Q. RE: p. B-21 Purchase and Install Closed Circuit Surveillance System – Holyrood ($152,000)

13.1 Has there been an overall review of the security systems in place at all Hydro sites? If so, provide a copy of the report.

13.2 Are detailed reports kept of vandalism and thefts at Hydro sites? If so, provide a report, showing details for each site, of the damages and costs for each year from 1995 – 2000.

A. 13.1 No, there has not been an overall review of the security systems in place at all Hydro sites.

13.2 Accident/Incident Investigation Reports are done for cases of serious loss or damage at the generating plant sites. A summary of the reports for incidents involving theft or vandalism at Hydro's Production facilities is as follows:

Year	Location	No. of Incidents	Cost
2000	Holyrood	6	$18,700.00
1999	Holyrood	10	$3,799.00
1999	Salmon River Spillway Structure	1	$300.00
1998	Holyrood	9	$3,088.00
1997	Holyrood	6	$1,420.00
1996	Holyrood	4	$1,350.00
1996	Paradise River	1	$12,000.00
1995	Holyrood	2	$1,500.00

A similar summary of incidents at Hydro's Transmission and Rural Operations facilities is as follows:

Year	Location	No. of incidents	Cost
2001	St. Anthony Line Depot	1	$200
1999	St. Anthony Parking Lot - Line Depot Shop	1	$200
1999	Hardwoods G/T	1	$2000
1999	Port Hope Simpson	1	$100
1998	St. Anthony Line Depot	1	$0
1998	Mary's Harbour Diesel Plant	1	$273
1998	Hawkes Bay Diesel Plant	1	$400

Q. RE: p. B-25 Pave Parking Area - Bishop's Falls Complex ($69,000)

17.1 For how many years has the unpaved parking area of the Bishop's Falls Complex been used? Over the period from 1992 to 2000, how often has the surface of the lot been upgraded? What have been the costs associated with maintaining the lot over this same period? Is the road leading to the complex paved or unpaved?

A. 17.1 This parking lot has been in use since 1969.

Each year the top fill that is removed during snow clearing operations is replaced. The lot is graded twice a year and calcium is applied at least three times per year to help control dust and improve working conditions. The annual cost is approximately $2,500. The road leading to the complex is paved.

Q. RE: p. B-25 Upgrade – TL 227 – (69 kV Berry Hill – Daniel's Harbour) ($496,000)

18.1 Response to Information Request PUB 28.3, 2001 Capital Budget, indicated that to September 30, 2000 there had been no momentary and no sustained outages during 2000 on TL227. How many outages occurred between September 30 and December 31, 2000? Can all of these be directly attributed to damage due to salt contamination?

18.2 When the 2001 Capital Budget was presented to the Board, it was indicated that there were no future commitments with regard to this line. When was it determined that a total of 25 km. of line required upgrading? By whom was the determination made? What was the rationale for this additional upgrade? If a written report was produced, provide a copy.

18.3 What are the plans of the company with regard to the remaining 60 km. of line?

A. 18.1 There were no outages on TL 227 from September 30 to December 31, 2000.

18.2 It was determined in January 2001 that a total of 25 km of line required upgrading. The determination was made by Operations personnel in consultation with Engineering. The rationale for this additional upgrade is based on the findings of a more detailed investigation of TL 227 which was carried out in preparation of an

assessment report entitled “Northern Peninsula Upgrading Recommendations - January 2001”. A copy of this report is attached.

18.3 Currently, Hydro has no plans regarding the remaining 60 km of line.

Q. RE: p. B-28 Replacement of Insulators - TL229 (69 kV Wiltondale - Glenburnie) (145,000)

20.1 What is the total purchase price of the 1050 insulators being replaced? What is the labour cost? What other costs are involved?

20.2 How many outages occurred on this line in 1998? in 1999? in 2000? How many of these can be attributed to failure of insulators? How many can be attributed to other causes?

A. 20.1 The budget proposed for replacement of insulators on TL 229 actually covers 150 units. The figure of 1050 units quoted in Hydro's 2002 Capital Budget submission in incorrect. Specific costs budgeted for purchasing and installing the replacement insulators are as follows:

Material Supply	$35,000
Labour	20,000
Engineering	20,000
Project Management/Environment	30,000
Inspection & Commissioning	10,000
Corporate O/H, IDC, Esc., Contingency	30,000
Total	$145,000

20.2 There were no sustained outages on TL 226 in 1998, 1999 and 2000.

Q. RE: p. B-48 Upgrade Distribution Lines - St. Anthony Distribution System ($206,000)

32.1 How is the upgrading of the sections of line in the St. Anthony Distribution System expected to improve reliability statistics in this area?

32.2 Is the upgrading of these sections of line related to the decommissioning of the diesel plant at Roddickton?

A. 32.1 Upgrading on the St. Anthony Distribution System involves work on the Cooks Harbour, Gunner Cove and St. Anthony feeders.

The Cooks Harbour feeder upgrading involves the reduction of span length to decrease conductor galloping during severe winds and the replacement of conductor to better withstand the effects of ice loading.

The Gunner Cove feeder upgrading involves the reduction of several long span lengths and the addition of guys to decrease the conductor and crossarm breakage during severe winds.

The St. Anthony feeder upgrading involves the separating of two feeders on a single structure and the reduction of span length to decrease conductor slapping during severe winds.

32.2 The upgrades on the St. Anthony distribution system are not related to the decommissioning of the diesel plant in Roddickton as the two

distribution areas are not dependent upon each other for continuity of service.

Q. **RE: p. B-60 Acquire Document Management & Imaging System ($104,000)**

41.1 What information has been reviewed to determine this estimate? What alternatives are being considered with regard to hardware and software?

41.2 What cost savings will be realized as of result of acquiring such a system?

41.3 What is expected to be the initial cost of purchasing the hardware, the software, licensing, installation, any related training? What are the expected costs of converting from the present system?

41.4 How many staff members will be licensed to use the program?

41.5 What are expected to be the future costs of maintaining and upgrading this system? What is the expected life of this system?

A. 41.1 Hydro has reviewed information provided by the major suppliers of records, documentation and information management systems to determine the estimate.

41.2 Phase I of this project is an assessment phase. The project will consist of a detailed analysis and a pilot in the Customer Services Group. This assessment will allow Hydro to assess the technology and its benefits. Any cost savings to be realized by the

implementation of this technology will be identified in the assessment phase.

41.3 The estimated costs for the capital budget proposal to cover the assessment phase are:

Hardware	30,000
Software & Licenses	30,000
Labor	10,000
Consulting	25,000
Corporate O/H, IDC, ESC., Contingency	9,000
TOTAL	$104,000

The expected costs of converting the present information will be ascertained during the assessment.

41.4 For the assessment phase, 20 licenses will be purchased.

41.5 The future costs of maintaining and upgrading the system as well as the estimated life of this system will be determined during the assessment.

Q. RE: RJH p. 3 :

53.1 Please provide Hydro's forecast for the next five years of the impact on 1) the Rate Stabilization Fund, and 2) the revenue requirement of re-basing the price of oil to 1) C $20.00 and 2) C $25.00.

A. 53.1 Projections are not available past the year 2005. The RSP reports with No. 6 fuel at $20 per barrel are included in response to PUB-59.0 for 2002 and IC-192 for 2003 to 2005. The RSP reports for the years 2002 to 2005 with No. 6 fuel at $25 per barrel are attached.

Based on the requested assumptions, the revenue requirement amounts for No. 6 fuel and RSP only would be as follows:

$20 per barrel No. 6 fuel

	2002	2003	2004	2005
		($thousands)		
No. 6 fuel	100,585	87,368	71,913	72,611
RSP	(25,490)	(12,593)	2,630	3,706

$25 per barrel No. 6 fuel

	2002	2003	2004	2005
		($thousands)		
No. 6 fuel	100,585	87,368	71,913	72,611
RSP	(10,283)	1,644	16,128	17,243

Q. RE: HGB 8:

55.1 Will the change from an LOLE of 0.2 days to a LOLH of 2.8 hours per year require any capital expenditure for capacity requirements?

55.2 Is the use of a LOLH of 2.8 hours the current Canadian industry norm? If not what is?

A. 55.1 The change from an LOLE of 0.2 days per year to an LOLH of 2.8 hours per year will not require any capital expenditure for capacity requirements.

55.2 In order to confirm our understanding of what the current capacity reliability criteria is for other utilities in Canada, Newfoundland and Labrador Hydro (Hydro) completed a telephone survey in July of this year. The results of the survey are provided in the table below. Utilities express generation reliability as either LOLE (Loss of Load Expectation) or LOLH (Loss of Load Hours) target. The only difference being the units of measure. The expression of the reliability target as an LOLE is most prevalent, as well as the use of a target value of 0.1 days/year. Hydro's reliability criteria of an LOLH of 2.8 hours/year is equivalent to an LOLE of 0.2 days/year. Also note that although most utilities use the same reliability target, their capacity reserve margins can differ. This is because capacity reserve margins are influenced by many factors such as:

- An acceptable level of reliability;

- The size of a system;
- The number and size of generating units;
- The type of generating units;
- Whether interconnection assistance from other utility systems is available and at what level; and
- System load shape.

Each utility system is unique in its design and operation.

The expression of capacity reserve, by utility, also differs. While some calculate the reserve as a percentage of firm load, others calculate it as a percentage of firm capacity. For the island interconnected system, Hydro calculates capacity reserve, as a percentage of firm load at 18.5 %. When the equivalent capacity is expressed as a percentage of firm generating capacity, the value becomes 15.6 %.

Utility	Generation Capacity Reliability Target	Capacity Reserve	Comments
Newfoundland & Labrador Hydro	LOLH = 2.8 Hours/Year[1]	18.5% of firm load	
Nova Scotia Power	LOLE = 0.1 Days/Year	20% of firm load	Follows the guidelines set out by the Northeast Power Co-ordinating Council (NPCC)
New Brunswick Power	LOLE = 0.1 Days/Year	20% of firm load	Follows the guidelines set out by the NPCC
Hydro Quebec	LOLE = 0.1 Days/Year LOLH = 2.4 Hours/Year	12% of firm load	Follows the guidelines set out by the NPCC
Ontario Power Generation	LOLE = 0.1 Days/Year	18% (short term), 20-25% (long term) of firm load	Follows the guidelines set out by the NPCC.
Manitoba Hydro	LOLE = 0.1 Days/Year Without Interconnections (guideline)	12% of firm load as a minimum	Follows the guidelines set out by the Mid-Continent Area Power Pool (MAPP)
SaskPower	Unserved Energy not greater than 0.035%/Year	15% as a minimum, of firm load	Follows the guidelines set out by the MAPP
BC Hydro	LOLE = 0.1 Days/Year	14% of firm installed capacity	Follows the guidelines set out by the Western System Co-ordinating Council (WSCC)

1 – Equivalent to LOLE = 0.2 Days/year

Q. Re: Hydro's Proactive Stance on Environmental Issues

64.1 In Hydro's proactive stance of environmental issues, what level of responsibility does Hydro have for projects such as Star Lake and Algonquin Power? (WEW, p. 21, lines 15–19)

64.2 Describe the Environmental Management System. (WEW, p. 21, lines 17–19).

64.3 Provide a copy of the environmental policy that was introduced in 1998. (WEW, p. 21, lines 17–19)

A. 64.1 Hydro undertook to ensure that each developer who responded to the request for proposals registered their proposed undertaking with the provincial *Environmental Assessment Act* administered by the Department of Environment.

64.2 In 1997, the Hydro Group expanded and strengthened its longstanding commitment to environmental management by adopting the ISO 14001 Environmental Management System standard (EMS) standard. This standard was developed by the International Organization for Standardization (ISO), and has gained global acceptance for its rigorous approach to the management of environmental aspects of major industrial activities.

Under the EMS, each defined management area identifies and characterizes its environmental aspects, and systematically

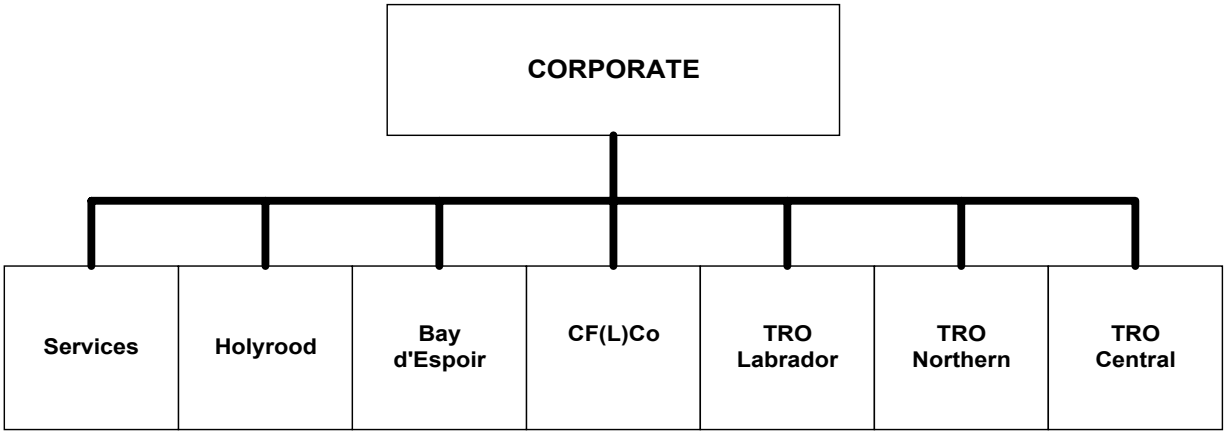
determines those that are significant. Whenever possible, significant environmental aspects are managed through operational controls and performance monitoring. Environmental management programs are implemented to achieve objectives and targets related to significant environmental aspects when environmental improvements can be realized. Other important elements of the EMS include enhanced employee training and awareness, emergency response and preparedness, compliance and EMS auditing, and formal management review of the system.

An independent registrar annually reviews and evaluates the EMS for compliance with the international standard. If the registrar deems it appropriate, the management area is recommended for registration.

The Hydro Group's strategy for EMS development is to provide overall policy and procedural guidance from corporate headquarters and to delegate the development of specific environmental management systems to each of the Hydro Group's seven "management areas." The seven management areas (Figure 1) reflect our organizational structure. They include our three primary power production operations, our three transmission and rural operations regions, and our support services.

FIGURE 1

OVERALL STRUCTURE OF THE HYDRO GROUP'S EMS



Holyrood

After a thorough audit was conducted late in 1998, the Quality Management Institute (QMI) – a leading independent registrar, registered the EMS for the 490-megawatt Holyrood thermal generating station in January 1999. The EMS provides a framework for programs to reduce and monitor air emissions, manage solid and hazardous waste, and ensure clean water from industrial processes.

Bay d'Espoir

QMI issued an ISO 14001 certificate to the Bay d'Espoir management area in March 2000. This management area includes seven hydroelectric generating stations on the Island with an overall production capacity of 899.4 megawatts. Issues, which are managed through the ISO 14001 process, include maintenance of fish and wildlife habitat, and the reduction of solid and hazardous waste.

Support Services

Within the Support Services management area, EMS development recognizes functional differences. Most of the support services were compliant with the ISO 14001 standard before the end of 2000. Registration was received in April 2001. During the next two years, a number of other support services, such as our telecommunications network, will be included in the EMS for the Support Services management area.

Transmission and Rural Operations (TRO)

EMS development is in its early stages throughout the three TRO regions. Plans are being developed to establish an EMS in each region by the end of 2002. This will include our transmission network, and rural operations, including diesel generators and associated distribution network. Once these processes are complete, all of the Hydro Group's activities will be managed in accordance with the ISO 14001 EMS standards.

64.3 The *Environmental Policy and Guiding Principle* approved on 3 July 1998 is attached.