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January 26, 2018

Sent via eFile

Mr. Fred James
Chief Regulatory Officer
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Re: British Columbia Hydro and Power Authority – Open Access Transmission Tariff Dynamic Scheduling Amendments Application – Project No. 1598931 – Final Order

Dear Mr. James:

Further to your October 2, 2017 filing of the Open Access Transmission Tariff Dynamic Scheduling Amendments Application, enclosed please find British Columbia Utilities Commission Order G-20-18 approving the application.

Please also find attached one duly executed set of tariff pages accepted for filing effective January 26, 2018.

Sincerely,

Patrick Wruck

/nd Enclosure



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ORDER NUMBER G-20-18

IN THE MATTER OF the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

British Columbia Hydro and Power Authority
Open Access Transmission Tariff Dynamic Scheduling Amendments Application

BEFORE:

D. M. Morton, Panel Chair/Commissioner
D. A. Cote, Commissioner
A. K. Fung, QC, Commissioner

on January 26, 2018

ORDER

WHEREAS:

- A. On October 2, 2017, the British Columbia Hydro and Power Authority (BC Hydro) submitted its Open Access Transmission Tariff (OATT) Dynamic Scheduling Amendments Application (Application) pursuant to sections 59 to 61 of the *Utilities Commission Act*, seeking approval of Amendments to Attachment Q-1, Dynamic Scheduling:
 - i. to allow for dynamic scheduling on imports, as well as exports as currently allowed;
 - ii. to allow dynamic scheduling on Firm Service, Non-Firm Point-To-Point Transmission Service, and Network Integration Transmission Service, which includes Network Economy Service; and
 - iii. to make changes of a housekeeping nature relating to the definition of terms, correction of typographical errors, simplification and clarification of the language;
- B. On April 14, 2005, the British Columbia Transmission Corporation filed an Application for Approval of Dynamic Scheduling Provisions of the OATT, which were approved, as Attachment O, on an interim basis through Commission Order G-37-05 and a permanent basis through Order G-12-06 dated February 2, 2006;
- C. On September 10, 2009 by Order G-102-09, the British Columbia Utilities Commission (Commission) approved amendments to the dynamic scheduling provisions of the OATT, renamed as Attachment Q-1. The approved dynamic scheduling provisions of Attachment Q-1 were limited to dynamic scheduling on exports using Firm Service reservations only;
- D. On August 25, 2017, BC Hydro consulted with its OATT transmission customers by way of a transmission bulletin posted on its transmission website requesting feedback on a proposed expansion of the dynamic scheduling provisions of the OATT and the need to hold a workshop. BC Hydro requested feedback by September 15, 2017. No comments were received by BC Hydro in response to the consultation bulletin;

- E. By Order G-160-17, dated October 20, 2017, the Commission established a written hearing process and a regulatory timetable with one round of information requests to review the Application. In this proceeding, British Columbia Old Age Pensioners' Organization *et al.* (BCOAPO) and Commercial Energy Consumers Association of British Columbia (CEC) registered as interveners;
- F. On January 5, 2018, BCOAPO and CEC submitted their final arguments and on January 9, 2018, BC Hydro submitted its reply argument; and
- G. The Commission has reviewed and considered all of the evidence filed in this proceeding and finds that the approvals sought in the Application are warranted.

NOW THEREFORE pursuant to sections 59 to 61 of the *Utilities Commission Act*, the Commission orders as follows:

- 1. The proposed amendments to Attachment Q-1 of the OATT, as applied for in the Application, are approved and are effective as of the date of this order.
- 2. BC Hydro must notify Transmission Customers of this order by way of a transmission bulletin posted to its transmission website within 15 days of the date of this order.
- 3. BC Hydro must make the following compliance filings to the Commission:
 - a. The Federal Energy Regulatory Commission (FERC) decisions on the five agreements filed by California Independent System Operator in Docket No. ER18-251, and any subsequent FERC decisions associated with Powerex Corp.'s participation in the Energy Imbalance Market (EIM), within 14 days of the decision date(s);
 - b. A summary report detailing any significant changes in actual operational costs associated with administering dynamic scheduling, compared to: (i) the prior fiscal year; and (ii) expected budgets as approved by the Commission through the revenue requirement process, for F2019 and F2020, to be filed no later than 180 days following the close of the fiscal year; and
 - c. A summary report for F2019 and F2020, to be filed no later than 180 days following the close of the fiscal year, providing a comparison of how outcomes would have been different if the new OATT Attachment Q-6 (as contained in Appendix B of the Application) had been implemented instead of the amendments to Attachment Q-1. Specifically, BC Hydro should provide comment on the potential benefits to OATT customers and the levels of residual capacity on transmission reservations that could have been used for dynamic scheduling/ EIM purposes on zero priority schedules.

DATED at the City of Vancouver, in the Province of British Columbia, this

26 "

day of January 2018.

BY ORDER

D. M. Morton

Commissioner

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ATTACHMENT Q-1

Dynamic Scheduling

This attachment contains the eligibility requirements and the terms and conditions for the provision of dynamic scheduling to Transmission Customers.

1. Definitions

- (a) "Dynamic Schedule" means a time-varying energy transfer that is updated in real-time and is used included in the scheduled net Interchange term in the same manner as an Interchange schedule in the affected Balancing Authorities' area control error equations (or alternate control processes).
- (b) "eTag" means an electronic documentation of an energy transaction on an electronic tagging system, as required by BC Hydro for the scheduling of energy transactions.
- (c) "Interchange" means energy transfers that cross Balancing Authority boundaries.
- (d) "Interchange Transaction" means an agreement to transfer energy from a seller to a buyer that crosses one or more Balancing Authority Area boundaries.
- (e) "Intermediate Balancing Authority Area" means a Balancing Authority on the scheduling path of an Interchange Transaction other than the Sending Balancing Authority and Receiving Balancing Authority.
- (f) "Receiving Balancing Authority Area" means the Balancing Authority importing the Interchange.
- (g) "Sending Balancing Authority Area" means the Balancing Authority Area exporting the Interchange.

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(h) "WECC" means the Western Electricity Coordinating Council, or any successor organization.

2. Availability and Limitations

- (a) Dynamic scheduling is only available:
 - (i) while Dynamic Schedules are technically feasible and consistent with all applicable reliability standards adopted by the Commission and WECC criteria and policies;
 - (ii) while the Transmission Provider has the necessary arrangements in place with any Sending, Receiving, or Intermediate Balancing Authority Areas, as required, for the delivery, receipt, and facilitation of Dynamic Schedules, as applicable.
 - (iii) while the Transmission Provider and any Sending, Receiving, or Intermediate Balancing Authority Areas, as required, have the necessary systems in place for the delivery, receipt, and facilitation of Dynamic Schedules, as applicable.
- (b) Dynamic scheduling will be limited, reduced or suspended as a result of constraints, including, but not limited to: an emergency or other condition that threatens to impair or degrade the reliability of the Transmission System; resource constraints declared by the resource owner; insufficient Transmission Service over the Transmission System is procured for Dynamic Schedules; and any constraints imposed by the Sending Balancing Authority Area, Receiving Balancing Authority Area or any Intermediate Balancing Authority Areas on the scheduling path.
- (c) Dynamic Schedules will be limited by the Transmission Provider's cut-off times, and by the Transmission Provider's reasonable assessment of its capabilities to process Dynamic Schedules. Dynamic Schedules will be processed on a

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first-come, first-received basis, up to the limit of the number of Dynamic Schedules that may be concurrently delivered and the total volume of energy that may be delivered through Dynamic Schedules.

3. Eligibility Requirements

To be eligible to use transmission for dynamic schedules, a Transmission Customer must satisfy the following eligibility requirements.

- (a) The Transmission Customer must satisfy the requirements and standards of the Transmission Provider with respect to dynamic scheduling from the Transmission Provider's Balancing Authority Area, as those requirements and standards are described in this Attachment Q-1 and the Transmission Provider's business practices.
- (b) If the Transmission Provider's Balancing Authority Area is the Sending Balancing Authority Area, the Transmission Customer must satisfy the requirements of the Receiving Balancing Authority Area with respect to the delivery of energy through a Dynamic Schedule into the Receiving Balancing Authority Area.
- (c) If the Transmission Provider's Balancing Authority Area is the Receiving Balancing Authority Area, the Transmission Customer must satisfy the requirements of the Sending Balancing Authority Area with respect to the delivery of energy through a Dynamic Schedule from the Sending Balancing Authority Area.
- (d) The Transmission Customer must satisfy the requirements of Intermediate Balancing Authority Area(s) with respect to Dynamic Schedules and the arrangement of appropriate transmission services through the Intermediate Balancing Authority Area(s).

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- (e) The Transmission Customer shall be responsible for all costs related to its own systems and equipment required to dynamically schedule, such as communications equipment, communication circuits and facility upgrades.
- (f) The Transmission Customer must ensure sufficient resources are available that are: of the appropriate type; ready to be delivered in the scheduled period; electrically located within the Sending Balancing Authority Area; and responsive to control signals issued by the Sending Balancing Authority.
- (g) The Transmission Customer must have an executed Service Agreement with the Transmission Provider under the Tariff.
- (h) The Transmission Customer must comply with applicable reliability standards adopted by the Commission and WECC criteria and policies.

If, at any time, a Transmission Customer fails to meet any of the eligibility requirements in this section, the Transmission Provider may immediately suspend the Transmission Customer's eligibility for dynamic scheduling.

4. Approval and Use of Dynamic Scheduling

Eligible Transmission Customers may not submit Dynamic Schedules prior to approval by the Transmission Provider. Eligible Transmission Customers may submit a request to the Transmission Provider for approval of dynamic scheduling. The Transmission Provider will approve such a request based on its reasonable assessment of the availability and limitations of dynamic scheduling between and through specific Balancing Authority Areas as may be required to accommodate the request. The Transmission Provider will make reasonable efforts to enter into the necessary arrangements with other Balancing Authority Areas to accommodate requests for dynamic scheduling.

Once a request for dynamic scheduling is approved by the Transmission Provider, the Eligible Customer may submit Dynamic Schedules for Point-To-Point Transmission

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Service or Network Integration Transmission Service by submitting eTags to the Transmission Provider following the procedures set out in the Transmission Provider's business practices.

5. Official Dispatch Signal

The Sending and Receiving Balancing Authority Areas will coordinate and respond to the official dispatch signal for any dynamically scheduled resources.

6. Dispatch Instruction Data

The Transmission Customer is responsible for resolving with the Receiving Balancing Authority Area any discrepancy in data between the Receiving Balancing Authority Area's dispatch instruction data and the Transmission Customer's eTag. The Transmission Customer is responsible for ensuring the accuracy and resolving any discrepancies in eTag information related to the Intermediate Balancing Authority Area.

7. Losses

Any transmission losses attributed to the Dynamic Schedule on transmission systems external to the Transmission System will be the responsibility of the Transmission Customer.

8. Settlement Data Discrepancy

The Transmission Customer is responsible for resolving, with the Receiving Balancing Authority Area and/or the Sending Balancing Authority Area, as applicable, any discrepancy with the integrated energy value used by the Transmission Provider for settlement purposes.

9. Sharing of Information

The Transmission Provider may share with the Sending Balancing Authority Area, Receiving Balancing Authority Area, Intermediate Balancing Authority Areas, reliability

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coordinators and relevant market operators, whatever operational information directly related to dynamic scheduling is necessary or desirable to facilitate dynamic scheduling. The foregoing information shall include such information that may be required by applicable tariff provisions and business practices and standards of any of the Sending Balancing Authority Area, Receiving Balancing Authority Area, Intermediate Balancing Authority Areas, and the Transmission Provider, and shall also include such information that may be required by each of the Sending Balancing Authority Area, Receiving Balancing Authority Area, Receiving Balancing Authority Areas and the Transmission Provider to curtail dynamic schedules in accordance with its Tariff, business practices, standards and applicable service agreements.

10. Charges for Dynamic Scheduling

- (a) Dynamic Scheduling using Network Integration Transmission Service is charged in accordance with Part III and Rate Schedule 00 of the Tariff.
- (b) Dynamic Scheduling using Point-To-Point Transmission Service is charged in accordance with Part II and Rate Schedule 01 of the Tariff.
- (c) Charges for Ancillary Services will be applied in accordance with Rate Schedules 03 through 09 of the Tariff, as applicable.

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