

1 Q. Provide the same information as requested in questions 144-148 above for
2 the gas turbine units at Stephenville and Hardwoods.

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4 A. **RE: IC-144**

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6 At the time of the last rate referral both the Stephenville and Hardwoods gas
7 turbines were assigned common.

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9 **RE: IC-145**

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11 Neither the Stephenville nor Hardwoods gas turbines were specifically
12 assigned at the time of the 1992 Report.

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14 **RE: IC-146**

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16 In 1992, the Stephenville and Hardwoods gas turbines were classified 100%
17 demand-related. The same treatment has been accorded gas turbine
18 generation in the 2002 Forecast Cost of Service.

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20 **RE: IC-147**

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22 1. The table below shows when the generating plants in question
23 became a part of the Island Interconnected System.

Generation Source	Available to Island Interconnected System
Stephenville Gas Turbine	May, 1977
Hardwoods Gas Turbine	November, 1978

1 2. Records back to 1977 and 1978 for the Stephenville and Hardwoods
2 Gas Turbines are not readily available, thus data since 1992 are used
3 to answer this question. The table shows the number of times during
4 1992 through 2000 when each of the plants were operated. To list
5 every incident of operation and the reason for operation is impractical
6 because of the limited detail available on the cause of operation.
7 However, operation of these units for testing and synchronous
8 condenser are excluded from the table.

Year	Stephenville Gas Turbine	Hardwoods Gas Turbine
1992	17	22
1993	12	17
1994	10	34
1995	11	15
1996	10	12
1997	1	8
1998	3	17
1999	1	19
2000	1	17

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2 Over this period, Stephenville and Hardwoods gas turbines were used
3 for meeting system generation peak requirements, during emergency
4 situations and for transmission security. When operated for peak
5 requirements all customer classes were served by both gas turbines.
6 When operated for emergency supply and for transmission security
7 the customers in the area of the system where the unit is located
8 would have benefited. For the Stephenville gas turbine the customers
9 benefiting would be Abitibi Consolidated, Newfoundland Power and

1 Hydro Rural customers. For the Hardwoods gas turbine the
 2 customers benefiting would be North Atlantic Refining and
 3 Newfoundland Power.

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 5 3. The table below provides the number of kWh generated by each unit,
 6 the amount of fuel consumed by that unit, the cost of the fuel
 7 consumed, operating and maintenance costs and capital costs for
 8 each year from 1992 to 2000.

Stephenville Gas Turbine

	Energy Produced (Gross kWh)	Fuel Consumed (gallons)	Fuel Cost	O&M Cost	Capital Cost
1992	705,600	73,760	\$99,292	\$154,390	\$80,437
1993	1,015,200	88,359	\$110,442	\$169,659	\$9,321
1994	288,000	32,510	\$37,994	\$189,418	\$0
1995	338,400	27,156	\$31,321	\$157,763	\$0
1996	648,000	72,472	\$82,438	\$140,075	\$0
1997	36,000	3,292	\$3,715	\$262,885	\$0
1998	374,400	36,687	\$41,397	\$101,048	\$16,408
1999	201,600	24,446	\$27,608	\$206,053	\$979,631
2000	36,000	11,265	\$13,877	\$2,065,850	\$449,443

Hardwoods Gas Turbine

	Energy Produced (Gross kWh)	Fuel Consumed (gallons)	Fuel Cost	O&M Cost	Capital Cost
1992	2,030,400	130,836	\$127,384	\$183,106	\$0
1993	626,400	59,459	\$57,826	\$687,156	\$0
1994	2,822,400	274,783	\$257,736	\$347,429	\$0
1995	925,200	130,244	\$120,958	\$575,565	\$51,095
1996	972,000	71,207	\$66,130	\$163,619	\$319,196
1997	590,400	50,680	\$47,066	\$128,142	\$604,268
1998	557,200	59,100	\$54,886	\$338,782	\$111,031
1999	792,000	82,638	\$76,309	\$279,329	\$0
2000	223,200	33,739	\$34,573	\$359,940	\$0

1 Operating and maintenance costs include the gas turbine operator's
2 salary for 1992 to 1997. For 2000, the O&M cost includes the gas
3 turbine operator and other required labour expenses.

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5 **RE: IC-148**

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7 The annual revenue for Stephenville and Hardwoods was determined using
8 the same methodology as IC-148. See table below.

Year	Stephenville	Hardwoods
1992	\$30,370	\$87,104
1993	\$43,146	\$26,622
1994	\$12,499	\$122,492
1995	\$14,484	\$39,599
1996	\$27,929	\$41,893
1997	\$1,588	\$26,037
1998	\$17,410	\$25,910
1999	\$9,435	\$37,066
2000	\$1,634	\$10,133