GENERATOR INTERCONNECTION
MATERIAL MODIFICATION ASSESSMENT

for integration of the proposed

300 MW [redacted] PROJECT
(IDAHO POWER QUEUE #608)

to the

IDAHO POWER COMPANY ELECTRICAL SYSTEM

in

SWEETWATER COUNTY, WYOMING

for

[redacted]

Report v1.0

May 16, 2025

Table of Contents

1.0 INTRODUCTION

On April 16, 2025, [redacted] requested a material modification evaluation from Idaho Power Company (Transmission Provider), which consisted of a proposal to convert their [redacted] project (the Project) from [redacted] wind turbine generators, [redacted] MW solar inverter stations, and [redacted] BESS inverter stations to a wind-only system consisting of [redacted] wind turbine generators.

The Project is Generation Interconnect (GI) queue number 608 (GI #608) located in Sweetwater County, WY at approximately [redacted]. The specific Point of Interconnection (POI) is at the [redacted] 345kV Substation.

This report describes the results of an assessment that was conducted to evaluate the potential impacts of the proposed modification in accordance with the Idaho Power Tariff and executed Large Generator Interconnection Agreement (LGIA) for the Project.

2.0 SUMMARY

An assessment was conducted which determined that the modification request is not considered a material modification. The proposed changes do not result in any new reliability concerns, nor do they require new facilities beyond what was already described in the May 9, 2023, LGIA or February 29, 2024, First LGIA Amendment. The proposed changes may be incorporated in the Project's LGIA as an amendment.

3.0 DESCRIPTION OF PROPOSED TECHNOLOGICAL CHANGE

The original system as described in the LGIA consisted of a wind system with [redacted] wind turbine generators, [redacted] solar inverter stations, and [redacted] BESS inverter stations.

The new configuration requests to substitute the wind system with [redacted] wind turbine generators and to remove the solar and BESS systems entirely.

4.0 ASSESSMENT RESULTS

4.1 Power Flow Results (Thermal and Voltage Analysis)

Because there are no changes to the Project's maximum real power output at the POI, the modifications will have no impact on the power flow results already performed in the System Impact Study (SIS).

4.2 Reactive Power Requirements

The Project will be required to operate at 0.95 leading/lagging measured at the high side of the main power transformer to maintain voltage within limits at the POI over the range of real power output.

Power flow analysis indicates that with the modification of the wind system and the removal of the solar and BESS systems, the Project has sufficient reactive power capability to provide a 0.95 leading/lagging power factor at the POI over the range of real power output based on the data provided by the customer.

4.3 Transient Stability Results

Transient stability data provided by the customer for the changes to the Project was reviewed and deemed usable. A transient stability analysis was performed with the new provided data and the results were acceptable.

4.4 Post-Transient Voltage Stability (Reactive Margin) Results

Because there are no changes to the Project's maximum real power output at the POI, and the reactive power requirements are not changed at the POI, the modification of the wind system and the removal of the solar and BESS systems will have no impact on the voltage stability analysis results already performed in the SIS.

4.5 Short Circuit Results

The proposed changes do not necessitate any changes to the required protection system identified in the SIS.

4.6 Other Operating Requirements

The Project will be required to control voltage in accordance with a voltage schedule as provided by Idaho Power Load Serving Operations. The Project will be required to install a plant controller for managing the real power output at the Project's POI.

The Project is required to comply with the applicable Voltage and Current Distortion Limits found in IEEE Standard 519-2014 *IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems*.

The Project will be required to reduce output to levels directed by IPC Load Serving Operations during transmission system contingencies and other reliability events. This will be accomplished with a Generator Output Limit Control (GOLC) setpoint sent from IPC to the Project.

5.0 CONCLUSIONS

An assessment was conducted which determined that the modification request is not considered a material modification. The proposed changes do not result in any new reliability concerns, nor do they require new facilities beyond what was already described in the May 9, 2023, LGIA or February 29, 2024, First LGIA Amendment. The proposed changes may be incorporated in the Project's LGIA as an amendment.