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January 10, 2014

Dear Sirs/Madams

**RE: British Columbia Hydro and Power Authority (BC Hydro)  
Headroom Tariff Consultation Workshop - Consultation Materials and Agenda**

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BC Hydro is providing the attached consultation materials for its upcoming Headroom Tariff Consultation Session on January 20, 2014. The consultation materials include an outline of an enforcement mechanism designed to prevent unauthorized use of BC Hydro's transmission system by the Alberta Electric System Operator (**AESO**). Also included in the consultation materials are the key terms of a rate schedule under which the AESO could pay for capacity on BC Hydro's transmission system for the purpose of energy flows to Alberta that result from internal AESO contingencies.

The purpose of the consultation session is to provide an opportunity for stakeholders to provide comments and input on the enforcement mechanism and rate schedule. BC Hydro will consider any comments and input received before applying to the British Columbia Utilities Commission for approval of its proposals. A brief description of the enforcement mechanism and rate schedule is provided below.

The enforcement mechanism is designed to prevent unauthorized use of the BC Hydro transmission system by the AESO. Currently the AESO is able to set aside capacity on BC Hydro's transmission system at no cost by setting import limits on the B.C. to Alberta intertie. By setting import limits into Alberta, the AESO is able to ensure that there is transmission capacity available on BC Hydro's transmission system to enable flows of energy to Alberta to manage system contingencies in Alberta. The result of this capacity set aside is reduced capacity available for BC Hydro to sell under its Open Access Transmission Tariff (**OATT**) and curtailments of BC Hydro's OATT customers. BC Hydro's enforcement mechanism would enable BC Hydro to limit the flows of energy over the intertie in order to prevent the AESO from setting aside unauthorized capacity on BC Hydro's system. The mechanism would disconnect the Alberta Balancing Authority Area from the BC Hydro transmission system if the flows of energy exceed the set limit.

The rate schedule outlined in the consultation materials provides the key terms under which the AESO could take authorized service on BC Hydro's transmission system. The rate schedule would allow the AESO to nominate an hourly capacity amount to be reserved on BC Hydro's transmission system [for the purpose of energy flows to Alberta due to a contingency in Alberta]. The rate charged for the reserved capacity would compensate firm

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point-to-point customers that are interrupted due to the capacity reservation and compensate BC Hydro for the capacity reserved that BC Hydro would otherwise be able to sell under its OATT.

BC Hydro will provide further background and details on the enforcement mechanism and rate schedule at the upcoming consultation session on January 20, 2014. The agenda for the consultation session is outlined below:

**Agenda**

- Welcome and Introduction
- Background
- Enforcement Mechanism to Prevent Unauthorized Use of the Transmission System by the AESO
- Rate Schedule - Balancing Authority Transmission Service
  - Structure: Capacity Nomination, Volumes and Rates
  - Unreserved Use Penalty
  - Compensation to PTP Transmission Customers
- Discussion and Questions
- Timeline
- Adjourn

For further information, please contact Gordon Doyle at 604-623-3815. If you are unable to attend the consultation session, you may also provide your written comments by email at [bchydroregulatorygroup@bchydro.com](mailto:bchydroregulatorygroup@bchydro.com).

Yours sincerely,



Janet Fraser  
Chief Regulatory Officer

gd/tn

Enclosure

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## Proposed Enforcement Mechanism

The following definitions apply:

- “Alberta Balancing Authority Area” means the Alberta interconnected electrical system.
- “Approved TRM” is the amount of TRM approved by both the Alberta Balancing Authority and BC Hydro Balancing Authority. This amount is set at 50 MW if mutual approval is not in place. “TRM” is the unreleased Transmission Reliability Margin.
- “Unscheduled Energy” means energy transferred without an arranged interchange.

Principle		The usage of the BC Hydro transmission system by a third party must be authorized by BC Hydro as set out in BC Hydro’s tariffs or mutual agreements. BC Hydro will take action to terminate any unauthorized usage in real time via de-energization of equipment or another flow-limiting mechanism.
Enforcement	Proposed Action	BC Hydro will set a limit on the amount of energy that can flow to the Alberta Balancing Authority Area over the BC-AB Path on an hourly basis equal to the scheduling limit, as determined by BC Hydro, plus Approved TRM. The limit set by BC Hydro will have the effect of disconnecting the BC-AB path from the Alberta Balancing Authority if AESO uses unauthorized transmission service on the BC Hydro system.
	Restoration of the Interconnection	BC Hydro will rely on its normal restoration procedures to coordinate the restoration with the AESO following a disconnection.

## Proposed Rate Schedule

### “Balancing Area Transmission Service”

In addition to the bolded terms below, the following definitions apply:

- “Alberta Balancing Authority Area” means the Alberta interconnected electrical system.
- “Approved TRM” is 50MW when the Montana-Alberta Tie-Line (**MATL**) is in-service and 65MW when MATL is out of service.
- “Maximum Price for Hourly Delivery” is currently \$5.97/MW of reserved capacity per hour under Rate Schedule 01 of the OATT.
- “OATT” means BC Hydro’s Open Access Transmission Tariff.
- “TRM” is the unreleased transmission reliability margin determined by BC Hydro.
- “TTC” has the meaning set out in Attachment C of BC Hydro’s OATT.
- “Unauthorized Energy Flow” means energy transferred to the Alberta Balancing Authority Area over Path 1 through BC Hydro’s transmission system for the purpose of managing Alberta system contingency without an arranged interchange schedule.

Term		<b>Balancing Area Transmission Service</b>
Definition		The provision of transmission capacity on the BC-AB Path for the purpose of transferring Unauthorized Energy Flow to the Alberta Balancing Authority Area.
Applicability		Balancing Area Transmission Service is only available to the AESO upon execution of a Service Agreement.
Capacity Nomination	Volume	In any hour the “ <b>Capacity Nomination</b> ” is equal to the amount of capacity the AESO wishes to reserve in excess of Approved TRM.
	Timing	The Capacity Nomination will be given to BC Hydro by the AESO prior to the scheduling hour.
Rate	Hourly Interrupted Volume and Price	<p>The “<b>Hourly Interrupted Volume</b>” is a proxy for the extent to which the capacity reserved by the AESO in any hour under Balancing Area Transmission Service interrupts BC Hydro’s firm and conditional firm point-to-point (<b>PTP</b>) transmission service customers.</p> <p>The Hourly Interrupted Volume cannot be less than zero and it is calculated as the minimum of the following volumes: a) the Capacity Nomination; and b) the difference between the Existing Committed Capacity and the AB Import ATC.</p> <p>Where:</p> <ul style="list-style-type: none"> <li>* “<b>Existing Committed Capacity</b>” is the amount of firm and conditional firm PTP transmission capacity that BC Hydro has sold at the time the AESO makes a Capacity Nomination.</li> <li>* “<b>AB Import ATC</b>” means the difference between the final effective TTC and TRM, as determined by BC Hydro, for imports into Alberta in a given hour.</li> </ul>

Term		<b>Balancing Area Transmission Service</b>
		The Hourly Interrupted Volume will be subject to an “ <b>Interruption Rate</b> ” equal to the higher of: a) the Maximum Price for Hourly Delivery, and b) the AESO’s Hourly Pool Price less the Powerdex Hourly Weighted Average Mid-C Index less Bonneville Power Authority’s associated wheeling charges from Mid-C to BC-US Border for that hour less BC Hydro’s associated loss compensation charges for that hour.
	Hourly General Volume and Price	The “ <b>Hourly General Volume</b> ” is a proxy for the capacity reserved by the AESO which does not interrupt BC Hydro’s firm and conditional firm PTP customers and is calculated as the Capacity Nomination minus the Interrupted Volume.  The Hourly General Volume will be subject to a “ <b>General Rate</b> ” equal to the Maximum Price for Hourly Delivery.
Unreserved Use	Definition	If the AESO utilizes capacity on the BC-AB Path for Unauthorized Energy Flow in any hour in an amount in excess of the sum of the interchange schedule, the Capacity Nomination, and Approved TRM, (the “ <b>Capacity Limit</b> ”), the AESO will be charged an Unreserved Use Penalty.  BC Hydro will not charge the AESO any Unreserved Use Penalties if the AESO can, within 15 days of the date on which the Unreserved Use occurred, provide evidence to BC Hydro that satisfies BC Hydro, acting reasonably, that there were two or more significant unexpected contingencies in the Alberta Balancing Authority Area that were the trigger for the Unreserved Use.
	Charge	Each occurrence of Unreserved Use shall incur an Unreserved Use Penalty. The Unreserved Use Penalty can be avoided if the AESO makes an appropriate hourly Capacity Nomination.  The Unreserved Use Penalty shall be the product of: <ul style="list-style-type: none"> <li>• the maximum volume of transmission capacity used by the AESO in a given hour that is in excess of the Capacity Limit;</li> <li>• 8,760 hours;</li> <li>• the Maximum Price for Hourly Delivery; and</li> <li>• 200%.</li> </ul>
Revenue Allocation	Revenue Allocation Associated with the Interruption Rate	The Interruption Rate reflects the projected financial implications to BC Hydro’s firm and conditional firm PTP transmission customers arising from the interruptions in firm and conditional firm PTP transmission service as a result of set asides on BC Hydro’s transmission system by the AESO to accommodate its operational needs.  Accordingly, BC Hydro will refund to its firm and conditional firm PTP transmission customers a <i>pro rata</i> portion of the Interruption Rate revenue.

Term		<b>Balancing Area Transmission Service</b>
Revenue Allocation	Other Tariff Revenue	Tariff revenue, other than the revenue collected through the Interruption Rate, is treated like incremental PTP revenue and will serve to offset the charges paid by BC Hydro as the network customer under the OATT.
Enforcement		BC Hydro will enforce the terms of service in accordance with the terms of the OATT, as modified to include a physical enforcement mechanism.