

1 Q. **Reference: GRA, Vol. I, page 75 pdf**

2 Follow-up to LAB-NLH-010

3 Citation: LAB-NLH-010 response to part b)

4 Under the Labrador Residual Block PPA, Hydro purchases energy from Muskrat Falls at the
5 Monthly Average Sales Price, as defined in the Labrador Residual Block PPA, less the
6 Newfoundland and Labrador System Operator ("NLSO") Average 1 Rate...

7 Preamble:

8 IN response to part b) NLH has provided a written description of the pricing element in Note 33.

9 Please supplement this written description with an annotated line-by-line numerical illustration
10 of the typical calculations entailed in the written description.

11

12

13 A. Please refer to LAB-NLH-038, Attachment 1 for a detailed formula for the calculation of Labrador
14 Residual Block Power Purchase Agreement Monthly Average Sales Price (Page 1 of 2) and an
15 illustrative example using a sample month's transaction details (Page 2 of 2).

Labrador Residual Block Sales PPA

A Labrador Residual Block Sales delivered at the Muskrat Delivery Point (MWh)

B Incremental Recapture Sales delivered at the HQ Border (MWh)

Monthly Average Sales Price (\$)		Recapture External Market Energy Sales Revenue (\$)
Less:	Actual Net Costs (\$)	Includes: Transmission and marketing fees to external markets (specific to the delivery of Recapture only) Power purchase costs (Legacy Recapture, Other energy purchases required to export Recapture) Firm transmission rights for transmission congestion
Divided by:	Recapture External Market Energy Sales Delivered to HQ Border (MWh)	Includes: Legacy Recapture Incremental Recapture
C Equals:	Monthly Average Sales Price (\$/MWh), before NLSO Tariff and Losses (This is the price used by Hydro to invoice Energy Marketing)	
Less:	NLSO Average Rate (\$)	PUB Ordered NLSO Non-Firm Off-Peak Hourly Rates for Schedule 1, 2 and 8
Multiplied by:	Loss ratio (%)	Incremental Recapture Sales at HQ Border divided by Labrador Residual Block deliveries at the Muskrat Falls Delivery Point
D Equals:	Monthly Average Sales Price (\$/MWh) (This is the price used by Muskrat Falls to invoice Hydro for energy delivered for use in Labrador)	
Energy Marketing Pays to Hydro	(B*C)	
Hydro Pays to Muskrat Falls	(A*D)	

Monthly Average Sales Price
Sample Calculation of Labrador Residual Block Sales Price

	Sample Month ¹	Reference to Page 1
<u>Recapture External Market Energy Sales Revenue</u>		
Energy Sales - Recapture	\$ (18,683,552)	
CES-E Credits (Environmental Attribute Sales associated with Recapture Energy)	\$ (413,020)	
	\$ (19,096,572)	
<u>Actual Net Costs Specific to Recapture Exports</u>		
Hydro Power Purchased - (Legacy and Other Energy required to sell Recapture)	\$ 393,545	
Transmission Costs	\$ 1,809,693	
Market Fees	\$ 96,442	
	\$ 2,299,681	
Recapture (Profit) Loss	\$ (16,796,892)	A
Recapture External Market Energy delivered to HQ Border (MWh)	112,095	B
Monthly Average Sales Price (MASP) (\$CAD/MWh)	\$ 149.85	A/B = C
<u>NLSO Average Rate (\$CAD/MWh)</u>		
Point-to-Point Transmission Service (Sch 8)	\$ 2.46	
Scheduling, System Control and Dispatch Service (Sch 1)	\$ 0.47	
Reactive Supply and Voltage Control (Sch 2)	\$ 1.18	
	\$ (4.11)	D
MASP, less NLSO Average Rate	\$ 145.74	C-D = E
<u>Loss Ratio</u>		
Incremental Recapture Exports delivered at Hydro Quebec Border (MWh)	30,870	
Labrador Residual Block deliveries at Muskrat Falls Delivery Point (MWh)	32,066	
	96.3%	F
Labrador Residual Block Sales Price (\$CAD/MWh)	\$ 140.30	E*F = G
<u>Hydro Invoice to Energy Marketing for Incremental Recapture Sales</u>		
Incremental Recapture Exports delivered at Hydro Quebec Border (MWh)	30,870	B
Monthly Average Sales Price (MASP) (\$CAD/MWh)	\$ 149.85	C
	4,625,870	B*C
<u>Muskrat Invoice to Hydro for Labrador Residual Block Sales</u>		
Labrador Residual Block deliveries at Muskrat Falls Delivery Point (MWh)	32,066	A
Labrador Residual Block Sales Price (\$CAD/MWh)	\$ 140.30	D
	\$ 4,498,860	A*D
Net Profit from Use of MF in Labrador and Amount Included in Supply Cost Variance Deferral Account	\$ 127,010	

¹ Values are for illustrative purposes only.