

**GENERATOR INTERCONNECTION
FEASIBILITY STUDY**

For integration of the proposed

[REDACTED] HYDRO PROJECT

In

JEROME COUNTY, IDAHO

To the

IDAHO POWER COMPANY ELECTRICAL SYSTEM

For

[REDACTED]

The

INTERCONNECTION CUSTOMER

DRAFT REPORT

MAY 11, 2011

Generator Interconnection Feasibility Study

General Interconnection Information

Queue	Date of Request	Location	Total (MW)	Station or Trans Line for POI	Projected In-Service Date	Type of facility (combined cycle, base load, CT, fuel type)
#368	March 2011	Jerome County	3.2	12.5 KV; [REDACTED]	December 2013	Hydro

Short Circuit Analysis Results

System Changes Required: Yes No

Upgrade existing 12.5 kV line recloser controller and local service to provide dead line check, directional supervision and SCADA.

Power Flow Analysis Results

System Changes Required: Yes No

System upgrades are required to the Idaho Power distribution system to interconnect the 3.2 MW canal hydro project. These upgrades include:

- Rebuild two miles of existing 12.5 kV distribution line starting near [REDACTED] to the [REDACTED] point of interconnection.
- Relocate existing line voltage regulators.

The alternate connection to the [REDACTED] feeder was also studied. It required many more system upgrades than the preferred interconnection detailed above resulting in significantly higher costs to the interconnection customer.

Good Faith Cost Estimate

Interconnection costs including distribution upgrades are shown in the table below:

Description	Estimated Cost
Distribution Upgrades including 2 miles 12.5 kV distribution line rebuild, relocate regulators and recloser controller upgrades	\$311,000
Generation Interconnection Protection Package (Includes 12.5 kV recloser, controls, CTs, PTs, SCADA and communications)	\$225,000
Total Estimated Cost	\$536,000

System Impact Study Required? Yes No

This Feasibility Study only addresses the work required to interconnect the [REDACTED] project to the local Idaho Power system. There is limited or no capacity in the transmission system to the west of the [REDACTED] project. A system impact study is required to determine any necessary upgrades to Idaho Power's transmission system to provide capacity for energy transfers from the project to Idaho Power. The required transmission facilities, if any, are determined based on first come first serve basis (queue order).

Operating Requirements:

Project #368 will be controlled to operate at unity power factor with an operating bandwidth of ± 250 kVAR.