

Behind the Fence Equipment Change Reporting Guidelines

The AESO is responsible for directing the safe and reliable operation of the Alberta Interconnected Electric System. To do so, the AESO must remain accurate and up to date models of all electrical components and equipment connected to the system that may affect the performance of the system. Any customer-performed repair, maintenance, or upgrade activities and/or any equipment modifications or additions that result in changes to the performance or characteristics of electrical components or equipment on the customer side of the fence must be reported to the AESO. This ensures the ongoing accuracy of the AESO's models.

Customers must adhere to the following requirements:

1. Report changes for equipment connected at a voltage of 69kV and above
2. Report any single generator addition of 5 MVA or above or any aggregate generation addition of 5 MVA or above
3. Meet the requirements of OPP 1306 "Reporting Equipment Changes"
4. Report changes for motors rated at 10 MVA or above
5. Any distribution equipment or line changes under 25kV do not have to be reported.

Facilities and equipment that are included in the AESO's PSS/E base case simulations include lines, transformers, generators, large motors, shunts and loads. Activities that may change their performance characteristics include the following:

Lines

- CT ratio changes at either end of the line
- Conductor replacement/addition
- Terminal equipment changes affecting line ratings
- Relay changes
- Additional transmission lines
- Voltage Regulators – addition, replacement, repair etc.

Transformers

- Transformer replacement/addition
- Addition of cooling fans
- Off-load tap positions of transformers
- Change-out of lubrication oil resulting in increased output

Generators \geq 5 MVA:

- Any changes in power flow or dynamic data
- AVR control system replacement
- Governor replacement/addition
- Static excitation system replacement/addition
- Stabilizer replacement/addition
- Turbine changes

Motors \geq 10 MVA:

- Any changes to machine model
- Excitation system replacement/addition

Shunts:

- Shunt replacement/addition

Loads:

- Load increase or decrease.
- Change in RAS, UFLS or UVLS settings

For questions regarding Behind the Fence projects, please contact customer.connections@aeso.ca.