

1 Q. Please provide all studies, documents, data, calculations and workpapers
2 used in the Calculation of Firming Up Charge for Island Interconnected as
3 shown on Schedule 1.4 of Exhibit RDG-1.

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6 A. Please refer to the attached schedule for calculations and cross-references
7 to the Cost of Service.

NEWFOUNDLAND AND LABRADOR HYDRO
Calculation of Firming Up Charge
Detail Calculations and COS References

1	Gas Turbine Operating & Maintenance (O&M):			
2	Direct Gas Turbine (GT) O&M	487,340	Sch. 2.4A,L4,C3	
3	Allocated Other Production O&M:			
4	Direct GT O&M	<u>487,340</u>		
5	Direct Production Demand O&M Excl. Other	12,041,209	Sch. 2.4A,L1-5,C3	
6	x			
7	Other Production Demand O&M	1,248,798	Sch. 2.4A,L5,C3	
8	=	<u>50,542</u>		
9	Total Direct GT O&M	<u>537,882</u>		
10		540,014	Sch. 1.4,L1,C3	
11	Difference	<u><u>-2,132</u></u> ⁽¹⁾		
12	Transmission & Terminals O&M	3,910,943	Sch. 2.4A,L11,C5	
13		3,910,943	Sch. 1.4,L1,C4	
14	Gas Turbine O&M Overhead:			
15	Direct Gas Turbine O&M	<u>540,014</u>		
16	Total Direct Production Demand O&M	14,074,874	Sch. 2.4A,L15,C3	
17	x			
18	Admin & General Production Demand O&M	10,016,567	Sch. 2.4A,L29,C3	
19	=	384,308	Sch. 1.4,L2,C3	
20	Transmission & Terminals O&M Overhead	3,931,575	Sch. 2.4A,L29,C5	
21		3,931,575	Sch. 1.4,L2,C4	
22	Gas Turbine Depreciation:			
23	Direct GT Depreciation	95,580	Sch. 2.5A,L10,C3	
24	Allocated General Depreciation:			
25	Direct GT Depreciation	<u>95,580</u>		
26	Direct Production Demand Depreciation	3,600,052	Sch. 2.5A,L34,C3	
27	x			
28	General Production Demand Depreciation	3,364,106	Sch. 2.5A,L36-39,C3	
29	=	<u>89,316</u>		
30	Total GT Depreciation	<u><u>184,896</u></u>	Sch. 1.4,L3,C3	
31	Transmission & Terminals Depreciation	6,034,358	Sch. 2.5A,L40,C5	
32		6,034,358	Sch. 1.4,L3,C4	
33	Gas Turbine Percent Return (Footnote Schedule 1.4)			
34	Gas Turbine Net Book Value (NBV)	1,919,319	Sch. 2.3A,L10,C3	
35	Allocated General NBV			
36	Direct GT NBV	<u>1,919,319</u>		
37	Direct Production Demand NBV	385,613,297	Sch. 2.3A,L34,C3	
38	x			
39	General Production Demand NBV	22,411,318	Sch. 2.3A,L35-39,C3	
40	=	<u>111,548</u>		
41	Total GT NBV	<u><u>2,030,867</u></u>		
42	/ Total Production Demand NBV	<u>408,024,614</u>	Sch. 2.3A,L40,C3	
43	= Gas Turbine Percent Return	<u><u>0.50%</u></u>	Sch. 1.4, Footnote	
44	Gas Turbine Return:			
45	Gas Turbine Percent Return	0.50%		
46	x			
47	Production Demand Return on Debt and Return on Equity	<u>37,139,786</u>	Sch. 2.1A,L21-22,C3	
48	= Gas Turbine Return	<u><u>184,856</u></u>	Sch. 1.4,L4,C3	
49	Transmission & Terminals Return	15,612,980	Sch. 2.1A,L21-22,C5	
50		15,612,980	Sch. 1.4,L4,C4	

⁽¹⁾ Difference of \$2,132 is due to an error in the calculation and will be corrected in the Final Test Year Cost of Service.

NEWFOUNDLAND AND LABRADOR HYDRO
Calculation of Firming Up Charge
Detail Calculations and COS References

1	Gas Turbine Capacity (kW):				
2	Hardwoods		54,000		Schedule II, JR Haynes
3	Stephenville		54,000		Schedule II, JR Haynes
4	Holyrood		10,000		Schedule II, JR Haynes
5			<u>118,000</u>		Sch. 1.4,L6,C3
6	Transmission & Terminals Capacity (kW):				
7	Island Interconnected Net Capacity		1,591,800		Schedule II, JR Haynes
8			1,591,800		Sch. 1.4,L6,C4
9	Cost (\$/kW):				
10	Total Cost, Gas Turbines and Transmission & Terminals	1,294,075	29,489,857		Sch. 1.4,L5,C3-4
11	/ Capacity, Gas Turbines and Transmission & Terminals	118,000	1,591,800		Sch. 1.4,L6,C3-4
12	= Cost (\$/kW)	10.97	18.53		Sch. 1.4,L7,C3-4
13	Rate (\$/kWh):				
14	Total Cost (\$/kW)		29.49		Sch. 1.4,L7,C3+C4
15	/ NF Power Load Factor:				
16	NF Power Energy	<u>4,741,400</u>	<u>4,741,400</u>	52.2%	Schedule XI, JR Haynes
17	NF Power CP * Hours in Year	1036.7 * 8760	9,081,492		Sch. 3.1A,P1,L1,C5
18	/ Hours in Year		8760		
19	= Rate (\$/kWh)		<u>0.00645</u>		Sch. 1.4, L8,C2