

Stakeholder Comment Matrix



Proposed Amended ISO rule – Section 501.10, *Transmission Loss Factors (additional amendments)*

Period of Comment:	January 22, 2019	through	February 6, 2019	Contact:	Travis Tuchscherer
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Please provide comments relating to the subsection of the proposed amendments to the rule in the corresponding box. Please include any views on whether the language clearly articulates the requirement for either the AESO or a market participant, and provide any proposed alternative wording by blacklining the proposed language below.

Section	Subsection	Proposed language	Stakeholder comments
3	(1)	<p>Make Loss Factors Publicly Available</p> <p>3(1) The ISO must make final loss factors, <u>including the dates when each loss factor becomes effective</u> and ceases to be effective, publicly available on the AESO website:</p> <ul style="list-style-type: none"> (a) <u>using reasonable best efforts</u>, no later than the <u>first business day of October</u> prior to the calendar year in which the loss factors will apply; <u>or</u> (b) if the ISO is unable to make final loss factors available by the first <u>business day of October</u>, no later than the <u>last business day of December</u> prior to the calendar year in which the loss factors will <u>apply</u>. 	No comment.
6	(1)	The ISO must calculate loss factors using hourly historical metered volume and merit order data for all source assets connected to the transmission system that are included in the system topologies created in subsection 7 below, for the calendar year for which loss factors are being determined, by:	.

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		<p>(a) using hourly historical data for the calendar year two (2) years prior to the calendar year for which loss factors are being determined;</p> <p>(b) including, in the following order, the following volumes for each source asset, including for the eleven (11) locations at which hydro generating units on the Bow River system are connected to the transmission system:</p> <ul style="list-style-type: none"> (i) all metered energy for source assets that do not submit price-quantity offers in the energy market; (ii) all dispatched operating blocks for source assets that submit price-quantity offers in the energy market, in merit order first by price and then by size; (iii) all undischarged operating blocks offered in the energy market for source assets that submit price-quantity offers in the energy market, in merit order first by price and then by size; (iv) all volumes for source assets that the ISO accepts for dispatch for contingency reserve, in merit order first by price and then by size; and (v) all available transfer capability which is not scheduled for imports over interties; <p>(c) incorporating any change to maximum capability or contract capacity associated with a connection project, behind the fence project or contract capacity change project for a source asset included in the historical data by increasing or decreasing the source asset's historical volumes in subsection 6(b) above in proportion to the change in maximum capability or contract capacity, as appropriate;</p> <p>(d) incorporating any return to service for a source asset that was subject to a mothball outage, a planned outage or a similar extended outage for <u>one entire month or longer</u> during the historical year, by <u>the ISO</u> reasonably adjusting the historical volumes of the source asset for the months affected by the mothball outage, planned outage or similar</p>	<p>No comment.</p>

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		<p>extended outage in the historical year, <u>following an opportunity for the legal owner of the source asset to review and comment on the basis for the adjusted volumes;</u></p> <p>(e) incorporating any new source asset not included in the historical data but which has an expected in-service date by the end of the calendar year for which loss factors are being determined, by assigning such new source asset an hourly data profile after its expected in-service date reflecting the hourly data profile that is, for the same period:</p> <ul style="list-style-type: none"> (i) the average of all source assets of the same technology owned by the same market participant in the historical data; (ii) if no source asset of the same technology is owned by the same market participant in the historical data, the average of all source assets of the same technology owned by any market participant in the historical data; and (iii) if no source asset of the same technology is owned by any market participant in the historical data, determined by the ISO <u>after the legal owner of the new source asset has been provided an opportunity to review and comment on the basis for the hourly data profile.</u> <p>and</p> <p>(f) excluding any source asset during a month when, for the entirety of that month of the calendar year for which loss factors are being determined:</p> <ul style="list-style-type: none"> (i) the market participant has notified the ISO that the source asset is planned to be subject to a mothball outage, a planned outage or a similar extended outage; or (ii) the system access service for the source asset is planned to have been terminated. 	<p>No comment.</p>

Section	Subsection	Proposed language	Stakeholder comments
8	(4)	<p>The ISO must, unless it is not possible, calculate transmission system losses for an initial state for each hour of the calendar year for which loss factors are being determined, based on:</p> <ul style="list-style-type: none"> (a) the volumes for metered energy and dispatched operating blocks included in subsections 6(1)(b)(i), 6(1)(b)(ii), and 6(2)(b) above, as applicable, for that hour; and (b) balancing total supply to total load plus transmission system losses in that hour by: <ul style="list-style-type: none"> (i) increasing the volume for undischarged operating blocks, contingency reserve and available transfer capability which is not scheduled from one (1) or more source assets, in the order described in subsection 6(1)(b) above; (ii) <u>where net demand from the transmission system exists at a location where volume from a source asset would be increased in subsection 8(4)(b)(i) above:</u> <ul style="list-style-type: none"> (A) <u>first decreasing the metered energy to load at that location as necessary to balance the system, but by no more than required to reduce net demand to zero (0); and</u> (B) <u>then increasing the volume from the source asset as necessary to balance the system;</u> <u>Or</u> (iii) decreasing the volume for metered energy and dispatched operating blocks in the order described in subsection 6(1)(b) above. 	<p>Proposed changes to section 8(4) and 8(5) are deficient and further revisions are required to reflect the need to redispatch idle capacity in step with available merit order offer blocks.</p> <p>The deficiency is easily illustrated by the following scenario: Rebalancing requires the redispatch of 12 MW. The first undischarged offer in the merit order is a 5 MW offer block belonging to a dual-use site. The dual-use site has an initial condition of 8 MW net-load.</p> <p>Under the proposed language the dual-use site is redispatched so that the metered energy is reduced to net zero (8 MW reduction), then net-supply increased to balance the system (~4 MW net supply). In total, a notional redispatch of behind-the fence generation of 12 MW. However, this language ignores whether the dual-use site is entirely the in-merit marginal generation. In our scenario, the dual-use site is only in-merit for a 5 MW block; at most its net-load should drop 5 MW. The remainder of the redispatch should be sourced from another location.</p> <p>The City submits that modelling dual-use sites on a net-flow basis is inherently problematic. Dual-use sites should be modelled with gross load and gross generation connected at a single node. Under this arrangement, dual-use generation can be redispatched, while holding load constant. Moreover, dual-use generation would then be redispatched according to its merit order block per 8(1), without conflict.</p>
8	(5)	<p>The ISO must, unless it is not possible, calculate transmission system losses for a redispatched state for each hour of the calendar year for which loss factors are being determined:</p> <ul style="list-style-type: none"> (a) for each location for system access service provided under Rate STS or Rate IOS, based on: 	<p>See comments re. 8(4).</p>

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		<ul style="list-style-type: none"> (i) reducing the volume for metered energy or dispatched operating blocks for the location such that net supply to the transmission system is zero (0) while the facilities of the market participant remain connected for the applicable system access service; (ii) increasing the volume for undischarged operating blocks, contingency reserve and available transfer capability which is not scheduled from one (1) or more source assets, in the order described in subsection 6(1)(b) above, such that total supply balances the total load plus transmission system losses with the net supply to the transmission system set to zero (0) for the applicable system access service; and <ul style="list-style-type: none"> (iii) where net demand from the transmission system exists at a location where volume from a source asset would be increased in subsection 8(5)(a)(ii) above: <ul style="list-style-type: none"> (A) first decreasing the metered energy to load at that location as necessary to balance the system, but by no more than required to reduce net demand to zero (0); and (B) then increasing the volume from the source asset as necessary to balance the system; <p>and</p> <ul style="list-style-type: none"> (b) for each location for system access service provided under Rate DOS, based on: <ul style="list-style-type: none"> (i) reducing the volume for metered energy for the location such that net demand from the transmission system reflects the Rate DTS contract capacity for the applicable system access service; (ii) decreasing the volume for metered energy and dispatched operating blocks from one or more source assets, in the order described in subsection 6(1)(b) above, such that total supply 	

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		<p>balances the total load plus transmission system losses with the net demand from the transmission system reflecting the Rate DTS contract capacity for the applicable system access service; and</p> <p>(iii) where metered energy to load was decreased in subsection 8(4)(b)(ii) above at a location where volume from a source asset would be decreased in subsection 8(5)(b)(ii) above:</p> <p>(A) first decreasing the volume from the source asset as necessary to balance the system, but by no more than required to reduce net supply to zero (0); and</p> <p>(B) then increasing the metered energy to load at that location as necessary to balance the system, but by no more than required to increase net demand to its original value.</p>	

Please provide your comments on the following (as set out in AUC Rule 017 s. 7.2(b-j)):

Item #		Stakeholder comments
1	whether you are of the view that amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i> relates to the capacity market and why or why not	No
2	if the answer to item #1 is yes, whether you agree that amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i> should or should not be in effect for a fixed term and why or why not	N/A
3	whether you understand and agree with the objective or purpose of amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i> and whether, in your view, Section 501.10, <i>Transmission Loss Factors</i> meets the objective or purpose	The AESO states that the purpose of the proposed amendments to section 8(4) and 8(5) is to allow for the reduction of net demand from dual-use sites when these locations are the marginal in-merit source of supply. The AESO can achieve the redispatch of dual-use supply without conflict by modelling dual-use sites at a single node connecting gross load and gross supply, then redispatch only gross supply (and holding gross load constant). This minor change in the modeling framework would then allow dual-use generation to be redispatched similarly to other locations (per the merit order), without the need to adjust load, and in compliance with the AUC directive to keep load constant.
4	how, in your view, amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i> affects the performance of the capacity market and the electricity market	
5	your views on any analysis conducted or commissioned by the AESO supporting amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i>	The AESO provided one simple example in the Notification, without consideration to the conflict its amendment presents with other aspects of the rule. The proposed amendments to 8(4) and 8(5) conflicts with merit order redispatch.
6	whether you agree with amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i> taken together with all ISO rules and in light of the principle of a fair, efficient and openly competitive market	Proposed changes to section 8(4) and 8(5) are not aligned with FEOC principles as they create inherent conflicts in the rule.

Item #		Stakeholder comments
7	whether you would suggest any alternatives to amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i>	Dual-use sites should be modelled at a single node connecting gross load and gross generation. Any redispatch of dual-use generation should then follow merit order redispatch of the gross generation, holding load constant.
8	if the answer to item #1 is yes, whether you agree that the amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i> supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	N/A
9	whether you agree that the amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i> supports the public interest and why or why not	No. The proposed amendment language conflicts with other parts of the rule.