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

VIA FEDERAL EXPRESS
Confidential

July 29, 2009

Mr. Marc Pauley
Director of Operations
Granger Electric of Hancock County, LLC
16980 Wood Road
Lansing, MI 48906-1044

Dear Marc

NEW LIBERTY 138kV 4.8 MW (V1-015) FEASIBILITY STUDY

Attached is a report documenting the results of the New Liberty 138kV (V1-015) Feasibility Study. The results of this Feasibility Study are predicated on a year 2013 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. In addition, tower line outages, which are anticipated to have a significant cost or timing impact on the interconnection of the project, were assessed. Short circuit analysis was performed and stability analysis was not performed.

Feasibility studies are performed to provide the generation developer with ballpark reinforcement cost and timing information concerning both direct connection facilities and potential transmission network upgrades. The analysis inherently has to include assumptions regarding existing uncertainties; therefore, the results should be used in this context.

Pursuant to Section 204 of the PJM Tariff, enclosed is a copy of an Impact Study Agreement for your consideration. The Agreement must be executed within thirty days **(by close of business on August 31, 2009)** to maintain the project's position in the queue. In order to expedite initiation of the Impact Study, please provide the information requested on this link, http://www.pjm.com/planning/form-impact-study-data.html, and submit it electronically. We will need this information by **August 31, 2009**.

Two interconnection options were described in the Feasibility Study report. You must provide PJM with your chosen interconnection option when the Impact Study Agreement is returned.

The cost for the Feasibility Study is being tabulated and you will receive an invoice in the near future.

The following information is provided for wire transfers: 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.

Sincerely,

John W. Fedorko
Sr. Consultant/Engineer
System Planning Department

JWF\nbm #552129
Attachments

cc: Via U.S. Mail (w/attachment):
Craig Lockwood – AEP

PJM Office of the Interconnection (w/attachment):
Rob Price - PJM

PJM Generator Interconnection Request
Queue #V1-015
New Liberty 138kV
Feasibility Study

552009

July 2009

Preface

The intent of the feasibility study is to determine a plan, with ballpark cost and construction time estimates, to connect the subject generation to the PJM network at a location specified by the Interconnection Customer. The Interconnection Customer may request the interconnection of generation as a capacity resource or as an energy-only resource. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: (1) Direct Connections, which are new facilities and/or facilities upgrades needed to connect the generator 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 generator interconnection may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g. another generation interconnection, 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 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. For properties currently owned by Transmission Owners,

V1-015 New Liberty 138kV Feasibility Study Report

General

Granger Electric of Hancock County, LLC (Granger Electric) proposes to install PJM Project #V1-015, a 4.8 MW landfill methane gas generating facility. This generation facility would connect to the American Electric Power (AEP) North Findlay – North Baltimore #2 34.5 kV circuit (Option #1) or the AEP North Findlay #1 – North Findlay #2 34.5 kV circuit (Option #2). The proposed location of the generating facilities is in Findlay, Ohio (See Exhibit 1). The projected in-service date is requested for February 2010.

Attachment Facilities

The proposed generation project will be connected on either the North Findlay – North Baltimore #2 34.5 kV circuit (Option #1) or on the North Findlay #1 – North Findlay #2 34.5 kV circuit (Option #2) via a new in-line switching station. The new in-line switching station needed for Options #1 or #2 (see Exhibits 2 and 3) will consist of two (2) 34.5 kV circuit breakers. AEP will retain ownership of the proposed in-line station facilities. In addition, remote terminal relaying will need to be modified to facilitate the new station. It is expected that any right-of-way for line extensions, as well as a 200' x 200' (minimum) station site will be provided to AEP by Granger Electric.

It is understood that Granger Electric will be responsible for the all costs associated with construction of either option, as well as facilities associated with connecting their 4.8 MW generation to the in-line facilities. Line routings for either option were not evaluated as part of this study. Note that the Granger Electric station facilities and any facilities outside the new station were not included in the cost estimates. These are assumed to be Granger Electric's responsibility.

The AEP construction scope for the attachment facilities:

Option #1

- Construction of a new switching station connecting to the North Findlay – North Baltimore #2 34.5 kV circuit, including two (2) 34.5 kV circuit breakers, relays, 34.5 kV metering, SCADA, and associated equipment.
  Estimated Cost (2009 Dollars): **$2,400,000**

- Replace line relaying with AEP standard package at North Findlay station.
  Estimated Cost (2009 Dollars): **$200,000**

- Replace line relaying with AEP standard package and add standard RTU at North Baltimore station.

Estimated Cost (2009 Dollars): **$400,000**

Total Attachment Facilities Cost*: **$3,000,000**

Please note that further detailed analysis needs to be completed to determine if the relaying costs can be lowered or eliminated for this option. AEP would need Granger Electric to ground the high side of the step up transformer and provide new transformer specifications to see if the existing line relaying could see the generator faults.

Option #2

- Construction of a new switching station connecting to the North Findlay #1 – North Findlay #2 34.5 kV circuit, including two (2) 34.5 kV circuit breakers, relays, 34.5 kV metering, SCADA, and associated equipment.
  Estimated Cost (2009 Dollars): **$2,400,000**

- Replace both sets of line relaying with AEP standard package at North Findlay station.
  Estimated Cost (2009 Dollars): **$400,000**

Total Attachment Facilities Cost*: **$2,800,000**

*The estimates are preliminary in nature, as they were determined without the benefit of detailed engineering studies. Final estimates will require an on-site review and coordination to determine final construction requirements. It will take approximately 12-18 months after obtaining the authorization to construct the facilities as outlined above.

Local Network Upgrades

The impact of the proposed generating facility on the AEP System was assessed for adherence with applicable reliability criteria. AEP planning criteria require that the transmission system meet single contingency performance criteria in accordance with the AEP FERC Form 715. Therefore, this criterion was used to assess the impact of the proposed facility on the AEP System. The Granger Electric project was studied as a 4.8 MW net capacity consistent with the interconnection application. The results are summarized below.

The results for both interconnection Option #1 and Option #2 are the same.

Normal System (2013 Summer Conditions)

- No problems identified.

Single Contingency (2013 Summer Conditions)

- No problems identified.

Double Contingency (2013 Summer Conditions)

- No problems identified.

Short Circuit Analysis

- No problems identified.

Local Network Upgrades

- No Local Network Upgrades are needed.

Network Impacts

The queue V1-015 project was studied as a 4.8MW (capacity) injection into AEP's system. This project has selected two options for its potential point of interconnection. The primary option is on the North Findlay to North Baltimore #2, 34.5kV line, while the secondary option is to connect to the North Findlay #1-North Findlay #2 34.5kV line. For PJM's transmission level study purposes the project was modeled at the North Findlay 138kV substation for both options. Project V1-015 was evaluated for compliance with reliability criteria for summer peak conditions in 2013. Potential network impacts were as follows:

The results for both interconnection Option #1 and Option #2 are the same.

Generator Deliverability

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

No problems identified.

Multiple Facility Contingency

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

No problems identified

Short Circuit

No problems identified.

Contribution to Previously Identified Overloads

(This project contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

No problems identified.

New System Reinforcements

(Upgrades required to mitigate reliability criteria violations, i.e. Network Impacts, initially caused by the addition of this project generation)

None

Contribution to Previously Identified System Reinforcements

(Overloads initially caused by prior Queue positions with additional contribution to overloading by this project. This project may have a % allocation cost responsibility which will be calculated and reported for the Impact Study)
(Summary form of Cost allocation for transmission lines and transformers will be inserted here if any)

None

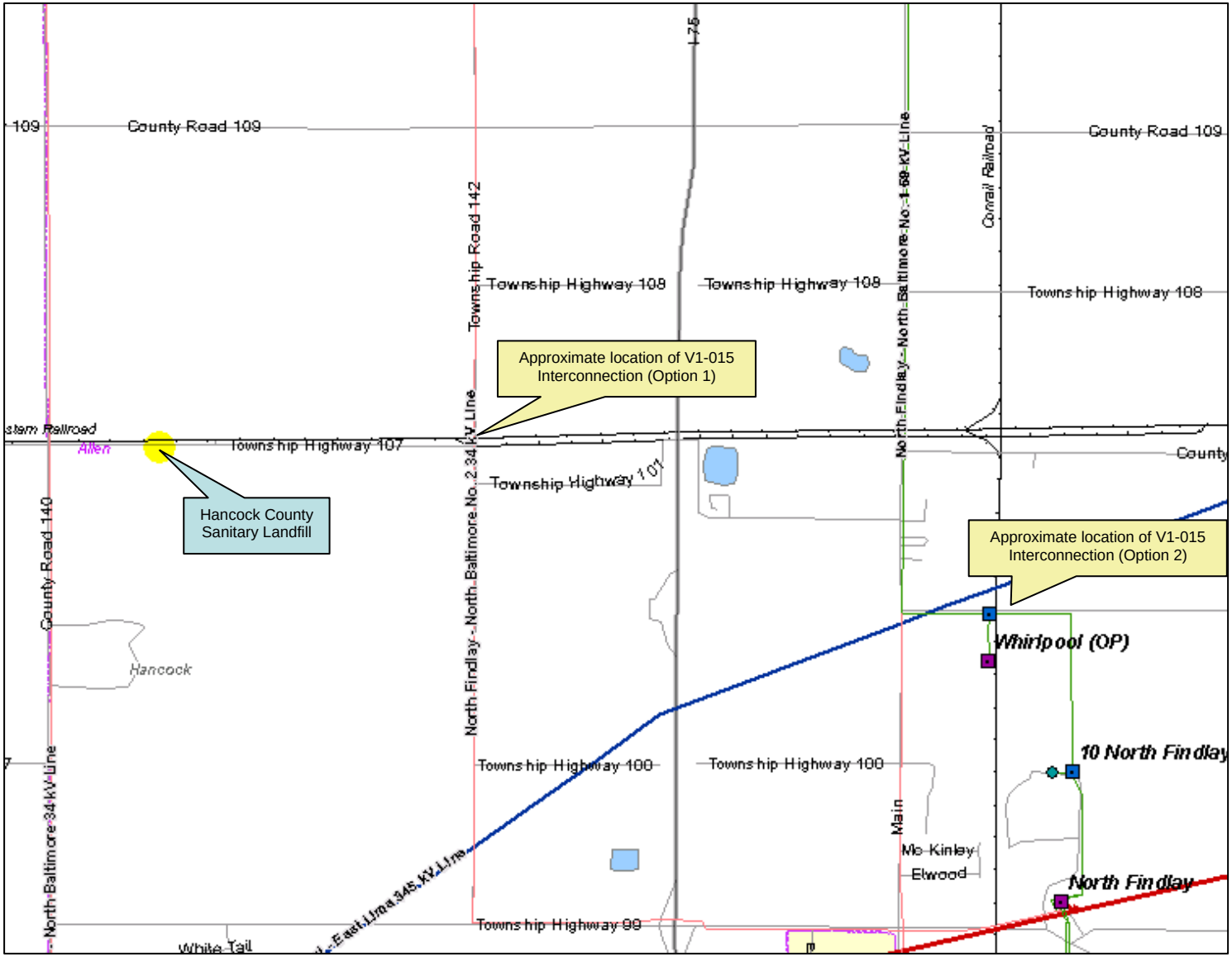

Exhibit 1: Approximate interconnection location of the proposed facilities

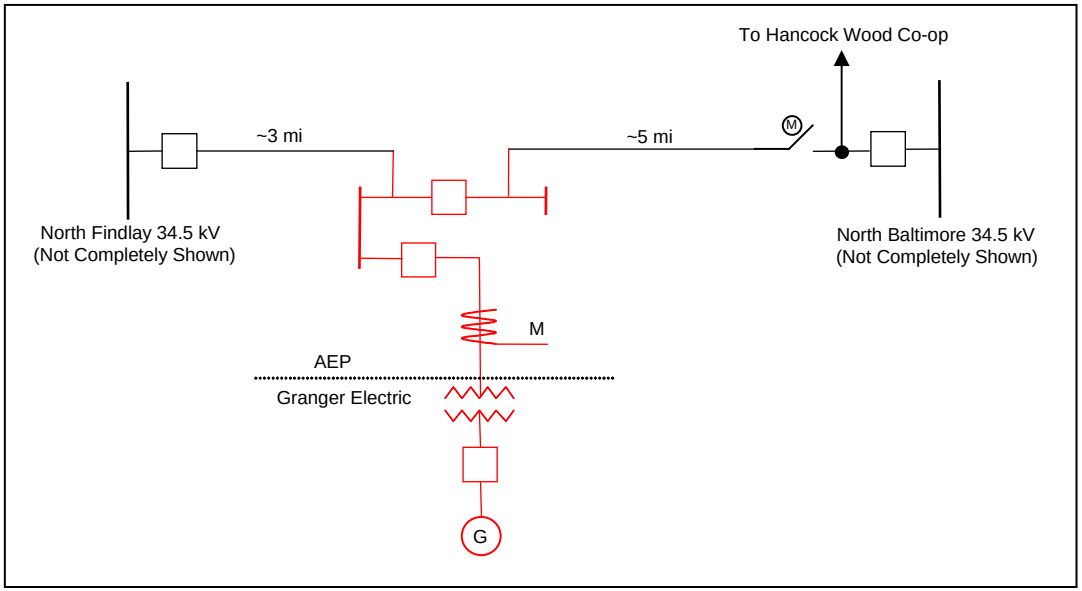

Exhibit 2: Simplified diagram of proposed 34.5 kV in-line switching substation – Option 1

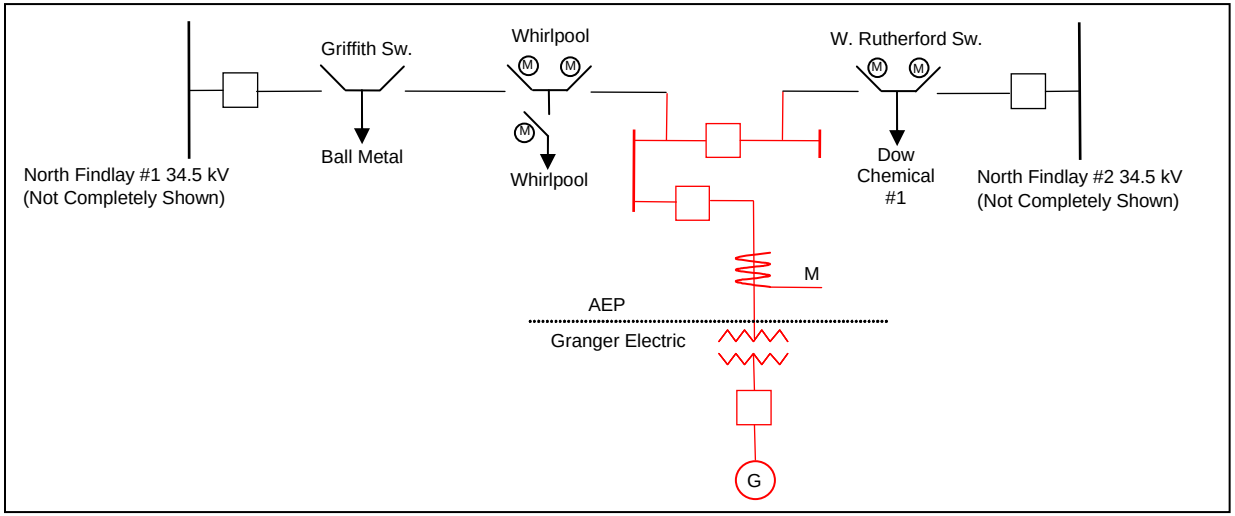

Exhibit 3: Simplified diagram of proposed 34.5 kV in