IN THE MATTER OF the Alberta Electric System Operator tariff and rates approved by the Alberta Energy and Utilities Board pursuant to sections 30 and 119 of the Electric Utilities Act, S.A. 2003, c.E-5.1, as amended.

IN THE MATTER OF a proposed interim refundable rate rider governing the recovery of costs for the provision of certain incremental contract capacity to BC Hydro to enable service to load at Fort Nelson, British Columbia.

Alberta Electric System Operator
Interim Fort Nelson Rider H
Application

December 19, 2007

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1 INTRODUCTION AND BACKGROUND

BC Hydro is a customer of the AESO in the northwest part of Alberta. The AESO currently provides service from Rainbow Lake in Alberta to BC Hydro near the provincial border, and BC Hydro in turn serves the community of Fort Nelson as well as industrial loads in this area of British Columbia.

The AESO currently provides service to BC Hydro under Fort Nelson Demand Transmission Service Rate FDS. Rate FDS was approved by the Alberta Energy and Utilities Board (EUB) through Decision 2005-096, Decision 2005-131, and Order U2005-464. It was subsequently retroactively amended to reflect applicability revisions to the Balancing Pool Consumer Allocation Rider F and to correct an error arising from the use of an incorrect billing determinant in the calculation of the demand charge, through Order U2006-307 to be effective January 1, 2006.

The AESO also included Rate FDS in its 2007 General Tariff Application (GTA), substantially unchanged except for a code change to Rate FTS and updating of rate levels to reflect the AESO's 2007 revenue requirement. The AESO's 2007 GTA was filed on November 3, 2006 as Application Number 1485517, and is awaiting decision by the EUB.

1.1 BC Hydro's Contract Capacity

BC Hydro's FDS contract capacity up to early 2007 was 24.5 MW. In November 2006 BC Hydro requested the AESO to increase its contract capacity by 12 MW, to 36.5 MW. In December 2006 BC Hydro requested an additional increase of 2 MW, to 38.5 MW.

The AESO approved an increase of 4 MW, to 28.5 MW, effective July 1, 2007, but delayed approving the remaining 10 MW until an assessment of operational constraints in the Rainbow Area could be completed.

The assessment was completed in August 2007 and indicated the additional 10 MW of load in British Columbia could be accommodated, but would require significant additional dispatch of transmission must run (TMR) generation in the Rainbow Area. The AESO, with BC Hydro, began discussing alternatives that would allow service to the additional load without requiring additional TMR. Eventually six separate alternatives were considered, with some having one or more variations.

However, none of these alternatives is expected to be able to accommodate the additional BC Hydro load in less than a minimum of six months, and all require studies to be completed to determine their effectiveness, cost, and operational requirements. Some of the alternatives are expected to also require additional significant expenditures in time and resources.

None of the alternatives is therefore able to respond to the immediate needs of the BC Hydro customer. Both the AESO and BC Hydro agree that the only practical solution to provide service in the short term involves the additional dispatch of TMR generation and thus incurs additional TMR costs.

2 INTERIM REFUNDABLE RIDER APPLICATION

While reviewing the technical alternatives to accommodate the increased load, the AESO and BC Hydro also discussed commercial terms regarding payment for the incremental service to BC Hydro. Both the AESO and BC Hydro agree that any service by the AESO to BC Hydro load should continue to be subject to regulatory oversight as necessary by the EUB in the determination of an appropriate rate for that service.

Both parties acknowledge that the EUB reviewed and determined the structure and approach of the current Rate FDS under which service is provided to BC Hydro at Fort Nelson in the AESO's 2005-2006 GTA. In the AESO's view, that rate was based on costs consistent with a forecast contract capacity of 24.5 MW, and does not necessarily apply in perpetuity regardless of changing circumstances in the area. In BC Hydro's view, the AESO is required to provide service under the current tariff and cannot charge BC Hydro more than the "postage stamp rate" for operating reserve charges, voltage control (TMR), and other system support charges as set out in Decision 2005-096.

In view of the need to obtain a relatively quick solution to accommodate the BC Hydro customer's increased load, both parties agree that the matter should be further reviewed and considered by the EUB. In the meantime, both parties recommend to the EUB, and request approval of, the attached interim refundable rider. The interim rider is based on recovering from BC Hydro about 50% of the cost of incremental TMR dispatch required by the provision of an additional 10 MW of contract capacity to BC Hydro, as explained in more detail below.

Both parties agree that the approval of an interim refundable rider will accommodate the immediate need for service, allowing issues to be appropriately determined and resolved before the EUB at a future date. The AESO and BC Hydro expect to further discuss and review the commercial terms regarding payment for the incremental service to BC Hydro, prior to submitting a final rate or rider application to the EUB.

2.1 Interim Costs

As explained in section 1 of this application, the only practical solution to accommodate the additional BC load in less than six months involves incurring additional TMR costs.

The AESO's current Operating Policies and Procedures (OPP) 501 issued June 27, 2007, indicates that three Rainbow Area generators are required for TMR generation at all times, for Rainbow Area loads from below 81 MW to above 120 MW. OPP 501 was developed under the assumption of gradual load growth which was not expected to exceed the defined load range prior to completion of the Northwest Alberta Transmission Development and the accompanying reduction in TMR requirements for the area. OPP 501 therefore did not define an upper limit beyond which a fourth TMR generator would be dispatched.

In reviewing the FDS contract capacity increase to 28.5 MW on July 1, 2007, the AESO determined that the increase could be accommodated within the area load ranges which require three TMR generators under the current version of OPP 501. However, studies

undertaken to evaluate the additional 10 MW FDS contract capacity increase (which is the subject of this application) indicate that additional TMR dispatch volumes will be required for Rainbow Area loads from 111 MW to 130 MW, and a fourth TMR generator will be required when Rainbow Area load exceeds 130 MW. OPP 501 is under review to reflect the results of these studies, and will be further updated if necessary based on an evaluation of TMR requirements in the Rainbow Area after the additional 10 MW of BC Hydro load is operational.

The AESO has concluded that maintaining system reliability for an FDS contract capacity of 38.5 MW requires TMR dispatch of a fourth Rainbow Area generator whenever area load exceeds 130 MW. The additional TMR dispatch of the fourth generator would be the primary cause of additional costs attributable to the increase in BC Hydro load. Additional costs would also be incurred through greater TMR dispatch volumes for three generators when Rainbow Area load is between 111 and 130 MW. Without the additional 10 MW FDS contract capacity, neither the dispatch of a fourth TMR generator nor greater TMR dispatch volumes for three generators would be required under normal operating conditions.

The AESO estimates the incremental costs to serve the additional 10 MW of FDS contract capacity to be on the order of the following amounts in 2008:

Rainbow Area TMR Cost Component	Incremental TMR Cost
TMR Dispatch of Fourth Generator	$5,000,000
Greater TMR Dispatch Volumes for Three Generators	$1,750,000
Total Incremental TMR Cost	$6,750,000

These costs represent an estimate of the incremental TMR costs required for the AESO to provide service to the additional 10 MW FDS contract capacity at Fort Nelson throughout 2008. The AESO further estimates that about 35% of these costs ($2,400,000) will be incurred in the first quarter of 2008 (January to March), while the remaining 65% ($4,350,000) will be incurred over the remaining three quarters of 2008 (April to December).

These costs are estimates only, and actual TMR costs incurred will depend on Rainbow Area load, TMR dispatch volumes, natural gas prices, market heat rates (the price of electricity divided by the price of natural gas), and potential TMR contract changes to accommodate greater than anticipated usage.

As discussed above, the AESO and BC Hydro disagree about the treatment of these incremental costs under the AESO's tariff. The AESO considers that the development of the currently approved Rate FDS neither specifically contemplated nor precluded increases in contract capacity and increases in costs of the magnitude being discussed. Therefore, in the AESO's opinion, the outcome and timing of a further EUB review of the current circumstances is unknown.

The AESO and BC Hydro determined an effective approach would be to request approval of an interim refundable rider that would recover approximately 50% of the above costs from BC Hydro. Recovery of 50% of the costs reflects a fair apportionment of the incremental TMR costs until such time as the matter is given a final regulatory review, and gives both

parties incentive to cooperatively assess the long term needs of the Fort Nelson area and bring forward a longer-term tariff solution for EUB approval. The remaining 50% of the costs would, for the time being, be recovered from other AESO customers through the AESO's Deferral Account Adjustment Rider C, as these costs were not included in the AESO's 2007 revenue requirement forecast.

Section 48 of the 2007 *Transmission Regulation*, A.R. 86/2007, determines that costs for the provision of ancillary services (which include TMR services) are considered to be "prudent" or "appropriate" when such costs have been approved by the ISO members (being the AESO Board). The AESO Board has been advised of the costs of incremental TMR dispatch associated with accommodating the additional BC Hydro load and is supportive of the proposed approach to respond to the request for increased FDS contract capacity through incremental TMR dispatch or other means as considered reasonable by the AESO.

2.2 Interim Refundable Rider H

The AESO proposes attached Rider H for the recovery of 50% of the incremental TMR dispatch costs in the Rainbow Area. Specifically, the amount to be recovered from BC Hydro under Rider H would be 50% of the incremental cost of TMR dispatch of a fourth generator in the Rainbow Area. Costs for the TMR dispatch of a fourth generator, above those costs associated with maintaining such a generator on standby, would be determined at the end of each month; fifty percent of those costs would be billed to BC Hydro, in addition to charges attributable to BC Hydro's load under Rate FDS for the month.

It is also proposed that Rate FDS would continue to apply to the entirety of load service taken by BC Hydro at its point of connection. The AESO considers the incremental revenue from the increased load to BC Hydro to reasonably offset the cost of greater TMR dispatch volumes for three generators in the Rainbow Area. The AESO expects that recovery of all costs, both from additional TMR dispatch of a fourth generator and greater TMR dispatch volumes for three generators, would be addressed in the final rate determination.

The AESO requests Rider H to be effective on an interim refundable basis from January 1, 2008, to December 31, 2008. In early 2008, the AESO and BC Hydro will cooperate to consider and study all reasonable alternatives to serve the incremental BC Hydro load. The AESO will then apply for a final rate determination on an effective and manageable alternative for service to BC Hydro in the Fort Nelson area in the latter half of 2008, allowing for its approval before the interim rider expires.

The AESO expects to include in the final rate application further information relating to longer-term transmission supply in the Rainbow Area, including the impact of the Northwest Alberta Transmission Development. However, a complete long term transmission plan for the area is not expected to be able to be developed in time for inclusion in the final rate application.

The AESO has included with this application a letter from BC Hydro outlining its support for the interim rider as described above.

3 IMPACT ON OTHER AESO CUSTOMERS

3.1 Financial Impact

As explained above, to allow the additional BC Hydro load to be accommodated as soon as possible, the AESO and BC Hydro propose an interim refundable rider that recovers approximately 50% of the incremental costs from BC Hydro. The remaining 50% of incremental costs will be recovered from other AESO customers through the AESO's Deferral Account Adjustment Rider C, as the costs were not included in the revenue requirement on which either current or applied-for rates were based.

When a final rate for service to BC Hydro is approved, either the AESO or BC Hydro will pay to the other party the difference between costs recovered under the interim rider and costs that would have been charged under the final rate. As the final rate is expected to be applied for in the latter half of 2008, the AESO expects that the final rate will be settled relatively promptly, potentially within 12 months of the interim rider becoming effective. If the rider is in place for 12 months, the incremental TMR costs expected to be incurred is on the order of $6.75 million, determined from the amounts provided in section 2.1 of this application. As BC Hydro will pay about 50% of these costs, the estimated impact on other AESO customers is estimated to be about $3.4 million for approximately 12 months. The AESO considers this a reasonable amount, representing only about 0.5% of the AESO's 2007 forecast DTS revenue requirement of $644.9 million.

The AESO also considers that if an Alberta customer in the area were to request an increase in load, the AESO would likely propose in the short term to implement additional TMR dispatch of Rainbow Area generation in order to provide the service. The AESO's approach in such a case would therefore be similar to the proposal in this application: namely, a short-term alternative of additional TMR dispatch, while different longer term alternatives are investigated. In the Alberta case, all of the incremental TMR costs would be recovered from Alberta customers. In the BC Hydro case in this application, the proposal to recover 50% of the costs is reasonable and recognizes the uncertainty around the final rate determination.

3.2 Impact on Reliability

The additional TMR dispatch will also slightly decrease current system reliability in the Rainbow Area. Under the current OPPs, three generators are dispatched for TMR service with a fourth generator on standby for backup TMR dispatch in the event of planned or unplanned outages of one of the first three generators. To accommodate the additional load, the fourth generator will sometimes be dispatched concurrently with the first three generators, which therefore means no generator will be available for backup TMR dispatch.

During any period in which four generators are dispatched on-line when Rainbow Area load exceeds 130 MW, if a planned or unplanned outage of one of the four generators occurs no backup TMR generator will be available. Load services will then need to be curtailed either in accordance with a plan designed for a specific contingency or in preparation for the second contingency.

However, the AESO considers the risk of such an occurrence to be relatively small and generally comparable to the risk of interruptions in other areas of the province. In addition, the reliability reduction will occur for only about 30% of the time, namely, in those hours in which the fourth TMR generator is dispatched.

To quantify the increased risk associated with dispatch of four TMR generators, the AESO compared the existing situation to the proposed situation.

Under the existing situation, using a binomial probability calculation and assuming the average availability of the Rainbow Area generation units is 94%, the probability of a second contingency (in which two or more units are off-line at the same time in any given period) is about one percent. Loss of two or more units at the same time would result in some load services curtailment in the area for that time.

For the proposed situation, using the same calculation and availability assumptions, the probability of losing two or more units at the same time increases to about two percent.

The reliability impact of all the alternatives being considered to serve the incremental BC Hydro load will be assessed as part of the application to the EUB for a final rate determination on this matter. The reliability impact of incremental TMR dispatch under the interim rider will therefore be limited in duration, as the interim rider is expected to be replaced by a final rate or rider within a year. The AESO notes, however, that reliability impacts may continue if the final rate determination concludes that it is appropriate to continue incremental TMR dispatch or to replace it with another alternative that also impacts Rainbow Area reliability.

The AESO has advised other large customers in the Rainbow Area of the potential reliability impact of incremental TMR dispatch. Ultimately, the AESO considers that the impact on reliability would be comparable to that which would result from serving increased Alberta load in the Rainbow Area, and is therefore reasonable.

4 RELIEF REQUESTED

Based on the foregoing, the AESO requests the EUB approve the attached Interim Refundable Fort Nelson Rider H, on an interim refundable basis effective January 1 to December 31, 2008. The AESO considers the rider to have no undue impacts on other AESO customers, and requests an expedited review process to allow prompt service to accommodate the incremental BC Hydro load. In the event an expedited process is not practical, the AESO requests preliminary approval of Interim Rider H to be effective January 1, 2008, while matters are determined by the EUB.

All of which is respectfully submitted this 19th day of December, 2007.

Alberta Electric System Operator

Per: _____
Heidi Kirrmaier
Vice President, Regulatory

Rider H **Interim Refundable Fort Nelson Rider H** Page 1 of 1

Purpose: The Interim Refundable Fort Nelson Rider H is to recover 50% of the cost of the additional transmission must-run (TMR) dispatch of a fourth generator in the Rainbow Area in support of incremental load near Fort Nelson.

Applicable to: BC Hydro for demand service to Fort Nelson in British Columbia.

Effective: The rider will be effective from January 1 to December 31, 2008, and will expire unless revoked or replaced by another approved rate or rider on or before December 31, 2008.

Rate: At the end of each billing period, the AESO will determine the incremental cost of the additional transmission must-run (TMR) dispatch of a fourth generator in the Rainbow Area, beyond the dispatch that would have been required prior to the addition of an incremental 10 MW of load near Fort Nelson in January 2008. Under this rider, 50% of the incremental cost so determined will be billed to BC Hydro.

Terms:

(a) Rider H is an incremental refundable charge in addition to amounts payable for demand and energy under Rate FDS.

(b) The Terms and Conditions form part of this Rate Schedule.