

1 Q. **Cost of Service**

2 Please update Hydro's response IC-NLH-91 from the 2013 Amended GRA.

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5 A. IC-NLH-091 from the 2013 GRA requested an update of IC-NLH-049 from the 2006  
6 GRA which reads:

7 *"Please provide a "one page" summary of the functionalized COS*  
8 *information from the 2007 COS (similar to IC-13(Rev) NLH from the*  
9 *2003 General Rate Application)."*

10

11 Please refer to **the revised** IC-NLH-109, Attachment 1 and Attachment 2 for a one  
12 page summary of the functionalized cost of service information for each of the 2018  
13 and 2019 Test Year Cost of Service Studies for the Island Interconnected System.

Newfoundland and Labrador Hydro  
2018 Test Year Cost of Service Study  
Functional Summary

	(2) Oper. & Maintenance	(3) Fuels	(4) Purchased Power	(5) Depreciation	(6) Expense Credits	(7) Return on Rate Base Debt	(8) Equity	(9) Gain/Loss Disposal	(10) Total	(11) Demand Ratio	(12) Demand Costs	(13) Energy Costs	(14) Rural Gen / Transmsn	(15) Spec Assigned
<b>ISLAND INTERCONNECTED</b>														
<b>Generation:</b>														
Other Hydraulic	24,988,879			19,747,857	(134,783)	32,989,954	12,539,658	0	90,131,566	45.60%	41,103,042	49,028,523		
GNP Hydraulic	0			0	0	0	0	0	0	45.60%	0	0	0	
Transmission Lines - Hydraulic	881,212			1,670,436	(7,714)	1,813,183	689,200	0	5,046,318	45.60%	2,301,291	2,745,026		
Terminal Stations - Hydraulic	1,370,431			1,119,970	(6,783)	1,421,256	540,227	0	4,445,101	45.60%	2,027,116	2,417,985		
<b>Hydraulic</b>	<b>27,240,523</b>			<b>22,538,263</b>	<b>(149,280)</b>	<b>36,224,393</b>	<b>13,769,086</b>	<b>0</b>	<b>99,622,984</b>		<b>45,431,450</b>	<b>54,191,534</b>	<b>0</b>	<b>0</b>
Holyrood	30,794,428			19,814,662	(53,183)	4,830,447	1,836,079	0	57,222,432	69.56%	39,803,923	17,418,508		
Terminal Stations	421,883			232,770	(2,088)	370,371	140,780	0	1,163,716	69.56%	809,481	354,235		
Holyrood Fuel		218,330,789				2,835,538	1,077,803		222,244,130	0.00%	0	222,244,130		
<b>Holyrood</b>	<b>31,216,311</b>	<b>218,330,789</b>	<b>0</b>	<b>20,047,431</b>	<b>(55,271)</b>	<b>8,036,355</b>	<b>3,054,662</b>	<b>0</b>	<b>280,630,277</b>		<b>40,613,404</b>	<b>240,016,873</b>	<b>0</b>	<b>0</b>
Gas Turbines	13,608,131			7,319,430	(29,617)	6,752,245	2,566,565	0	30,216,754	100.00%	30,216,754	0		
Terminal Stations - Gas Tur	13,456			8,943	(67)	19,811	7,530	0	49,674	100.00%	49,674	0		
Gas Turbines Fuel		11,934,765				196,537	74,705		12,206,007	100.00%	12,206,007	0		
<b>Gas Turbines</b>	<b>13,621,587</b>	<b>11,934,765</b>	<b>0</b>	<b>7,328,373</b>	<b>(29,683)</b>	<b>6,968,594</b>	<b>2,648,800</b>	<b>0</b>	<b>42,472,435</b>		<b>42,472,435</b>	<b>0</b>	<b>0</b>	<b>0</b>
Diesel	594,557			124,799	(1,444)	124,759	47,421	0	890,092	100.00%	890,092	0		0
Terminal Stations - Diesel	0			0	0	0	0	0	0	100.00%	0	0		0
Distribution Substns - Diesel	0			0	0	0	0	0	0	100.00%	0	0		0
Diesel Fuel		127,082				18,869	7,172		153,123	100.00%	153,123	0		0
<b>Diesel</b>	<b>594,557</b>	<b>127,082</b>	<b>0</b>	<b>124,799</b>	<b>(1,444)</b>	<b>143,627</b>	<b>54,594</b>	<b>0</b>	<b>1,043,214</b>		<b>1,043,214</b>	<b>0</b>	<b>0</b>	<b>0</b>
Feasibility Studies	8			142,424	0	6,112	2,323	0	150,867	100.00%	150,867	0		
Purchased Power Wind			14,105,549						14,105,549	0.00%	0	14,105,549		
Purchased Power Other NUGS	0		42,796,030	0	0	0	0	0	42,796,030	45.60%	19,516,437	23,279,593		
Purchased Power - Interruptible			3,396,596						3,396,596		3,396,596	0		
<b>Subtotal Generation</b>	<b>72,672,985</b>	<b>230,392,636</b>	<b>60,298,175</b>	<b>50,181,290</b>	<b>(235,678)</b>	<b>51,379,081</b>	<b>19,529,464</b>	<b>0</b>	<b>484,217,953</b>		<b>152,624,404</b>	<b>331,593,549</b>	<b>0</b>	<b>0</b>
<b>Transmission:</b>														
Lines Network	6,923,968			10,752,493	(60,611)	15,699,449	5,967,445	0	39,282,744	100%	39,282,744	0		
Lines Export	0			0	0	0	0	0	0	100%	0	0		
Specifically Assigned - Lines	581,381			719,022	(5,089)	716,847	272,477	0	2,284,637					2,284,637
Terminal Stations Network	5,649,328			4,378,742	(27,960)	6,292,102	2,391,662	0	18,683,874	100%	18,683,874	0		
Terminal Stations Export	0			0	0	0	0	0	0	100%	0	0		
Specifically Assigned - Term Stns	953,879			574,655	(4,721)	804,150	305,662	0	2,633,625					2,633,625
Rural Transmission - Lines	1,546,896		766,983	2,093,845	(13,541)	2,342,102	890,246	0	7,626,531					
Rural Transmission - Stations	692,166			589,425	(3,426)	654,302	248,704	0	2,181,171					
<b>Subtotal Rural Transmission</b>	<b>2,239,062</b>	<b>0</b>	<b>766,983</b>	<b>2,683,270</b>	<b>(16,967)</b>	<b>2,996,405</b>	<b>1,138,949</b>	<b>0</b>	<b>9,807,702</b>	<b>100%</b>	<b>0</b>	<b>0</b>	<b>9,807,702</b>	<b>0</b>
Feasibility Studies	0			0	0	0	0	0	0	100%	0	0		
Wheeling Revenues	0			0	0	0	0	0	0	100%	0	0		
<b>Subtotal Transmission</b>	<b>16,347,619</b>	<b>0</b>	<b>766,983</b>	<b>19,108,182</b>	<b>(115,348)</b>	<b>26,508,952</b>	<b>10,076,194</b>	<b>0</b>	<b>72,692,582</b>		<b>57,966,618</b>	<b>0</b>	<b>9,807,702</b>	<b>4,918,262</b>
<b>Subtotal Generation &amp; Transmsn</b>	<b>89,020,604</b>	<b>230,392,636</b>	<b>61,065,158</b>	<b>69,289,472</b>	<b>(351,026)</b>	<b>77,888,033</b>	<b>29,605,658</b>	<b>0</b>	<b>556,910,534</b>		<b>210,591,022</b>	<b>331,593,549</b>	<b>9,807,702</b>	<b>4,918,262</b>
<b>Distribution</b>	<b>12,518,247</b>	<b>0</b>	<b>0</b>	<b>7,257,821</b>	<b>(1,172,201)</b>	<b>6,064,713</b>	<b>2,305,230</b>	<b>0</b>	<b>26,973,810</b>					<b>0</b>
<b>Subtotal Generation, Trans &amp; Dist</b>	<b>101,538,850</b>	<b>230,392,636</b>	<b>61,065,158</b>	<b>76,547,293</b>	<b>(1,523,227)</b>	<b>83,952,746</b>	<b>31,910,888</b>	<b>0</b>	<b>583,884,344</b>					<b>4,918,262</b>
<b>Customer Accounting</b>	<b>3,165,685</b>			<b>178,472</b>	<b>(13,542)</b>	<b>113,712</b>	<b>43,223</b>	<b>0</b>	<b>3,487,550</b>					
<b>General Plant</b>														
General Plant	0			0	0	0	0	0	0					
NLSO	1,484			131,773	(1)	66,962	25,453	0	225,672					
Telecontrol Common	0			0	0	0	0	0	0					
Feasibility Studies	0			0	0	0	0	0	0					
Software General	0			0	0	0	0	0	0					
Telecontrol Specific	0			0	0	0	0	0	0					0
	<b>1,484</b>	<b>0</b>	<b>0</b>	<b>131,773</b>	<b>(1)</b>	<b>66,962</b>	<b>25,453</b>	<b>0</b>	<b>225,672</b>					<b>0</b>
<b>Revenue-Related</b>	<b>2,327,920</b>				<b>(987)</b>				<b>2,326,934</b>					
<b>TOTAL ISLAND INTERCONNECTED</b>	<b>107,033,940</b>	<b>230,392,636</b>	<b>61,065,158</b>	<b>76,857,538</b>	<b>(1,537,756)</b>	<b>84,133,420</b>	<b>31,979,563</b>	<b>0</b>	<b>589,924,499</b>					<b>4,918,262</b>

Newfoundland and Labrador Hydro  
2019 Test Year Cost of Service Study  
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	(2) Oper. & Maintenance	(3) Fuels	(4) Purchased Power	(5) Depreciation	(6) Expense Credits	(7) Return on Rate Base Debt	(8) Equity	(9) Gain/Loss Disposal	(10) Total	(11) Demand Ratio	(12) Demand Costs	(13) Energy Costs	(14) Rural Gen / Transmsn	(15) Spec Assigned
<b>ISLAND INTERCONNECTED</b>														
<b>Generation:</b>														
Other Hydraulic	25,313,805			20,689,238	(131,244)	32,260,504	13,102,566	0	91,234,869	45.40%	41,419,548	49,815,321		
GNP Hydraulic	0			0	0	0	0	0	0	45.40%	0	0	0	
Transmission Lines - Hydraulic	833,907			1,664,418	(7,318)	1,689,785	686,304	0	4,867,096	45.40%	2,209,604	2,657,492		
Terminal Stations - Hydraulic	1,270,338			1,127,780	(6,436)	1,341,350	544,788	0	4,277,819	45.40%	1,942,079	2,335,740		
<b>Hydraulic</b>	<b>27,418,049</b>			<b>23,481,436</b>	<b>(144,998)</b>	<b>35,291,639</b>	<b>14,333,658</b>	<b>0</b>	<b>100,379,785</b>		<b>45,571,231</b>	<b>54,808,554</b>	<b>0</b>	<b>0</b>
Holyrood	31,466,370			21,040,277	(53,261)	4,858,936	1,973,451	0	59,285,774	69.56%	41,239,184	18,046,590		
Terminal Stations	405,003			284,090	(2,052)	374,114	151,946	0	1,213,100	69.56%	843,832	369,268		
Holyrood Fuel		221,114,563				2,675,207	1,086,532		224,876,303	0.00%	0	224,876,303		
<b>Holyrood</b>	<b>31,871,373</b>	<b>221,114,563</b>	<b>0</b>	<b>21,324,367</b>	<b>(55,313)</b>	<b>7,908,257</b>	<b>3,211,930</b>	<b>0</b>	<b>285,375,176</b>		<b>42,083,017</b>	<b>243,292,160</b>	<b>0</b>	<b>0</b>
Gas Turbines	14,044,382			6,462,653	(29,640)	6,744,777	2,739,383	0	29,961,556	100.00%	29,961,556	0		
Terminal Stations - Gas Tur	20,479			9,307	(104)	31,805	12,917	0	74,405	100.00%	74,405	0		
Gas Turbines Fuel		12,632,138				198,554	80,643		12,911,335	100.00%	12,911,335	0		
<b>Gas Turbines</b>	<b>14,064,861</b>	<b>12,632,138</b>	<b>0</b>	<b>6,471,960</b>	<b>(29,743)</b>	<b>6,975,136</b>	<b>2,832,943</b>	<b>0</b>	<b>42,947,295</b>		<b>42,947,295</b>	<b>0</b>	<b>0</b>	<b>0</b>
Diesel	599,420			131,378	(1,403)	126,479	51,369	0	907,243	100.00%	907,243	0		0
Terminal Stations - Diesel	0			0	0	0	0	0	0	100.00%	0	0		0
Distribution Substns - Diesel	0			0	0	0	0	0	0	100.00%	0	0		0
Diesel Fuel		138,012				15,030	6,105		159,147	100.00%	159,147	0		0
<b>Diesel</b>	<b>599,420</b>	<b>138,012</b>	<b>0</b>	<b>131,378</b>	<b>(1,403)</b>	<b>141,509</b>	<b>57,474</b>	<b>0</b>	<b>1,066,390</b>		<b>1,066,390</b>	<b>0</b>	<b>0</b>	<b>0</b>
Feasibility Studies	1			118,092	0	414	168	0	118,674	100.00%	118,674	0		
Purchased Power Wind			14,162,565						14,162,565	0.00%	0	14,162,565		
Purchased Power Other NUGS	0		43,992,714	0	0	0	0	0	43,992,714	45.40%	19,972,170	24,020,544		
Purchased Power - Interruptible			3,130,400						3,130,400		3,130,400	0		
<b>Subtotal Generation</b>	<b>73,953,704</b>	<b>233,884,713</b>	<b>61,285,679</b>	<b>51,527,233</b>	<b>(231,458)</b>	<b>50,316,955</b>	<b>20,436,173</b>	<b>0</b>	<b>491,173,000</b>		<b>154,889,177</b>	<b>336,283,822</b>	<b>0</b>	<b>0</b>
<b>Transmission:</b>														
Lines Network	7,071,181			10,986,405	(62,050)	16,265,865	6,606,362	0	40,867,764	100%	40,867,764	0		
Lines Export	0			0	0	0	0	0	0	100%	0	0		
Specifically Assigned - Lines	551,047			717,064	(4,835)	668,647	271,570	0	2,203,492					2,203,492
Terminal Stations Network	6,115,845			5,078,958	(30,987)	7,379,456	2,997,157	0	21,540,430	100%	21,540,430	0		
Terminal Stations Export	0			0	0	0	0	0	0	100%	0	0		
Specifically Assigned - Term Stns	1,010,124			715,884	(5,118)	958,000	389,090	0	3,067,980					3,067,980
Rural Transmission - Lines	1,548,599		769,061	2,274,835	(13,589)	2,416,521	981,467	0	7,976,894					
Rural Transmission - Stations	638,123			586,930	(3,233)	609,653	247,610	0	2,079,083					
<b>Subtotal Rural Transmission</b>	<b>2,186,722</b>	<b>0</b>	<b>769,061</b>	<b>2,861,765</b>	<b>(16,822)</b>	<b>3,026,174</b>	<b>1,229,077</b>	<b>0</b>	<b>10,055,977</b>	<b>100%</b>	<b>0</b>	<b>0</b>	<b>10,055,977</b>	<b>0</b>
Feasibility Studies	0			0	0	0	0	0	0	100%	0	0		
Wheeling Revenues	0			0	0	0	0	0	0	100%	0	0		
<b>Subtotal Transmission</b>	<b>16,934,920</b>	<b>0</b>	<b>769,061</b>	<b>20,360,075</b>	<b>(119,813)</b>	<b>28,298,142</b>	<b>11,493,257</b>	<b>0</b>	<b>77,735,643</b>		<b>62,408,194</b>	<b>0</b>	<b>10,055,977</b>	<b>5,271,473</b>
<b>Subtotal Generation &amp; Transmsn</b>	<b>90,888,624</b>	<b>233,884,713</b>	<b>62,054,740</b>	<b>71,887,309</b>	<b>(351,270)</b>	<b>78,615,097</b>	<b>31,929,430</b>	<b>0</b>	<b>568,908,643</b>		<b>217,297,371</b>	<b>336,283,822</b>	<b>10,055,977</b>	<b>5,271,473</b>
<b>Distribution</b>	<b>12,685,819</b>	<b>0</b>	<b>0</b>	<b>7,691,897</b>	<b>(1,186,115)</b>	<b>5,957,155</b>	<b>2,419,492</b>	<b>0</b>	<b>27,568,247</b>					<b>0</b>
<b>Subtotal Generation, Trans &amp; Dist</b>	<b>103,574,443</b>	<b>233,884,713</b>	<b>62,054,740</b>	<b>79,579,205</b>	<b>(1,537,386)</b>	<b>84,572,252</b>	<b>34,348,922</b>	<b>0</b>	<b>596,476,890</b>					<b>5,271,473</b>
<b>Customer Accounting</b>	<b>3,225,277</b>			<b>200,461</b>	<b>(13,540)</b>	<b>128,207</b>	<b>52,071</b>	<b>0</b>	<b>3,592,476</b>					
<b>General Plant</b>														
General Plant	0			0	0	0	0	0	0					
NLSO	1,466			118,423	(1)	66,570	27,037	0	213,497					
Telecontrol Common	0			0	0	0	0	0	0					
Feasibility Studies	0			0	0	0	0	0	0					
Software General	0			0	0	0	0	0	0					
Telecontrol Specific	0			0	0	0	0	0	0					0
	<b>1,466</b>	<b>0</b>	<b>0</b>	<b>118,423</b>	<b>(1)</b>	<b>66,570</b>	<b>27,037</b>	<b>0</b>	<b>213,497</b>					<b>0</b>
<b>Revenue-Related</b>	<b>2,353,292</b>				<b>(978)</b>				<b>2,352,314</b>					
<b>TOTAL ISLAND INTERCONNECTED</b>	<b>109,154,478</b>	<b>233,884,713</b>	<b>62,054,740</b>	<b>79,898,089</b>	<b>(1,551,903)</b>	<b>84,767,029</b>	<b>34,428,031</b>	<b>0</b>	<b>602,635,176</b>					<b>5,271,473</b>