4-4 & Appendix B. We believe these examples provide evidence that the Refuge manager would not be inclined to conclude that construction and operation of a new transmission line across the Refuge would be appropriate.

The Red Lion Alternative is Likely Not a Compatible Use

As discussed above, we think it very unlikely that the Supawna NWR would conclude that a right-of-way for the Red Lion transmission line would be an appropriate use of the Refuge. When a refuge manager determines a use is not appropriate, he or she “will not allow the use and will not prepare a compatibility determination. By screening out proposed uses not appropriate to the refuge, the refuge manager avoids unnecessary compatibility reviews.” 603 FW 1.8. Given the low likelihood of a finding of appropriateness, we only briefly touch on the compatibility determination.

For uses that have been found appropriate, the FWS conducts a review to determine if the use “will materially interfere with or detract from the fulfillment of the System mission or the purpose(s) of the refuge. Inherent in fulfilling the System mission is not degrading the ecological integrity of the refuge. Compatibility, therefore, is a threshold issue, and the proponent(s) of any use . . . must demonstrate to the satisfaction of the refuge manager that the proposed use(s) pass the threshold test. The burden of proof is on the proponent is to show that they pass; not on the refuge manager to show that they surpass.” 603 FW 2, National Wildlife System Uses Compatibility, 2.11.B (1); 50 C.F.R. § 29.21. Attempting to make a use compatible through replacement of lost habitat values or other compensatory mitigation is not allowed (except in the limited circumstance of right-of-way maintenance). 603 FW 2.11.C.

As noted above, the purposes of the Supawna Meadows NWR are to serve as “a property with particular value in carrying out the national migratory bird management program,” “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds,” and “as a refuge suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, and (3) the conservation of endangered species or threatened species.” We think the FWS would likely conclude that construction and operation of a new transmission line across the refuge would detract from or materially interfere with these purposes, particularly given the line’s potential impacts on birds, wetlands and other sensitive habitats. For the same reason we think the FWS would likely conclude the transmission line

would detract from or materially interfere with the System mission by “degrading the ecological integrity of the refuge.” And, as previously noted, an incompatible use may not be made compatible by an attempt to compensate or mitigate for the refuge impacts.

Thus, even if crossing of the Supawna Meadows NWR was found to be an appropriate use, which we do not expect, it would likely be found an incompatible use by the FWS.

The Existing Transmission Line Is Unlikely to Influence the Result

As noted above, the Red Lion alternative would parallel the existing Red Lion to Hope Creek transmission line, which also crosses the Supawna Meadows NWR. The fact that there is an existing 500kV transmission line that crosses the Refuge might suggest that a new parallel transmission line could be readily approved. Given the circumstances of the existing line we do not believe that would be a valid position.

The existing Red Lion to Hope Creek transmission line was apparently permitted in the late 1960s or early 1970’s, around the time the Supawna Meadows NWR was established in 1971. (We understand that what is now called the Supawna Meadows NWR was originally called Goose Pond, which was added to the Killcohook Migratory Bird Refuge in 1971, and then removed from Killcohook in 1974 and given its current name.)

Assuming that the Refuge was in place when the existing line was permitted, and that the line was granted a federal right-of-way at that time (we have been unable to confirm the timing and details of these events), that still would have little relevance to a decision on a new transmission line now, given the very different regulatory regime that exists today as compared to the 60’s and 70’s.

Current refuge management, including regulations and policy regarding appropriate and compatible uses, refuge management planning, and rights-of-way, derives primarily from the 1997 Refuge Improvement Act. As stated in the Supawna Meadows NWR Plan, “The Refuge Improvement Act established a unifying mission for the Refuge System, a new process for determining compatible public use activities on refuges, and required CCPs for all refuges. It states that, first and foremost, the Refuge System must focus on wildlife conservation. It further states that the Refuge System mission, coupled with the purpose(s) for which a refuge was established, will provide the principal management direction for that refuge.” Plan at 1-7. Indeed, one of the primary purposes of the Refuge Improvement Act was to address a finding by Congress and others that “the lack of an overall mission and management procedures had allowed numerous incompatible uses to be tolerated on wildlife refuges.” See H.R. Rep. No. 105-106 (1997).

Because a decision on a new transmission line across the Supawna Meadows NWR would be made under a fundamentally different regulatory regime and management plan, which (as described above) strongly disfavors rights-of-way and prohibits any use that would not

Ms. Sharon K. Segner
June 2, 2014
Page Nine

positively contribute to the wildlife-based mission and management goals and policies, we think the existing line would have little if any influence on the decision.

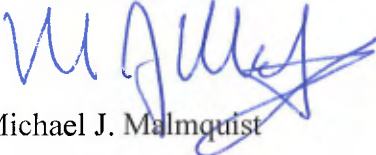
Conclusion

For the reasons discussed above, we think there is a significant risk that the Red Lion project would not be issued a right-of-way by the FWS for crossing of the Supawna Meadows NWR. We also believe that if a right-of-way were to be issued it would carry a high risk of appeal by potential project opponents (e.g., groups who value the Refuge or for other reasons would oppose the transmission line or alignment), who would rely on arguments similar to the discussion in this document to claim that such a right-of-way would be inconsistent with applicable law and policy, and would have, we think, a reasonable chance of success.

If you have any questions, please feel free to contact me.

Sincerely,

PARSONS BEHLE & LATIMER



Michael J. Malmquist

MJM:ab

Exhibit C

Delaware State Route 9

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February 25, 2014

Northeast Transmission Development, LLC
1700 Broadway, 35th Floor
New York, NY 10019

Re: Delaware Route 9 as Designated Delaware Byway

Ladies and Gentlemen:

This firm is local Delaware counsel to Northeast Transmission Development, LLC (“LS Power”). We are advised that PJM Interconnection, L.L.C. (“PJM”), at its recent February 2014 Transmission Expansion Advisory Committee, discussed possible permitting issues associated with Southern Delaware Line Crossing Projects (the “Projects”) that cross or parallel Delaware State Route 9, which is classified as a “Delaware Byway” (formerly a “Scenic and Historic Highway”).¹

You have asked that we provide a legal opinion as to whether the designation of Route 9 as a “Delaware Byway” pursuant to 17 *Del. C.* §190 *et seq.*, results in a legal prohibition on the location of transmission lines or towers in the Route 9 right of way. **For the reasons that follow, it is our opinion that it does not, nor does it result in mandatory restrictions or limitations on the size, type or number of towers or transmission lines.**

Background

The Delaware Byways Program, formerly known as the Delaware Scenic and Historic Highways Program” (the “Program”) was created during the 140th Delaware General Assembly by the passage of Senate Bill 320, which added sections 190 through 194 in Title 17 of the Delaware Code. The Program is created pursuant to Section 191, which broadly authorizes the Delaware Secretary of Transportation to designate into the Program such highways as the Secretary may deem appropriate. This section also authorizes the Secretary to “[p]rotect scenic, historical, natural, archeological and cultural resources adjacent to the highway.” 17 *Del. C.* § 191(6).

¹ <http://www.pjm.com/~media/committees-groups/committees/teac/20140206/20140206-reliability-analysis-update.ashx>, page 38. A map of the designated portion is attached hereto as Exhibit “A.”

Under Section 192, the Secretary is empowered to “promulgate such regulations as may be deemed desirable to implement the scenic and historic highways program” which regulations may also “[p]rovide operation and management standards for highways designated as scenic and historic highways, including strategies for...protecting and enhancing the landscape and scenic view.” 17 *Del. C.* §192(5).

Given the broad statutory authority, it is apparent that the Secretary was granted authority to adopt regulations which might include restrictions or prohibitions upon power transmission lines and towers. In fact however, no such regulations have been proposed or adopted. To be effective in Delaware, a rule or requirement proposed by a Delaware administrative agency as a regulation must adhere to the requirements of Delaware’s Administrative Procedures Act, 29 *Del. C.* § 10111 *et seq.* See *Free-Flow Packaging Int’l, Inc. v. Sec’y of Dep’t of Natural Res. & Env’tl. Control of State*, 861 A.2d 1233, 1236 (Del. 2004). These requirements include publication of the proposed regulation. 29 *Del. C.* § 10113. This publication requirement specifically includes publication of both the proposed and final forms of the regulation in the *Delaware Register of Regulations*. 29 *Del. C.* § 1133. We have found no regulations, proposed or final, published by the Secretary in the *Register of Regulations* since the passage of Senate Bill 320.

The Secretary has published a guidance document entitled *Delaware Scenic and Historic Highways Program Guide* (November 10, 2001) (the “Program Guide”). This document contains information pertaining to the application process for obtaining designation for a particular highway, content requirements for a corridor management plan, periodic review of the plan, de-designation requirements and other related information. While the Program Guide was published in the Register of Regulations in both preliminary and final forms², the Program Guide is not characterized as a regulation and does not purport to impose any specific prohibitions or restrictions respecting the use of a designated highway or its right of way.

In June 2011, the Secretary adopted a document entitled *Context Sensitive Solutions for Delaware’s Byways* (the “Context Document”). The Context Document was not published in the Delaware Register of Regulations in either preliminary or final form; however, like the Program Guide, the Context Document is devoid of purported prohibitions or restrictions on electric transmission lines or towers. At most, the Context Document, in Section 3.8 thereof, discusses “techniques to reduce visual impact of utilities.” But this discussion is nothing more than a series of recommendations and proposed best practices.

Finally, in November 2013, Delaware Greenways, Inc. as sponsor, submitted a *Corridor Management Plan; Delaware’s Bayshore Byway* (the “Corridor Management Plan”) to the Secretary and to the Delaware Department of Natural Resources and Environmental Control. While containing much information specific to the Route 9 corridor, and laying out plans and proposals to enhance the quality of the Byway, the Corridor Management Plan does not address the placement of utilities in any manner whatsoever and, like the other documents discussed herein, is best characterized as a document intended to provide non-binding guidance.³

² 5 Del. Reg. 595 – 605 (Sep. 2001) (proposed); 5 Del. Reg. 1129 – 1141 (Nov. 2001) (final)

³ The Corridor Management Plan also was not published in the Register of Regulations in preliminary or final form.

Conclusion

The Delaware Byways Program, as embodied in Subchapter VI of Title 17, Delaware Code, contains no legal restrictions or prohibitions respecting the placement of electric power transmission lines or towers in or near a highway designated as a Delaware Byway under the Program. While the statute does permit the Secretary to adopt regulations which potentially could impose such restrictions, no such regulations have been adopted to date. Moreover, none of the Program Guide, Context Document or Corridor Management Plan purpose to restrict or prohibit the placement of electric power transmission lines or towers in any way and, in any event, do not carry the force of law. Indeed, although the Program has been in existence for thirteen years, it has never become regulatory in nature, and has attracted little attention from the enforcement mechanisms of State government. Instead the Program has proceeded in a planning and policy direction.⁴

The opinions in this letter are limited to the matters set forth herein. No opinion may be inferred or is implied beyond the matters expressly stated in this letter and the opinions in this letter must be read in conjunction with the assumptions, qualifications and limitations set forth herein. The opinions set forth herein are given as of the date hereof, and we assume no obligation to update or supplement this opinion to reflect any facts or circumstances which may hereafter come to our attention or any changes in the laws which may hereafter occur.

This opinion letter may be relied upon only by the addressee, its successors and assigns, and only in connection with the matters set forth herein. The addressee may not rely on this opinion letter for any other purpose, and no other person may rely upon this opinion without the prior written consent of this Firm, nor may this opinion letter be referred to, or described, furnished or quoted to any other firm, person or entity without the prior written consent of this Firm. The Firm provides express consent for LS Power to provide this letter to PJM and its stakeholders.

Very truly yours

A handwritten signature in black ink that reads "PARKOWSKI, GUERKE & SWAYZE, P.A." The signature is written in a cursive, flowing style.

PARKOWSKI, GUERKE & SWAYZE, P.A.

MWT/fmp:bfd

Enclosure

⁴ Exhibit B depicts existing 230 kV transmission lines and towers along portions of Rt. 9. The existence of these other transmission lines and towers will be a helpful fact should any objections to the Projects arise based on the designation of Rt. 9 as a Delaware Byway.



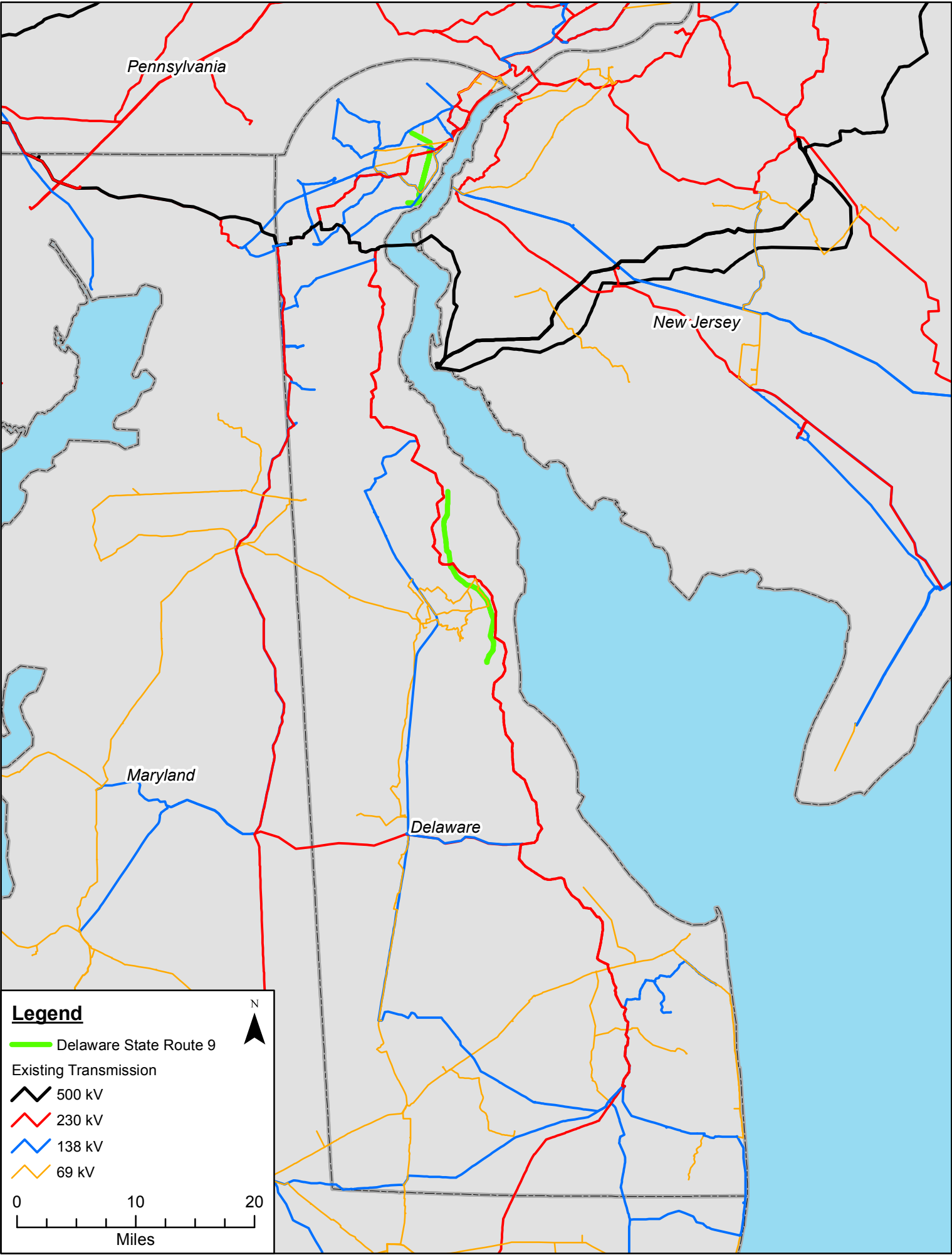


Exhibit D

Consolidated Summary

Project Class		Southern Crossing 230 kV Lines (Submarine)			Southern Crossing Lines (Overhead)		Red Lion to Salem 500 kV Lines			Red Lion to Hope Creek 500 kV Lines			
Criteria	Proposal	LS Power 5A - Submarine Option	Transource 2B - North Cedar Creek	Transource 2A - Cedar Creek Expansion	LS Power 5A - 230kV Overhead	Dominion 1B - 500kV Overhead	PHI/Exelon 4A - Red Lion to Salem	LS Power 5B - Red Lion to Salem	Transource 2C - Red Lion to Salem	Dominion 1C - Red Lion to Hope Creek	PSE&G 7K - Red Lion to Hope Creek	Dominion Red Lion to Hope Creek w/ 2nd tie removed	PSE&G Red Lion to Hope Creek w/ 2nd tie removed
	Sub-Criteria												
Technical Analysis	Stability												
	Thermal												
	Market Efficiency												
	Short Circuit												
	NERC Cat-D Contingencies												
Cost Factors	PJM Estimated Project Cost*	\$248-\$302	\$257-\$313	\$366-\$446	\$211-\$257	\$233-\$283	\$306-\$359	\$311-\$365	\$322-\$378	\$332-\$390	\$339-\$400	\$301-\$353	\$301-\$353
	Project Costs as Proposed	\$148	\$165-\$208	\$213-\$269	\$116	\$133	\$181	\$171	\$123-\$156	\$199	\$297		
	Market Efficiency												
	Outage Cost												
Project Schedule	Permitting												
	Construction												
	Long Lead Time Materials												
Risks to Cost and Schedule													
Project Complexity	Line Crossings												
	Outage Requirements												
	Modification to Other Facilities												
	Modification of AI Subs												
	Modification of Red Lion Subs												
RoW and Land Acquisition	No Eminent Domain in Delaware												
	New Right of Way Required												
	Substation Land Required												
Siting and Permitting	Wetlands Impact												
	Land Permitting												
	Public Opposition Risk												
	Historic and Scenic Highway												
	Delaware River Crossing												
Operational Impact	Artificial Island Facility Requirements												
	Blackstart												
	Route Diversity												
	Ongoing Maintenance												

*Modified to include independent consultant 500 kV estimates, compensatory mitigation, and additional right-of-way acquisition costs as indicated in the Comments

Legend

	Positive or limited impact
	Some impact
	Negative impact
	Does not apply