

Appendix F - AESO Stakeholder Engagement Survey

1. Introduction

Pursuant to section 15(2) of the *Transmission Regulation* (TReg), the AESO is applying to the Alberta Utilities Commission (Commission) for an exception to the matters described in section 15(1)(f) of the TReg. In support of this request, between January and May 2022 the AESO engaged market participants that it determined may be affected by potential congestion and advised the Commission of its intention to file a request for approval of an exception. This report provides a summary of that engagement.

2. Engagement

2.1 Notification

The AESO developed a Market Participant Notification Letter with the purpose of notifying affected market participants in the Vauxhall and Medicine Hat planning areas of the following items:

- potential for congestion under credible worse case forecast conditions;
- the status of related system improvements and associated regulatory considerations;
- the AESO's commitment to keeping the market participants informed of next steps; and
- an invitation to an information session.

A copy of the Market Participant Notification Letter (Attachment 1) was e-mailed to the following six market participants on January 14, 2022:

- Enbridge Inc.
- BHE Canada Rattlesnake L.P.
- Conrad Solar Inc.
- ENMAX Energy Corporation
- Signalta Resources Limited
- Yellow Lake & Burdett Solar LP

The AESO advised the Commission on April 14, 2022 (Attachment 2) of its intention to file a request for approval of an exception to the matters described in section 15(1)(f) of the TReg, as part of the *Vauxhall Area Transmission Development Needs Identification Document*.

2.2 Information Session

The AESO hosted a Zoom information session on February 17, 2022 from 9:00am to 10:00am MST. The above noted market participants were all invited and representatives from four out of the six market participants listed above attended. These included Enbridge Inc., ENMAX Energy Corporation, Signalta Resources Limited, and Yellow Lake & Burdett Solar LP. The information session consisted of a presentation by the AESO (Attachment 3) followed by a Question & Answer period for the market participants to raise any questions and concerns. The following key themes were presented by the AESO:

- Background about the existing transmission system in the Study Area.
- Overview of deterministic and probabilistic studies completed to date.
- System planning considerations for mitigation.

- Investigation of various transmission alternatives and the selection of a preferred transmission alternative for the Vauxhall Area Transmission Development.
- Proposed Vauxhall Area Transmission Development project schedule.

At the information session, the AESO responded to questions and concerns raised by the Market Participants by providing information about the following:

- The reasons for and causes of congestion.
- The AESO's process for congestion assessment and notification of Market Participants.
- The AESO's process for responding to requests for system access service.
- Impacts on existing generation in the area, including how curtailment is managed.
- How the Real Time Transmission Constraint Management (TCM) Rule is used.
- How generator effectiveness is determined.
- The AESO is considering applying for an exception to the matters described in section 15(1)(f) of the TReg, if necessary.
- Capacity for future connections in the area.
- Opportunities to further information and engagement with the AESO.
- The status of the AESO's congestion assessment for the Vauxhall area and when the report will be made available to Market Participants.

2.3 Follow-Up

The AESO issued a copy of its presentation to the market participants that attended the information session on February 18, 2022.

On May 4, 2022, the AESO issued a follow-up Market Participant Letter to all six market participants via e-mail. The letter included preliminary congestion assessment results and an update on the Vauxhall Area Transmission Development project (Attachment 4). No additional questions or concerns were raised to the AESO since the May 4, 2022 follow-up e-mail.

3. List of Attachments

- Attachment 1 – AESO Market Participant Notification Letter (January 14, 2022)
- Attachment 2 – AESO Exception Letter to the Commission (April 14, 2022)
- Attachment 3 – AESO Presentation (February, 2022)
- Attachment 4 – AESO Follow-up Market Participant Notification Letter (May 4, 2022)

Attachment 1 – AESO Market Participant Notification Letter (January 14, 2022)

SENT VIA EMAIL

January 14, 2022

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

Dear **Notified Market Participant Primary Contact:**

Re: Update regarding Potential Congestion in the Vauxhall & Medicine Hat Planning Areas

The purpose of this letter is to provide you with an update regarding the potential for congestion in the AESO planning areas of Vauxhall and Medicine Hat, and to extend an invitation to attend an information session with representatives of the AESO to discuss this matter.

The AESO has identified that, under credible worse case forecast conditions, there is potential for congestion with the operation of new generation in the planning areas noted above. The AESO is continuing to perform more detailed congestion analyses and is in the process of considering related system improvements and associated regulatory considerations (including a section 15(2) exception to subsection 15(1)(f) of the *Transmission Regulation*).

This letter is being provided in advance of this work being completed in the spirit of transparency and in consideration of the potential impacts to **[Effective Generation Facility Name] ([Effective Generation Facility Asset ID])**. The AESO is committed to keeping you informed regarding next steps, including with respect to filing a section 15(2) exception.

The AESO will be hosting an information session on this matter for impacted parties and would be pleased if you are able to attend. Please [follow this link](#) for full details and to register for this session. Should you have any questions regarding this session or otherwise please do not hesitate to contact Doug Walker at Doug.Walker@aeso.ca.

Yours truly,

AESO Stakeholder Relations

cc: Doug Walker,
Senior Project Manager, Customer Connections

Attachment 2 – AESO Exception Letter to the Commission (April 14, 2022)

April 14, 2022

Wayne MacKenzie
Executive Director, Facilities
Alberta Utilities Commission
Eau Claire Tower
1400, 600 Third Avenue SW
Calgary, AB T2P 0G5

Dear Mr. MacKenzie:

Re: **Vauxhall & Medicine Hat Planning Area Congestion and 15(2) Application**

The AESO is currently preparing a needs identification document (NID) for the Vauxhall and Medicine Hat planning areas pursuant to section 34 of the *Electric Utilities Act* and anticipates filing this NID in late summer. As part of the AESO's work to prepare this NID, the AESO conducted a congestion assessment to estimate the probability of congestion after the upcoming energization of generation projects in the planning areas. The congestion assessment revealed that there is the potential for congestion, and in fact, congestion has since been observed in real-time.

This letter is to advise the Commission that, given the results of the congestion assessment, the AESO intends to file an application under section 15(2) of the *Transmission Regulation* and that, in the interests of regulatory efficiency, it will be filed together with the NID. In the interim, the AESO has advised potentially impacted generators of the potential for congestion and held an information session for these generators during which the AESO presented further information on this matter and answered questions.

Please feel free to contact the undersigned via email at Jodi.Marshall@aeso.ca if you have any questions.

Yours truly,

"Electronically submitted"

Jodi Marshall
Legal Manager, Transmission

Attachment 3 – AESO Presentation (February, 2022)

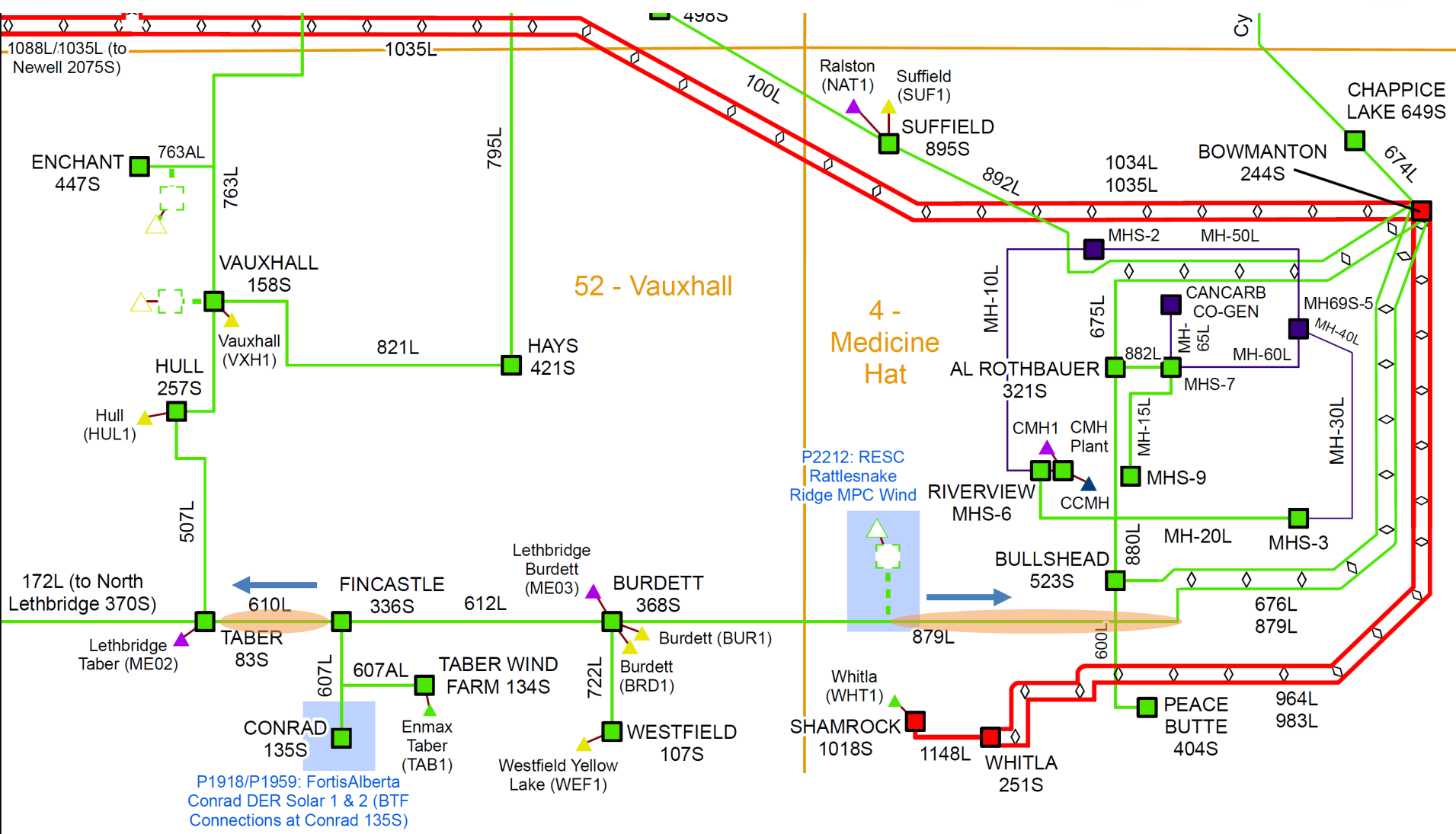
Vauxhall Area Congestion Presentation

February 17, 2022

- Background/Study Area Description
- Technical studies performed
 - Deterministic studies
 - Probabilistic studies
- Considerations/Impacts
- System transmission development
 - Preferred alternative
 - Timeline

- Vauxhall area– 138kV transmission system west of Taber to east of Burdett
- P2212 – RESC Rattlesnake Ridge MPC Wind
 - Met project inclusion criteria
 - In construction
 - Transmission ISD achieved
 - COD planned for April 14, 2022
- Potential Category A (N-0) thermal violations identified on 879L and 610L when the following generators are at high output
 - Rattlesnake Ridge, Taber, Conrad, Burdett, Westfield and others

Study Area



- Deterministic studies based on 2021 LTO:
 - Most restrictive scenario: 2022 Summer Light (SL) load condition
 - Local high renewable generation condition. The renewable facilities in the vicinity of P2212, including all that met the Project Inclusion Criteria, were dispatched as follows:

Generation Condition	Capacity Factors (CF)	SL
High Renewables	Solar CF (%)	70
	Wind CF (%)	100

- MATL was set to export. SK-AB intertie, to import.
- **The deterministic studies identified an N-0 thermal overload on 610L**

Probabilistic Studies Performed – Preliminary Congestion Assessment

- Power flow assessment each hour of a year (8760 simulations)
- Identified N-0 thermal overloads for each hour on 610L and 879L

	Summer Rating (MVA)	Winter Rating (MVA)	Probability of congestion (%/hrs)		
			Summer	Winter	Overall
610L_336S	85	90	6.79 / 300	5.99 / 260	6.39 / 560
879L_244S	85	90	4.51 / 199	3.78 / 164	4.14 / 363

- Congestion is more likely to occur when area load is light coupled with high wind and solar.
- The month that shows the highest probability of congestion is October
- Overall volume of congested energy of 8090 MWhs.

Probabilistic Studies Performed - Congestion Assessment Mitigation

- If congestion occurs the AESO will utilize Real Time Transmission Constraint Management – Rule 302.1
- The AESO will take into account constraint effective factors to determine the pool assets that would be effective in mitigating the transmission constraints
- Several generators are effective at mitigating the congestion on 610L.
 - Conrad Solar DERs 0.735
 - Taber WAGF 0.734
 - Burdett Solar DERs 0.656
 - Westfield Solar DER 0.643
 - P2212 Rattlesnake 0.487
- Effectiveness is calculated as the variation (in MW) of the flow on 610L when a generator output is increased by 1 MW, and can be expressed in p.u

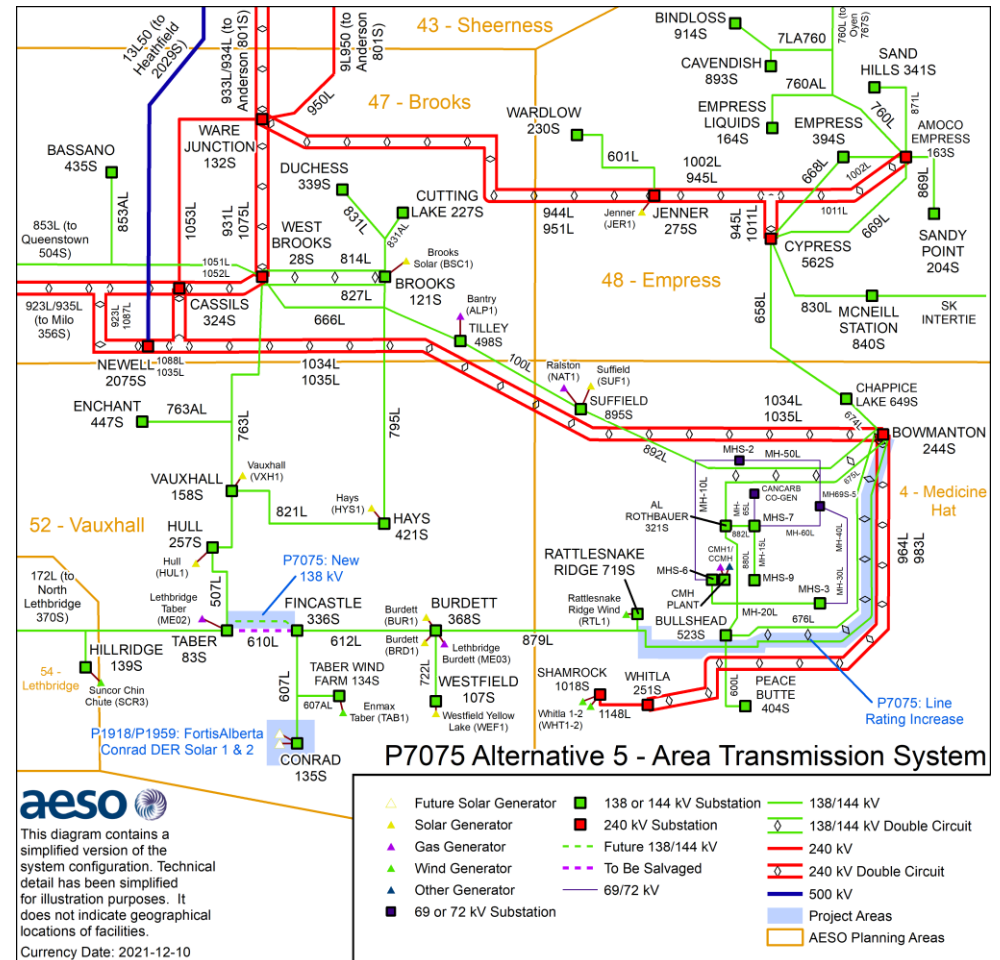
System Planning Considerations for Mitigation

- AESO System Planning is working on a solution for the area that will address the congestion risk on 610L and 879L
- Until that solution is in place, effective generators in the area, may be curtailed in real-time to avoid congestion, according to the *TCM rule*.

- The AESO investigated various transmission reinforcement alternatives to mitigate the congestion observed
- A preferred alternative is chosen based on the following considerations:
 - Cost
 - Additional generation integration capability
 - Land use and environmental impact

Preferred Transmission Alternative

- The preferred alternative involves:
 - Modify thermal line rating of the Rattlesnake tap to Bowmanton portion of 879L from 85 MVA to 118 MVA
 - Construct a new 610L 138 kV line with a thermal rating of approximately 180 MVA



Activity	Duration (Months)	Planned Date
File NID	7	Sep 2022
File FA	7	Sep 2022
AUC Approval (All Applications)	9	Jun 2023
In-Service Date	12	Jun 2024

Note: The AESO is continuing to perform more detailed congestion analyses and is considering associated regulatory implications including a section 15(2) exception to subsection 15(1)(f) of the Transmission Regulation.

Q&A/Discussion

Attachment 4 – AESO Follow-up Market Participant Notification Letter (May 4, 2022)

May 04, 2022

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

Dear **Notified Market Participant Primary Contact**:

Re: Update regarding Potential Congestion in the Vauxhall & Medicine Hat Planning Areas

The purpose of this letter is to provide you with an update regarding expected transmission congestion in the AESO planning areas of Vauxhall and Medicine Hat, based on input provided during the information session held on February 17, 2022. This update is being provided in the spirit of transparency and in consideration of the potential impacts to **[Effective Generation Facility Name] ([Effective Generation Facility Asset ID])**.

The latest congestion assessment results show that congestion is expected to occur in the Vauxhall and Medicine Hat planning areas approximately 8-9% of hours in a year (i.e., 700-800 hours). The total congested energy is approximately 11,500-13,000 MWh. The simulations show that congestion is as likely to occur in the summer season as it is in winter season.

The congestion assessment analysis provides an indication of the potential congestion in the Vauxhall and Medicine Hat area. As the variables used in the analysis are dynamic in nature and not certain for the future, the congestion assessment can quantify the likelihood and magnitude of congestion, but not the timing. Therefore, The AESO believes the congestion assessment results should not be used for planning a unit's economic dispatch nor for outage planning.

The AESO has initiated the Vauxhall Area Transmission Development to alleviate expected congestion in the Medicine Hat and Vauxhall planning areas and intends to file a Needs Identification Document and an application under Section 15(2) of the *Transmission Regulation* in 2022. Therefore, the congestion assessment results are preliminary and are subject to change as the assessment is finalized for the filing of the AESO's NID and application under Section 15(2) of the *Transmission Regulation*. For further information about the Vauxhall Area Transmission Development, please visit the AESO website at <https://www.aeso.ca/grid/projects/vauxhall-area-transmission-development-7075>

Should you have any questions regarding the information provided, please do not hesitate to contact Doug Walker at Doug.Walker@aeso.ca.

Yours truly,

Doug Walker,
Senior Project Manager, Customer Connections