



955 Jefferson Ave.
Valley Forge Corporate Center
Norristown, PA 19403-2497

Via E-mail

April 30, 2012

Robert T. Cook
Morris Road Investors LP
2750 Morris Rd.
Lansdale, PA 19446

Dear Mr. Cook:

Re: X4-032 – North Wales 34kV –Feasibility Study Report and System Impact Study Agreement

Attached is a report documenting the results of the X4-032 Feasibility Study. The intent of the Feasibility Study is to determine a plan, with preliminary cost estimates to connect the subject project to the PJM network at a location specified by the Interconnection Customer. The results of this Feasibility Study are predicated on a year 2015 transmission system based upon PJM's best assumptions at the present time for load growth and connection of proposed new generation additions. The project was evaluated for system normal conditions and single contingency outage conditions.

Feasibility Studies are performed to provide an Interconnection Customer with preliminarily estimated reinforcement costs and information concerning both direct connection facilities and potential transmission network upgrades. Since the analysis inherently has to include assumptions for future system conditions, the results should be used in this context. More comprehensive estimates will be developed upon execution of a System Impact Study Agreement in accordance with Part VI of the PJM Tariff.

As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: (1) Attachment Facilities, which are new facilities and/or facilities upgrades needed to connect the project to the PJM network, and (2) Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system. In some instances a project may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g., another interconnection project, may also contribute to the need for the same network reinforcement. The possibility of sharing the reinforcement costs with other projects may be identified in the Feasibility Study, but the actual allocation will be deferred until the System Impact Study is performed.

The Feasibility Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities. The project developer is responsible for the right of way, real estate, and construction permit issues. Note that Tariff §212.5 milestones require that you have all site permits, water and fuel agreements and associated right of way, and a memorandum of understanding for major equipment at the time you return your executed Interconnection Service Agreement (ISA). It is your responsibility to

ensure these requirements are met and if they cannot be met at the time of the return of the ISA, you must demonstrate your due diligence and propose dates when those milestones will be met.

In addition, the Feasibility Study estimates do not include any the costs associated with engineering and constructing the equipment and facilities on the developer's side of the point of interconnection. These costs are the responsibility of the project developer.

The costs associated with the Feasibility Study are being tabulated and you will receive a statement / invoice electronically from PJM identifying your balance.

Pursuant to Section 204.3 of the PJM Tariff, enclosed is a copy of a System Impact Study Agreement for your consideration. The necessary deposit and executed agreement must be in the possession of PJM within thirty days (by close of business on **May 31, 2012**) to maintain the project's position in the queue. In addition, your project's electrical data sheet must be completed and submitted electronically by the above date for the Impact Study Agreement to be considered complete. The data sheet is located here: <http://www.pjm.com/planning/rtep-development/expansion-plan-process/form-impact-study-data.aspx>. Failure to submit this data by the due date will result in the withdrawal of your project. Please print, sign two copies of the agreement's signature page and return both with one copy of the agreement to PJM. Required with the signed agreement, per Section 3 of the enclosed System Impact Study Agreement is a non-refundable deposit of **\$10,000**. Please send the agreement, signed signature pages and check to:

Jeannette Mittan
PJM Interconnection, LLC
Valley Forge Corporate Center
955 Jefferson Avenue
Norristown, PA 19403

If you prefer, you may provide a wire transfer instead of a check. Send it as follows:

Bank: PNC Bank, NA, New Jersey
ABA Number: 031-207-607
Account Number: 8013589826

Please e-mail Jeannette Mittan at mittaj@pjm.com with the project name, queue number, date and amount of wire.

In addition to the executed System Impact Study Agreement and deposit, you are responsible to ensure that all queue requests that you may have in the PJM queue are in good financial standing and that you meet the requirements of Tariff §204.3. Failure to meet the requirements of Tariff §204.3 or have your accounts in good standing will result in your project to be withdrawn from the queue. It is your responsibility to meet these requirements.

If you wish to discuss the results of the study report or agreement with me, please let me know. My office telephone number is 610-666-4720 and my email address is oharab@pjm.com.

Sincerely,

A handwritten signature in black ink that reads "Bernard O'Hara" followed by a horizontal line.

Bernard F. O'Hara
Sr. Lead Engineer
PJM Interconnection Projects

bfo\jm DMS#697583v1
Attachments

PJM (w/attachments): Kevin Harris - PECO
File

***Generation Interconnection
Feasibility Study Report***

For

***PJM Generation Interconnection Request
Queue Position X4-032***

North Wales 34kV

April 2012

Preface

The intent of the Feasibility Study is to determine a plan, with approximate cost and construction time estimates, to connect the subject generation interconnection project to the PJM network at a location specified by the Interconnection Customer. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system. All facilities required for interconnection of a generation interconnection project must be designed to meet the technical specifications (on PJM web site) for the appropriate transmission owner.

In some instances an Interconnection Customer may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g. another generation interconnection or merchant transmission upgrade, may also contribute to the need for the same network reinforcement. The possibility of sharing the reinforcement costs with other projects may be identified in the Feasibility Study, but the actual allocation will be deferred until the System Impact Study is performed.

Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities. The project developer may be responsible for the right of way, real estate, and construction permit issues. For properties currently owned by Transmission Owners, the costs may be included in the study.

General

Morris Road Investors, L.L.C., the Interconnection Customer (IC), has proposed a 4 MWE (4 MWC) uprate to their existing facility previously submitted as Queue Number V1-028. The project is to be located in Worcester Township, Pennsylvania. The project was evaluated for compliance with reliability criteria for summer peak conditions in 2015. The IC had requested a proposed in-service date, as stated in Attachment N, of May 1, 2012.

The Interconnection customer currently can be connected at either of two Points of Interconnection (POI). Figure 1 is a one-line diagram from their current ISA for Queue Position V1-028

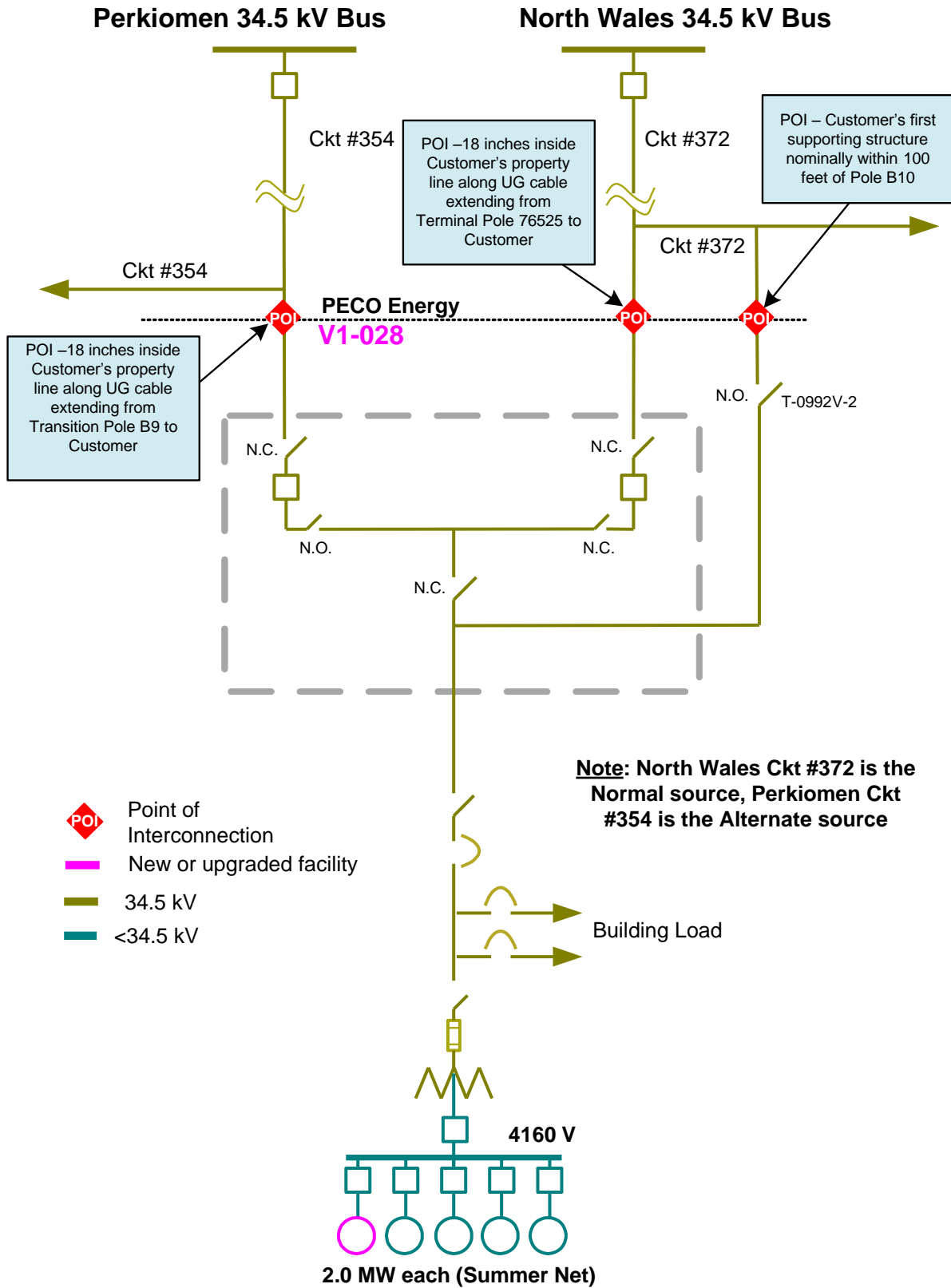
Attachment Facilities for Primary POI

The proposed injection of X4-032 into the existing 34kV line North Wales 372 is shown in Figure 1.

Interconnection Customer Scope of Direct Connection Work

Interconnection Customer is responsible for all work on the X4-032 side of the POI (Point of Interconnection).

Figure 1



Network Impacts for Primary POI

The Queue Project X4-032 was studied as a 4MW(Capacity 4MW) injection into PECO's system on the 34kV line North Wales 372. Project W2-079 was evaluated for compliance with reliability criteria for summer peak conditions in 2015. Potential network impacts were as follows:

Generator Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

No violations identified.

Multiple Facility Contingency

(Double Circuit Tower Line, Line with Failed Breaker and Bus Fault contingencies for the full energy output)

No violations identified.

Short Circuit

Short circuit currents were identified as exceeding the interrupting ratings of a number of North Wales 34 kV circuit breakers and with distribution equipment attached to the North Wales 372 circuit. The need to address these issues can be avoided if the generation is interconnected to allow operation only on the Perkiomen 354 supply.

If X4-032 were to connect to the North Wales 372 circuit, the short circuit currents injected into the North Wales 372 circuit by the generators will have to be reduced since the total current will exceed the rating of distribution equipment attached to the circuit.

Steady-State Voltage Requirements

To be determined in the System Impact Study

New System Reinforcements

At present, PECO does not believe that circuit breakers with adequate interrupting ratings for the short circuit currents at North Wales are manufactured. Therefore, PECO cannot provide an estimate to upgrade these breakers nor allow the generation to be connected to North Wales 372.

Contribution to Previously Identified System Reinforcements

None required

Energy Portion of Interconnection Request

PJM also studied the delivery of the energy portion of the surrounding generation. Any potential problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Transmission Interconnection request.

Note: Only the most severely overloaded conditions are listed. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which analyzes all overload conditions associated with the overloaded element(s) identified. As a result of the aggregate energy resources in the area, the following violations were identified.

None identified.

Attachment Facilities for Alternate POI

The proposed injection of X4-032 into the existing 34kV line Perkiomen 354 is shown in Figure 1.

Interconnection Customer Scope of Direct Connection Work

Interconnection Customer is responsible for all work on the X4-032 side of the POI (Point of Interconnection).

Cost of Direct Connection Network Upgrades

Direct Network Upgrades includes the cost of any remote relay and control work that is required at due to the interconnection of the generation facility and communication equipment, along with any system upgrades identified, attributable to this project, to ensure system reliability.

There are several automatic sectionalizing devices in the Perkiomen 354 circuit between the substation and the point of interconnection of the generation. There is a possibility of these devices opening and the generation operating as an island. The reclosers are equipped with automatic reclosing and will automatically reclose at preset times following overcurrent trippings. If this occurs, the recloser will likely be closing into the 'island', which is no longer synchronized with the system, resulting in potential equipment damage.

To avoid this situation, Direct Transfer Trip [DTT] is required between automatic sectionalizing devices and the circuit breaker connecting the generators to the circuit. Additional engineering work is required to determine the feasibility of implementing DTT on the pole mounted reclosers including extending approximately 9 miles of fiber optic cable from them to customer circuit breaker connecting the generators to the system. The Reinforcement for this project is estimated at \$1,000,000. In addition, the customer is responsible for all work and cost required within the customer's facility to implement the DTT scheme.

A Facility Study would be required for this project to provide full scope of required upgrades including cost and time.

Network Impacts for Alternate POI

Generator Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

No violations identified.

Multiple Facility Contingency

(Double Circuit Tower Line, Line with Failed Breaker and Bus Fault contingencies for the full energy output)

No violations identified.

Short Circuit

To be determined in the System Impact Study

Steady-State Voltage Requirements

To be determined in the System Impact Study

Stability and Reactive Power Requirement

To be determined in the System Impact Study

New System Reinforcements

None required

Contribution to Previously Identified System Reinforcements

None required

Energy Portion of Interconnection Request

PJM also studied the delivery of the energy portion of the surrounding generation. Any potential problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Transmission Interconnection request.

Note: Only the most severely overloaded conditions are listed. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which analyzes all overload conditions associated with the overloaded element(s) identified. As a result of the aggregate energy resources in the area, the following violations were identified.

None identified.