

1    Q.    (GRA, Volume II, Exhibit 9 – Cost of Service Study/Utility and Industrial Rate Design  
2            Report, Section 1 – Cost of Service)  
3            Please provide a table listing each new component of the transmission system and  
4            each new system that has been incorporated in the cost of service study since the  
5            last GRA and identify its cost and the customers to whom these costs have been  
6            allocated.

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9    A.    Hydro's assets are grouped into five systems for the purposes of cost of service,  
10            which are comprised of Island Interconnected, Island Isolated, Labrador  
11            Interconnected, Labrador Isolated and L'Anse au Loup. There has been no new  
12            system incorporated to the Cost of Service Study since the last GRA.

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14            The response to NP-NLH-131 provides a listing of the new major components added  
15            to the Island Interconnected transmission system. The costs associated with the  
16            major asset additions incorporated in the Cost of Service Study since the last GRA,  
17            are summarized in the following table.

Summary of Island Interconnected System Additions		
Asset	Customer	Capital Cost (\$000)
Corner Brook Frequency Converter Transformer - T1	Corner Brook Pulp and Paper	921
Laurentian Revenue Metering (St. Lawrence Wind)	Common	10
Hawke's Bay 66 kV and 12.5 kV bus work	Hydro Rural	196

<b>Summary of Island Interconnected System Additions (cont'd)</b>		
<b>Asset</b>	<b>Customer</b>	<b>Capital Cost (\$000)</b>
Hawke's Bay disconnect switches B2T1-1, B3T2-1, B3T3-1 and B2B3-1	Hydro Rural	116
Corner Brook Frequency Converter 66 kV wall bushings	Corner Brook Pulp and Paper	178
Corner Brook Frequency Converter 50 Hz and 60 Hz rotor rewinds	Corner Brook Pulp and Paper	1,468
Cat Arm Unit 2 Governor replacement	Common	1,163
Spare generator unit transformer	Common	2,138
Corner Brook Frequency Converter AVR's and liquid rheostat replacement	Corner Brook Pulp and Paper	812
Howley 69 kV circuit breaker L51T2 replacement	Common	251
Fermeuse revenue metering	Common	5
Hawke's Bay 138 kV disconnect switch L41-1	Hydro Rural	146
Bay d'Espoir Unit 2 stator rewind	Common	4,436
Bottom Brook 138 kV circuit breaker B3L50 replacement	Common	195
Daniel's Harbour seven 66 kV disconnect switches and two 66 kV ground switches replaced	Hydro Rural	230
Cow Head 66 kV bus work, five 66 kV disconnect switches and two 66 kV ground switches replaced	Hydro Rural	247
Wiltondale transformer T1 replacement	Hydro Rural	70
Oxen Pond 66 kV disconnect switch B2B5-2 replacement	Common	48
Mobile substation P-235 upgrade	Common	679
Conne River disconnect switch L20T1 and transformer T1 power fuse replacement	Hydro Rural	312
English Harbour West 69 kV switch L20T1	Hydro Rural	297
Hawke's Bay 66 kV disconnect switches B1L21-1, B1L21-2 and B1L21-BP replacement	Hydro Rural	283
Bay d'Espoir Unit 4 stator rewind	Common	296
Voisey's Bay Terminal Station and TL208 extension	Vale	11,038
St. Anthony Airport 69 kV circuit breakers B1T1 and B1L57 replacement	Hydro Rural	757
Hardwoods 230 kV disconnect switch B1T2	Common	20
Hinds Lake exciter replacement	Common	563
Hawke's Bay 66 kV circuit breaker B1L21 and switch L21G replacement	Hydro Rural	242
Holyrood 230 kV switch L18G	Common	16
Rocky Harbour Terminal Station rebuild	Hydro Rural	1,186
Sunnyside 230 kV circuit breaker L03L06 replacement	Common	646

<b>Summary of Island Interconnected System Additions (cont'd)</b>		
<b>Asset</b>	<b>Customer</b>	<b>Capital Cost (\$000)</b>
Holyrood 230 kV switch B3T3 and 69 kV switch T1B1-1	Common	38
Hardwoods 230 kV circuit breaker B1L36 replacement	Common	245
Massey Drive 66 kV circuit breaker B2T2	Common	219
Upper Salmon exciter replacement (estimate - project underway)	Common	2,295
Bottom Brook 138 kV circuit breaker B2L14 replacement	Common	296
Doyles 66 kV circuit breaker B1L15 replacement	Newfoundland Power	296

1        On the Labrador Interconnected transmission system, a new 138/25 kV terminal  
 2        station was added at Muskrat Falls in 2012. This was primarily required due to the  
 3        increase in load caused by the construction of the Muskrat Falls hydro-electric  
 4        station. The new 138/25 kV station includes 138 kV disconnect switches, two 138  
 5        kV circuit breakers, a 138/25 kV, 30/40/50 MVA power transformer and six 25 kV,  
 6        3.6 MVAR capacitor banks for voltage support of the transmission system. The total  
 7        cost for this station is \$6,115,500. All amounts were fully contributed by the general  
 8        service customer at the Muskrat Falls construction site. These assets are assigned  
 9        Common to all Labrador Interconnected Customers.<sup>1</sup>

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11        The Island Isolated, Labrador Isolated and L'Anse au Loup systems contain only  
 12        distribution voltage class assets. Therefore, there are no new transmission system  
 13        additions in either of these systems.

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<sup>1</sup> The new 230/138 kV transformer at Churchill Falls was omitted in the Cost of Service. At the time of evidence preparation, the allocation had not been determined. As it is fully contributed, it has no impact on the Cost of Service.