IMPACT STUDY OF INTERIM OPERATION FOR GENERATOR INTERCONNECTION

ASGI-2024-001

Published on January 24, 2025

By SPP Generator Interconnections Department

REVISION HISTORY

DATE OR VERSION NUMBER	AUTHOR	CHANGE DESCRIPTION	COMMENTS
1/24/2025	SPP	Impact Study report issued.	

Executive Summary

Pine Lake Corn Processors LLLP (PLCP) (Customer; ASGI-2024-001) has requested an Interim Operation System Impact Study under the Southwest Power Pool Open Access Transmission Tariff (OATT) for 15 MW (12.5 MW in Summer) of generation to be interconnected into the Transmission System of Corn Belt Power Cooperative (CBPC). The CBPC system is interconnected to the Western Area Power Administration (WAPA) in Iowa Falls, Iowa. ASGI-2024-001 has requested this Interim Operation Interconnection Study (IOIS) to determine the impacts of interconnecting to the transmission system before the completion of all studies related to DISIS-2024-001. ASGI-2024-001's ability to request this study is consistent with GIP Section 11A.

This IOIS addresses the effects of interconnecting the generator to the transmission system for the system topology and conditions as expected on January 1, 2025. ASGI-2024-001 is requesting the interconnection of one gas turbine generator and associated facilities on the Pine Lake Substation of the Corn Belt Power Cooperative with a point of impact to the SPP Transmission System at the IFE 69kV substation. For the typical IOIS, both a power flow and a transient stability analysis are conducted. The IOIS assumes that only the higher queued projects listed in the Requests tab of this study might go into service before the completion of all Network Upgrades identified. In the event that an Interconnection Request, with queue priority equal to or higher than an Interconnection Request, which was excluded as a study scenario achieves a status of Commercial Operation prior to the in-service date of all required Network Upgrades, the results of this study revise to 0 MW of available Interconnection Service until a restudy is completed to identify a revised amount for this system condition. Additionally, in the event that a Network Upgrade which was included as a study scenario is not placed in-service prior to the Commercial Operation of Interconnection Requests, the results of this study revise to 0 MW of available Interconnection Service until a restudy is completed to identify a revised amount for this system condition.

Power flow analysis from this IOIS has determined that the ASGI-2024-001 request can interconnect 15 MW of generation in Winter and 12.5 MW of generation in Summer as an Energy Resource prior to the completion of DISIS-2024-001. Should any other projects, other than those listed within the request tab of this report, come into service an additional study may be required to determine if any Interim operation service is available.

A transient stability analysis was performed for this IOIS study. Based on the stability results, ASGI-2024-001 did not cause any stability problems and remained stable for all faults studied. No generators tripped or went unstable due to the interconnection of ASGI-2024-001 and voltages recovered to acceptable levels.

Based on the results of this Interim Operation Impact Study, the ASGI-2024-001 Affected System Interconnection Request may interconnect prior to the completion of the DISIS-2024-001 study.

However, the final cost allocation associated with ASGI-2024-001 will be determined at the completion of the associated impact and facility studies associated with ASGI-2024-001 through the DISIS and Interconnection Facilities Study processes.

It should be noted that although this IOIS analyzed many of the most probable contingencies, it is not an all-inclusive list that can account for every operational situation. Additionally, the generator may not be able to inject any power onto the Transmission System due to constraints that fall below the threshold of mitigation for a Generator Interconnection request. Because of this, it is likely that the Customers may be required to reduce their generation output to 0 MW under certain system conditions to allow system operators to maintain the reliability of the transmission network.

Nothing in this study should be construed as a guarantee of delivery or transmission service. If the customer wishes to sell power from the facility, a separate request for transmission service must be requested on Southwest Power Pool's OASIS by the Customer.