ALTALINK
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March 29, 2018

Alberta Electric System Operator
Calgary Place,
2500, 330-5th Avenue S.W
Calgary AB, T2P 0L4

Attention: Doyle Sullivan, P. Eng.
Director, Tariff Design

Dear Mr. Sullivan:

Re: 2018 ISO Tariff Application
Proceeding 22942
Consultation on 12-Coincident Peak Issue

On March 12, 2018, AltaLink attended a 12-conincident peak (CP) session at the Alberta Electric System Operator (AESO). On March 14, 2018, the AESO requested participants submit comments and responses, and any detail to help the AESO understand the additional data or data analysis requested on the issue of CP. On March 21, 2018, the AESO extended the deadline for submission to March 30, 2018.

CP is an important issue for rate design in Alberta and AltaLink appreciates the AESO taking active steps to involve all parties to help ensure a proper outcome. AltaLink participated in the session held on March 12, 2018 to help contribute and understand all parties' positions. AltaLink understands a further session on the CP issue will be held on April 9, 2018 and AltaLink confirms that it will be in attendance. Ren Orans, Zachary Ming, Zora Lazic, and Gary Hart plan to attend in person on AltaLink's behalf at the AESO. Others from AltaLink may call in on an as needed basis.

As requested, AltaLink's general comments on the 12-coincident peak issue and session are as follows.

AltaLink's immediate concern is with the unintended incentives resulting from the current Bulk System Rate (BSR) Design. Through the March 12, 2018 stakeholder session at the AESO, AltaLink's consultant provided evidence that the Bulk CP rate is no longer aligned with the incremental BSR and has reached a level where it is economic to bypass the bulk transmission rate. Due to the strong bypass signal provided by the current Bulk Transmission System Rate Design, AltaLink is concerned customers may be actively taking steps to bypass or load shed to avoid costs.

AltaLink understood from the March 12, 2018 stakeholder session that parties disagree on the following:

1. Is the bulk CP rate sending an appropriate economically efficient price signal?
2. Does the bulk CP rate reflect a fair cost allocation based on the causal relationship between embedded bulk costs and bulk transmission usage?

Economically Efficient Price Signal
AltaLink agrees with IPCAA, ADC and DUC that the most important rate design goal in this case is the reflection of appropriate price signals. These parties argue the current 12 CP cost allocation methodology is sending appropriate price signals because customers are responding to it.

AltaLink respectfully disagrees. The goal of an efficient and appropriate price is not solely to induce behavior, but to induce behavior that saves costs for all customers and is fair to all market participants. To incent economically efficient behavior by saving costs for all customers and fairly allocating these savings, prices should be set as close to the incremental costs of service as possible. Based on AltaLink's preliminary analysis, the incremental costs of serving new CP loads is substantially less than the current embedded-cost-based level. Further, based on using the AESO's long term forecast, the incremental costs of serving new CP loads could stay that way for some time.

Embedded Costs and Transmission Usage
AltaLink agrees with the UCA and the CCA that the bulk system service rate is probably higher than would be justified by a fair cost allocation of embedded costs. Allocating some of the Bulk system costs to more causally linked charges, for example attributing 240 kV facilities to the regional charge, might provide a more equitable cost allocation. However, AltaLink remains of the view that large levels of new uneconomic bulk system bypass are imminent, and is concerned that new studies that might be required to develop a completely new cost of service study might be time consuming and would unnecessarily delay bringing this important issue before the commission.

Transition period and Timeline
AltaLink is also keenly aware that many existing industrial customers could have increases in their transmission service bills should its proposal be adopted without a transition mechanism. To immediately stop this impact, AltaLink proposes a mechanism that will shift no costs between existing customers and focus on preventing new uneconomic bypass. AltaLink proposes to apply a more efficient marginal-cost-based rate solely to customers with new, behind the fence generation that becomes operational after January 1, 2019. All existing BTF generation would continue to be billed on a 12-conicident peak basis for bulk transmission service. Customers installing new BTF generation after January 1, 2019, would be billed on a new rate that is based on the incremental cost of transmission service on a 12-conicident peak basis, with the remaining transmission costs collected from a non-coincident peak or NCP charge. This proposed change would minimize system costs by preventing new uneconomic bypass immediately. A more comprehensive cost-of-service study can be used in a full rate design review in the future.

AltaLink's proposal as described above is a reasonable compromise between existing parties that can be easily implemented without the need for substantial new work or analysis. If there is no problem with the existing design and there is no pending large amounts of uneconomic bypass on the immediate horizon, the rate modification will have no impact on any customer or stakeholder. Conversely, if the bypass threat is large, this modification will assure that the costs saved from the BSR bypass are in line with the bulk transmission related benefits provided.

Data Request
In order to estimate the appropriate incremental cost of service for the Bulk CP charge and to verify the current levels of uneconomic cross subsidization among customers, AltaLink requires further information on AESO's transmission planning, drivers of new transmission needs, and projections for behind the fence generation. AltaLink has attached data requests to ascertain this information.

AltaLink looks forward to working further with parties to resolve the 12-coincident peak issue with the hope that the Commission can expeditiously act to modify the rate to realign it with its original design objectives.

Yours truly,

(Original signed by)

Gary Hart
Executive Vice President and Chief Operating Officer

Reference: 2017 Long-term Outlook data file ("2017-LTO-data-file.xlsx"), August 17, 2017

Issue: AltaLink seeks further information regarding the AESO's estimate of bypass of the DTS bulk CP charge.

Quote: i) First table of "AIL and System Load Energy" worksheet in reference file:

System Load Annual Energy by Scenario (GWh)
Reference Case

Year	Total AIL Energy	Total On-site Generation Energy	BTF Energy (Energy Served by On-site Generation)	System Load Energy**
	[A]		[B]	[A] - [B]
2014*	79,950	-	17,370	62,580
2015*	80,257	-	17,780	62,477
2016*	79,560	-	17,449	62,112
2017	82,607	34,392	18,757	63,850
2018	83,884	35,480	18,940	64,944
2019	85,467	35,328	19,246	66,221
2020	86,536	35,529	19,643	66,892
2021	87,295	36,323	20,239	67,056
2022	87,872	36,635	20,553	67,319
2023	88,253	36,543	20,477	67,776
2024	89,223	36,614	20,567	68,657
2025	89,939	36,603	20,496	69,442
2026	90,677	36,879	20,554	70,123
2027	91,682	36,810	20,552	71,130
2028	92,708	36,598	20,423	72,284
2029	93,389	36,525	20,586	72,803
2030	94,304	36,512	20,805	73,499
2031	95,287	36,850	21,014	74,273
2032	96,350	37,062	21,144	75,205
2033	96,809	37,167	21,369	75,440
2034	97,586	37,062	21,319	76,267
2035	98,216	37,436	21,698	76,518
2036	98,967	37,585	21,814	77,153
2037	99,209	37,699	22,023	77,186

*Actuals

ii) First table of "AIL and System Load Peak" worksheet in reference file:

System Load at AIL Peak (MW)				
Reference Case				
Season Year	**Total AIL Peak Load**	**Total On-site Generation**	**BTF Energy (Energy Served by On-site Generation)**	**System Load at AIL Peak****
	[A]		[B]	[A] - [B]
2014*	11,229	-	2,243	8,986
2015*	10,982	-	2,400	8,582
2016*	11,458	-	2,362	9,096
2017	11,539	4,493	2,530	9,009
2018	11,737	4,498	2,560	9,177
2019	11,939	4,507	2,605	9,333
2020	12,018	4,528	2,648	9,370
2021	12,144	4,563	2,687	9,458
2022	12,260	4,809	2,807	9,453
2023	12,321	4,590	2,725	9,596
2024	12,428	4,594	2,735	9,693
2025	12,557	4,840	2,811	9,746
2026	12,678	4,893	2,825	9,853
2027	12,814	4,893	2,826	9,988
2028	12,945	4,662	2,754	10,191
2029	13,089	4,667	2,764	10,325
2030	13,231	4,675	2,812	10,419
2031	13,354	4,975	2,913	10,442
2032	13,486	4,975	2,914	10,573
2033	13,603	4,748	2,849	10,754
2034	13,721	4,748	2,849	10,872
2035	13,815	4,763	2,870	10,945
2036	13,881	4,984	2,951	10,931
2037	13,947	5,025	2,992	10,955
*Actuals				

Request:

(a) Please explain the relationship between Total On-site Generation, BTF Energy, and System Load at AIL Peak in the tables above.

(b) If on-site generation at net-load customers is not included within the referenced table, please provide a comparably annual forecast summary that quantifies this generation during AIL peak from 2017 to 2037.

(c) What types of generation technologies are included within on-site generation and BTF energy? Are all generation sources (e.g. distribution connected generation including solar and small gas-fired generation units) counted towards these categories or is on-site generation limited to controllable power (e.g. gas combustion turbines)? Is there a minimum or maximum nameplate capacity necessary for inclusion in the forecasts for on-site generation? Is cogeneration considered to be on-site generation? Is load shedding considered to be on-site generation? If any generation technologies are excluded from the definition of on-site generation, please explain why they are excluded.

(d) For any technologies such as load shedding that may not be included in “On-site Generation”, please provide an estimate of the MW generation of these resources during the AIL peak.

(e) Please confirm that the forecasts for "On-site Generation" and "BTF Energy" do not include planned BTF facilities announced in AESO's monthly project lists. For example, the March 2018 project list[1] includes a multitude of new projects in the "BTF" category with a total capacity of over 2000 MW, but the average annual growth in BTF energy at AIL peak is 23 MW per year from 2017 to 2037 according to the LTO.

(f) If the 2017 LTO forecast for on-site generation and BTF energy is based on a list of planned or announced BTF facilities, please provide this list and the corresponding data for expected generation and load at these facilities. If the BTF Energy forecast is not calculated using expectations for new BTF facilities that have been announced, please provide the methodology used to produce this forecast and the forecasted levels (energy produced and installed capacity) of behind the fence generation and distributed connected generation through to the year 2030.

(g) Is the impact of the level of the DTS coincident metered demand charge a factor in forecasted BTF energy? If yes, how is this impact incorporated into the forecast? If not, does the AESO think it is reasonable and meaningful to incorporate this effect into the BTF forecast?

[1] 2018 March Project List located at: https://www.aeso.ca/assets/Uploads/Final-March-2018-Project-List2.xls

Reference: AESO 2018 ISO Tariff Application, Section 2, paragraph 23.

Issue: AltaLink requires information regarding the extent of bypass of the DTS rate that has occurred in the past and would be reasonable to occur in the future.

Quote: "Other matters raised during consultation that are not addressed in this application include:

(a) bulk transmission system cost recovery through coincident metered demand (one hour in a month) raised by certain stakeholders as it relates to shifting bulk transmission cost burden from market participants that can avoid the highest coincident metered demand hour in a month to market participants who cannot avoid the highest coincident metered demand hour. As a result of this and other related issues, the bulk system demand charge may require a more extensive review and, as may be necessary, associated revisions to the ISO tariff."

Request:

(a) Please provide a table of total installed nameplate capacity (MW) of on-site generation and distributed generation by technology type, by year, for the years 2006 to 2017.

(b) Please provide a table of total gross system load, by hour, for the years 2006 to 2017. Within this table, Please identify the hour of coincident monthly peak for each month.

(c) Please provide a table of total on-site generation and distributed generation, by hour, for the years 2006 to 2017. If it is less cumbersome to provide disaggregated facility-level data, please do so.

Reference: AESO 2018 ISO Tariff Application, Appendix J.

Issue: AltaLink requests the AESO to provide stakeholders with updated rate projections and cost studies.

Request:

(a) Please provide an updated Appendix J with the latest data on the forecasted costs of future transmission projects included in the AESO 2017 Long-Term Transmission Plan and the latest forecasted billing determinants.

Reference: 1) AESO 2018 ISO Tariff Application, Section 7.1, paragraphs 191 and 192.
2) AESO 2017 Long-Term Transmission Plan
3) AESO 2017 Long-Term Outlook

Issue: AltaLink is looking for the AESO to disaggregate and categorize forecasted transmission project costs according to drivers of need in order to better understand, in light of the new outlook for load and generation, the extent to which coincident system peaks will likely determine the need for transmission investment going forward

Quote: Reference 1
"The AESO notes that its system NIDs are based on forecasts of relevant total load and generation within a given study area, and not on a forecast system load energy (previously referred to as AIES energy)."

"The AESO undertakes project-specific assessments of the underlying drivers of load and generation to ensure that any filed system NIDs contain the most up-to-date information. As the AESO develops its long-term outlook based on broad economic assumptions, it is prudent for the AESO to conduct a more detailed review of a smaller geographic area to ensure that the specific area drivers of load and generation are fully understood before recommending a system transmission facility upgrade. For example, in a recent system NID34 for a 138-kV transmission system facility upgrade in downtown Calgary, the AESO utilized a load forecast that was less than the AESO's corporate forecast, following the completion of the AESO's detailed area review of specific load drivers in downtown Calgary, along with recent trends of load growth."

Reference 2
"Overall, the 2017 LTO Reference Case load forecast is significantly lower than the 2016 LTO Reference Case." (2017 Long-term Outlook, Section 5.24, page 15, paragraph 1)

Reference 3
"The 2017 LTP identifies 15 transmission developments proposed over the next five years and valued at approximately $1 billion." (2017 Long-Term Transmission Plan, page 4)

Request:

(a) Is the AESO transmission planning criteria and methodology posted publicly on the AESO website? If not, would the AESO provide a document describing AESO transmission planning criteria and methodology employed when developing transmission system plans (e.g. the planning criteria used for the 2017 Long-Term Transmission Plan)?

(b) Please identify the primary driver of need for all AESO system project needs identification applications from 2006 to 2017.

(c) How is the $1 billion from page 54 of the 2017 Long-Term Transmission Plan disaggregated among the 15 projects it is based on.

(d) Which, if any, of these 15 projects could be deferred or eliminated due to a reduction in the coincident peak?

(e) For each of the 14 projects that are listed on page 70 of the Long-Term Transmission Plan, what is projected estimated cost by project?

(f) Which of these 14 projects listed on page 70 could be deferred or eliminated due to a reduction in the coincident peak?

(g) Please confirm the projects driven by generation investment will proceed regardless, whether or not behind the fence generation results in lower coincident system peak levels. If projects driven by generation investment are dependent upon coincident peak levels, please explain how.

(h) For projects identified on page 70 with a driver as Renewables Integration, would lower load levels at coincident system peak have any impact on those transmission costs?

(i) For projects identified as Load/Transfer-in, would lower load levels at coincident system peak have any impact on those transmission costs?

Reference: 1) Utilities Consumer Advocate presentation to the 12 CP working group on March 12, 2018

Issue: A number of parties are looking for a solution to the present high levels of the DTS bulk coincident metered demand charge.

Quote: Slide 4: "For cost allocation purposes, redefine 'bulk' and 'regional' system so that: the bulk system comprises HVDC and AC lines operating above 240 kV only; Regional systems AC lines operating up to and including 240 kV"

Request:

(a) Please provide an updated TRIP model that reflects the requested re-functionalization of the 240 kV assets proposed by the UCA. This update should reflect all changes to aggregate billing determinants, all changes to cost functionalization, all changes to cost classification, and all changes to all rate components of the DTS tariff including bulk system coincident metered demand, bulk system coincident metered energy, regional system billing capacity, and regional system metered energy.