Information Document
Calgary Area Operations
ID 2014-001R

Information Documents are not authoritative. Information Documents are for information purposes only and are intended to provide guidance. In the event of any discrepancy between an Information Document and any Authoritative Document(s) in effect, the Authoritative Document(s) governs.

1 Purpose

This Information Document relates to the following Authoritative Document:[1] section 302.1 of the ISO rules, *Real Time Transmission Constraint Management*. The purpose of this Information Document is to provide information on transmission must-run requirements in the Calgary Area, specifically as it relates to the provision of dynamic reactive reserve.

2 Background

In order to ensure reliability of the Alberta interconnected electric system, a minimum amount of dynamic reactive reserve is required in the Calgary Area, which is normally supplied by area generators and the Langdon static VAR compensator. If the minimum required dynamic reactive reserve is not available through normal energy market dispatches, then transmission-must-run dispatches or directives are issued to bring Calgary Area generating units online to provide dynamic reactive reserve.

3 Generating Plants in the Calgary Area

The generating units that provide dynamic reactive reserve in the Calgary Area are:

1. Calgary Energy Centre generating units;
2. Balzac generating units;
3. Cavalier generating units;
4. Carseland generating units; and
5. Bow Hydro generating units.

[1] "Authoritative Documents" is the general name given by the AESO to categories of documents made by the AESO under the authority of the *Electric Utilities Act* and regulations, and that contain binding legal requirements for both market participants and the AESO. Authoritative Documents include: the ISO rules, the Alberta reliability standards, and the ISO tariff.

5 Dynamic Reactive Reserve

Table 1 below outlines the minimum dynamic reactive reserve under various conditions.

Table 1 – Dynamic Reactive Reserve

<table>
<tr><th>Condition</th><th>Calgary Area Dynamic Reactive Reserve</th></tr>
<tr><td>Static VAR compensator is in service and the north to south flow south of Keephills-Ellerslie-Genesee cutplane flow is less than or equal to 1800 MW.</td><td>A minimum of 160 MVAr is provided by the static VAR compensator.</td></tr>
<tr><td>Static VAR compensator is in service and the north to south flow south of Keephills-Ellerslie-Genesee cutplane flow is between 1801 MW and 2150 MW.</td><td>A minimum of 160 MVAr is provided by the static VAR compensator and a minimum of 40 MVAr must be collectively provided by the Calgary Energy Centre generating units, the Balzac generating units, the Cavalier generating units, the Carseland generating units and the Bow Hydro generating units, for a total of 200 MVAr.</td></tr>
<tr><td>Static VAR compensator is out of service and the Calgary Energy Centre generating units are offline.</td><td>
<table>
<tr><th>Alberta Internal Load (MW)</th><th>Minimum Calgary Area Dynamic Reactive Reserve (MVAr)</th></tr>
<tr><td>9100 to 10000</td><td>140</td></tr>
<tr><td>8900 to 9099</td><td>140</td></tr>
<tr><td>8700 to 8899</td><td>140</td></tr>
<tr><td>8500 to 8699</td><td>140</td></tr>
<tr><td>8300 to 8499</td><td>120</td></tr>
<tr><td>8100 to 8299</td><td>80</td></tr>
<tr><td>8001 to 8099</td><td>40</td></tr>
<tr><td>0 to 8000</td><td>0</td></tr>
</table>
The MVAr requirements in the list directly above are provided by the Balzac generating units, the Cavalier generating units, the Carseland generating units and the Bow Hydro generating units.
</td></tr>
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Revision History

Posting Date	Description of Changes
2014-02-20	Initial Release