

August 28, 2020

Notified Market Participant Corporate Legal Name
Address Line 1.
Address Line 2.
City, Province, Postal Code.

Dear **Notified Market Participant Primary Contact:**

Re: **Suncor Base Plant Cogeneration Facility Connection**

The Alberta Electric System Operator (AESO) would like to advise you that Suncor Energy Inc. (Suncor) has applied for transmission system access to connect its approved Suncor Base Plant Cogeneration Facility (approved Facility) to the Alberta interconnected electric system (AIES) in the AESO Northeast Planning Region.

A copy of the AESO Need Overview Update document is attached for your information. The AESO Need Overview Update describes the AESO's proposed transmission development to connect the approved Facility to the AIES, and the AESO's next steps, which includes submitting a needs identification document (NID) application to the Alberta Utilities Commission (AUC) for approval.

The purpose of this letter is to advise you that the AESO has identified that, under certain abnormal system conditions (N-1), the operation of the **[Effective Generation Facility Name]** (**[Effective Generation Facility Asset ID]**) may be affected following the connection of the approved Facility.¹

Connection Assessment Findings

An engineering connection assessment was carried out by the AESO to assess the transmission system performance following the connection of the approved Facility. The connection assessment identified the potential for system performance issues, following the connection of the approved Facility. Specifically, following a contingency affecting any portion of the Fort McMurray 500 kV West path (i.e. transmission lines 12L41, 12L44, or the Thickwood Hills 951S substation 240/500 kV transformer), certain 240 kV system elements were observed to exceed their emergency thermal limits. A new remedial action scheme (RAS), which only curtails the approved Facility, has been designed to mitigate this potential system performance issue. The connection assessment confirmed there were no system performance issues under normal system conditions (N-0) and there was no need to pre-curtail generation in the region for the contingencies on the Fort McMurray 500 kV West path as long as the RAS was in place.

Transmission Constraint Management

To mitigate the potential system performance issues, the AESO may also make use of real-time operational measures, in accordance with [Section 302.1 of the ISO rules, Real Time Transmission Constraint Management](#) (TCM Rule), which is in effect today. When applied, the TCM Rule could result in the AESO issuing directives for curtailment to source assets that are effective in managing a constraint.

¹ The studies were performed assuming the Rate STS, *Supply Transmission Service*, contract capacity of 815 MW.

The connection assessment identified source assets, including the **[Effective Generation Facility Name]** (**[Effective Generation Facility Asset ID]**), which are effective in mitigating the potential transmission constraints. Due to the system performance issues being related to outflow from the Fort McMurray planning area, all generators in the area are similarly effective. This means that should a contingency occur that results in activating the proposed RAS for the approved Facility, the TCM Rule will apply in order to restore generation in the area while the 500 kV West path is out of service.

For Further Information

The engineering connection assessment will be included in the AESO's Suncor Base Plant Cogeneration Facility Connection NID application. Following submission of the NID application to the AUC, the NID application will be posted on the AESO website at: <https://www.aeso.ca/grid/projects/>

If you have any questions or concerns, please contact the AESO at 1-888-866-2959 or stakeholder.relations@aeso.ca

Attachments:

AESO Need Overview Update: *Update - Need for the Suncor Base Plant Cogeneration Facility Connection in the Fort McMurray area*

Need for the Suncor Base Plant Cogeneration Facility Connection in the Fort McMurray area

Suncor Energy Inc. (Suncor) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its approved Suncor Base Plant Cogeneration Facility (Facility) in the Fort McMurray area. Distribution of the original AESO Need Overview began in August 2019. The AESO has since revised its proposed solution and schedule to respond to Suncor's request, as described below. Suncor's request can be met by the following solution:

REVISED PROPOSED SOLUTION

- Add two 240 kilovolt (kV) circuits to connect the existing Voyager 29EDD-94 substation to the existing Thickwood Hills 951S substation.
- Modify the Thickwood Hills 951S substation, including adding three 240 kV circuit breakers.
- Add or modify associated equipment as required for the above transmission developments.

REVISED NEXT STEPS

- The AESO has revised its schedule. The AESO now intends to apply to the Alberta Utilities Commission (AUC) for approval of the need in early 2020.
- The AESO's needs identification document (NID) application will be available on the AESO's website at www.aeso.ca/stakeholder-engagement/transmission-projects at the time of its application to the AUC.

The following organizations have key roles and responsibilities in providing access to the transmission system:

THE AESO

- Must plan the transmission system and enable access to it for generators and other qualified customers.
- Is regulated by the AUC and must apply to the AUC for approval of its NID.

ATCO

- Is the transmission facility owner in the Fort McMurray area.
- Is responsible for detailed siting and routing, constructing, operating and maintaining the transmission facilities.
- Is regulated by the AUC and must apply to the AUC for approval of its transmission facilities applications.

WHO IS THE AESO?

The Alberta Electric System Operator (AESO) plans and operates Alberta's electricity grid and wholesale electricity market safely, reliably and in the public interest of all Albertans. We are a not-for-profit organization with no financial interest or investment of any kind in the power industry.

We appreciate your views, both on the need for transmission system development and proposed transmission plans. If you have any questions or comments, please contact us directly.

CONTACT US

Alberta Electric System Operator

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