PJM Feasibility Study Report

Long-Term Firm Transmission Service

OASIS Assignment Reference 4966856

Queue Project AE1-094

January 31, 2019

Network Impacts

The Queue Project AE1-094 was evaluated as a 62 MW injection from PJM to the HTP Converter Station (O66) starting 6/01/19 and stopping 6/01/20. Project AE1-094 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AE1-094 was studied with a commercial probability of 100%. Potential network impacts were as follows:

Summer Peak Analysis - 2019

Generator Deliverability

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

No issues identified.

Multiple Facility Contingency

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

No issues 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 issues identified.

System Reinforcements

None required.

ATTACHMENT PP

Form of

Firm Transmission Feasibility Study Agreement

Company name: Hudson Transmission Partners, LLC

OASIS Request	Start	Stop	Amount	Path	Date & Time of Request
4966856	06/01/2019	06/01/2020	62 MW	PJM-HUDSON	08/30/2018 12:18

PURPOSE

A Firm Transmission Feasibility Study is used to determine whether or not the Transmission System is adequate to accommodate all or part of a request for long-term firm transmission service under both Part II (POINT-TO-POINT TRANSMISSION SERVICE) or Part III (NETWORK INTEGRATION TRANSMISSION SERVICE) of the PJM Open Access Transmission Tariff (the "Tariff) (together referred to as "long-term firm transmission service"). The FERC comparability standard is applied in evaluating the impact of all requests.

SCOPE OF WORK

The Firm Transmission Feasibility Study will determine if the PJM network has sufficient capability to grant the transmission service.

The Firm Transmission Feasibility Study indicates whether or not the request for service can be granted based on expected system conditions and topology. Pursuant to Section 19.3 or Section 32.3 of the Tariff, upon completion of the Firm Transmission Feasibility Study, PJM will notify the transmission customer that (a) the transmission service request is accepted, or (b) additional analysis is required. Pursuant to Part VI of the Tariff, additional analysis will only commence if the customer elects to continue to the System Impact Study within 30 days of notification.

General

Firm Transmission Feasibility Studies are performed on transmission service requests in the order in which they are received. Multiple requests for overlapping periods and similar paths are evaluated until a limit is reached. Transmission service requests are held in "Study" status until requests received earlier have been confirmed or withdrawn. If the study demonstrates that the requested service can be accepted, the status of the request is changed to "Accepted" on the PJM OASIS. As soon as possible after notification of acceptance, the Transmission Customer should "Confirm" the transmission request. If accepted service is not confirmed within 15 days, the request is deemed "Withdrawn," and other requests waiting in the queue can then be studied.

Network Analysis and Deliverability Test

PJM evaluates requests for long-term firm transmission service using deliverability tests commensurate with the testing employed for evaluating generation interconnection requests. The energy from generating facilities or the energy delivered using long-term firm transmission service that is ultimately committed to meet resource requirements must be deliverable to where it is needed in the event of a system emergency. Therefore, there must be sufficient transmission network transfer capability within the control area. PJM determines the sufficiency of network transfer capability through a series of "deliverability tests." All generator interconnections and long-term firm transmission service in PJM are subjected to the same deliverability tests. The FERC comparability standard is applied in evaluating the impact of all requests.

Rollover Rights

Pursuant to section 2.2 of the PJM Tariff:

Existing firm service customers of any Transmission Owner (wholesale requirements and transmission-only, with a contract term of five-years or more), may request rollover/reservation priority rights at the end of the term of the service. However, rollover rights may be limited in some cases. For instance, if the System Impact Study identifies limits caused by reliability problems (unless Direct Assignment Facilities or Network Upgrades are constructed to provide the requested service), the Transmission Customer will be notified of the limitation. The Service Agreement will include language which will reserve to PJM the right to limit rollovers in such circumstances. Therefore, the Transmission Customer may not be able to exercise reservation/rollover priority rights, in whole or in part, which it may otherwise have pursuant to Section 2.2 of the Tariff upon the initial termination date of the Transmission Service unless the Direct Assignment Facilities and/or Network Upgrades identified in the System Impact Study and/or Facilities Studies are completed pursuant to Part VI.

Reliability problems which may be identified by the System Impact Study and which may require additional Direct Assignment Facilities or Network Upgrades to provide the requested service include the following:

Limiting rollover rights for Deliverability.

If there is not enough system capability to accommodate rollover rights beyond the initial term PJM may explicitly state in the transmission service agreement that rollover rights for the requested service will be limited.

Limiting rollover rights for earlier queued transmission or generation interconnections.

As a part of the Firm Transmission Feasibility Study, the request is tested to verify that the service can co-exist with generators whose interconnection request predates the transmission service request. If the transmission service cannot co-exist with a planned generator whose interconnection request predates the transmission service request, and the original transmission service request does not conflict with the generator in service

date, the request will be approved. However, the transmission customer will be notified that the service has limited rollover rights. If the customer requests to renew the transmission service, another Firm Transmission Feasibility Study may be required.

Estimated Time and Cost to Complete the Firm Transmission Feasibility Study

In the event that the Transmission Provider is unable to complete the Firm Transmission Feasibility Study within the timeframe prescribed in Section 36.2 of the PJM Tariff, the Transmission Provider shall notify the Interconnection Customer and explain the reasons for the delay. The cost to complete the Firm Transmission Feasibility Study is estimated at $20,000.

ADDITIONAL TERMS AND CONDITIONS
FIRM TRANSMISSION FEASIBILITY STUDY AGREEMENT
FOR LONG-TERM FIRM TRANSMISSION SERVICE REQUESTS

1.0 This Agreement for a Firm Transmission Feasibility Study for Long-Term Firm Transmission Service Requests ("Firm Transmission Feasibility Study Agreement") is entered into, by and between PJM Interconnection, L.L.C. ("PJM") and **Hudson Transmission Partners, LLC** ("Customer").

2.0 PJM has determined that the Transmission Customer has completed the Application for Firm Point-To-Point Transmission Service or Network Service under the PJM Open Access Transmission Tariff ("Tariff") and has provided an Application deposit in accordance with the provisions of the Tariff. The Tariff is accessible through the PJM OASIS.

3.0 PJM has determined that a Firm Transmission Feasibility Study for Transmission Service needs to be conducted to evaluate the request.

4.0 PJM will conduct the Firm Transmission Feasibility Study in accordance with the procedures described in the PJM Manuals, the Tariff and this Firm Transmission Feasibility Study Agreement.

5.0 This Firm Transmission Feasibility Study Agreement indicates the Scope of the Work required to evaluate the request and provides an estimated cost and schedule for completing the subject Firm Transmission Feasibility Study for Transmission Service. The Customer shall be responsible for actual charges associated with the Firm Transmission Feasibility Study.

6.0 Any notice or request made to or by either PJM or the Transmission Customer, regarding this Firm Transmission Feasibility Study Agreement shall be made to the representatives listed below.

7.0 This Firm Transmission Feasibility Study Agreement **must be executed** by the Transmission Customer **and returned to PJM within (fifteen) 15 days** of the Date stated below, or this Agreement will be void.

8.0 In accordance with Part II, (POINT-TO-POINT TRANSMISSION SERVICE), Section 19 (Firm Transmission Feasibility Study Procedures For Long-Term Firm Point-To-Point Transmission Service Requests) Section 19.1 (Notice of Need for Firm Transmission Feasibility Study) and Part III, (NETWORK INTEGRATION TRANSMISSION SERVICE), Section 32 (Firm Transmission Feasibility Study Procedures for Network Integration Transmission Service Requests), and Section 32.1 (Notice of Need for Firm Transmission Feasibility Study) of the Tariff, the Eligible Customer shall agree to reimburse the Transmission Provider for performing the required Firm Transmission Feasibility Study.

In some cases, the requested service cannot be granted upon completion of the Firm Transmission Feasibility Study. If the Customer has withdrawn its New Service Request or has not requested completion of a System Impact Study within 30 days of completion of the Firm Transmission Feasibility Study, its New Service Request will be deemed to be withdrawn and terminated.

Transmission Provider
PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403

Agent: DocuSigned by: David M Egan 961A5286D8214D8...

Date: 9/7/2018

Transmission Customer
Hudson Transmission Partners, LLC
501 Kings Highway East, Suite 300
Fairfield, CT 06825

Agent: DocuSigned by: James Nash 5684F3A0C2B243B...

Date: 9/6/2018