

April 30, 2008

Re: Voltage Profile Improvement in Loss Factor Base Cases.

- Some stakeholders are requesting the ISO to improve the bus voltage accuracy used in the loss factor base cases. The AESO attempts to maintain the maximum possible accuracy with the given loss factor resources and time constraints. Generally, the ISO has ensured all bus voltages (69 kV or higher) in the base cases are within 5% of historical levels.
- Voltages do not affect loss factors as much as accurate power flows do.

Based on the stakeholders request the AESO **recommends the following actions** and **asks for stakeholder input** (highlighted and underscored segment below) along with explanation and rationale to finalize the process –

- Voltages at buses 240 kV and higher with more than 500 MW of net injection (load or generation) will be evaluated to % of the historical voltage.
- All other buses 69 kV or higher will be evaluated to % of the historical voltage.
- Historical voltages will be determined from the PI database following the current process.

The AESO would like to point to make stakeholders aware of the following items related to voltage profiles in the base cases –

- The current process allows the AESO to check and adjust about 600 buses (69 kV and higher) per case (12 cases in total). It takes about two to three weeks to check and adjust (an iterative process) all 12 cases.
- It takes about 1 week to fix the bus voltages to within 2.5 kV for one operational case for about 100 buses. If the same care was applied to the loss factor cases, the ISO would have to adjust about 600-700 buses for each of the 12 cases and we estimate an effort of about 4 months.
- The timeframe doing the loss factor base cases is extremely compact (roughly 6 weeks to finalize the 12 cases) to meet the November deadline for final loss factors.

Stakeholders are requested to provide input on the issue by May 14, 2008. The input should reflect some level of engineering analysis. The ISO will quantify the responses and provide a recommended course of action by May 23, 2008. Please note the AESO holds the right of determining a course of action regarding this issue.

As always, please contact me if you have any questions.

Yours truly,

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