



Mr. Steve Herling
Vice President - Planning
PJM Interconnection, L.L.C.
955 Jefferson Avenue
Norristown, PA 19403-2497

June 2, 2014

RE: PHI/Exelon Artificial Island Constructability Comments

Steve,

After attending PJM's Artificial Island (AI) Review Session on 5/19/14 and reviewing the Constructability Analysis report prepared by GAI Consultants, Inc., (GAI) entitled "Constructability Analysis Artificial Island – Red Lion 500kV Transmission Line New Castle County, Delaware and Salem County, New Jersey" dated May, 2014, PHI/Exelon fully agree with GAI's determination that the line construction is feasible. PHI/Exelon also agree that as with all of the other proposals, there will inevitably be considerable regulatory scrutiny and significant construction challenges. As previously stated, these reasons are precisely why PHI/Exelon feel strongly that our proposal(s), inclusive of our combined, vast, local permitting and construction experience provide for the superior solution to the Artificial Island RFP.

PHI/Exelon is the only entity submitting a proposal that routinely and regularly permits substation and transmission construction projects in both New Jersey and Delaware. PHI/Exelon have established good working relationships with all Local, State and Federal agencies that will be involved in the permitting and approval of this project. A mutual trust and proven confidence between PHI/Exelon and the agencies that will inevitably have a major impact on the timeliness of permitting and construction has been fostered.

PHI/Exelon also have a vast history of experience constructing and maintaining 500kV transmission lines and substations; however, more importantly, we have experience constructing and maintaining the existing 500kV Delaware River Crossing. PHI/Exelon have maintained the existing Delaware River Crossing since its original construction. Contrary to statements made at the AI Review Session, no salt spray issues have been reported, and as such should not be factored in as a risk with the PHI/Exelon proposal. Portions of the River Crossing actually had to be rebuilt by PHI in 1987 after a shipping accident, further adding to PHI/Exelon's design, construction, and maintenance experience. This experience was used to develop both the cost estimate and schedule estimate for the project. PHI/Exelon are confident that we have submitted realistic cost and schedule estimates, as were confirmed during PJM's constructability review.

As documented within the previously supplied PHI/Exelon project material, a thorough and detailed evaluation was submitted with our proposal that further shows the extensive understanding that PHI/Exelon have in the construction of transmission facilities within this area. We do not believe that any of the other proposals included an initial environmental and

regulatory review of the proposed route with a comparable level of detail. The necessary permits and regulatory approvals to construct the project have been identified. PHI/Exelon routinely permit and construct projects within New Jersey and Delaware, in areas with an abundance of wetlands. A substantial amount of our construction experience is within both tidal and non-tidal wetlands. Recent examples of successfully permitted projects through wetlands include the installation of the Edge Moor to General Motors 69kV line across the marsh in northern Delaware; and the installation of a new 230kV circuit between Red Lion and Indian River in the 2007/2008 timeframe. Currently, PHI is in the process of permitting the rebuild of the original Red Lion to Milford 230kV circuit. These projects involve permitting and construction activities through the marsh and wetlands adjacent to the Delaware River in Delaware. This work has been and will be completed with the use of barges, matting systems and the support of Sky Crane Helicopters to access and install facilities. Recent examples of successful projects through wetlands in New Jersey include the Cardiff to Oyster Creek 230kV circuit, which involved an especially sensitive crossing of the Mullica River and adjacent wetlands. PHI/Exelon have already mapped much of the Salem to Red Lion rights-of-way and have consultants on retainer in each state that are familiar with all Local, State and Federal agencies and permits required.

During the AI Review Session and within GAI's report it was stated that 350 acres of forested wetlands would be impacted by the PHI/Exelon proposal. Due to the fact that the PHI/Exelon proposal uses existing rights-of-way, most of which have already been cleared, the PHI/Exelon proposal will not impact 350 acres of new forested wetlands. The only permanent wetland impacts proposed are those impacts created by the actual pole installations with the majority of construction impact being temporary. This reduces mitigation requirements and alleviates permitting constraints. It was also falsely communicated during the AI Review Session that there may be as many as 350 to 400 homes impacted by our proposal. In actuality, there are very few homes in the vicinity of the existing or proposed 500kV line, as the majority of the project crosses farmland and forested and non-forested uplands and wetlands. Another important point is that all proposals, whether they are 500kV or 230kV aerial or submarine will be impacted by time of year and shipping constraints, negating this as a proposal differentiator. Both the PJM review and GAI's report indicate that CPCNs are necessary in Delaware and New Jersey. There is no CPCN process or comparable requirement in Delaware. Since the PHI/Exelon proposal makes use of existing, already impacted rights-of-way, it minimizes new wetlands, view shed and wildlife impacts. Due to the existing, already developed good working relationships between the permitting agencies and PHI/Exelon, we are confident that our proposal can be permitted and constructed quicker and less costly than the other 500kV proposals.

The PHI/Exelon proposal will be constructed entirely on land and rights-of-way of which PHI/Exelon is the owner or the majority owner through the existing Lower Delaware Valley (LDV) Agreement. During the AI Review Session and within GAI's report it was stated that the PHI/Exelon proposal may need .5 miles of new rights-of-way in Delaware; however, this is not the case. PHI owns the property from Red Lion Substation to the Delaware River. PHI also has an existing bottom lease across the Delaware River with the State of Delaware for which PHI pays a yearly fee. The existing lease would simply need to be widened to construct the parallel river crossing, simplifying negotiations. This is not true with any of the other 500kV or 230kV

proposals from Artificial Island to the Delmarva Peninsula, as they would all require new rights-of-way.

The PHI/Exelon proposal will require outages for construction at Red Lion Substation and Salem Substation; however, much of the new construction at Red Lion can be completed with only a bus section out. No outages of the transformers or 500kV circuits in or out of Red Lion are required. At Salem, the new bus and breaker construction can be accomplished with the existing substation energized, with an outage necessary only to cut the new position in and to accommodate necessary relay and protection work. At Red Lion, the existing 5015 line will be relocated to the newly created bus position to accommodate the new Salem to Red Lion circuit construction south of 5015. PJM has also suggested that 5015 swap positions with the new circuit at Artificial Island. Both of these moves would be done during the same outage to circuit 5015. PJM has suggested this would require a 30 day outage; however, with advanced planning and construction prior to an outage, PHI/Exelon feel this could be accomplished within a three week timeframe. Finally, the existing circuits 5021, 5023 and 5024 may need to be raised (this will be determined with detailed engineering after the proposal is awarded) to allow the new circuit between Salem and Red Lion to cross underneath; however, these outages will be staged one circuit at a time and should be limited to approximately two weeks each.

PHI/Exelon believe the proposal from Salem to Red Lion could be designed, permitted and constructed in less than the 60 months reported in the AI Review Session. Permitting is expected to take approximately 30 months as PHI/Exelon have already collected some of the necessary data and mapping due to our familiarity with the permitting agencies and requirements in the local area. Design and permitting will run concurrently, and PHI/Exelon already have existing Delaware River Crossing plans, material lists and designs to use as the start for the new crossing design. Construction should take 20-24 months as reported in the PHI/Exelon proposal with the River Crossing and the land portions being constructed concurrently using independent contractors. The total project should take approximately 50-54 months to complete. Although during the AI Review Session and within GAI's report a cost estimate of \$216-\$256 million is reflected, PHI/Exelon believe that the project can be completed for less than this amount. The PHI/Exelon cost estimate is based on the actual cost of the original and rebuilt river crossing, local environmental and permitting cost experience and local transmission line design and construction cost experience based on the most recent lines that PHI and Exelon have constructed in the area. The PHI/Exelon cost estimate is a detailed cost estimate based on actual design and construction costs, not estimated unit costs. Below is the cost estimate that is contained in the PHI/Exelon proposal for the Salem to Red Lion project.

Red Lion Substation to Salem Substation Section	Cost Estimate
Routing/Siting/Land Acquisition	\$100,000
Environmental/Regulatory Studies and Approvals	\$1,477,040
Transmission Line Engineering	\$1,134,200
Transmission Line Material	\$18,435,940
Transmission Line Construction	\$21,885,796
Substation Engineering	\$592,000
Substation Materials	\$3,328,000
Substation Construction	\$2,005,000
Clearing, Vegetation Management and Mitigation	\$150,000
Delaware River Crossing (All Inclusive)	\$100,685,238
Construction/Project Management (5%)	\$7,960,711
Subtotal	\$157,282,875
Owner's Overheads	\$6,291,315
AFUDC Costs	\$11,286,619
Section Total	\$174,860,809

Table B.10. Total Cost Estimate of the Red Lion – Salem Alternative

PHI/Exelon expect that the Salem to Red Lion proposal can be constructed for the above estimate and within the 50-54 month timeframe that we have quoted. PHI/Exelon have the necessary permitting, design, construction and operations experience in the states through which the Salem to Red Lion 500kV line will be constructed. We have developed excellent working relationships with the necessary Local, State and Federal permitting and regulatory agencies to successfully permit the project. Additionally, PHI/Exelon have all of the existing property and easements necessary to construct the project. The PHI/Exelon proposal minimizes the required outages, and PHI/Exelon have existing river crossing designs to leverage for the new Delaware River Crossing. The PHI/Exelon proposal can be designed, permitted and constructed in a more expeditious and less costly manner than the other 500kV proposals.

PHI/Exelon remain concerned about the constant changes PJM has made to the proposed projects. Most recently, PJM removed the 2nd Hope Creek to Salem tie from the Dominion and PSEG proposals. The tweaking of proposals eliminates the competitive nature intended by the FERC Order 1000 process. In addition, based on the slides presented at the AI Review Session, PJM includes the assumption that proposals from non-LDV owners will require negotiation with the LDV parties or the purchase of new land; however, there seems to be no associated cost for this component.

We encourage PJM to dig deeper into the validity of assumptions made regarding the constructability of competing proposals. Securing public land in Delaware does not negate any approvals that would be required through the state or federal regulatory process. In addition, there could be site specific restrictions on these public lands that should be evaluated and considered through the AI construction process. Based on our knowledge of the area, it should be noted that wetlands and a mitigation bank exist at DPL's Cedar Creek substation. The existence of wetland areas and a wetland mitigation bank and the presence of the surrounding

Cedar Swamp Wildlife Area will make expansion challenging and costly, if possible at all. With our experience and familiarity permitting and constructing along the peninsula, we can confidently conclude that the Southern projects will be potentially traversing highly sensitive and protected environmental resources such as the Augustine Wildlife Area, Appoquinimink River Nature Preserve, Hangmans Run, Blackbird Creek, and the aforementioned Cedar Swamp Wildlife Area. The portion of Delaware contemplated by the Southern projects is highly sensitive and consideration should be given to the conservation status of the lands over the Red Lion area which is basically in DE City, a highly industrial area. In summary, PHI/Exelon are well positioned, as being partners in issues of state concern, to address landscape-scale planning issues such as sea level rise, tidal inundation, and climate change that may play a role in the ultimate execution of a long term transmission line like AI.

Sincerely,

A handwritten signature in black ink, appearing to read "Gloria C. Godson". The signature is fluid and cursive, with the first name being more prominent.

Gloria C. Godson
Pepco Holdings, Inc.
Vice President – Federal Regulatory Policy

A handwritten signature in black ink, appearing to read "Susan O. Ivey". The signature is cursive and elegant, with the last name being more prominent.

Susan O. Ivey
Exelon
Vice President – Transmission Strategy & Compliance

cc: Paul Mc Glynn
Mark Sims