

August 02, 2023

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

Dear **Notified Market Participant Primary Contact:**

Re: **Need for the Homestead Solar Project Connection in the Claresholm area**

The Alberta Electric System Operator (AESO) would like to advise you that KEC Homestead Solar GP Corp. (KEC) has applied for transmission system access to connect its Homestead Solar Project (approved Facility) to the Alberta interconnected electric system (AIES) in the AESO South Planning Region.

The purpose of this letter is to advise you that the AESO has identified that, under credible worse case forecast conditions, the **[Effective Generation Facility Name] ([Effective Generation Facility Asset ID])** may be curtailed following the connection of the approved Facility.

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.¹ The connection assessment sensitivity studies (which include both the Kirkcaldy Solar Energy Centre and the Nova Solar Project) identified the potential for thermal criteria violations on the 240 kV transmission lines 1109L and 1080L following the connection of the approved Facility, under credible worse case forecast conditions with all transmission facilities in service (Category A). Should the AESO determine that mitigation is required to address potential thermal criteria violations under Category A conditions, the AESO may develop operational procedures or other mitigation measures.

Thermal criteria violations were also identified when a single transmission facility is out of service (Category B) following the connection of the approved Facility. To mitigate the potential Category B system performance issues, planned remedial action scheme (RAS) 193 will be modified by adding the approved Facility to the RAS logic, which curtails the approved Facility upon activation. With the addition of the Facility, the total megawatts tied to RAS 193 would exceed the Maximum Severe Single Contingency (MSSC) limit, assuming the Kirkcaldy Energy Centre is also in service. Therefore, pre-contingency curtailment of projects assigned to the RAS may be required under the Category A condition, to prevent generation curtailment above the MSSC limit during Category B conditions.

The AESO may also 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). 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 400 MW.

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

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

For Further Information

The AESO Need Overview document is attached for your information. The AESO Need Overview describes the AESO’s proposed transmission development to connect the approved Facility to the AIES.

To support the AESO’s consideration of the Homestead Solar Project Connection under the Abbreviated Needs Approval Process, the engineering connection assessment will be posted on the AESO website at: <https://www.aeso.ca/grid/transmission-projects/homestead-solar-project-connection-2445/>. Stakeholders will be notified when this occurs via 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

Attachments:

AESO Need Overview: *Need for the Homestead Solar Project Connection in the Claresholm area*

Need for the Homestead Solar Project Connection in the Claresholm area

Kiwetinohk Energy Corp. (Kiwetinohk) has applied to the AESO for transmission system access to connect its approved Homestead Solar Project (Facility) in the Claresholm area. Kiwetinohk's request can be met by the following solution:

PROPOSED SOLUTION

- Add one 240 kilovolt (kV) transmission line to connect the Facility to the existing 240 kV transmission line 1037L 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 mid-2023.
- The AESO's needs identification document (NID) application will be available on the AESO's website at www.aeso.ca/grid/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.

KIWETINOHK

- Has requested transmission system access to connect the Facility.
- Is responsible for detailed siting and routing, and constructing the new 240 kV transmission line to connect the Facility.
- Must apply to the AUC for approval of its transmission facilities applications.

ALTALINK

- Is the transmission facility owner in the Claresholm area.
- Is responsible for operating and maintaining the new 240 kV transmission line, and constructing, operating and maintaining the transmission facilities associated with the addition of the new 240 kV transmission line.
- 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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