

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

Period of Comment:	January 22, 2019	through	February 6, 2019	Contact:	Connor Curson
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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, including the dates when each loss factor becomes effective and ceases to be effective, publicly available on the AESO website:</p> <ul style="list-style-type: none"> (a) using reasonable best efforts, no later than the first business day of October prior to the calendar year in which the loss factors will apply; or (b) if the ISO is unable to make final loss factors available by the first business day of October, no later than the last business day of December prior to the calendar year in which the loss factors will apply. 	<p>The AESO states that the rationale for the proposed amendment to subsection 3(1) is that the November deadline for the publication of loss factors, established in the current rule, does not allow it to address any issues prior to year-end. As such, it proposes moving the publication date forward.</p> <p>Powerex has no objection to moving the publication date forward, however, Powerex does not think the proposed amendment to subsection 3(1) is required in order to enable this. That is, the flexibility the AESO is seeking with the proposed amendment to subsection 3(1)(a) is already present in the current rule which already allows the AESO to publish loss factors on a best efforts basis on the first business day of October prior to the calendar year in which loss factors will apply. As such, no rule change is required to enable the AESO to advance its work schedule to make loss factors available earlier – in October or any other earlier date.</p> <p>Powerex has concerns with respect to the proposed amendment to subsection in 3(1)(b) and is of the view that the November deadline, as established in the current rule, should be maintained.</p> <p>The current rule stipulates that the AESO must publish loss factors for the following year by the fifth business day in November each year. As above, the AESO’s rationale for the</p>

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			<p>proposed amendment to subsection 3(1) is to provide the AESO with more time to address any issues with respect to the loss factors, if any arise. Yet a publication date of the last business day in December would seem to be at cross-purposes to the AESO's stated purpose, as it would leave no time for market participants and the AESO to address any potential issues.</p> <p>Powerex strongly suggests that the November deadline be maintained in order to facilitate the opportunity for market participants to identify possible errors in the calculation of the loss factors. This would allow for a possible remedy before the operating horizon of the new loss factors (i.e., January 1 of the following year).</p>
6	(1)	<p>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:</p> <ul style="list-style-type: none"> (a) using hourly historical data for the calendar year two (2) years prior to the calendar year for which loss factors are being determined; (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: <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; 	

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		<ul style="list-style-type: none"> (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; (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; (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 one entire month or longer during the historical year, by the ISO reasonably adjusting the historical volumes of the source asset for the months affected by the mothball outage, planned outage or similar extended outage in the historical year, following an opportunity for the legal owner of the source asset to review and comment on the basis for the adjusted volumes; (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: <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 	

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		<ul style="list-style-type: none"> (iii) if no source asset of the same technology is owned by any market participant in the historical data, determined by the ISO 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. <p>and</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: <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. 	
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; 	

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		<ul style="list-style-type: none"> (ii) 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: <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; Or (iii) decreasing the volume for metered energy and dispatched operating blocks in the order described in subsection 6(1)(b) above. 	
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: <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 undischatched 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 	

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		<p>(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:</p> <p>(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</p> <p>(B) then increasing the volume from the source asset as necessary to balance the system;</p> <p>and</p> <p>(b) for each location for system access service provided under Rate DOS, based on:</p> <p>(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;</p> <p>(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 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>	

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		(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.	

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	Powerex believes the amended ISO Rule relates to an existing Rule, and that this Rule is independent of the capacity market.
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	
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	<p>See above. The proposed amendments to subsection 3(1) are unnecessary. No amendments are required in order to enable the AESO to advance its work schedule and make loss factors available earlier. The AESO’s current rule already allows for this flexibility.</p> <p>Additionally, Powerex strongly suggests that the November deadline, as established in the current rule, be maintained if any ability on the part of market participants to identify possible errors in the calculation of the loss factors is going to be facilitated. This date, if met by the AESO, should allow for the identification of issues and a possible remedy before the operating horizon of the new loss factors (i.e., January 1 of the following year). A publication date of the last business day in December would leave no time for market participants and the AESO to identify and address any potential issues.</p>
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>	

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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	As noted above, Powerex does not agree with the proposed amendments to subsection 3(1) – they are unnecessary and the current wording in subsection 3(1) of the rule should be maintained.
7	whether you would suggest any alternatives to amended ISO rule – Section 501.10, <i>Transmission Loss Factors</i>	Powerex suggests that no changes be made to existing rule Section 3(1). The AESO should adjust its work processes and schedules to ensure that final loss factors for the following year can be published <u>no later than</u> the fifth business day of November prior to the year in which the Loss Factors apply.
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	
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	