

**REQUESTOR NAME:** Joint Industry Electricity Steering Committee  
**INFORMATION REQUEST ROUND NO:** 1  
**TO:** BRITISH COLUMBIA HYDRO & POWER AUTHORITY  
**DATE:** May 4, 2007  
**PROJECT NO:** 3698461  
**APPLICATION NAME:** BCH – Revelstoke 5 CPCN Application

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**1.0 Reference: Ex B-1 Application, Table 4-6, Revelstoke Unit 5 Cost of Dependable Capacity Net of Benefits; Appendix I, Revelstoke Unit 5 P50/P90 Capital Cost October 2010 In-Service**

**Explanation:** In Table 4-6 BC Hydro shows the Cost Delivered to LM Net of Energy and Capacity – Related Benefits to be -\$5/kW-yr in the P50 case and \$4/kW-yr in the P90 case. In the Spreadsheets found at the end of Appendix there are more detailed projections of benefits that will accrue to the Domestic Trade Account as a result of Revelstoke 5.

**Request:**

- 1.1 Confirm that in the P50 case the Cost to the Lower Mainland of \$39/kW-yr is offset in part by \$28.5/kW-yr. in benefits to the Domestic Trade Account and in the P90 Case the Cost to the lower Mainland of \$47/kW-yr is offset in part by \$27.3/kW-yr. in benefits to the Domestic Trade Account.
- 1.2 Confirm that it is BC Hydro’s intention that the full Cost to the Lower Mainland will be recovered from customers in rates.
- 1.3 Confirm that pursuant to Special Direction HC2, in every year that Trade Income exceeds \$200 million as a result of transactions other than those related to Revelstoke 5, all of the benefits to the domestic trade account projected in Table 4-6 and Appendix I will flow to the Province rather than the customers.
- 1.4 Recalculate Table 4-6 and the spreadsheets found at the end of Appendix I (EX. B-1) assuming that Trade Income in every year, from sources other than Revelstoke 5, equals or exceeds \$200 million and provide the Excel Spreadsheet(s) in electronic form.

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British Columbia Hydro & Power Authority <b>Revelstoke Unit 5 CPCM Application</b>	<b>Exhibit: B-3</b>

**1.0 Reference: Ex B-1 Application, Table 4-6, Revelstoke Unit 5 Cost of Dependable Capacity Net of Benefits; Appendix I, Revelstoke Unit 5 P50/P90 Capital Cost October 2010 In-Service**

In Table 4-6 BC Hydro shows the Cost Delivered to LM Net of Energy and Capacity – Related Benefits to be - \$5/kW-yr in the P50 case and \$4/kW-yr in the P90 case. In the Spreadsheets found at the end of Appendix there are more detailed projections of benefits that will accrue to the Domestic Trade Account as a result of Revelstoke 5.

- 1.1.1 Confirm that in the P50 case the Cost to the Lower Mainland of \$39/kW-yr is offset in part by \$28.5/kW-yr. in benefits to the Domestic Trade Account and in the P90 Case the Cost to the lower Mainland of \$47/kW-yr is offset in part by \$27.3/kW-yr. in benefits to the Domestic Trade Account.

**RESPONSE:**

The summary of Revelstoke Unit 5 benefits from Exhibit B-1, Page 4-18, Table 4-6, is provided in more detail in the following table.

	P50 Oct 10	P90 Oct 11
<b>Energy-Related Benefits:</b>	<b>\$/kW-yr</b>	<b>\$/kW-yr</b>
<b>130 GWh energy gain @ \$55/MWh at-site</b>	<b>16</b>	<b>16</b>
<b>Minus water rentals @ \$5.147/MWh</b>	<b>-2</b>	<b>-2</b>
<b>Avoided Burrard Costs</b>	<b>1</b>	<b>1</b>
<b>95% of Energy Shaping Benefits to domestic customers</b>	<b>24</b>	<b>24</b>
<b>Total energy-related benefit to domestic customer</b>	<b>39</b>	<b>39</b>
<b>Balance of Energy Shaping benefit to Powerex Trade Account</b>	<b>1</b>	<b>1</b>
<b>Capacity Trade benefits to Powerex Trade Account *</b>	<b>3.5</b>	<b>2.3</b>
<b>Total energy &amp; capacity trade benefits to Powerex Trade Account</b>	<b>4.5</b>	<b>3.3</b>
<b>Total benefit including Powerex Trade Account</b>	<b>\$43.5</b>	<b>\$42.3</b>

\* The Capacity Trade benefits to the Powerex trade account is less for the October 2011 ISD since for both ISDs this benefit is expected to diminish as domestic load requirements increase and is assumed to be zero by the time the next Mica/Revelstoke unit is required.

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The value of energy gains and Burrard cost savings flow 100 per cent to the customer. Pursuant to the HC2, 100 per cent of the domestic energy trade benefits always flow to the customer. As indicated in the above table, such benefits total \$39/kW-yr. As a result, the domestic energy-related benefits completely offset the forecast P50 October 2010 ISD Revelstoke Unit 5 cost delivered to the Lower Mainland.

The forecast of benefits to the Powerex trade account ranges from \$3.3/kW-yr to \$4.5/kW-yr. The allocation of the Powerex trade account to the customer or the province is subject to the \$200 million threshold on Net Income in HC2.

The HC2 is attached to the response to BCUC IR 1.13.2.6.

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**1.0 Reference: Ex B-1 Application, Table 4-6, Revelstoke Unit 5 Cost of Dependable Capacity Net of Benefits; Appendix I, Revelstoke Unit 5 P50/P90 Capital Cost October 2010 In-Service**

In Table 4-6 BC Hydro shows the Cost Delivered to LM Net of Energy and Capacity – Related Benefits to be - \$5/kW-yr in the P50 case and \$4/kW-yr in the P90 case. In the Spreadsheets found at the end of Appendix there are more detailed projections of benefits that will accrue to the Domestic Trade Account as a result of Revelstoke 5.

- 1.1.2 Confirm that it is BC Hydro's intention that the full Cost to the Lower Mainland will be recovered from customers in rates.

**RESPONSE:**

**Confirmed.**

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In Table 4-6 BC Hydro shows the Cost Delivered to LM Net of Energy and Capacity – Related Benefits to be - \$5/kW-yr in the P50 case and \$4/kW-yr in the P90 case. In the Spreadsheets found at the end of Appendix there are more detailed projections of benefits that will accrue to the Domestic Trade Account as a result of Revelstoke 5.

- 1.1.3 Confirm that pursuant to Special Direction HC2, in every year that Trade Income exceeds \$200 million as a result of transactions other than those related to Revelstoke 5, all of the benefits to the domestic trade account projected in Table 4-6 and Appendix I will flow to the Province rather than the customers.

**RESPONSE:**

**As described in the response to JIESC IR 1.1.1, the benefits of the domestic trade account always flow to the customers.**

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**1.0 Reference: Ex B-1 Application, Table 4-6, Revelstoke Unit 5 Cost of Dependable Capacity Net of Benefits; Appendix I, Revelstoke Unit 5 P50/P90 Capital Cost October 2010 In-Service**

In Table 4-6 BC Hydro shows the Cost Delivered to LM Net of Energy and Capacity – Related Benefits to be - \$5/kW-yr in the P50 case and \$4/kW-yr in the P90 case. In the Spreadsheets found at the end of Appendix there are more detailed projections of benefits that will accrue to the Domestic Trade Account as a result of Revelstoke 5.

- 1.1.4 Recalculate Table 4-6 and the spreadsheets found at the end of Appendix I (EX. B-1) assuming that Trade Income in every year, from sources other than Revelstoke 5, equals or exceeds \$200 million and provide the Excel Spreadsheet(s) in electronic form.

**RESPONSE:**

**Exhibit B-1, Page 4-18, Table 4-6 and the spreadsheets in Appendix I already provide the UCC if none of the benefits allocated to the Powerex Trade Account were to flow to the customer. These are the UCCs labeled: “Cost Delivered to LM Net of Domestic Energy-Related Benefits” which are \$0/kW-yr and \$8/kW-yr for the P50 Oct 2010 ISD and P90 Oct 2011 ISD, respectively.**

**Please refer to the responses to JIESC IR 1.1.1 and JIESC IR 1.1.3 which confirm the allocation of benefits to the domestic and Powerex trade accounts.**

**Please refer to the response to BCUC IR 1.53.1 for the spreadsheets in electronic form.**