

June 16, 2022

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

Dear **Notified Market Participant Primary Contact:**

Re: **Planned Generating Facility Connections in the AESO's South Planning Region**

The Alberta Electric System Operator (AESO) would like to advise you that the proponents of two planned generating facilities (Facilities) have each applied for transmission system access to connect their respective Facilities to the Alberta interconnected electric system (AIES) in the AESO's South Planning Region.

Planning for the connection of these Facilities is undertaken by the AESO as part of the *AESO Connection Process*. The Facilities are as follows:

- the Wheatcrest Solar Project Connection; and
- the Vauxhall Solar Farm Connection.

The AESO has produced Need Overview documents that describe the AESO's proposed transmission development to connect each of the Facilities to the AIES and the AESO's next steps, which include consideration of the Wheatcrest Solar Project Connection and the Vauxhall Solar Farm Connection under the Abbreviated Needs Approval Process. Copies of the applicable AESO Need Overview documents are attached for your information.

You may have been notified by the AESO in January 2022 about the potential for congestion in the AESO planning areas of Vauxhall and Medicine Hat following the addition of new generation. The purpose of this letter is to advise you that the AESO has now identified that, under credible worse case forecast conditions, the operation of the **[Effective Generation Facility Name]** (**[Effective Generation Facility Asset ID]**) may be affected following the connection of one or more of the above-noted Facilities.<sup>1</sup>

Engineering connection assessments were carried out to assess the transmission system performance following the connection of the Wheatcrest Solar Project (Wheatcrest Facility) alone, the Vauxhall Solar Farm (Vauxhall Facility) alone, and both the Wheatcrest Facility and the Vauxhall Facility together.

### ***Connection Assessment Findings – Wheatcrest Solar Project Connection***

The connection assessment for the Wheatcrest Facility alone identified the potential for thermal criteria violations on the 138 kV transmission lines 610L and 879L following the connection of the Wheatcrest Facility, under credible worse case forecast conditions, with all transmission facilities in service (Category

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<sup>1</sup> The studies were performed assuming the following Rate STS, *Supply Transmission Service*, contract capacities: Wheatcrest Solar Project Connection, Rate STS of 60 MW; and Vauxhall Solar Farm Connection, Rate STS of 60 MW.

A). In addition, thermal criteria violations were also identified when a single transmission facility is out of service (Category B) following the connection of the Wheatcrest Facility.

The Vauxhall Area Transmission Development Project<sup>2</sup> will alleviate the thermal criteria violations under Category A conditions. In addition, to mitigate the potential Category B system performance issues, a new remedial action scheme (RAS) for 138 kV transmission line 763L will be required, which curtails the Wheatcrest Facility upon activation.

### **Connection Assessment Findings – Vauxhall Solar Farm Connection**

The connection assessment for the Vauxhall Facility alone identified the potential thermal criteria violations, under credible worse case forecast conditions, when a single transmission facility is out of service (Category B) following the connection of the Vauxhall Facility. To mitigate the potential Category B system performance issues, planned RAS 180 will be modified by adding the Vauxhall Facility to the RAS logic. In addition, a new RAS for 138 kV transmission line 763L will be required, which curtails the Vauxhall Facility upon activation.

### **Sensitivity Assessment Findings – Wheatcrest Solar Project Connection & Vauxhall Solar Farm Connection**

The sensitivity assessment identified the potential for thermal criteria violations on the 138 kV transmission lines 610L, 879L and 763L following the connection of both the Wheatcrest Facility and the Vauxhall Facility, under credible worse case forecast conditions, with all transmission facilities in service (Category A).

The Vauxhall Area Transmission Development project will alleviate the thermal criteria violations on 610L and 879L under Category A conditions. Should the AESO determine that mitigation is required to address potential thermal criteria violations on 763L under Category A conditions, the AESO may develop operational procedures or other mitigation measures.

### **Real Time Transmission Constraint Management**

The AESO will make use of real-time operational measures to mitigate these potential system performance issues 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.

The connection assessments have identified source assets, including the [**Effective Generation Facility Asset ID**], which are effective in mitigating the potential transmission constraints.

To address congestion under Category A conditions, the AESO will make an application to the AUC to obtain approval for an “exception” under Section 15(2) of the *Transmission Regulation*. The AESO will notify market participants when the AESO determines it is necessary to apply to the AUC for approval of such an exception.

### **For Further Information**

To support the AESO’s consideration of the Wheatcrest Solar Project Connection and Vauxhall Solar Farm Connection under the Abbreviated Needs Approval Process, the engineering connection assessments will be posted on the AESO website at: <https://www.aeso.ca/grid/projects/>. Stakeholders will be notified when

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<sup>2</sup> More information about the Vauxhall Area Transmission Development is available on the AESO website.

this occurs via an “Abbreviated Needs Approval Process: Notice of Consideration” post on the AESO website and in the AESO stakeholder newsletter.

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

Attachments:

AESO Need Overview: *Need for the Wheatcrest Solar Project Connection in the Enchant area*

AESO Need Overview: *Update - Need for the Vauxhall Solar Farm Connection in the Vauxhall Area*

# Need for the Wheatcrest Solar Project Connection in the Enchant area

*BER Wheatcrest Solar LP, on behalf of BER Wheatcrest Solar GP Inc. (BER Wheatcrest Solar LP), has applied to the AESO for transmission system access to connect its approved Wheatcrest Solar Project (Facility) in the Enchant area. BER Wheatcrest Solar LP's request can be met by the following solution:*

## PROPOSED SOLUTION

- Add one 138 kilovolt (kV) transmission line to connect the Facility to the existing 138 kV transmission line 763AL in a T-tap configuration.
- Add or modify associated equipment as required for the above transmission developments.

## NEXT STEPS

- The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of the need in early 2022.
- The AESO's needs identification document (NID) application will be available on the AESO's website at [www.aeso.ca/grid/projects](http://www.aeso.ca/grid/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.

## BER WHEATCREST SOLAR LP

- Has requested transmission system access to connect the Facility.
- Is responsible for detailed siting and routing, and constructing the new 138 kV transmission line to connect the Facility to the transmission line 763AL.
- Must apply to the AUC for approval of its transmission facilities applications.

## ALTALINK

- Is the transmission facility owner in the Enchant area.
- Is responsible for operating and maintaining the new 138 kV transmission line, and constructing, operating and maintaining the transmission facilities associated with the transmission line 763AL modification.
- 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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# Need for the Vauxhall Solar Farm Connection in the Vauxhall area

*Solar Krafte Utilities Inc. (Solar Krafte) has applied to the Alberta Electric System Operator (AESO) for transmission system access to connect its proposed Vauxhall Solar Farm (Facility) in the Vauxhall Area.*

*Distribution of the original AESO Need Overview began in May 2020. As a result of a change in the solution and schedule, the AESO determined that a Need Overview Update is required.*

*Solar Krafte's request can now be met by the following solution:*

## PROPOSED SOLUTION

- Add one 138 kilovolt (kV) transmission line to connect the Facility to the existing 138 kV transmission line 763L in a T-tap configuration.
- Add or modify associated equipment as required for the above transmission developments.

## NEXT STEPS

- The AESO intends to consider the need for this project for approval under section 501.3 of the ISO rules, Abbreviated Needs Approval Process (ANAP Rule) in late-2022.
- A minimum of 14 days prior to the project being considered under the ANAP Rule, the AESO will notify stakeholders and post supporting documents on the AESO's website at [www.aeso.ca/grid/projects](http://www.aeso.ca/grid/projects).
- If the AESO does not approve the need for this project under the ANAP Rule, the AESO may submit a needs identification document (NID) application to the Alberta Utilities Commission (AUC) for approval of the need for this project.

*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.
- Can approve certain requests for system access service through the ANAP. If this project no longer qualifies for approval under the ANAP, the AESO will prepare and submit a NID.
- Is regulated by the AUC and must apply to the AUC for approval of its NID.

## ALTALINK

- Is the transmission facility owner in the Vauxhall 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.

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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

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