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REPORT
OF
THE BOARD OF COMMISSIONERS OF PUBLIC UTILITIES
TO
THE HONOURABLE
MINISTER OF MINES AND ENERGY
GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
ON
A REFERRAL BY NEWFOUNDLAND AND LABRADOR HYDRO
FOR
PROPOSED RATES TO BE CHARGED
TO
NEWFOUNDLAND LIGHT & POWER CO. LIMITED
FOR THE PERIOD OF JULY 1, 1990 TO JUNE 30, 1991,
FOR THE PERIOD OF JULY 1, 1991 TO JUNE 30, 1992,
AND FOR A PERIOD COMMENCING JULY 1, 1992.

Roddickton Wood Chip Plant and Capital Budget Projects

Hydro recently constructed a 5,000 kW woodfired thermal generation plant at Roddickton. The Roddickton area is part of an enclave that is not interconnected with the island grid. The other sources of generation are diesel plants and a small "run of the river" Hydro plant at Roddickton (400 kW). The Roddickton area is interconnected with the St. Anthony area which is also supplied with electricity generated by diesel plants.

The total diesel and hydro generation for the Roddickton-St. Anthony area was 13,300 kW prior to the addition of the 5,000 kW Roddickton woodfired plant.

The forecasted Peak Load and Sales for the Roddickton-St. Anthony area was as follows:

<u>1990</u>		<u>1991</u>		<u>1992</u>	
Peak Load	Sales	Peak Load	Sales	Peak Load	Sales
10,682 kW	42,571 mWh	11,105 kW	44,475 mWh	11,532 kW	46,421 mWh

It was determined several years ago by Hydro that because of projected demand vs. in place supply the Roddickton-St. Anthony area required more in place production. As well because of the size and location of the old plant a new plant had to be built.

After analysis of the various alternatives it was decided a wood chip burning thermal plant would be constructed. The alternatives were (1) additional diesel units or (2) interconnect the area with the main island grid.

The original projected capital cost of the plant was approximately \$17 million. However the final cost was \$27 million. The escalation of costs was attributed, mainly to the original estimate being too low and the construction schedule being too optimistic so that latter contracts for construction works (which were called sequentially) came in over estimate. Financing of construction (I.D.C.) work over the longer period also caused financial overruns.

Hydro are taking "some action" to see if they have any recourse to recovering some of the funds that were above the estimated cost.

The operating cost of fuel for energy for the wood chip plant was forecast to be about 230 mills per kWh. Factored into these costs were:

- \$27.4 million capital cost;
- a thirty year life of the plant;
- straight line depreciation;
- projected fuel costs, and
- annual operating cost of \$1.2 million.

The comparative cost for diesel generation for the same area was forecast to be 160-170 mills/kWh.

By analysis and using the present worth value method taking into account both capital and operating costs over a 30 year life the wood chip plant resulted in the lowest cost of the alternatives investigated.

With the capital cost escalating from \$17 million to \$27 million the cross over point for cost recovery went from 17 years to 23 years.

Mr. Collett stated that because of their lack of experience in operating such a plant, Hydro did not include it as firm capacity in Hydro's loss of load expectations (IOLE) calculations. Consequently in their calculations of the IOLE in the Roddickton-St. Anthony enclave they deduct the capacity of the wood chip plant plus the largest diesel plant. (The Hydro plant, being a run of the river plant only produces secondary energy so would automatically be excluded).

The Intervenors, NLP, and CBPP, in summation, considered that the decision to construct such a plant was based on other than sound public utility practice and should be considered an imprudent capital expenditure. They recommended that all additional costs associated with increased cost of operation vs diesel plants plus the overrun in capital expenditure be disallowed for regulatory purposes.

NLP suggested a factor that had influence on the decision was that PDD, who were in effect an arm of Government, was also a vehicle to implement Government social policy, and hence selected an alternative that would have other benefits to the area, such as create employment to supply the fuel for the plant. The result was that after selecting the alternative having the higher cost, customers other than those who benefit from the plant are being asked to subsidize the additional expense.

CBPP pointed out that an expert witness (Brockman) considered the decision was not appropriately made in that the context of a long range development plan was not considered. If interconnection with Labrador were to be achieved it would certainly influence the long term development required in the Roddickton enclave.

Hydro pointed out that all their evidence brought forth supported the decision to construct the wood chip plant as being prudent; that the plant was producing electricity as early as October, 1989; therefore the in service date for Roddickton and the costs proposed should be accepted.

The Roddickton Plant was conceived, planned for, constructed and put into operation "outside of any regulatory influence." Hydro had an obligation to serve the customers of the area and did so to the best of their ability. They undertook the project, understanding the conditions and situation as they existed in the early to mid 1980's. The Board will recommend that Hydro's proposal as to inclusion of costs and start up date be accepted for regulatory purposes.

However conditions were changed by the amending of the EPCA, 1989. With that change the burden of costs now will fall on the ratepayer and not the taxpayer.

Prior to 1989 Hydro and Government, in effect, agreed on what projects should be undertaken. Hydro presumably addressed the need and Government agreed to supply either partial or all the capital cost and/or additional operating expenses. Starting in 1989 Government will gradually reduce any subsidy paid for such projects and by 1992 require Hydro to be financially self sufficient as it relates to income from its total customers. This requires Hydro to collect additional sums of money by increasing its rates to its other customers (except those excluded by amendments to the EPCA).

If such a project as the Roddickton Wood Chip Plant came before regulatory review prior to its inception, evidence such as feasibility reports, present worth analysis etc. would have to be displayed and tested in depth. At this hearing only vague oral references were made to such reports with no opportunity given to examine critical inputs.

CONCLUSION

The recommendation reached by the Board is that consideration should be given by Government to implement the appropriate action that would require Hydro to have its Capital Expenditure approved through the conventional regulatory process as required by the Public Utilities Act, 1989.

Daniels Harbour Zinc Mine

NLP raised the question as to whether or not Hydro had obtained the most up-to-date information available on one of its major users of electricity, Daniels Harbour Zinc Mine. Because of its borderline viability the mine had been predicting to close on several occasions.

Mr. Osmond indicated that Hydro's Planning Personnel are in constant touch with customers to try and determine any change in plans. As a result of the most recent contact with Daniels Harbour Mine Officials, it was determined that their latest plan was to close the operations sometime in 1990, either the summer or fall. Although the impact on revenue would be \$200,000 if the mine shut down, Mr. Osmond felt that it would be in the magnitude that could be ignored because of compensating errors.