

1 Q. Further to the response to V-NLH-1 in relation to the 2013 RSP proceeding, is Hydro
2 aware of any utilities in North America that utilize a hydraulic variation component
3 within their rate stabilization plans or fuel adjustment charges? If the answer is yes,
4 provide the name of each utility and describe the provisions of each such hydraulic
5 load variation, including a comparison of each to Hydro's current provisions which
6 outlines the similarities and the differences with Hydro's hydraulic variation
7 component.

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9
10 A. To the best of Hydro's knowledge, BC Hydro is the only utility that utilizes a
11 hydraulic variation component.

12
13 BC Hydro has a type of hydraulic variation component that is captured in its
14 Heritage Deferral Account, which is their cost of energy from their hydraulic
15 heritage assets. The cost of energy is based on the difference between the forecast
16 and actual water license rental fees that that BC Hydro pays to the province. A
17 regulatory account is established and the balances are recovered by way of a 5%
18 rider to all customer bills in the company's Deferral Account Rate Rider (DARR).

19
20 Whereas Hydro's hydraulic variation component was designed to translate
21 variances in hydraulic production to increases or decreases in the cost of fuel oil at
22 test year prices, BC Hydro's hydraulic variation component simply recognizes
23 variations in the cost of water rental fees with respect to the forecast cost.

24
25 Reference: Pages 4-11 and 4-12 in the file:

26 <http://www.bchydro.com/content/dam/hydro/medialib/internet/documents/plann>
27 [ing_regulatory/rev_req/bch_f12_f14_rra_chapters.pdf](http://www.bchydro.com/content/dam/hydro/medialib/internet/documents/planning_regulatory/rev_req/bch_f12_f14_rra_chapters.pdf) (included as Attachment 1).



1 are expected to be 1,274, 700 and 656 GWh for F2012, F2013 and F2014,
2 respectively.³⁵ These forecasts are significantly lower than the corresponding
3 forecast of market purchases for F2011 of 4,450 GWh, reflecting the assumption of
4 average inflow conditions relative to the F2011 inflows that are forecast to come in at
5 83 per cent of normal. Market electricity purchases are not net of surplus sales but
6 are presented as separate line items in Schedule 4.0. Refer to section 4.4.3.7.

7 **4.4.3.4 Market Purchases to Non-Heritage**

8 Market electricity purchases allocated to the Cost of Heritage Energy are capped to
9 maintain the volume of energy provided under the Heritage Contract at no more than
10 49,000 GWh/year. Any additional market electricity purchases are included in the
11 Cost of Non-Heritage Energy. For ease of reference on Schedule 4.0, all market
12 purchases are first shown in one line item, whether allocated to Cost of Heritage
13 Energy or to Cost of Non-Heritage Energy. In a separate line item, the Non-Heritage
14 allocation is backed out to maintain the distinction between the two categories of
15 Cost of Energy. For F2012 to F2014, there are no forecast market purchases

1 indexed to BC Hydro's general rate increases. Commencing calendar year 2011, the
2 water licence rental rates applicable to BC Hydro are indexed to the British Columbia
3 CPI.³⁴ The change in water rental rates as a result of OIC 024 results in the average
4 Cost of Energy over the test period being \$168 million less than it otherwise would
5 be. The forecast water rental rates for calendar year 2011 to 2014 are summarized
6 in Table 4-2.

7 **Table 4-2 Water Rental Rates**

	Calendar Year				
	Actual	Forecast			
Water Rental: General Power Use	2010	2011	2012	2013	2014
Output (\$/MWh) < 160,000 MWh	1.229	1.248	1.273	1.299	1.326
Output (\$/MWh) < 3,000,000 MWh	5.734	5.826	5.942	6.061	6.188
Output (\$/MWh) > 3,000,000 MWh	6.896	7.006	7.147	7.290	7.443
Authorized Capacity (\$/kW)	4.095	4.161	4.244	4.329	4.419
Construction Capacity (\$/kW)	0.409	0.416	0.424	0.432	0.442
B.C. CPI (%)	1.6	2.0	2.0	2.1	2.1

8 Total water licence rentals for Heritage generation, net of remissions credited to the
9 System Operations Fund (refer to section 4.4.3.8) for the value of foregone energy
10 associated with the implementation of Water Use Plans, for F2012, F2013 and
11 F2014 are forecasted to be \$360, \$372 and \$379 million (Schedule 4.0, line 1)
12 respectively, assuming average inflow conditions. (Water rental fees for Waneta are
13 included in Non-Heritage Cost of Energy, Schedule 4.0, line 10 at approximately
14 \$8 million per year).

15 **4.4.3.3 Market Electricity Purchases**

16 Planned electricity purchase costs in F2012 to F2014 are based on forward market
17 prices as of September 7, 2010, and are shown in Figure 4-1. Based on the
18 September 2010 energy studies, market electricity purchases during the test period

³⁴ A copy of OIC No. 024 Regulation pursuant to the *Water Regulation, B.C. Reg. 204/88* is attached in Appendix C.