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of the
Legislative Assembly of Manitoba

STANDING COMMITTEE
on
PUBLIC UTILITIES
AND
NATURAL RESOURCES

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Chairman
Mr. Harry M. Harapiak
Constituency of The Pas



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MANITOBA LEGISLATIVE ASSEMBLY
Thirty-Second Legislature

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LEGISLATIVE ASSEMBLY OF MANITOBA
THE STANDING COMMITTEE OF PUBLIC UTILITIES AND NATURAL RESOURCES

Tuesday, 11 May, 1982

Time — 10:00 a.m.

CHAIRMAN — Mr. Harry M. Harapiak (The Pas)

MANITOBA HYDRO-ELECTRIC BOARD

MR. CHAIRMAN: The Committee will come to order. It is Public Utilities and Natural Resources. This morning we are considering the Manitoba Hydro-Electric Board Annual Report. We have a quorum. We will call on Mr. Parasiuk, who is Minister responsible for Manitoba Hydro, to make a few comments first.

HON. WILSON PARASIUKE (Transcona): Thank you, Mr. Chairman. The normal procedure is to introduce the Chairman of the Board of Manitoba Hydro, who is Mr. Saul Cherniack, and the President and Chief Executive Officer of Manitoba Hydro, who is Mr. Laurie Blachford. Both will present reports updating the Annual Report ending March 31st, 1981 which is before the committee, as well, the financial forecasts from Hydro, which I tabled in the House last Friday.

With that, Mr. Chairman, I would like to ask Mr. Cherniack to lead off.

MR. CHAIRMAN: Mr. Cherniack.

MR. SAUL CHERNIACK: Thank you, Mr. Chairman. Hydro, as for so many years now, is coming forward to present the financial report for the previous year ending March 31st, 1981. For me, it is a new role altogether and one that I look forward to participating in. I just remind members of the committee that the present Board, which was appointed or reappointed in March, consists of Charlie Curtis, the Deputy Minister of Finance, a chartered accountant; Dr. Ed Kuffel, who is Dean of Engineering at the University of Manitoba; Clyde McBain, who is an engineer and a businessman; Peter Fox, a stationary engineer, who is an MLA, power engineer, I'm sorry — power, of course, makes much more sense than Hydro; Dr. Nora Losey, who is Associate Dean of Arts and Science and her specialty is in Mathematics; and Roy Minish, who is a builder living in Swan River.

Since the appointment of the Board we have been, other than in connection with routine business, reviewing Hydro organization and the financial structure and Board policies. We have found that the entire Hydro staff at all levels has a good morale and has been most helpful and co-operative to the Board and to me as Chairman.

Although the government, Mr. Chairman, has continued the previous government's procedure of conducting review negotiations and negotiations with Alcan and with the Inter-Tie, the President of Hydro, Mr. Blachford, has been involved to a larger extent in their meetings and supplying the necessary backup and technical information.

In regard to Limestone, which is the next plant on the boards, the preparatory work is continuing as heretofore. The objective is to be able to react quickly if speed-up is required. Meanwhile, we have in the last

few months — well, very recently actually — concluded an agreement with the Allied Council taking us into, I believe, it's 1997 — 1995 or 1997 — with the unions involved and with a change in the agreement indicating special emphasis on the need and desire to create greater employment for citizens of Northern Manitoba.

The government has, with Hydro participation, has been exploring means of increasing Canadian and particularly Manitoba-based input into construction. Aside from that, the Electric Export Marketing Committee of the Manitoba Energy Authority has requested, instructed or agreed to Hydro proceeding in a rather aggressive manner, pursuing export markets in the United States.

The Mandan Project is well-known and is now still in the negotiation stages and the trial stages in the United States. There is a study going on with Wisconsin power users and a study has been re-instituted in connection with Western Area Power, which is a very large distributor of hydro-electric power in the western United States.

I might mention as Chairman that the Board has received the Lower Nelson Study Report and have sent it on to the Minister of Energy.

Also, we received a report from the President and from management of Hydro on Hydro's financial position including recommendations for a rate increase and, as is well known, this has been sent on to the Minister for consideration.

Mr. Chairman, Mr. Blachford has appeared before this Committee before, so he doesn't need to be introduced, but he will now give an updated report and deal more specifically with various highlights of Hydro operations.

MR. CHAIRMAN: Mr. Blachford.

MR. L.D. BLACHFORD: Thank you, Mr. Chairman, and Committee members.

I first want to thank you for this opportunity of appearing before the Committee for the purpose of reviewing Manitoba Hydro's operations.

I have with me today Mr. McKean, who is the Assistant General Manager of Finance and who will be talking later. Will Tishinski, who is in charge of System Operations is here, as also is Vern Prior, the Director of Public Affairs in Hydro.

Before referring to the fiscal year 1980/81, which your Committee is hereto review, I would like to make a few comments on the fiscal year just ended.

Again, as in the previous year, our performance was influenced to a large degree by circumstances much beyond our control. Low hydraulic generation was the most significant factor affecting our operations. For the second year in a row the utility experienced below average water supplies. This resulted in a second successive decrease in annual generation.

Low winter precipitation and poor spring rains contributed very little to last year's freshet, but despite this careful reservoir management ensured that sufficient water was available when required to meet

energy requirements despite reduced water flows.

Under average flow conditions, we'd expect to generate about 21 billion kilowatt hours of energy per year from hydraulic sources. In the last fiscal year, our hydraulic generation was down about 15 to 16 percent. Although supplies to Manitoba consumers were not threatened, this represents a reduction in revenue of \$40 to \$50 million to the corporation, because of a reduced ability to sell energy supplies or surpluses to extra-provincial markets.

Snowpack this winter was approximately 92 percent of normal in all watersheds supplying all plants, but there is still a real need for heavy rains this spring to replenish the soil and reservoirs, which were drawn down during last year's operations.

While final year end figures are not yet fully available, we don't expect the bottom line to be too much different from our eleven month financial results. For the first eleven months of operation, the utility experienced expenses in excess of revenues by \$25.9 million. I was told yesterday that this may come down to about \$23 million when the year-end books are finished. At the end of the same period, corporate reserves were reduced to \$99.4 million, approximately the same level as they were at March 31, 1979. This is close to what we forecast about 10 months ago when it became clear that we were facing another year of drought conditions.

Reflecting the low spring inflows to our reservoirs, our year-end report should show that exports were only about 78 percent of those recorded a year earlier, but the previous year was also down considerably from 1979-80 when riverflow conditions were close to optimum.

For the first 11 months, export sales totalled \$66.7 million. The average price for all export sales for this period was 15.8 mills per kilowatt hour. The United States is still our major market. Approximately 69 percent of all extra provincial sales were made to the U.S. Manitoba firm load at generation for the first 11 months of the fiscal year totalled 12.2 billion kilowatt hours, an increase of 7 percent. The total energy supplied for the firm requirements of our Manitoba customers is expected to show about an 8 percent increase over the previous year. Much of this increase is accounted for by the transfer of the industrial load at Flin Flon which Manitoba Hydro began to supply on April 1, 1981. However, there was a significant offset to this by the Inco strike and plant shutdown in Thompson. Colder weather this past winter also increased domestic consumption. When the figures are weather corrected and adjusted to account for the new industrial load, real growth is expected to be almost nil or in the order of 0.1 percent.

The Manitoba integrated system experienced a new peak demand this winter when customer requirements reached 2,735 megawatts at 5:30 p.m. on January 15th. This figure, a new record, was 6.2 percent higher than last year's system peak. The Hud Bay load in Flin Flon accounted for 3.8 percent of this total and lower temperatures affected it.

Of all the electric energy generated within the province during the last year, about 95 percent came from hydraulic sources. The Nelson River stations produced 72 percent of the total. 10,792 million kilowatt hours of electrical energy were transmitted over the

H.V.D.C. transmission line, slightly more than 59 percent of the total energy generated by Manitoba plants.

During the year, the corporation experienced its highest level of thermal generation since the drought years of the mid-1970s. Current forecast suggests an average annual load growth over the next 10 years of 3.4 percent, but we anticipate this figure will be revised downwards. Beyond this decade, load growth is expected to average 2.6 percent annually. The total installed generating capacity of the Manitoba integrated system is 4,133 megawatts. Twenty-one isolated diesel plants, throughout Northern Manitoba provide electric service to communities not connected to the provincial power grid.

The newest diesel generating station was commissioned at Lac Brochet in November. A station at Tadoule Lake is slated to go into service this summer. During the year, approval was received to proceed with the conversion of Jackhead Reserve to a central electrical supply. This year, we expect to see a start made on a program to connect five communities on the east side of Lake Winnipeg to the provincial grid.

Given present load growth projections for Manitoba needs alone, first power from Limestone Generating Station will not be required until 1992. While much of the preliminary design is in hand and the major specifications exist in draft form, the current plan is for construction to resume in 1986 to meet the 1992 requirement. However, expenditures on Limestone were incurred during the last fiscal year to protect an in-service date of 1988 should current government negotiations on projects result in significant requirements for a firm supply of electrical energy by that time. The corporation continued to carry out engineering and environmental studies to assist in the identification of preferred sites for the future generation along the Burntwood River and study criteria were assembled for the Lower Nelson of a view toward long term development in the event of major export sales. Rehabilitation work continues at both Seven Sisters and Great Falls. A detailed evaluation of the generating facilities at both plants indicated they were capable of an operating expectancy of possibly another 50 years. The Capital Works Program still underway will ensure that some of the other components of the generating stations will be around for the same length of time.

The Seven Sisters will cost slightly more than \$24 million. Much of the work has already been done. The balance is expected to be completed this year. The forebay was raised to its full supply level last fall. The currently scheduled work for the repairs at Great Falls is \$35.4 million. The work is on schedule and it will continue right through until late 1984.

A major transmission line is presently being constructed between Cranberry Portage and the Pas. It's scheduled to go into service a year from now. The 230,000 volt line will complete a heavy transmission link to Flin Flon. It will ensure a firm supply of energy to that community and will provide for the increased load which has built up because of substantial number of electric heating installations. The corporations H.V.D.C. facilities at Heday and Dorsey converter stations are being expanded and modified to improve their performance and reliability.

The program will also result in an increase in the

rated capacity of the transmission system. Work continued last year on major capacity increase at Letellier and La Verendrye terminal stations. Additions and modifications were carried out to several other terminal stations and to 39 distribution stations. Manitoba Hydro and the Provincial Department of Highways are sharing the cost of an all-weather road from Split Lake to Long Spruce generating station. Presently under construction the highway is expected to be completed by the summer of 1983.

Throughout the past year engineering studies continued on various alternatives, which are being considered to mitigate some of the adverse effects of Lake Winnipeg regulation on the community of Cross Lake. The objective is to find a cost efficient and environmentally sound way of ensuring that lake levels during low flow conditions are restored as nearly as possible to what they were prior to regulation.

Under the terms of the Northern Flood Agreement the corporation will comply with an order to "cause to be constructed" an indoor arena at Cross Lake. A design consultant has been appointed. A drilling contractor has been engaged for foundation investigations. Manitoba Hydro will provide engineering advice and assistance.

During the year a Northern Resident Training Program was developed, including the appointment of a full-time training co-ordinator, to promote the hiring of northern residents into long term employment. Five of eight trainees who started in the program at Jenpeg are still with Hydro.

This spring the utility negotiated a one-year interim agreement with the Southern Indian Lake Fishermen's Association to provide financial assistance to the commercial fishery at a total cost of \$357,000.00. Most of the money will be paid out over a three-month period, but \$57,000 will be paid initially to help establish a fish packing plant at Missi Falls.

During the last fiscal year Manitoba Hydro's Purchasing Department placed 13,706 orders for a total expenditure of more than \$75 million. 62 percent of the goods and services purchased were from Manitoba sources.

During the year a Corporate Workplace Safety and Health Committee was established. In 1981 Manitoba Hydro had the second best overall injury record of 14 major electrical utilities in Canada. It's the 18th consecutive year that the corporation has been ranked among the top three utilities in safety performance ratings. Hydro also logged its best year ever rating for motor vehicle safety last year.

Peak employment during the fiscal year just ended was 3,850, that was in August. At the end of the year 3,585 people were employed by the utility, a reduction of 49 from a year earlier. 770 employees participated in a variety of in-house technical management and supervisory training programs.

In Oxford House, Manitoba Hydro and the Department of Indian Affairs have reached an agreement that allows waste heat from the local diesel generating units to be used for space and water heating in the adjacent school. It is estimated that the arrangement will eliminate the requirement for 200,000 litres of fuel oil at the school annually. Revenue received from the sale of waste heat will help reduce the utility's operating deficit in the community. The experiment could be

the forerunner of similar arrangements in other isolated communities.

Manitoba Hydro's rates to its various classifications of customers are among the lowest in Canada. In fact, with recent rate increases in other jurisdictions, Hydro's financial people tell me that the rates paid by consumers for electrical energy in Manitoba are generally lower now than those offered by any other major utility in the country.

However, continuing high inflation levels and escalating interest rates combined with Manitoba Hydro's inability under existing policy to revise its rate structure leads to projections that net revenues under average water flow conditions will continue to fall seriously behind the cost of doing business. Our projections show that without any adjustment in rates, our annual revenues will continue to come further and further under our yearly expenses. Manitoba Hydro's financial position may be seriously jeopardized. It appears that the longer the rate freeze is in place, the greater will be the requirement for an abnormal increase when the freeze is lifted. To allow the rate freeze to continue full term could result in an extraordinarily high increase to all customers when the freeze is lifted.

Based on detailed studies and forecasts by Manitoba Hydro's financial experts, I recommended to the Manitoba Hydro-Electric Board that it take immediate measures to increase electric rates sufficient to produce revenues which will cover expenses and maintain corporate reserves at optimum levels. This recommendation is in accordance with the requirements of Section 39, Subsection 1 of The Manitoba Hydro Act. This recommendation was made public by the Honourable Wilson Parasiuk in his statement last Friday.

Mr. McKean is here today and I would like to call upon him now as part of my presentation to this committee to provide you with some of the detailed information and financial data which led to making this recommendation to the Manitoba Hydro-Electric Board.

MR. CHAIRMAN: Mr. McKean.

MR. A.K. MCKEAN: Mr. Chairman and committee members, Mr. Blachford has informed you of his recommendation that electric rates be increased sufficient to produce revenues which will cover expenses. He has asked me to present to you some of the detailed information and financial data which has allowed him to make that recommendation. I intend to present to you a number of charts on the overhead today with the purpose of:

1. Outlining the principle assumptions used in our financial forecast;
2. The effect on the forecast when actual conditions are not the same as those used in the forecast because that is quite to be expected.

I have some comments on today's assumptions as compared with those used in 1979 when the present rate freeze was instituted. After outlining the assumptions, I intend to indicate the 10-year forecast of capital expenditures needed to serve the expected Manitoba load, the 10-year forecast of operating revenue and expenses, together with equivalent amounts for

the past ten years and I will comment on what has transpired relative to our operations during the period of the rate freeze. I will then outline a number of alternative rate increased strategies that were looked at and finally, I'll give you some comparison of power rates in Manitoba with those in other Canadian provinces.

First of all, I'd like to talk about the principle assumptions that affect our forecast and number one, by far the most important one over the long haul, is the expected load growth required to serve the Manitoba load. You'll notice our latest forecast, that we're expecting — and I think Mr. Blachford mentioned — for the remainder of the decade an average growth of around 3.4 percent a year. The unusually high growth in the year ending 1982, which is shown at 9.1 percent, was the growth by the transfer of the Hud Bay load to the Manitoba load at Flin Flon. It wasn't a new load; it was a transfer from the Saskatchewan system.

Now, if we are wrong in that forecast, what will happen? Number one, if we're on the high side, or if we're on the low side, it will advance the need for new generation. Mr. Blachford has mentioned the fact that to serve that load, Limestone is not required until 1992. Now that is not taking into consideration any possibility of load growth outside the province, that is strictly to supply the Manitoba load.

Secondly, I might say, since 1979 that need for Limestone has actually moved from 1987 to 1992. In the forecast that was made prior to the rate freeze, Limestone indicated it would be needed by 1987. Progressively lower forecasts that have been made since that date, the need for Limestone has moved back to 1992. In that same connection, I looked up and discovered that our estimated cost of Limestone at that time in 1987 was \$1.5 billion. We now estimate for Limestone in 1992, using our current assumed inflation rates and interest rates, that it would cost over \$3 billion.

Again, when you talk about load forecast, if it is lower, it will move further down the need for rate increases in Manitoba. Everything we build today — and Limestone was a good indication of that in the figures I gave you — but it is also true of transmission lines, distribution systems, everything we build today is more expensive than what we now have.

Now, our present rate structure is based upon the average cost of our plant and therefore the faster we need new plant, the faster our average costs will go up and therefore the faster the need for rate increases will have to take place. Therefore, if there was an increase load growth, it would increase the need for higher rates. If there's a lower rate of load growth, we can sell the power extra-provincially and, therefore, it would further defer the need for substantial rate increases. So load forecast is the No. 1 assumption, as far as our need for new plant is concerned.

The second assumption I want to talk about is water conditions; Mr. Blachford has touched on that question. Manitoba Hydro is a hydraulic system. Hydraulic systems have tremendous advantages, but they have one disadvantage. If the water dries up, you have no fuel to generate electricity and therefore our biggest variable in our day-to-day operating accounts is the amount of water we have that is available to go through our generating stations.

To give you some indication from the last three years what has happened; the first year, in 1979-80, we had a very satisfactory water condition situation. We generated 20.7 billion kilowatt hours. Now, Mr. Blachford mentioned that under average water conditions today we can generate 21 billion, but that year we did not have four units at Long Spruce in operation for the full year and we didn't have the last unit at Jenpeg. We also did not have the line to Minneapolis and therefore part of our limitation that year was related to the fact that we were restricted in export by our tie-line limitation. But, despite all that, we had a profit that year of \$45 million, very satisfactory year because the water conditions were satisfactory.

In 1980-81, our hydraulic generation dropped to 18.5 billion kilowatt hours, which is a very significant decrease in generation, and that year we lost \$16 million, a loss. I think I can estimate for you that if we'd had average water conditions that year, we would have had an excess of revenue over expenses and therefore that \$16 million loss was definitely related primarily to the water conditions.

The year that we are just finishing, I think you mentioned \$23 million loss was your latest estimate that I gave you. We had 17.8 billion kilowatt hours generated. Once again, this 17.8, which is over 3 billion kilowatt hours less than what we would expect under average water conditions, in our estimation would have resulted in an increased revenue of between \$40 million and \$50 million in the last year and therefore, again, this year if we'd had average water conditions, I would estimate we would have had an excess of revenue over expenditure.

You can see, this variation of water conditions is something that is extremely serious, and let's come back to this chart, what has been estimated. You notice the blue line. First of all, we are talking millions of dollars on the left and each year we have a spread between the blue, which is the maximum flow conditions, and the grey, which is the minimum flow conditions, of over \$100 million depending on what kind of water conditions we experience. The orange, which is the average, is the amount we use in our forecast and I guess about the only thing I'm sure of is we probably will never have average water conditions. They will either be higher or lower.

This spread of \$100 million is most significant and over the long haul probably has got the biggest effect on the financial results in Hydro, whether we have long-term droughts or whether we have long-term excellent water conditions. We can't underestimate the importance of water conditions in any forecast we make.

The third variable and this is one that affects everybody, I guess, who is in business today and that is the expected rates of inflation and interest that we use in our forecasts. This is both positive and negative to Manitoba Hydro. Number one, right now in the forecasts that we are talking about, these are the interest and escalation that we are using and I will not try and pretend that I know whether they are right or wrong. I think I have lots of company in this country at this point, but in any event we are using an interest 1981-82, the year we just finished, 18 percent. We are fairly accurate there because we changed up half way through the year and we knew pretty well what it was

going to be. From here on in, we are using 15 percent in the current year we just started, then to 13, to 12 and 11. Again, I am not trying to predict that I know whether these are right or wrong. I will make some comments on what is the effect when we are wrong or right. Yes, the escalation or the rate of inflation we are assuming is 12, 12, 11, 10, 8. Again, I guess you could consider that an optimistic estimate, but again they can go either way.

What is the effect on our operations when we are either right or wrong on these? Number one, the biggest effect is in the estimated cost of new plant we built. We are a very capital intensive utility. In fact, all utilities are capital intensive and I guess Hydro and Hydro Utility are more capital intensive than thermal utilities and therefore the biggest effect we have in interest and inflation rates is what is the effect going to be on new plant. However, we cannot disregard that these inflation rates also have some impact immediately on our operating expenses. Roughly, 65 percent of our revenue dollar goes to the fixed charges of carrying our old plant, so we have 35 percent that is directly affected by inflation each year.

In addition to that, we have the effect of increased interest rates on certain parts of our debt. First of all, any new debt we borrow is automatically affected by today's interest rates. Any old debt that is refinanced is automatically affected by new interest rates and also we finance deficits, it is also affected by the current interest rates.

Those are things that are affected, but I also say that the fact that we are capital intensive and have a plant of \$2.5 billion, most of which has been built between five and 60 years ago is probably the biggest hedge we have against inflation as far as the utility is concerned. In addition to that, that plant has a lot of long-term debt, about 60 percent of our debt matures after the year 1990, so I will agree completely that is again a terrific hedge against inflation in our future operations.

However, we still have the other 40 percent that is due to be refinanced in the next few years and we certainly have our operating expenses. So, that although I think we have one of the best hedges against inflation and increase in interest rates, we are still affected when these rates go up. I did look and, in general, at the time when the rate freeze went in, we were estimating that interest rates over this five-year period were going to average less than 10 percent and inflation was going to average about 7 percent. I confess I was wrong. I think I had a lot of company. I don't know what people would have thought if we had been guessing at that time 18 percent interest rates, but certainly I don't think very many people in this country in 1978-79 were predicting 18 percent interest rates.

Okay, low forecast, water conditions, interest and inflation are our biggest variables. How does the future look? No. 1, here is a forecast of our capital expenditures and again I point out to you this is to supply the Manitoba load only. You notice, I've got two sets of lines here. These are, again, all in millions of dollars and you also see that we are showing you what happened over the last 10 years and showing what we forecast will happen over the next 10 years to supply the Manitoba loan with Limestone coming in 1992. The red lines are the actual dollars that we spent. In other words, back in 1972, we spent just over

\$100 million and in 1992, we are expecting to spend just over \$700 million because at that time Limestone is in full operation.

Now, in order to give you some idea of these relative dollars, we have made a blue line and we have converted all those expenditures to equivalent 1981-82 dollars. In other words, if you are using a common dollar back in 1972, we would have spent nearly \$300 million and if you knock the 1992 down to the 1981-82 dollars, again you are talking just about \$300 million.

So in volume of spending, those two years are fairly identical and you shouldn't be surprised because one case, we were actively involved in completing Kettle, whereas in 1992, is showing Limestone. It also indicates that the volume of expenditures when we build are in full construction of Limestone. On an activity basis, it is still much lower than was experienced in those years of 1974-75-76-77-78, when not only were we building Long Spruce, but Churchill River Diversion, Lake Winnipeg Control was being built at the same time. So again, this is based upon the needs for Manitoba alone and if, of course, for some reason Limestone was moved up, the costs that are shown on those last four years would be moved up accordingly. So those are capital expenditures.

However, let's see what the effect is on our operating accounts and I've consolidated again our operating accounts to this one chart. Again, you will notice we are talking millions of dollars as far as the chart is concerned. We are showing what happened over the last 10 years and we are showing what we forecast for the next 10 years, again assuming average water conditions, assuming the interest inflation that was shown earlier and also with Limestone not needed until 1992. Now, you'll notice that — let's talk about the last 10 years first of all. You will notice from 1972 to 1978 — oh, I'm sorry, I didn't mention the fact that the blue line is the total revenue. The revenue includes the revenue from the Manitoba customers; it includes the Manitoba revenue from extra provincial sales totalled together. The red line is the total expense with components of interest, depreciation and operating expenses. No reserves are shown in this line at all. This is strictly the difference between total expenses and total revenues. You will notice from 1972 to 1978, some years we were a little higher with revenues and some were higher with expenses.

In 1979 and 1980, we had the two most successful years financially that Manitoba Hydro has had since the beginning of existence. Both those years we had an excess of revenue of \$45 million. Now, those two years' results were very much affected by the fact that the foreign debt was transferred over to the Province of Manitoba, so that it is important to recognize that those two high profit years would have been greatly decreased if we had followed the policy that we intended to do at that point and that was to amortize the foreign debt losses that were facing us at that time.

These costs, I might say, in the future do not include any foreign debt costs. I think it was mentioned earlier by somebody that we should be aware that the province in the last three years has absorbed losses of approximately \$75 million. I might say that the foreign debt that is related to the Manitoba Hydro debt, as calculated at the end of March, the loss at maturity or unrealized loss that is facing us is still over \$300 mil-

lion. So that loss is still there. Some of it is long-term and it doesn't affect us much at this time, but some of it is still very short-term. So there are significant losses still to come as far as that is concerned; those are 1979-80.

In 1981 and 1982, both those years we lost money and as I pointed out here, it was \$16 million a year ago and \$23 million a year we've just finished. Now, what we have estimated for the next 10 years is what we would expect the blue line is a continuation of our revenue using the present rate structure, no changes in rate structure; whereas, the red line of expenses includes future expected inflation and as you can see from hereon in, our forecast indicates that even under average water conditions, we will have an excess of expense over revenue.

Now, you might ask, what would I attribute this to? And I would say, generally, what I will attribute it to is the increased inflation and interest rates over what had been expected three years ago, although it hasn't affected us completely. For example, in 10 years if you assume 10 percent inflation, 10 percent inflation will result in about an increase of 165 percent over 10 years in increased expenses and, therefore, we are \$400 million in expenses. If our expenses were completely related to the expected increase in inflation, our expenses would be well beyond \$1 billion at the end of the 10 years; whereas, we are indicating here just over 700 million. That is your hedge against inflation, but it's not a complete hedge. Faced with that prospect, we did look at what could happen, of what we could do to increase rates in order to match those revenues, and the first look we had was based upon the fact, what kind of increase would we be looking at if the present rate freeze continued until the 1st of April, 1984.

Now, the blue line in this case, we've taken the expenses that were at the end of 1979 and we have increased them at the rate of inflation. I guess what we are trying to indicate to you is that regardless of what happens, we are talking about rate increases in Manitoba that are significantly lower than the rate of inflation experienced in this country in the 1980s. However, I can't underestimate the impact will come if our forecasts were correct and on the 1st of April, 1984, this is indicating that a 31.3 percent increase would be required on April 1st, 1984, just to break even that year. That would not contribute anything to reserves, etc., but it would just to break even, the accumulation. In addition to that, before that happens, we would have absorbed losses of approximately \$79 million in the two years before that and this would not recover that \$79 million. In other words, we would draw down our present reserve position of approximately \$100 million down to a reserve level at that time of about \$15 million. We would then need a 31 percent increase on April 1st, 1984, and the following year another 7.3, 5.1 and 3.1. Again, I emphasize to you that although they are sizable increases they are probably the lowest increases that would be faced by any utility in Canada in the 1980s. It is well below the level of inflation.

We felt, and Mr. Blachford therefore recommended to the Board, what would be a more satisfactory position to try and maintain our present reserves and the recommendation that was made to the Board was this type of recommendation. The recommendation at this

point was to implement as quickly as possible, in this case the 1st of August was deemed to be as quickly as possible, a rate increase that would result in increased revenue from the Manitoba consumer of 11 percent on August 1st, 1982; suggesting 7 percent, April 1st, 1983; 8 percent annually thereafter. Now that type of increase recovers our expenses for the first two or three years but gradually also builds up our reserves and at the end of the 1988 period, we are talking about a reserve level that has increased up to an extra \$50 million over what now exists. Now, whether or not those later increases took place or not is not too significant at this point. I think the most important thing we were recommending was the fact that it would be appropriate at this time to increase rates by 11 percent in order to cover our expenses.

The other possibility was what would be the situation if the rate freeze was left on for one more year and we did produce this one which indicates what would happen under this forecast. Again, I emphasize to you, it's subject to water conditions and all those variables that are unknown at this point, and what it indicates is that a 20-percent increase in revenue from the Manitoba consumer would be required on the 1st of April, 1983, just to break even that year. This would not contribute anything to reserves at all and then there would be 6.9, 7.5, 5.3 and 3.5 from thereon in. Again, those increases are strictly to break even with no increase in reserves. Again, I emphasize to you, these forecasts are subject to those variations in water conditions and we can only hope that the water conditions this year and future years improve.

Now, I would like to go to the next stage and, that is, to give you some comparison of where our rates compare with other rates in Canada. Every six months, Manitoba Hydro has followed a practice of writing every utility in Canada or major utility, I say that mainly the major provincial utilities and some of the larger municipals, and we turn out a comparison every six months which compares certain rates. I want to emphasize to you that because of the differences in rate structures, you will always get some variation between what some rates indicate at low consumption and others indicate at higher consumption. They don't all match and therefore I'm not ready to say to you across the board that the rates are lower than everywhere else in Canada. I think you've got to reach a consensus by looking at what various examples show for you. There's more in this book, but I brought along six of them I thought would do for examples today.

No. 1, there is a residential city rate, and you notice population less than 80,000. In the case of Manitoba, we use Brandon as the example; we also have in the book, a comparison of Winnipeg with big cities and rural, etc., but here we're using Brandon. You'll notice there that for 750 kilowatt hours in a month, and that's a relatively representative bill for a customer who does not have electric heat, it's a small residential consumer, some are smaller and some were bigger but this is a representative one. You'll notice Brandon is 2,676; the next cheapest there is Drummondville, Quebec 2,715; and you get all the way up to Charlottetown. PEI is 8,209. So we are slightly low in our front end but not as much as we are in the higher user.

The second one I'd like to bring out to you are the

same examples and this is again the cities of less than 80,000 people. Now this is 5,000 kilowatt hours. That is an electric heat customer who has a reasonably good-sized house can have a 5,000 kilowatt hour utilization in the winter. You'll notice there that Brandon is 134.28; the next lowest is Drummondville, Quebec, 169.37; and they go on from there, to heat electrically in Charlottetown it costs you \$503.00. Now I think that one indicates that Manitoba, in the case of the electric heat customer, is approximately or more than 25 per cent lower than the next lowest and a good deal lower than that compared to a lot of the other ones. So that very definitely in the electric heat customer, residential Manitoba rates are the lowest in any major utility in Canada at the present moment.

The next one is general service. Now general service is the small customer, nonresidential — your small store, your church, anything that is nonresidential. Traditionally, our rate structures and most other rate structures — I guess I could put it this way — residential rates tend to be subsidized rates. This is not only in Manitoba, it is also true in most other utilities. Now in this case you'll notice in the small general service customer, Brandon is not the lowest; Brandon is higher than Belleville, Drummondville, Vernon and Brandon. Now this is partly because we have quite a high front-end loading in our rate structure for general service customers, which I might say, if we ever have a rate increase, this is one that we would be recommending to at least decrease.

However, again, what about the general service customer that is a high consumer. Once again our run-off rate is lower than most of Canada and therefore, Brandon, \$328; Belleville, Ontario, \$411; and then we go on up to Charlottetown being \$1,269.70. I'm going to take my coal oil lamp if I go to Charlottetown, I can assure you. However, I might say power is the heated demand billing structure but also is the rate structure used for most of our sales to anything lower than the small customer. The power structure or the way of billing by our power rate in my opinion is the most correct way of billing power. It takes into account total kilowatt hours used and also takes into account the total load at any one time. I must point out the fact that the total load at any one time in most cases results in the amount of investment we have to put in place to serve that customer. So, no question, most of our power is sold under the power rate, all our industry, etc.

Now, here is the small power customer. By a small power customer, I asked the question, what kind of customer would this be and I was told, this would be a McDonald's Restaurant and you will notice that is a 100 kilowatt load, 25,000 kilowatt-hours in a month. And you will notice there Manitoba Hydro, 81,531 and Thunder Bay, Kenora, Belleville and it keeps going up to Maritime Electric at 3,054. Again, Manitoba even at that small power load, is in a very good position competitively with other provinces. However, the one that is used by industry mainly is the power primary and that's a 1,000 kilowatt load, 400,000 kilowatt-hours in a month. You will notice in this case that Manitoba Hydro at \$9,257 in a month, Calgary City is the next lowest and then we go on from there again to Maritime Electric at the total. In this survey, we also survey other types of cities and towns, etc., but I thought

these six were representative of our main three types of loads; our residential, our general service and our power loads. I think we will find that in general, the rest compare relatively with the six.

Mr. Chairman, I would like to in summary say that in 1979, when I was informed of the rate freeze and the transfer of foreign debt risk to the province, as Assistant General Manager of Finance, I was not concerned about the finances of Manitoba Hydro, providing we continued to have adequate water conditions through our hydraulic generating stations. Water conditions have not been adequate over the last two years. However, the result in operating losses were offset by the very satisfactory results of the first year of the rate freeze.

Interest rates and inflation have been much higher than expected. Therefore, even under average water conditions, deficits are forecast for the remaining two years of the original five-year rate freeze if no increase in rates takes place. However, the higher rates of interest and inflation have improved our comparative rate position when compared to most other utilities, as most other utilities have continued to have large capital spending programs and, therefore, have continued to have large rate increases over the last three years. Therefore, after three years, the rates in Manitoba are generally lower now than those offered by any other major utility in Canada. If average water conditions prevailed in the future, the rate increase is required until new generation is needed to serve the Manitoba load and should result in our rates remaining very favourable compared to other utilities in Canada. However, I do emphasize the fact that because of increased inflation and interest rates, rate increases will be needed in the future. I think they will be reasonable rate increases. Thank you.

MR. BLACHFORD: Mr. Chairman, before closing my remarks, I would just like to stress that one of Manitoba Hydro's strengths is in its human resources and I would like to commend all our employees for the record of service to our customers in another year of uncertainty and change. That concludes my remarks on behalf of the Corporation for the year just finished. Thank you.

MR. CHAIRMAN: Thank you, Mr. Blachford.

Before proceeding with the Annual Report, are there any comments or questions? The Leader of the Opposition.

HON. STERLING LYON (Charleswood): First of all, I wish to thank representatives of Hydro for the exposition that they have given us this morning and their routine in their usual lucid fashion and Mr. Blachford giving us the overall picture.

I wonder if it would be possible, first of all, if members of the committee could be supplied with the display sheets that Mr. McKean used so that we would have them for further study and review.

MR. CHAIRMAN: He said, yes, that it is possible to get them, so he will get them to you.

MR. LYON: I have one or two questions of a preliminary nature based upon Mr. McKean's statement to

the committee this morning. When he was propounding the position of the Capital Expenditure Chart or growth, I believe he used the term, "that was entirely predicated upon the Manitoba load growth," and that, I assume, is the Manitoba load growth as it exists today with a roughly 3 percent factor of increase. That does not anticipate any large new customer such as Alcan or any other power intensive industry coming in?

MR. CHAIRMAN: Mr. McKean.

MR. McKEAN: That is correct. It is based upon the load forecast that was shown as the assumption and a load does make some provision for some sizable increase in loads. It would not be sufficient to take care of the Alcan load.

MR. LYON: So that is really almost a status quo kind of prediction. I suppose some might call it a worse scenario prediction. Is that fair enough?

MR. McKEAN: Well, I think maybe I would answer this by saying that it's a higher load forecast than we have experienced over the last four or five years. I think Mr. Blachford in his comments suggested it was probably on the high side, that 3.4 percent. Now, whether that's good or bad, I guess depends upon how you look at it. From a rate point of view, I've got to suggest to you that a lower growth will result in the need for less new plant at higher cost and therefore, it would result in lower rates over the longer term.

MR. LYON: That proposition that you have just stated is an interesting one. You're saying that the less growth we have in Manitoba, the greater the stabilization of the rates will be. Do I understand you correctly, Mr. McKean?

MR. McKEAN: From a rate point of view, yes sir, I have to say that in fact, but I am not unaware of the fact that is probably not good for the construction industry and any other aspects that go with building . . .

MR. LYON: Or the province.

MR. McKEAN: . . . or the province, but from a rate situation of Manitoba Hydro, certainly you cannot bring in Limestone which costs over \$3 billion, which is higher than the total spending Manitoba Hydro has made on all the power plants, all the transmission lines and all the distribution to date without expecting higher rates. Now, I suggest that if it's used to serve the Manitoba customer. If it's used for other purposes, I assume that there will be other ways of covering those higher costs.

MR. CHAIRMAN: I would remind the Committee members that we are being taped for Hansard, so I wish that you would wait to be recognized so it would help the people who are doing the taping.

The Leader of the Opposition.

MR. LYON: Mr. Chairman, undoubtedly Hydro, in its review of the rate structure over the next ten years, developed a scenario which contemplated the possi-

bility of Alcan or a similar large user being in place in Manitoba because, of course, Hydro is an extremely important part of the negotiating team, negotiating at the present time of that kind of a plant in Manitoba. Do you have those figures readily available to show us what that scenario would show?

MR. McKEAN: As far as Alcan negotiations, and I have not been close to the Alcan negotiations, but the negotiations that included ownership, of course, included the fact that the extra plant would be in effect paid for by Alcan and therefore if that happened, that would not be an effect on the Manitoba user. Again, it would depend upon the final agreement with Alcan, so I think from a generalization point of view, as long as Alcan on the earlier negotiations were based on ownership, I think we could say it really would not have a great effect on the Manitoba user and certainly not in the next three or four years.

MR. LYON: Mr. Chairman, the question then would be, to repeat myself, Mr. McKean, if you haven't developed a scenario contemplating that desirable state of affairs, would it be possible for Hydro — I would be surprised indeed if Hydro hasn't developed such a scenario. I am sure they have.

MR. McKEAN: We have developed input to the negotiations. As you probably are aware, the negotiation of Alcan are not being conducted by Manitoba Hydro. Perhaps, Mr. Blachford would like to comment on this.

MR. PARASIUK: On a point of order, if I could just add a bit of clarification. I think the Leader of the Opposition is asking what impact Alcan would have on the in-service date of Limestone. We are talking about 1992 as an in-service date if there is — under the present load growth assumptions, I thought that was the content of your question and the point is, would Alcan, if Alcan came onstream, would that move the in-service date of Limestone a year or two years?

MR. LYON: No, that really wasn't the question, although it is part of the overall scene. What I am looking for is the scenario that Hydro, I would presume, has developed or is capable of developing, which would contemplate the coming onto line of an aluminum smelter in Manitoba some time in the late '80s. This is, admittedly, a hypothesis at this point, but all projections are based on hypotheses as Mr. McKean is the first to admit.

With that hypothesis, what effect would that have on the various charts you have shown to us, Mr. McKean; namely, the capital expenditure chart, the rate charts, the point raised by the Minister, obviously the point at which Limestone would be required to be started would be moved up and so on? Do we have that kind of a scenario that you could present to us to show us the total effect of that hypothetical plant at this stage, but still one that we are negotiating for at the present time?

MR. CHAIRMAN: Mr. Blachford.

MR. BLACHFORD: Mr. Chairman, we have developed scenarios. We have developed various scenarios. I

would suggest that we not show it to this committee or make it public at this time. It has not progressed to the Board of Manitoba Hydro. At this time, I think it might serve the purpose of prejudicing the province's negotiations with Alcan.

MR. CHAIRMAN: Mr. Lyon.

MR. LYON: Mr. Chairman, I would certainly concur with the President and Chief Executive Officer that nobody in this committee would want to do anything that would prejudice those negotiations because that plant is a once in a lifetime opportunity for the Province of Manitoba.

I think it is safe then, is it not, either to Mr. Blachford or to Mr. McKean, Mr. Chairman, to make the assumption that working upon those aspects of the negotiations that are in the public domain; namely, that Alcan would be putting up the capital for its share or its rental, depending on how you use the term of a portion of the Limestone plant. That would have, as Mr. McKean I think has already indicated, a very dramatic effect upon the capital requirements of Hydro in that a third party, an outsider, someone other than Hydro and/or the taxpayers of Manitoba and/or the ratepayers of Manitoba, would be assuming a portion of this tremendous capital load. That being the case, one can make the further assumption, cannot one, that would have a stabilizing effect on the projected rate charges that you were demonstrating to us because, of course, there would be no carrying charges attributable to the domestic ratepayer.

MR. CHAIRMAN: The Honourable Minister.

MR. PARASIUK: Yes, in that respect, we are at a stage of the government reviewing jointly with Alcan the proposal that was made before and I think that the Leader of the Opposition has presented one side of the coin with respect to the impact of Alcan conceivably on rates in the short-term. What was never clarified in the past negotiations with respect, by the previous government, was how much would the government or Manitoba Hydro have to pay to buy back the portion of the Hydro plant that was owned by Alcan when, in fact, the Manitoba consumer needed this in the future, say, 35 years from now, 50 year from now or 65 years from now. Alcan might have a capital expenditure of \$600 million, but when the people of Manitoba might need that for their residential purposes, for example, we may have to pay \$6 billion.

To give an example, Hudson's Bay Mining and Smelting is presently in negotiations with the Saskatchewan Government with respect to the Island Falls plant that Hudson's Bay Mining and Smelting used to own and under a previous agreement became part of the Saskatchewan system. My understanding is that Saskatchewan at first thought that they might pay \$10 million for the plant. My understanding is that Hudson's Bay Mining and Smelting want something in the order of \$90 million for the plant. There are discussions taking place between those two figures, but what was never clarified was, what would it cost Manitoba Hydro to buy back ownership of that Hydro plant in the future. If indeed, we had to pay the fair market value in the future, when you had alternative sources

of energy being depleted 35 years from now when there might be no oil and gas alternatives available, we could in fact be faced with an astronomical price which, at that stage, would have a phenomenal effect on Hydro rates to Manitoba consumers.

So, that's the other side of the coin that makes the case at present, Mr. Chairman, somewhat hypothetical and I think requires further discussion and further negotiation between the province and Alcan before much more of that could be made public, so as not to prejudice any of the negotiations taking place because I think it would be the sincere hope of Manitobans that if pricing terms and environmental aspects are right that we could proceed with an aluminum smelter in Manitoba.

MR. LYON: Mr. Chairman, I was working on that axiom of human nature that in the long run we are all dead. That's why I think Mr. McKean, quite advisedly, and my question, Mr. Chairman, was directed to Mr. McKean and Mr. Blachford, not to the Minister; that's why I was making the observation that their charts, which are developed over, say, a ten year period, would it be safe to assume on the basis of the hypothesis that I previously stated that the assumption by Alcan or some outside major Hydro user of that proportion of the capital costs of Limestone would have a stabilizing effect over the ten-year forecasted period after the plant came on line? It would have the effect of stabilizing the rate charges rather than escalating them as they were portrayed in your prediction.

MR. CHAIRMAN: Mr. McKean.

MR. McKEAN: I will point out that in the ten-year period, no costs from Limestone are in those ten years because the first unit is not coming in until the end of the ten-year period, so those increases that I was pointing out were the increases that would be needed without the costs of Limestone at all. I hope I carefully said that if Limestone came in, it would certainly change the picture as far as rate increases were concerned.

MR. LYON: It follows then, Mr. Chairman, that if the user, Alcan or whomever, were paying a sizable portion of the capital costs of Limestone, that would have a beneficial effect upon the ultimate projections that Mr. McKean made based upon the assumption, I take it, that Manitoba Hydro and/or its ratepayers would be bearing the full capital cost of Limestone of \$3 billion or whatever astronomical figure that Mr. McKean has mentioned.

MR. McKEAN: I think you will appreciate I hesitate to comment on the theoretical agreement with Alcan, I haven't seen what it was and so much depends upon the terms of that agreement, but I will agree that anybody who picks up a percentage of the cost of Limestone reduces the impact on the rest of the users in Manitoba at that point.

MR. LYON: Mr. Chairman, then I don't want to be unfair to Mr. McKean or get him into shoals or eddies in which he would find himself strange, but from a

purely financial standpoint, that kind of hypothesis is one that would not find disfavour, I take it, with the Chief Financial Officer at Manitoba Hydro.

MR. MCKEAN: I guess from a financial point of view, the \$3 billion scares me and I guess one of the best things from a financial point of view that's happened to us in the last two or three years is that our capital spending has been at an all-time low. Now, I'm not trying to deny that has other impacts, but I can't think of a better time not to be out on the bond market looking for high-cost money than Manitoba Hydro has been in the last two or three years. That has not been true of many of the major utilities in Canada and therefore it has definitely improved our comparative position with other utilities.

MR. LYON: Another further question, Mr. Chairman. Has Manitoba Hydro developed a further scenario, as I again am confident they have, with respect to the power that would be required if the Western Inter-Tie negotiations were completed satisfactorily this year, and tied that into what I suppose we might call, for want of a better term, the best scenario predictions? That is, with Alcan coming to Manitoba, with the Western Inter-Tie taking place and Limestone construction starting in 1982-83 in response to those two very desirable marketing opportunities of a generational nature for Manitoba Hydro, is such a scenario developed and could we see that and the impact that would have upon the Capital Expenditure Chart, upon the rate chart, obviously upon the start-up date of Limestone, which would be almost immediately if not already underway?

MR. CHAIRMAN: Mr. Blachford.

MR. BLACHFORD: I don't believe we have a consolidated study in this respect, but we do have studies again with the Western Grid based on certain assumptions. Again, these at this time would not be for public consumption, they are still negotiating regarding Western Grid.

MR. LYON: Again, Mr. Chairman, I agree with the President that no one wants to do anything to prejudice those negotiations. However, what is public is the fact that the three western provinces, the Ministers of those provinces in October, 1981 — I think it was October 2nd, to be exact — wrote to the then Premiers of the three provinces saying that they had agreed in principle on an interim agreement and submitted that interim agreement for study by the Governments of Alberta, Saskatchewan and Manitoba. The then Minister, Mr. Craik, was the Chairman of the ministerial negotiating committee. The general heads of that interim agreement are in the public domain. That being the case, could Mr. Blachford comment upon the scenario about which I have spoken, taking into account those general heads of the interim agreement which are already public?

MR. BLACHFORD: Again, as the member knows, this original study that was made approximately three years ago shows that this Western Grid, while appearing to be beneficial for the central part of Canada, was

shown to be marginally beneficial to the three provinces. I believe on this basis and Manitoba Hydro, what we have, showing that this will cover the costs — the arrangement would cover the costs and therefore would have no impact initially at least on the Manitoba Hydro consumer.

MR. LYON: Either up or down?

MR. BLACHFORD: Either up or down.

MR. LYON: But a stabilizing impact, I take it, Mr. Blachford, is a good impact.

MR. BLACHFORD: A stabilizing impact should be a good impact, yes.

MR. LYON: Well, particularly, Mr. Chairman, against the projections that Mr. McKean has been demonstrating to us this morning in that what we would call the worse scenario predictions which we hope will not prove to be the case.

Out of all of this, that is, the negotiation for the Western Inter-Tie which could have a stabilizing effect upon the rates charged to Manitoba ratepayers and additionally, subject to negotiations because there are still matters there to be negotiated, could have a beneficial effect upon the capital requirements of Manitoba Hydro and so on. That, coupled with the possibility in the '80s of a large consumer coming on line such as Alcan, with the, again, matters that are in the public domain, the willingness of that kind of consumer to pay for a considerable portion of the up-front capital cost; all of that it would seem to me, could it not, guarantee Manitoba ratepayers pretty stable hydro rates over a period of say 10-15 years, subject always of course to water flows, other imponderables over which Hydro, the government, no one has any particular control?

Given those hypotheses, I take it, Mr. Blachford or Mr. McKean, these would be desirable developments for Manitoba and particularly for Manitoba Hydro ratepayers because of the stabilizing effect that they could have over a long period of time on rates that are chargeable for domestic, for general service purposes, for heavy-load users and so on.

MR. BLACHFORD: Yes, of course, if Hydro got from Alcan all that we have been assuming that we might get from them, certainly it would have a beneficial effect on the Manitoba Hydro consumer for a number of years until such time as you have to face what you might have to pay for the plant assuming that you wanted it back.

MR. LYON: That is, 35 years down the pike or whatever?

MR. BLACHFORD: Yes.

MR. LYON: That's all, of course, subject to negotiating.

MR. CHAIRMAN: May I remind the members again that it is being taped by Hansard and they can't keep track of who is making the comments, so I would wait

until you're recognized. Mr. Lyon.

MR. LYON: Thank you, Mr. Chairman. We all try to co-operate with Hansard, but they're quite effective I found over the last 20 years. You'll find that they are.

Then the proposition that was enunciated a little bit earlier that the absence of capital construction on Hydro would have a stabilizing effect on hydro rates, while I'm understanding the context in which that statement was made, it really becomes much more hypothetical than the possibilities of expansion for Alcan, for the Western Inter-Tie and so on. What we're really saying is that if you can land Alcan, if you can land the Western Inter-Tie, that this will not only permit this massive construction to go on, on Limestone, with the tie-ins that are required across Western Canada, with the provision of the thousands of jobs in Southern Manitoba and so on. All of these beneficial effects can flow along with another additional beneficial effect which is the stabilization of hydro rates to the ratepayer. Isn't that really what we're saying? That's a somewhat different scenario from the one that was presented that if we just don't do anything, if nobody comes along and forces us not to build, then we can have stabilized rates and I know that's not view. I know it's not the view of Manitoba Hydro.

MR. CHAIRMAN: Mr. Blachford.

MR. BLACHFORD: Under the assumptions made in the various studies, this should be correct, Mr. Chairman, until such time as you have to buy back that plant.

MR. LYON: So, then, Mr. Chairman, what collectively the Government of Manitoba, the Legislature of Manitoba, Manitoba Hydro and all of the agencies that we can commandeer, what we should be working toward is large-scale new customers for Manitoba Hydro which will have that stabilizing effect on the Manitoba Hydro rates and at the same time will be beneficial to the industrial development of the Province of Manitoba. Isn't that right?

MR. BLACHFORD: I'm sorry, Mr. Chairman, I missed the last sentence.

MR. CHAIRMAN: Would you repeat that, Mr. Lyon?

MR. LYON: Mr. Chairman, to make it more succinct, what we really, I think collectively, the government, Hydro, the Legislature and so on are looking for is to get on with these large new potential markets for Hydro which would have the desired stabilizing effect on the domestic ratepayers in Manitoba, but at the same time would bring these tremendous benefits of industrial and other growth and job opportunities to Manitobans and, indeed, provide for Western Canada through the medium of the regional Inter-Tie the first major part of a national power grid which would be great for this country.

MR. DEPUTY CHAIRMAN, Phil Eyer (River East): Mr. Blachford.

MR. BLACHFORD: Mr. Chairman, Manitoba Hydro's

objective here is to keep the rates for its customers as low as possible. Considering all of these, shall we say, balls that are in the air and also taking into consideration the objectives of the province in promoting the provincial economy.

MR. LYON: So, then, Mr. Chairman, the proposition of low load growth having the effect of stabilizing rates because of the costs of new construction is something that, while admittedly true, is not the aim, the ideal, the objective of Manitoba Hydro or should it be of the Government of Manitoba.

MR. BLACHFORD: As far as Manitoba Hydro is concerned, it certainly is recognized it is not the total objective.

MR. LYON: Well, unless things have changed in six months, Mr. Chairman, I would say to Mr. Blachford in all honesty, was it ever the object of Manitoba Hydro to have low — not to go out seeking customers for Manitoba Hydro power? Not to my knowledge, under any administration.

MR. BLACHFORD: That's correct.

MR. LYON: I know the figures exist, Mr. Chairman, and I heard Mr. McKean refer to it once or twice and certainly it was in the statement that the Minister made the other day in the House with respect to the hydro rate freeze, as I understand it, the reserves of Manitoba Hydro at the present time are in the vicinity of \$100 million.

MR. BLACHFORD: Yes, Sir, that's right.

MR. LYON: At the outset of the hydro rate freeze in 1979, what were those reserves?

MR. BLACHFORD: Approximately 97 million, we'll just look up the figure, Mr. Lyon. Mr. Chairman, at March 31, 1979, net reserves were \$45,663,000.00.

MR. DEPUTY CHAIRMAN: Mr. McKean.

MR. MCKEAN: I think it's a year later than that.

MR. BLACHFORD: Yes, may I correct that, it's \$96,013,000.00.

MR. DEPUTY CHAIRMAN: Mr. Lyon.

MR. LYON: With the assumption by the taxpayers of Manitoba of the foreign exchange obligations of some 76 million, I think the figure was, the effect has been to stabilize the reserve position of Manitoba Hydro against low water rates, against the kinds of circumstances that human beings can't predict.

MR. BLACHFORD: With the ups and downs and water flows in the meantime, it comes out approximately the same amount, yes.

MR. LYON: To put it another way, I suppose, if there hadn't been a hydro rate freeze, the reserves of Hydro at the present time would be about 25 million, roughly.

MR. BLACHFORD: If the rates had been frozen, that seems to be correct.

MR. LYON: The rates have been frozen and Hydro would have had to assume the foreign exchange.

MR. BLACHFORD: Yes, that's right.

MR. LYON: This matter I had some vague familiarity with when it was being discussed over the last two or three years and I realize it's outside of our province, but it was mentioned this morning that the 8-percent increase that Mr. McKean was showing attributable to the Flin Flon switchover, what amount of power is involved in that switchover and how do we factor that into the load situation in Manitoba now as opposed to the old situation? I'm really seeking information because I know that the plant was in Saskatchewan, the Island Falls plant, it's being taken over or has been taken over by Sask Power.

MR. BLACHFORD: What has happened is that we have undertaken with Saskatchewan Power to simply pass through or pass to them an amount of power at the southern interconnections equivalent to the amount of power that's delivered at a certain point near Flin Flon for that load. This has the effect of adding this load to the Manitoba load and, in effect, just passing the Island Falls' output through to the Saskatchewan Power Commission.

MR. LYON: There was, I take it, a rate negotiation between Hydro and HBM&S when this agreement was concluded.

MR. BLACHFORD: Yes. As a matter of fact, we're still talking with HBM&S regarding the total arrangements around Flin Flon and concerning HBM&S.

MR. LYON: So, are you saying then, Mr. Chairman, through you to Mr. Blachford, that the rates haven't finally been settled, they're still under negotiation?

MR. BLACHFORD: I believe we can say that the rates have been settled, but there are other circumstances in the Flin Flon area that have not been settled.

MR. LYON: Mr. Chairman, to Mr. McKean, I believe the point was made. I had marked it at an earlier stage, but I think Mr. McKean in his usual, capable fashion covered that ground afterwards by saying that the two good profit years that Manitoba Hydro enjoyed were contributed to rather substantially by the Hydro rate or by the foreign exchange assumption by the taxpayers of Manitoba that contributed. Without that assumption of foreign exchange obligations, Hydro would have shown losses or smaller profits?

MR. McKEAN: Yes, even the year before the rate freeze, because the assumption was taken over before we closed our books, we would have recommended the amortization of a loss in that year of foreign debt and therefore, it was our intention at that year to indicate that practically all of that loss would have been wiped out by the provision for foreign debt losses. I think some of the members here remember we had

long discussion of what chartered accountants of Canada and the States and everywhere else did at that point but in effect, yes, those two years were definitely affected and resulted because of the taking over of the foreign debt loss.

MR. LYON: Again, it is hypothetical, Mr. Chairman, but if the Hydro rate freeze had not been the policy at that time, Hydro in the ordinary way would have applied for rate increases.

MR. McKEAN: Yes, it was our intention to have another rate increase at that time.

MR. LYON: Mr. Chairman, in the statement of the alternatives that Mr. McKean gave to us, one of them presupposed a 31 percent increase just to break even in 1984 based upon this — for want of a better term — worse scenario situation that he brought forward to us and that was with average rate flows. What other factors could impinge upon that situation that would improve your forecast? For instance, I take it greater out-of-province sales would be one factor that would be helpful.

MR. McKEAN: Water conditions is by far the biggest factor. In general, if you don't generate it, you can't sell it. I concede that after you do generate it, you worry about the price and there is some variation in price dependent upon the volume that is available, but it would appear that we have a market for the total volume that we can generate and therefore I can't underplay the importance of the water condition as being the No. 1 factor. Now, we have others; we did very well because we had a cold March this year for instance. A cold March compared to a warm March can benefit Manitoba Hydro. I guess it adversely affects our customers, but certainly it helps our revenue. But that's in the nature of \$3 million to \$4 million, whereas in the water conditions, I am talking of a spread that can be up to \$100 million a year, so I think every other variation is so small compared to that factor of water conditions that it is the big variable.

MR. LYON: Mr. Chairman, I believe it was Mr. McKean when he was talking about the very favourable position in which Manitobans find themselves in comparison with most categories of power use with users in other parts of Canada, wherein he mentioned that the system price of the power benefited from the fact that we were developing power from plants that were built as long as 60 years ago and so on. Isn't it a fact that system price of power, which Mr. Blachford described, Mr. Chairman, as being one of our hedges against this inflationary spectre, is not the price of the power that we would be selling to the Western Power Grid? Is it not a fact that under the negotiations that have proceeded thus far that the sales on the Western Grid would be priced at the marginal price of producing power from Limestone construction?

MR. CHAIRMAN, Harry Harapiak (The Pas): Mr. Blachford.

MR. BLACHFORD: Yes, that is the idea. It will cover

the cost of the construction of a plant to supply that energy.

MR. CHAIRMAN: Mr. Lyon.

MR. LYON: But the power need not necessarily come from Limestone; it could come from the whole system generated at a much cheaper price.

MR. BLACHFORD: That's correct.

MR. LYON: So unless my figures are wrong, this had a good pricing mechanism in it for the benefit of Manitoba and all Manitoba Hydro ratepayers.

MR. BLACHFORD: I would hesitate to agree with you on that. I think the idea was to cover the marginal cost of the plant. As I said, it was a very marginal project overall and the idea was that it would cover the costs in Manitoba and therefore, would not impact adversely or the other way on the Manitoba consumer.

MR. LYON: No, it would not impact adversely; it would have the effect of stabilizing the rates for the Manitoba consumer for a long period of time.

MR. BLACHFORD: I am getting confused by what you mean by stabilize. I believe the scenario shown by Mr. McKean indicates a stabilization of rates if nothing happens. Now, we are not going to be better than that by the Western Grid Agreement, at least initially.

MR. LYON: No, and we are not, just so that — I thought we were clear on this — certainly, Manitoba Hydro unless it has changed in the last six months, is not advocating a no-growth position for this great utility.

MR. BLACHFORD: That's correct. I was just pointing out, however, that if the idea is to keep rates as low as possible, that is one of the best ways to do it — not the best way — I'm sorry.

MR. LYON: No, not one of the best.

MR. BLACHFORD: It's one of the ways that it could be done.

MR. LYON: One of the ways of doing it, yes. Well, war is one of the ways of settling disputes, but we don't advocate that either, do we?

Mr. Chairman, I have no further questions at the present time on this topic, although I think Mr. Ransom does.

MR. CHAIRMAN: Mr. Ransom.

MR. A. BRIAN RANSOM (Turtle Mountain): Thank you, Mr. Chairman. I would just like to go back to some of the assumptions that Mr. McKean had made. I believe he assumed that the growth and demand over the next 10 years would be 3.4 percent. That presupposes some further assumptions about the economic activity in the province. I wonder if Mr. McKean would mind advising the committee what some of the assumptions are about the level of economic activity

in the province.

MR. CHAIRMAN: Mr. McKean.

MR. McKEAN: It is a corporate forecast, not my forecast, but there are a series of assumptions that are made. I haven't got a copy with me of the load forecast, but it takes into account an investigation of every component of the economy. Now, Mr. Blachford, you haven't got it? I might say it's a document that thoroughly goes into every component of our load and I agree with you, it does make a lot of assumptions.

MR. RANSOM: Well, Mr. Chairman, I think it's quite important that we know what the assumptions are, because if I go back to the committee meeting of 1980, Mr. Curtis said to the committee, for instance, and I quote from the committee: "The Manitoba Hydro's long-range load forecast for generation planning purposes is for an average growth rate of 4 percent over the next ten years, decreasing to an average growth rate of 3 percent in the following ten years. Historically, the growth rate has been 7 percent, but in the past five years, the average has been down to 3.3 percent. Key assumptions in the current load forecast are a slight improvement in the economic growth realized in the past five years." That's the end of the quotation.

If the 4 percent projection made two years ago assumed greater economic activity in the province than had been the case in the previous five years, I think it becomes very important then in terms of the load growth being reduced to 3.4 percent, what changes in those basic economic assumptions have brought that about?

MR. CHAIRMAN: Mr. Blachford.

MR. BLACHFORD: I can't answer your question directly, Sir, but I would just like to say that this is, shall we call it, a zero-based forecast that is made each year. The fellows go out and they restudy all of the factors that they believe might come into the study in load growth in the province during the year and these include oil and natural gas availability, changes in energy markets. They refer to efficiencies of natural gas furnaces, oil prices, natural gas prices, conservation, population, housing, general economic activity in the province, technological change such as transportation. Also, they go out and speak with people in the various areas in the province and particularly the large consumers and ask them what they expect to consume electrically over the next years and this is all put together to come up each year with a completely new forecast.

MR. RANSOM: Mr. Chairman, can I ask then what brought about the reduction in the estimate of 4 percent from two years ago to 3.4 percent now?

MR. BLACHFORD: I believe, there has been a drop-off in new construction and general economic activity in the province, the same as there has been elsewhere in the country.

MR. RANSOM: At what point then would the percent-

tage growth increase in the load result in there being no necessity to increase the rates? This is getting back to the point that was raised that there is apparently a point where there wouldn't be an increase required.

MR. BLACHFORD: I don't believe you can just say that with inflation and the cost of general maintenance and operation going up at some time you will require an increase in rates simply to cover that. Possibly, it would help to indicate that at this load growth, approximately 3.4 percent, we see that there is enough generation in the province to supply the load until 1992.

MR. RANSOM: It doesn't really answer the question, Mr. Chairman, but perhaps it's not possible to answer the question. But, I believe that Mr. McKean did give an indication that the less economic activity there was in the province, the less requirement there would be to have an increase in rates and if that was an incorrect understanding of what was said, then I would appreciate that being placed in the record.

MR. BLACHFORD: This was in reference, I believe, to the requirement to build further large capital works and under the scenario that was presented, the requirement for more revenue is relatively modest until such time as you do get into these large capital works. It is pointed out that by building Limestone for 1992, you are more than doubling the existing plant in all of Manitoba. In other words, we have about \$2.5 billion worth of plant in Manitoba and in 1992, Limestone itself, which will add approximately one-third to the energy production in the province, will require more than all the plant that has been invested in Manitoba before now.

MR. RANSOM: Mr. Chairman, we were shown some graphs on projected expenses etc. and we were told that there were three assumptions, I believe, that went into that. Are there graphs available showing what the impact would be of different projections on load growth, if it was down to 2 percent? Is that sort of information available?

MR. CHAIRMAN: Mr. McKean.

MR. McKEAN: I think the difference is, certainly we have information showing that if you had a 2 percent growth, it puts the need of Limestone back well into the late 1990's, so that the big impact of growth is on your need for a new plant.

I guess, when I said the improvement is due to reduced load growth, I don't think I said reduced industrial activity, I said load growth. We believe that there is a lot of room for conservation and the organization is promoting conservation, which is the elimination of waste, which provides power that is available to take care of future industrial development. Manitoba Hydro, I think, is here to provide what is needed, not to be against industrial development, but I do think as an organization we have seen and have promoted the conservation or elimination of waste, which I think is beneficial to our customer too.

MR. RANSOM: Mr. Chairman, I am simply trying to find out what happens if the assumptions change. Two years ago, Mr. Curtis told the committee that the projection of load growth depends to some extent upon economic activity in the province. In fact, he said that 4 percent projection required a higher level of economic activity than had taken place in the previous five years. I am simply trying to get some appreciation for what happens if you change the assumptions.

We were shown a graph, for instance, that shows the total expenses and total revenues for a period of 1972 to 1992. Is that graph affected if you change the 3.4 percent figure to 3 percent or 2 percent?

MR. McKEAN: As far as the operating account is concerned, it is affected very little because those 10 years that are shown in that operating account do not include any impact of the operating cost of Limestone because they do not come in until the end of the 10 years. If you increase the load growth, it would move up the impact of Limestone into your costs and likewise, if you decreased it, it would move it further out, but if you moved it further out, it would not change the impact in those 10 years because the 10 years do not make provision for Limestone in those 10 years.

We tend to concentrate impact of Limestone, but the same thing is true on transmission lines, substations, etc. There has been, because of the reduced load growth, extensive deferrals of capital construction on distribution system additions because of that reduced growth. I guess Manitoba Hydro were here to supply the load, not to say what the loan should be.

MR. RANSOM: Mr. Chairman, I'll just make the point that I think it would be more useful for the committee then if we had information such as was presented this morning that shows some variation in the assumptions because the Hydro people have selected a certain set of assumptions which obviously can be wrong. The assumptions that were made two years ago clearly are now incorrect and the printout or whatever of those different assumptions might be helpful. Mr. Chairman, what impact does a given rate of inflation have on the overall operating costs of Hydro?

MR. CHAIRMAN: Mr. Blachford.

MR. BLACHFORD: Mr. Chairman, if I could just make one comment on the member's comments on assumptions. The only thing we can be sure of in making these assumptions is that they will be wrong. They are changed every year.

MR. RANSOM: That's why, Mr. Chairman, it's important to show on both sides of an assumption what happens because we do know that they're going to be wrong and so it's useful to know what happens if they err on being on the low side or on the high side.

MR. CHAIRMAN: Mr. McKean is gathering some information.

MR. RANSOM: Perhaps, Mr. Chairman, I could ask Mr. Blachford a question while Mr. McKean is looking for the information then. There is, as I understand it,

quite a gap between the generating capacity of the system at the moment and what is actually required. Presumably if there was a greater demand, a greater load growth in that period of time, it would have a beneficial effect on the revenues that are shown in this projection, this 20-year projection.

MR. BLACHFORD: That is correct, Sir.

MR. CHAIRMAN: Mr. McKean.

MR. McKEAN: Yes, on these assumptions, we have a couple of charts here I never bothered showing you, but I'll certainly — first of all, on the high-low water, I think we were trying to show the comparison of what high and low water was on that one chart where we showed the average on the high water and low water. Now as far as the effect on interest and inflation, we did do a provision showing what was the effect if we were plus or minus 2 percent wrong. Now, the plus or minus 2 percent was not trying to provide an outside, it was to try and show what 2 percent wrong would be, and if we were 6 percent wrong it would be three times as great.

On the capital portion of it, I think if you remember the other chart I showed, you'll notice that the orange line is the capital spending that would occur in those 10 years if the inflation and interest rates were as predicted. Now the blue line is what they would be if they were both 2 percent less, and the grey line is what they would be if they were 2 percent more. You'll notice, for instance, on when Limestone is in what I call a very active construction phase that plus or minus 2 percent can make a difference of practically \$300 million in one year. Well, that is a total of 4 percent spread; so that's from a capital spending point of view, what the impact is of interest and inflation. Of course, when the plant is finished and comes into operation, your interest costs and your depreciation costs are affected accordingly.

Now, as far as the operating account is concerned, we did the same thing and the impact is not nearly as great because of the fact that there is very little capital spending in this period, but it still exists. As you proceed over a number of years, you'll notice that plus or minus 2 percent tends to have sizable differences. So this chart was attempting to show the effect of plus or minus 2 percent on inflation; the effect of high and low water was shown on the other chart. We didn't show up on load forecast because if the load forecast is lower the impact goes beyond the 10 years; in other words, in fact for the 10-year period it really has no effect on our operating account because it's not in the operating account on the projected forecast. It would certainly move earlier if we had a higher than expected load forecast and it would move it up by whatever the forecast was.

I might say, I mentioned earlier that in 1979 we were predicting the need for Limestone for Manitoba's load in 1987. I think at that time the load forecast was based upon a growth of about 5 percent a year. Now, of course, we've had three more years of experience of lower growths and therefore the reviews of load forecast like most other utilities in North America have gradually reduced the forecast. I don't know whether that completely answers your question, Mr. Ransom.

MR. RANSOM: No it doesn't, Mr. Chairman, because I'm looking for a general answer in terms of if inflation goes up 10 percent, how does that affect your operating costs?

MR. McKEAN: Well, I think if I look here, if it goes up 10 percent, it will be five times as big a spread that's shown here; in other words, the grey line as compared to the orange line is a 2-percent spread each year. So, if the inflation is 10 percent higher than we've predicted over that period, it will be five times as big a spread as between the orange and the grey line. We'll give you a copy of this, Mr. Ransom.

MR. RANSOM: The answer doesn't come through to me that I'm looking for, but my problem is if inflation goes up 10 percent, do your operating costs go up 10 percent?

MR. McKEAN: No, not all of them, but the operating costs I think you've got to generally assume probably will. In general, our operating costs are made up of those expenses that are fairly dependent upon the rate of inflation, but I do admit that our fixed charges which are 65 percent of our revenue dollar, certainly our amortization of an existing plant is unchanged by inflation and any long-term debt that doesn't mature is not changed by inflation. That, I pointed out, was of our total \$2.5 billion debt at the present, approximately \$1.5 billion of it matures after 1990. There's \$1 billion of our present debt which has to be refinanced some time in the 1980s and, of course, any new borrowing will be subject to the interest rates that apply. That new borrowing could be either for new construction or could be for the financing of deficits.

MR. RANSOM: Mr. Chairman, my understanding of what Mr. McKean had said earlier was that the recommendation with respect to an increase in hydro rates stemmed from both a decline in flows, but perhaps even to a greater extent, related to increases in inflation and interest rates.

MR. McKEAN: Right. Over the last three years — our projections three years ago, or beyond three years ago, were based upon a projection of average interest rates of less than 10 percent and inflation of approximately the 7 percent margin. We have obviously experienced higher interest rates than that in certainly the last year and I would say over the last three years and that gradually catches up to you. Now our assumption for interest rates is 18 percent for last year, which was fairly close to what it cost us for all new money and we are assuming 15 percent for the present year, which I wouldn't want to call conservative at the present moment.

MR. RANSOM: Well, Mr. Chairman, then a change in interest rates from 10 to 18 percent and inflation from 7 to 12 percent, has largely brought about this necessity, this recommendation for a rate increase and that if inflation and interest rates were to drop back to that range, and you had normal water flows, that you would not require a rate increase.

MR. McKEAN: Well, except we already have, for

instance, last year I think we added to our debt by \$165 million, I have that figure somewhere, at those going interest rates, so they will not drop back. They were longer term interest rates and certainly the settlements of wage agreements is a factor in all this, but our operating expenses certainly are subject to inflation, the same as every other activity. I would like to maybe convince the committee and convince our customers that when our rates go up less than the rate of inflation, it is actually a rate decrease.

MR. RANSOM: Would the projections that have been made for expenses and revenues, does that projection of expenses assume that the government would cease to pick up the foreign borrowing costs at the end of 1984.

MR. CHAIRMAN: Mr. Blachford.

MR. BLACHFORD: No, this assumes that the government will continue to pick up the difference in foreign exchange.

MR. RANSOM: Right through until 1992?

MR. BLACHFORD: Yes.

MR. RANSOM: That makes the charge of it being a phony rate freeze that was made a year or two ago sound a little hollow, Mr. Chairman, if that is going to remain and the assumption is that's going to remain in place for the next ten years. Mr. Chairman, that \$300 million that Mr. McKean referred to as being the book cost of some of the foreign borrowings, what would that represent as a percentage of the original borrowing?

MR. CHAIRMAN: Mr. McKean.

MR. MCKEAN: I haven't got that figure. The \$300 million is a calculation of all our foreign debt as based upon the exchange rates at 31st of March, if they all became due on the 31st of March. That, of course, is not true; they all have varying rates and every one is different. I might say that calculation will also be different everyday, depending upon how you calculate it. This figure we now have is slightly below the figure that existed back at the time of the rate freeze. I think I saw a calculation as high as \$475 million at that point, but the calculation could be done everyday, depending on what the foreign exchange was.

Now as far as the percentage, our total debt is roughly \$2.5 billion and this is \$300 million of that total debt, but I don't think that's exactly the question you were asking me. Each one will vary depending upon the issue.

MR. RANSOM: I assume the projections have also been made then that don't include the assumption that the government would continue to pick up the costs of the foreign borrowing.

MR. CHAIRMAN: Mr. Blachford.

MR. BLACHFORD: No, we have not made assumptions on that basis. Our understanding is The Rate

Stabilization Act indicates that there's no end to is and we haven't chosen to choose one, in making our assumptions.

MR. RANSOM: Mr. Chairman, then Hydro is assuming that any devaluation of the Canadian dollar would not have an impact then upon Hydro, in terms of their debt?

MR. BLACHFORD: That's the basis in which the assumptions have been made, yes.

MR. RANSOM: But it would clearly have an effect in terms of their operating costs or new capital requirements?

MR. BLACHFORD: I would expect so.

MR. CHAIRMAN: Mr. McKean.

MR. MCKEAN: Under the Act, all our new debt, regardless of where it is borrowed, is charged to Hydro at the Canadian equivalent at the date of the borrowing, so that in effect, the foreign exchange risk has been moved completely under the Act to the province and until the Act is changed, or in accordance with the Act, I really can't see that there's any impact on the foreign exchange that would adversely affect the expenses of Hydro.

MR. RANSOM: Mr. Chairman, just one question about the last year's operations. Did Hydro undertake any unusual, unexpected capital expenditures during 1981/82?

MR. BLACHFORD: I don't believe so, Mr. Chairman. I believe there were some minor additions to capital spending over the twelve month period, but there weren't — I'm sorry, such as this road in Northern Manitoba was an addition during the course of the year. I think we also undertook to do some more work regarding the Northern Flood Agreement, but again there were not real major expenditure items.

MR. CHAIRMAN: Mr. Enns.

MR. HARRY ENNS (Lakeside): Thank you, Mr. Chairman. I have some questions on another subject. I'd be satisfied if Hydro management took these questions as notice and provided some of the information when next we meet.

What actual expenditures has Hydro incurred under the terms of the Northern Flood Agreement since signing that agreement?

The further question being, what specific commitments Manitoba Hydro has agreed to under that same agreement? In the opening remarks by the Executive Officer, mention was made of a fish plant to be constructed at Missi, I believe. It's that nature of obligations that I understand Manitoba Hydro has agreed to undertake to help alleviate some of the problems that have occurred with some of the flooding and the disruption in Northern Manitoba, so my specific questions are, if Hydro has available to them at this time or if they can provide for us the next time the committee meets, the actual progress under the terms of that

agreement, both in actual dollars spent to date and specific commitments of expenditures of money.

MR. BLACHFORD: Regarding the expenditures, I have the expenditures up to and including December, 1981, if that would be sufficient for the Committee member. The amount of \$9,077,627.35.

MR. ENNS: Mr. Chairman, I wonder if Mr. Blachford could break down that \$9 million figure in general terms, the nature of the compensation programs undertaken or capital programs undertaken.

MR. BLACHFORD: We have for compensation payments to each of the five Indian Bands, \$534,338.21.

Under the programs, we have a Registered Trapline Program. It has cost \$1,186,750.56 plus consultant's costs of \$2,300 and trail and ice marking of \$10,295.60.

Under the Fishermen's Assistance Programs, we have two items; \$117,990 and \$82,892.66.

Under Remedial Work and this includes the five bands, we have spent \$6,958,766 and in arbitration claim, referring specifically to Arbitration Claim No. 3r, it was \$124,294.32.

MR. ENNS: Mr. Chairman, through you to the Chief Executive Officer of Manitoba Hydro, the remedial work referred to which is by far the largest amount, some \$6 millions, again that would be work within communities, rearrangement of docking facilities, water supplies. Any detailed information on that?

MR. BLACHFORD: They are items of that nature, including road building, causeway building, etc. In that context, we have paid over \$5 million in the Nelson House area; about \$1.7 million in the Cross Lake area and other minor amounts at Split Lake, York Landing and Norway House.

MR. ENNS: Mr. Chairman, does Manitoba Hydro have any present estimate as to further commitments in general terms, again in dollars and cents, that it will be obligated to under the Northern Flood Agreement? I suppose what I'm seeking is, with the expenditure of some \$9 millions under the Northern Flood Agreement, does that come close to meeting the obligations as envisaged when the Northern Flood Agreement was signed, or is there a considerably greater commitment yet to come on the part of Manitoba Hydro and Manitoba Hydro rate users?

MR. BLACHFORD: I would expect that the expenditures still to come are considerable, but we have no idea what they may be. We have not really been able to address as yet in a full way what it is going to cost at Cross Lake to more or less put back what was there before the Hydro project when that area was begun. There are probably still a few things to be done on Nelson House. I guess the answer to your question is, we don't really know.

MR. ENNS: Mr. Chairman, I asked this question of the Minister in the House. I would ask it of him now or of Hydro management. Inasmuch as Hydro will forever be manipulating water and water levels of different rivers, streams and lakes in their operation of the sys-

tem the question that I have is, what kind of regularized system of information have they set up to inform trappers, residents, communities that from time to time are affected by Hydro decisions to either increase or decrease flows in various rivers and streams and lakes? I was assured by the Minister that Hydro of course was providing this information, but I believe there is a general concern.

These decisions are made and have to be made by the systems people probably down here in Winnipeg as to when water flows are increased or decreased in various streams or lake levels are subject to fluctuation. I am particularly interested in what kind of a regularized — and I refer to it that way — system of communication has been established by Manitoba Hydro to as much as possible inform the residents within the affected area of these changes in time for them to respond or react to them in a way that is in some instances, a safety matter for them.

We have had reports or charges that loss of life has occurred as a result of trappers or fishermen not being fully apprised of what occurs when fluctuations occur under these conditions.

MR. CHAIRMAN: Mr. Minister.

MR. PARASIUK: I had asked Mr. Blachford to be prepared for this question because I did take it as notice in the House. I think he is looking through his briefing material right now to give the specifics on it.

MR. CHAIRMAN: Mr. Blachford.

MR. BLACHFORD: Yes, under a Notice of Operating Changes, Notice of Requirements of Operating Changes are defined in Articles 9.3 and 9.4 of the agreement. 9.3 says, . . .

MR. ENNS: Pardon me for the interjection, that is the Flood Agreement?

MR. BLACHFORD: The Northern Flood Agreement, itself, yes.

"Under normal operating conditions, Hydro shall give written notice to the Band Council of any Band which may be affected and to the Regional Director General of Indian Affairs in the Manitoba Region at least two weeks before making any operating changes of a nature that will affect the water levels and/or flows. In case of emergency, Hydro will give only such period of notice as is practical."

9.4 says, "In addition to the notice required by Article 9.9 and in recognition of the fact that some residents of the reserve may be away from the reserves following their traditional pursuits, Hydro shall give notice by radio in both the English and Cree languages forthwith and continues along as necessary and in any event, not less than three successive days during the evening broadcast hours of the local and community radiostations and for greater certainty, on the Native Communications broadcast from Thompson. Hydro shall also try to give such other reasonable forms of notice as the Bands may from time to time request.

"Manitoba Hydro has instituted a regular program of monthly bulletins to each of the five communities

whereby they are advised at the beginning of each and every month the forecasted waterlevels of that month and the subsequent month based on the 90-day forecast issued by the systems operating department. This notice is forwarded to each Band, to the Northern Flood Committee, the Department of Indian and Northern Development, I believe that is, DIAND, and the Provincial Government in writing and is simultaneously transmitted by telex to Native Communications in Thompson. Information which is included in these bulletins include the estimated magnitude of the rise and/or fall of the water levels during that month and the subsequent month.

"Two, the estimated elevation of the water at the beginning and end of each month. Native Communications translate the notice into Cree, broadcast the notice over the local radio stations in English and Cree at 8:30 and 9:30 p.m. for five nights. Manitoba Hydro reimburses Native Communications for this service at a cost of \$15.00 per announcement. During periods of unusual operating conditions where gate changes are required due to unforeseen circumstances, and where these changes will result in water levels significantly different from those broadcast in the normal monthly bulletins, Hydro issues a supplementary bulletin to each affected communittee two weeks prior to the anticipated gate change advising them of the change on the new anticipated levels.

MR. ENNS: I thank Mr. Blachford for that information. I take it then that recent allegations — charges if you like — emanating from the north that some of the difficulties encountered by the trappers or fishermen have not come about by lack of information as to the conditions of the waterways that they were travelling as explained by Mr. Blachford, but rather through perhaps, their own imprudent reading of the conditions which all northerners, I'm sure, are constantly aware of.

MR. BLACHFORD: In this last case where the man was drowned on the Upper Nelson, we should say that from October until April 1st the outflow of Lake Winnipeg steadily declined from about 90,000 cubic feet per second to 50,000 cubic feet per second as a result of thickening ice at the control works choking off the water supply. There were no deliberate attempts made to change the flow during this period. From April 1st the outflow has remained constant at 50,000 cubic feet per second by adjusting the generating output. That's where it was when this accident occurred.

MR. ENNS: Well, Mr. Chairman, on another subject throughout Mr. McKean's presentation the importance of water and its availability I'm sure was not lost on members of the committee. Can Hydro management indicate to me now what amount of water is being transferred from the Churchill via the diversion to the Nelson system?

MR. BLACHFORD: It's about 20,000 cubic feet per second.

MR. ENNS: Mr. Chairman, the diversion has been operating now for a number of years. Has the presi-

dent available to him average deliveries of Churchill River waters to the Nelson River System over the past five or six years of its operation — what level of waters? I appreciate that they will fluctuate under different conditions from time to time, but what I'm seeking is the contribution, if you like, via Churchill River waters to the Nelson River System in some general way, in an average year.

MR. BLACHFORD: I believe in our charts we show that the average diversion is expected to be somewhere in the order of 27,000 cubic feet per second. It has been as high, I believe, as 34,000 approximately 10 months ago and is down to 20,000 now. Depending on the freshet it may even be lower than 20,000 cubic feet per second, but the average is about 27,000.

MR. ENNS: Mr. Chairman, the value of that water; is there any way that Hydro management can put a value in terms of dollars and cents to the system? The value or the availability of water is one of the assumptions that we all have to work with all the time. How would you evaluate the contribution of the Churchill River waters, say, at 30,000 gallons per second? Is that an impossible question to ask or . . . ?

MR. BLACHFORD: I guess it's impossible to satisfy everyone on this one but there are a number of assumptions that have to be made. What are we going to get for the power? Are we going to take export prices or are we going to take Manitoba prices? We can do both. Shall we take the price of this water with current conditions or shall we take it in the conditions when all of the Burntwood River and all of the Nelson River has been built? If you care to indicate any of these we can make some sort of calculation and give you the answer. Otherwise we take what we have now and take the export price, or take the average price for the system.

MR. ENNS: Well, Mr. Chairman, perhaps I should leave it at that. The temptation of, course, is there for me to ponder on the position that Hydro would be in with somewhat increased storage capacity in the South Indian Lake basin that would, I believe, in a very material way effect the charts that this committee was shown this morning. Inasmuch that water in storage at least provides a greater hedging capacity on the part of the system to metre out the power when required. We appreciate that we can't store the generated power, but we can store the water.

One final question. What is the total capacity of the diversion? You mentioned that we had been as high as 34,000 feet per second, is that running at rated capacity?

MR. BLACHFORD: We started on an experimental program last summer to try and find out what the maximum capacity of this river system would be. Unfortunately we ran out of water and weren't able to finish it. I should say though that one of the parameters is the level that we can allow the lake at Nelson House to rise to, while this flow is going down the Burntwood River. The other one is the stage level at Thompson which is also fixed at this stage and we just didn't get finished with our experimenting before we

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had to cut down on the water because South Indian Lake was going dry and, in fact, still is as far as our charts are concerned.

MR. CHAIRMAN: Mr. Scott.

MR. DON SCOTT (Inkster): Thank you Mr. Chairman. I have some concerns back quite some time ago when the Honourable Leader of the Opposition was speaking on questions of Western Inter-Tie and the impact on stabilization on hydro rates. What I was wondering is, first off, with the Inter-Tie itself the proposed contract with Saskatchewan and Alberta; if there are cost overruns who covers those cost overruns, is it the Province of Manitoba or is it the other provinces?

MR. BLACHFORD: The idea is that all the provinces will share in the costs. If there are costs overruns they will share in these costs also.

MR. SCOTT: So that the tie-in, it is no kind of a forecast price then on the sale itself to the other provinces?

MR. BLACHFORD: There are forecasts, yes, but . . .

MR. SCOTT: Well, how can we have forecasts if we don't know what the costs are?

MR. BLACHFORD: We have a cost estimate.

MR. SCOTT: We have a cost estimate?

MR. BLACHFORD: Yes.

MR. SCOTT: Can you find any contractors who will commit themselves today to a seven-year contract on such-and-such a price?

MR. BLACHFORD: I would doubt it.

MR. SCOTT: You would doubt it?

MR. BLACHFORD: So if we don't have contractors that will commit themselves to a price, how can we commit ourselves as a province of price for export to Saskatchewan and Alberta for power that we cannot guarantee what the costs will be?

MR. BLACHFORD: This is certainly a difficulty from all parties but all parties also recognize that no one sets out to build any kind of a project these days and is confident when he starts that he knows exactly what the price will be at the end. It depends again, on the inflation, on escalation, on interest rates, on all of these things that come into it.

MR. PARASIUK: A point of order, if I just could on this. These are matters under negotiation and they are topics of negotiation so I would hope that we would restrain our questions in this area, in that we are at a critical stage of the negotiations and we would hope that we could complete them as expeditiously as possible.

MR. SCOTT: Thank you. Just with that I wish not only

the Minister responsible but also Manitoba Hydro, in their negotiations, to watch out for the possible pitfalls that could happen to the Province of Manitoba, which could work very strongly against de-stabilizing our rates rather than stabilizing the rates. If we could get into something where the new plant could be paid for pretty well by the export of electricity over a 25 or 35 year period, I'd say that would be tremendous for building stability into our own Hydro rates.

On the other hand, if it was not the case, then we could be running into more trouble than not. The other item . . .

MR. CHAIRMAN: It is tradition for the Committee to rise at 12:30 p.m.. The report is not completed, so the Committee next sits again at 10:00 a.m. on Thursday, May 13th.

Committee rise