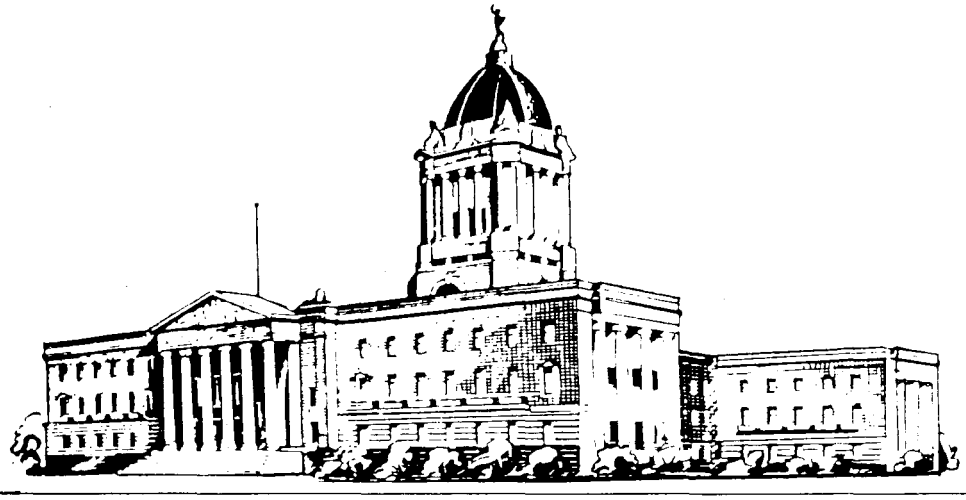
Legislative Assembly of Manitoba

HEARINGS OF THE STANDING COMMITTEE

ON

PUBLIC UTILITIES

Chairman
Mr. Harry Shafransky, M.L.A.
Constituency of Radisson



10:00 a.m., Tuesday, June 1, 1976.

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THE LEGISLATIVE ASSEMBLY OF MANITOBA
THE STANDING COMMITTEE ON PUBLIC UTILITIES
10 a.m., Tuesday, June 1, 1976

Chairman - Mr. Harry Shafransky.

MR. CHAIRMAN: Order please. We have a quorum. We shall proceed with the Annual Report of the Manitoba Hydro-Electric Board, the 24th Annual Report for the year ended March 31, 1975. We proceed with a page by page . . . .

(Pages 1 to 9 were read and passed)

Page 10. Mr. Craik.

MR. DONALD CRAIK: Mr. Chairman, I wanted to ask Mr. Bateman, on the installation of the turbines, are the turbines that went into Jenpeg the only Russian-built turbines that are being used?

MR. LEONARD S. BATEMAN: Yes, Mr. Craik, the turbines that are going into Jenpeg are the only Russian turbines that are being used.

MR. CRAIK: In the system.

MR. BATEMAN: In our system, yes.

MR. CRAIK: I note that there's a move by the Federal Government to declare Russian turbines as coming under the Anti-Dumping laws, with the exception of the bulb type turbines.

MR. BATEMAN: That's correct.

MR. CRAIK: Does this have any bearing or effect on Manitoba Hydro's operations?

MR. BATEMAN: No it has no effect on our operations. It's relating specifically to the turbines they've sold to Mica and to the first project below the Peace and to the Mactaquac in New Brunswick, two in B.C. and one in New Brunswick.

MR. CHAIRMAN: Order please.

MR. CRAIK: I note that there's a move to include the bulb type turbines as well. That would have no bearing on . . .

MR. BATEMAN: No they have excluded the bulb type turbines from their review under the Anti-Dumping legislation.

MR. CRAIK: There's apparently been an application to have them included as well following that. That wouldn't affect your past purchase anyway would it?

MR. BATEMAN: Well I think that's what it's all about, Mr. Craik, but I'll ask our lawyer, Mr. Funnell if he has any knowledge of the inclusion of the bulb units. They were specifically excluded in the original application.

MR. FUNNELL: Correct. I haven't seen any official word that they have been included . . .

MR. BATEMAN: Mr. Funnell confirms that the bulb units are excluded from the Anti-Dumping suit.

MR. CRAIK: In the release that has come out from the Federal Government indicates that there is an application to - although they have been excluded - an application to have them considered for inclusion. In that case with the purchase being that far back would it affect you?

MR. BATEMAN: Well, I expect it would Mr. Craik although our official advice prior to this last two weeks was that they were excluded. Now we have not had any official advice that they are included, so I'd be interested in knowing where you got your information.

MR. CRAIK: I'll see that you get it before you leave today.

MR. BATEMAN: Thank you.

MR. CHAIRMAN: Page 10--pass; Page 11--pass; Page 12--pass; Page 13--pass; Page 14--pass; Page 15, the pictures--pass; 16, pictures--pass; 17--pass; 18--pass. Mr. Craik.

MR. CRAIK: I note that on your picture of the 1974-75 dollar you show interest charges of 42 cents. Could you give any prediction as to what the 1975-76 dollar is on that?

MR. BATEMAN: 1975-76? This is the report ending 1975, now for 1976 we have a figure for that, perhaps I could give you an indication of that. It would be in the same . . .64.6 million out of a total expense of 158. So it's about the same order of magnitude.

MR. CHAIRMAN: Page 18--pass. Mr. Craik.

MR. CRAIK: Mr. Chairman, in the report that has been recently made available, the Task Force Study and the Government Task Force Study and the comments by Mr. Kierans, there's a comment made by Mr. Kierans that the net worth of Hydro is stated at some 5 percent as compared to an average of utilities that should be somewhere in excess of 20 percent or 30 percent. I wonder if Mr. Bateman can indicate to us why this should be and if he's satisfied that no problems are going to arise as a result of it being that low.

MR. BATEMAN: I think, Mr. Craik, that the equity ownership in the utility is something that relates to when the Act was proclaimed, and it's just 25 years ago on May 18th that the Manitoba Hydro Board Act came into being, and it was that administration that was in existence in the 50s, the administration in the 60s, they all - and then the present administration - all support the power-at-cost philosophy that's related to the Manitoba Hydro Act. It would be very easy to increase the equity by charging more for our product, and that would have the effect of driving industrial power rates up and domestic power rates up far more than we're going to have to raise them to meet the present inflationary trend.

If you recall, Mr. Craik, I showed you a chart at the meeting of April 6th, I believe, where we do have this 5 percent equity, but if we were to charge rates and create an equity similar to what even the Public Utility Board had suggested we create in 1970, we would have been forced into a rate increase far in excess of the one that we passed this last year.

Well it's a case of whether or not you want to have power at cost of power at some other cost. As long as our bond borrowings are not affected, and I think the policy of power-at-cost is a good one in that the bond review agencies, Moody's Investor Service and Standard and Poars have increased the rating of the province and Manitoba Hydro from A1 to AA, which is proof that the equity doesn't really count when it comes to borrowing the money.

MR. CRAIK: Mr. Bateman, I wonder if you've in the last comment taken into consideration that one of the investment houses rated New York in the same category, not less, not more than three years ago, in other words gave them a AA rating and this year find themselves facing bankruptcy in the City of New York.

MR. BATEMAN: There's no similarity, Mr. Craik, between the policies that New York are pursuing and the policies that Manitoba Hydro's pursuing, which are the same policies that were created in the Act 25 years ago.

MR. CRAIK: Well, I don't know what policies are that lead to these financial ratings, all I know is that the City of New York was rated an AA rating by one of the investment houses and three years later it was facing bankruptcy. What yardsticks they use I don't know. In Ontario there was a requirement that Ontario Hydro raise their equity proportion by something like 20 percent. Is this the same thing also that was being recommended about 1970 by the Public Utilities Board?

MR. BATEMAN: It's very similar, yes. Ontario Hydro has always had a higher equity in their business than Manitoba Hydro, because of the depreciation and sinking fund investment that they had.

MR. CHAIRMAN: Page 18--pass; page 19--pass - Premier Schreyer, do you have any . . .?

MR. SCHREYER: No, my questions been answered. I was going to ask how long the present debt to equity ratio exists. I gather it's 25 years.

MR. CHAIRMAN: Thank you. Pages 20, 21, 22, 23, 24, 25, 26, 27 and 28--pass. Somebody move that the report be received? Mr. Green.

MR. GREEN: Mr. Chairman, I think that I've probably gone through this line of questioning before, but because of again, suggestions that these things are not correct, I would like to try to confirm in my own mind whether it is correct or not correct.

(MR. GREEN cont'd)

Now, Mr. Chairman, I understand that what the Manitoba Hydro does in determining what course of action to follow is that they proceed to put a series of options into the programming computer, the options based on certain assumptions. For instance they would assume a particular interest rate, they would assume a particular - I wonder if you can confirm what I'm saying up until now, so that I know that I'm not on the wrong track to start with.

MR. BATEMAN: Oh yes, that's basically correct, Mr. Green.

MR. GREEN: That they would assume then a cost of fossil fuel.

MR. BATEMAN: The program really works out that we first of all seek the engineering solution and then confirm that it is the financial solution, and if it isn't then we rework the engineering solution to see what alternative is is better or equivalent from an engineering point of view and then price in the lowest cost alternative.

MR. GREEN: Well, would each of these following factors be taken into consideration, their cost of money interest charges.

MR. BATEMAN: Yes, the cost of money is an important part in determining the fixed charges. You see, on these programs the fixed charges are taken in and brought to a present worth basis.

MR. GREEN: The cost of fuel. You had to build a thermal plant?

MR. BATEMAN: Yes.

MR. GREEN: The value of your surplus if you have a surplus in terms of being able to export.

MR. BATEMAN: I believe the present program does take account of surplus energy.

MR. GREEN: The cost of obtaining surplus power if you operated at less than Manitoba demand. In other words, if you decided that you're going to go with your existing capacity and pay for your excess by purchasing where it was available.

MR. BATEMAN: Oh yes, under those conditions, Mr. Green, we would have to contract for those amounts of power well in advance of the time we were going to need them, otherwise we wouldn't be assured that they would be there.

MR. GREEN: And is the cost of doing that one of the alternatives that you would consider when you are doing your programming?

MR. BATEMAN: Yes, those purchases are taken into account.

MR. GREEN: Well, to put it more clearly, I suppose that it is a theoretical alternative that we would do nothing more in Manitoba to increase our Hydro electric capacity that we generate, and that we could conceivably purchase everything in excess of our present needs from other power suppliers.

MR. BATEMAN: That's a possibility, but as I say we'd have to negotiate those sorts of contracts well in advance of the time we needed them.

MR. GREEN: But in your thinking, would you consider that, and the cost of doing that as being higher than the cost of doing what you are now doing?

MR. BATEMAN: Oh definitely, yes.

MR. GREEN: So that would be one of the alternatives which would be a more costly alternative. And I agree that some of the assumptions then change. For instance, the assumption of 7 percent or 6 percent interest may be entirely incorrect as it has proved to be, but also the assumption of $3.00 per barrel cost of petrol has been even a worse assumption, which would be assumptions both of which would be made about 5 years ago.

MR. BATEMAN: That's right.

MR. GREEN: So the error in interest assumption would not be higher than the error in the cost of fossil fuel assumption, that you would have erred on the right side, on the more economical side, rather than on the less economical side. Would that be correct?

MR. BATEMAN: Well, I'm not sure that I follow your line of questioning.

MR. GREEN: I'll repeat that. If in your assumptions that you are programming, you assumed 7 percent interest, or 6 percent interest, and you assumed $3.00 or $2.70 per barrel fossil fuel - both of those assumptions have turned out to be incorrect - but the fossil fuel assumption has been more incorrect to your disadvantage then the interest

(MR. GREEN cont'd) . . . . . assumption, so if anything the effect of those two assumptions is to make the generation of your own power more attractive rather than less attractive.

MR. BATEMAN: Yes, that would be a conclusion you could draw from that.

MR. GREEN: I understand, Mr. Bateman, and this is what I have been listening to at committee for year in and year out, that in 1971 the Manitoba Hydro had a task force report which demonstrated virtually all of the assumptions that it had considered. I remember there was a sheet of Lake Winnipeg Regulation, Churchill River Diversion at certain levels and at other levels or no diversion etc., and that that task force report was subsequently made public; and as a result of the task force report, the Manitoba Hydro Board made a decision that it would proceed with Lake Winnipeg Regulation followed by a lower level diversion of the Churchill River which was determined a year later to be an additional maximum of 10 feet and initially 7 feet. That's only with regard to those two programs, is that correct.

MR. BATEMAN: Yes, that's basically correct. The license was granted for 847, and as you're aware we had applied for an 850, an elevation of 850 on South Indian Lake, with Lake Winnipeg Regulation, with the development of the Nelson River, provides sequences economic as any other type of development you could have too.

MR. GREEN: Then I remember sitting in this Committee during a report from Hydro which compared proceeding with the Churchill River Diversion first and waiting for Lake Winnipeg regulation afterwards and proceeding with Lake Winnipeg regulation first and then having the Churchill River Diversion afterwards, and the figures were virtually the same within mathematical precision. If anything, there was a slight advantage to Lake Winnipeg regulation first. That again is my recollection of the Committee meetings.

MR. BATEMAN: The advantage of the Lake Winnipeg regulation first in that point of time was to preserve the integrity of the power supply for Manitobans. We had to proceed with something and Lake Winnipeg at that time was certainly going to provide us with a power that had some assurance of meeting the power demands of the citizens of Manitoba.

MR. GREEN: Well then maybe my recollection is incorrect and again I want to test it. That was one reason but I also recall that there was a bottom line figure, so to speak, from the computer showing how much it would cost if you went ahead with the Churchill River Diversion first and how much it would cost to go ahead with Lake Winnipeg regulation first and that the figures were virtually comparable with perhaps a slight advantage of Lake Winnipeg regulation first. Now if I'm wrong about that then my memory is incorrect and I don't mind being corrected.

MR. BATEMAN: Well, Mr. Green, I haven't brought a copy of the Task Force Report with me this morning. This is one of the few times that I have come to this Committee meeting without the Task Force Report. That is the Task Force Report which was . . .

MR. GREEN: This wasn't the Task Force Report, Mr. Bateman. This was a special break-out of those two alternatives. The alternative of Lake Winnipeg regulation first followed by the Churchill or the Churchill River Diversion and Lake Winnipeg when it became necessary and my recollection is that the figures were virtually the same insofar as mathematical precision is concerned but that there may have been a slight advantage for Lake Winnipeg regulation. Now that's the way I remember it. If that is not correct I don't mind being corrected. You would correct me if I minded or if I didn't mind but the fact is that's the way I remember it.

MR. BATEMAN: Subject to my memory being equally as hazy as yours, I would think your assessment of it is correct.

MR. GREEN: Okay. Then all of these documents were made available, they were discussed publicly. Have you received from any scientific source challenges to those assumptions that you have been proceeding with?

MR. BATEMAN: No we haven't and we have published a number of technical papers in the learned society journals on these particular programs.

MR. GREEN: Some people are suggesting that because we've loaded up the capital requirements and borrowing now, we have increased the rate much beyond that

(MR. GREEN cont'd) . . . . . which would have been necessary if that had not been done. I'm asking you the following: It is presumably possible to keep a rate low for a certain period of time if you do not proceed with your requirements. But if you did that wouldn't the computer show that they'd have to go up much higher at a later date in order to take care of what you have neglected?

MR. BATEMAN: Yes I think you could assume that. Particularly since rates are relating specifically to the fixed charges on the plant that you've committed.

MR. GREEN: The important feature is that what your program mechanism has done it has taken into account a series of alternatives - I can't use the word "all the alternatives" - but all of the feasible alternatives and the one that you are using results in the lowest end cost.

MR. BATEMAN: That was why we chose to proceed on this basis.

MR. GREEN: If it is the lowest end cost then the fact that one is paying - and I'm going to use fictional rates - if one is paying the rate of ten units now and will continue to pay 10 units or let's say it goes up to 15, that that would be a lower cost than paying five units now and 30 units later. Even if the rate was lower immediately it would mean that you were building in a cost now if you did not proceed with the program that you are going ahead with.

MR. BATEMAN: Well that might be true.

MR. GREEN: The only point that I'm making is that the end line figure, the bottom line figure, end figure that you are now using results in the lowest cost.

MR. BATEMAN: Well, Mr. Green, each year that we have to make a decision on where the next generation is coming from we go through this exercise and plan our system for years in advance with the idea of minimizing the costs. Now what has been committed to date is part of the built in costs and from there on you're assessing alternatives to see which is going to produce the most economic development sequence from there on.

MR. GREEN: Virtually, well I'm not entirely acquainted with it, but virtually all of the important assessment documents upon which these decisions have been made have been available to the public for three or four years.

MR. BATEMAN: That's correct.

MR. GREEN: You tell me that from any scientific, other hydro source, that nobody has challenged the assumptions on which you are proceeding. Now I am aware that they've been challenged by the Winnipeg Free Press; I'm aware that they've been challenged by members of the opposition and I'm not criticizing that. But there hasn't been another hydro utility or study done by people who have had the opportunity of seeing this which challenge your hydro assumptions and your conclusion that you have come to the lowest possible cost.

MR. BATEMAN: Well our conclusions, Mr. Green, are no different than those which were made by the programming board and this was February, 1967. That's the basic document. There are changes since but that's the basic document. It was valid then, it didn't say you develop either one or the other, it said you develop them both and it said you develop them this far apart if your load is going to grow at one rate and you develop them this far apart - in other words five years or one year. One year apart if your load is going to grow fast enough to equate to the equivalent of a 600 megawatt export.

MR. GREEN: Now did Mr. Kierans in the document that they refer to examine or really analyze the hydro electric economic decisions that were made by Manitoba Hydro or did he really talk from the assumption of the export of power and the amount that was being spent for it.

MR. BATEMAN: Well I think Mr. Kierans did not examine those documents. But what Mr. Kierans assumed was that we would put the rate of return of capital invested in Manitoba Hydro as if it had been invested in a private industry which would be an option the government could undertake, to buy a private industry and get a rate of return on its capital far greater than it could get by investing it in electricity production facilities.

MR. GREEN: Well we've tried that without success so I wouldn't make that assumption. Thank you very much.

MR. CHAIRMAN: Mr. Craik.

MR. CRAIK: Mr. Chairman, this raises some very interesting questions. First of all, somehow Mr. Green seems to be basing his argument for the development of hydro on the basis of the cost of the international oil. The line of questioning would leave the casual observer with the conclusion that the alternative to hydro was to burn oil. I think Mr. Bateman is left on record as being part of that scenario as it now stands, is anybody burning oil for the production of electricity now in new plants? In new plants.

MR. BATEMAN: Oh new plants.

MR. CRAIK: I'm talking about in the west and I was talking about Alberta, Saskatchewan and Manitoba. I don't think we're going to bring oil from Nova Scotia.

MR. BATEMAN: Well I wouldn't like to think, Mr. Craik, that it's only oil we're concerned with. I think Mr. Green is in using oil in the broader context of fossil fuels and if he isn't, then I'll let him correct the record. The fact that coal, as I pointed out in charts to you on the screen here, all our coal costs have gone from three dollars and a few cents in 1966 up to over $10.00 a ton in 1977. You know, these are real figures. That's what's happened to the cost of fossil fuels and it's going to go worse. The last increase in oil . . .

MR. CRAIK: . . . your previous comments the other day are transportation charges in getting the coal to . . .

MR. BATEMAN: Oh, they're both, freight and coal costs.

MR. CRAIK: Manitoba Hydro has not been considering burning oil have they?

MR. BATEMAN: No, we haven't lately considered burning oil. In 1967 when we decided on the basis of the programming board report that we were going to develop the Nelson River that has been the course of action we've pursued. Now one small deviation from that. We had to protect the position in 1969 and in 1970. In 1969 we installed a thermal unit; in 1970 we bought and in 1971 we bought in order to avoid putting in more thermal capability. That's how we justified the first U.S. interconnection. It was a purchase of capacity from the United States.

I was just going to say, Mr. Chairman, perhaps before the committee continues with some of these questions which obviously are going to relate to a number of areas that have been in the news recently, it might be appropriate if I made a few comments, with the approval.

MR. CRAIK: Well I want to finish the line of questioning related to the previous line of questioning before so they'll show on the record at least back to back, Mr. Chairman. Mr. Bateman has made reference to the fact that there is nothing happened that wasn't predicted in the 1967 programming study. Mr. Chairman, everything that has happened was pointed out in the 1967 study. It seems to me that there's been a number of studies since 1967 that have also taken place. There was the major study done by the consultants following 1969, which pointed out certain things. It said, for instance, that Lake Winnipeg Regulation would have value if it could be done for less than $15 million and has ended up, it's now cost us 260 or of that order. --(Interjection)-- Well that's the report. There's been many reports. There's a report by the hydro task force; there's been reports since. There's been reports on regulation of Lake Winnipeg January, 1972, August, 1971, which is the study Mr. Cass-Beggs pointed out. But of all the studies that have been piled in the Legislature to depths of three or four feet by the First Minister in demonstrating the amount of study to vindicate, there is no one study that has ever been followed so religiously as one very small study done by Mr. Cass-Beggs shortly after he came here in a period of a few weeks. There has been nothing happen in Hydro significantly that wasn't laid out in that plan that he stated then. There are many things that are advocated by other plans that have not been done.

MR. BATEMAN: Mr. Craik, Mr. Craik . . .

MR. CRAIK: . . .where millions of dollars have been spent to arrive at those conclusions.

MR. CHAIRMAN: Mr. Premier on a point of order.

MR. SCHREYER: Yes. I would like to know if the Chair is entertaining questions or comments because if it's the latter then I would like to have the opportunity to comment on the fact that the last comment is completely inaccurate, in fact.

MR. CRAIK: Well, Mr. Chairman, then, that's a matter of opinion isn't it.

MR. SCHREYER: No it isn't, because I can demonstrate . . .

MR. CRAIK: There has been nothing . . .

MR. CHAIRMAN: Order please.

MR. SCHREYER: Questions or comments?

MR. CRAIK: Mr. Chairman, the previous line of questioning was set up entirely to leave a certain indication on the record.

MR. GREEN: Mr. Chairman, on a point of order.

MR. CHAIRMAN: Mr. Green on a point of order.

MR. GREEN: There's no doubt that when I am asked . . .

MR. CRAIK: Mr. Green will now . .

MR. CHAIRMAN: Mr. Green is on a point of order. Mr. Craik, order please.

MR. GREEN: Mr. Chairman, I asked questions. I made no pretense about it, I was certainly thinking that the questions would establish what I already have learned at previous committees and I wanted that established. That is the purpose of any questions. I have no objection to your doing the same thing. The question is whether we are debating here, whether we are engaged in debate or we are questioning the Chairman. If you think that you can get a better impression from the Chairman by asking questions, be my guest.

MR. CHAIRMAN: Order please. Mr. Craik, proceed with your questions.

MR. CRAIK: Yes, Mr. Chairman. I'd be very glad to. It presents no problem at all. I believe the question from Mr. Green to Mr. Bateman was: Has anyone, now that you've done your work and done your development program, has anyone from outside, any other organization, any other utility, any other - well I presume they all refer to people whether they are an organization or an individual - has anyone cross-examined or brought to task or questioned your decision? I ask Mr. Bateman: Does he really think that if Saskatchewan took a certain course of action that somebody from the scientific community of Manitoba is going to go into Saskatchewan and second guess their decision. Is a utility from Manitoba going to go into Saskatchewan or Alberta and second guess their decisions? Is any consultant that you could hire in Canada going to voluntarily stand up and go to a utility after the fact and second guess their decisions? Is anybody within your utility going to second guess the decisions that you have made?

MR. BATEMAN: Well, I think, Mr. Craik, you're an engineer; you know what happens at technical learned societies. I have just had the paper I presented at the last Annual Meeting of the Engineering Institute accepted for publication and you can read it, it's in the printed word. It's the story of the development of power from the Nelson River. Now I've outlined the history of it. I'll let that stand on the record. It's been subject to criticism; it's been subject to comments by our peers. I'm not concerned about those comments. I think the development of the Nelson River stands on the basis of a great many professional engineers who have integrity, who have put their work in paper, here is a lot of it in the Programming Board Report that was tabled in this House in 1967 and it still is as valid today as it was then. I'm not going to allow innuendoes to indicate that we are developing something that is not technically correct or engineering sound. This program of developing of the Nelson River is something that we should be proud of as Manitobans instead of fighting about it. It's a fact. It happened. In 1966 the decision was made. And now we're proceeding with it. Let's for Heaven's sake, as Manitobans, realize what an important asset this is to us in this province and let's go on from there. We're not going to change anything.

MR. CHAIRMAN: Mr. Craik.

MR. CRAIK: I want to ask two questions. Would not the answer to Mr. Green as to whether there were differences of opinion from the scientific community or whatever the reference was, would not the answer have been, yes there are differences of opinion. There are violent differences of opinion with regards to the sequence of development that took place and some of the decisions that took place.

Secondly, would not the question be; has not the attack with regards to Manitoba Hydro and the Government of Manitoba's decisions on the Nelson River had very little to do with the technical part of it but very much to do with the economic decisions and the socio-political decisions that went into it. Has anyone suggested to you that there has been

(MR. CRAIK cont'd). . . . . unsound engineering go into the project? If there has been, Mr. Chairman, it hasn't come from the opposition. Mr. Chairman, the most serious condemnation of what Hydro has done has come from the Kierans Report commissioned by the government. The technical controversy, the technical criticism has been non-existent. What has been the attack on Hydro, if you like, has been almost entirely an attack based on the economic decisions that have been made along the way.

MR. CHAIRMAN: Mr. Craik, if you want to go into a political discussion you can ask the questions in the House. Mr. Bateman, do you wish to answer the question?

MR. CRAIK: Mr. Chairman . . . chairman of this committee . . . and also sit as a member of the Board of Hydro and attempt to run a very fair meeting in this committee. That should be the question.

MR. CHAIRMAN: Now Mr. Craik - Mr. Premier.

MR. SCHREYER: Mr. Chairman, on a point of order. I have not noticed that you have in any way been snide to Mr. Craik. Therefore I'm surprised that you allow that kind of garbage from him in your regard now. I would suggest as a point of order that the Chair would be well advised to respond to Mr. Craik in kind. We don't have to take that kind of nonsense.

MR. CHAIRMAN: I intend to. This question has been raised on a number of years, Mr. Craik, and I don't know if you have a challenge to the Chair about the Chair not being impartial. You know which way to challenge it and we can proceed from there.

MR. CRAIK: Mr. Chairman, I attempted to pose what I was saying as a question as much as anybody else here this morning has posed what they were saying as questions. Mr. Chairman, on a point of order. As soon as you arrive at a point of having some difficulty of handling it you are automatically suspect. Because quite frankly you should not be sitting - not because it's you individually - you should not be sitting as Chairman on the . . .

MR. GREEN: Order please, a majority of members of this committee voted for the Chairman. The Honourable Member cannot reflect on the integrity of the other members of this committee in voting. I suggest that he continue on the basis that the Chairman has the support of the majority of its members. He asked the questions, let's have the answers to the questions.

MR. CHAIRMAN: Mr. Premier on the point of order.

MR. SCHREYER: Yes. It's rather a strange procedure but I would suggest that in light of the insinuation that the Chair is somehow proceeding in a way that is less than acceptable, having not heard any specific as to in what way you are acting less than objectively, impartially, I would suggest that we take a vote as to confidence in the Chair.

MR. CHAIRMAN: Well I've invited Mr. Craik to make that challenge if he feels that there is . . .

MR. CRAIK: On the point of order, Mr. Chairman.

MR. CHAIRMAN: Order please, Mr. Craik you have raised this issue over a number of years - if not you the other members. As I recall at the first meeting of this Public Utilities Committee I was nominated by Mr. Blake. --(Interjection)-- Let's proceed. You had a question to Mr. Bateman.

MR. CRAIK: I have a point of order, Mr. Chairman.

MR. CHAIRMAN: Mr. Craik on a point of order.

MR. CRAIK: The point of order I raise is whether it's Public Utilities Committee or whether it's some other committee the chairman of the Public Utilities Committee should not be a member of one of the Boards that is being examined. Mr. Chairman, the Chairman of this committee is a member of the Board of the utility that is appearing. He has received remuneration for being on that Board, the Public Utilities Board. The members of the boards that appear before this committee should all be present but they should be present and available if required as witnesses and as backup person to the presenter of the report, not as Chairman of the committee.

MR. CHAIRMAN: Mr. Green on the point of order.

MR. GREEN: The members are presumed to know the position of the MLAs and the positions that they occupy. The chairman was elected by majority of the members

(MR. GREEN cont'd). . . . . of this committee without that objection having been raised. It was unanimous without that objection. The objection comes too late. It is not a proper objection, Mr. Chairman. We have had Ministers - well under the previous administration my recollection is that the Minister of Mines or the former Attorney-General who was the Chairman of the Committee was a direct member of the government to whom the thing was responsible and was the Minister. Is it less of a factor when he is an MLA who happens to be on the Hydro Board? The objection is raised if anything too late. I would ask you to dismiss the point of order.

Mr. Chairman, I am very anxious to hear the answer to the honourable member's question which I think he is now trying to camouflage because he doesn't want the answer.

MR. CHAIRMAN: Mr.Bateman, do you care to answer that question that was posed from Mr. Craik?

MR. BATEMAN: Mr. Craik, I'm pleased to see that you are not questioning the integrity of the engineering in Manitoba Hydro. I think that will be appreciated very much by the staff. The impression that we gather of course unfortunately, due to all this criticism that is levelled at Manitoba Hydro, that it's levelled at some of the people in it. It can't help but hurt the morale of the organization if it's continued. Now I think that the fact that you have come out today and said that you are not criticizing the staff of Manitoba Hydro or the engineering technical competence of the people in it, I'm pleased to hear that.

MR. CHAIRMAN: Mr. Craik.

MR. CRAIK: Mr. Chairman, the question that was put was whether or not the attack or the criticism that has come to the government and to Hydro has not been primarily on the grounds of the economic and socio-political decisions that were made with regard to the study.

MR. BATEMAN: I think a lot of the criticism has been directed on the basis of misunderstandings of some of the basic documents that exist that support the program that's under way.

MR. CHAIRMAN: Premier Schreyer.

MR. SCHREYER: Mr. Chairman, I'd like to touch on a few points that emanate from previous appearance before the committee of Mr. Bateman and some that flow from this morning's discussion or questioning.

Number one would be to ask Mr. Bateman if he can recall approximately how long the Task Force Report, and I'm now referring on the Systems Planning Task Force Report, the blue covered document on the Churchill and Lake Winnipeg Regulation, Churchill River Diversion, which you authored or at least led the task force group on. How long was that in the making and approximately how many pages in length was that report?

MR. BATEMAN: Well it was probably the better part of nine months pretty concentrated work and it of course used a lot of the support studies from consultants who were working part in parallel and part in advance of that report. It was, oh I think probably a couple of hundred pages or more. I don't recall the exact number.

MR. SCHREYER: Would it be correct to say that it was at least significantly more than 20 pages?

MR. BATEMAN: Oh it was significantly more than a hundred pages.

MR. SCHREYER: I asked that because there was some suggestion yesterday that it was a 20-page report.

The next point, Mr. Chairman, is to ask Mr. Bateman if in the course of the analysis that went into the task force study and report, whether the possibility from strictly an engineering point of view was considered of a so-called 852 or 854 foot level at South Indian Lake diverting into the Rat and Burntwood Systems.

MR. BATEMAN: Yes, they were considered.

MR. SCHREYER: And found to be less than engineeringly uptimum I assume.

MR. BATEMAN: The optimum curve came out about 850.

MR. SCHREYER: Next question, Mr. Chairman. I would like to ask Mr. Bateman if he is reasonably satisfied that the energy that will be generated at Jenpeg, in terms of quantum and in terms of unit cost, will compare quite favourably with both the size and the estimated cost of energy on the so-called smaller plants on the Burntwood

(MR. SCHREYER cont'd). . . . . system whenever they are built. I'd have to put that in current dollar basis in order to have the comparison meaningful. Would you hazard an opinion on that? An engineering opinion?

MR. BATEMAN: No, I wouldn't like to hazard an opinion on that without giving it more thought, Mr. Premier. I am not up-to-date on what the current costs are on Burntwood sites. But I can tell you this: It will compare very favourably with any future plants that we're going to build on the Nelson River. I think you must appreciate that if we in Manitoba are going to develop the total Nelson then the order of development really isn't critical. The order of development should be done to minimize the cost, and this is why Jenpeg is being built now to minimize the cost, putting the generation in with the regulation project.

MR. SCHREYER: Mr. Chairman, if I understood correctly that the unit cost of energy generated at Jenpeg will compare quite favourably with future development on the Nelson, then does it now follow that it is just as likely to compare favourably with the unit cost of energy that would come from the Burntwood sites if and when they are developed.

MR. BATEMAN: Without having those figures in front of me for review, Mr. Premier, I wouldn't like to hazard an opinion on that.

MR. SCHREYER: Very well. That is one question which no doubt we'll have opportunity to deal with at some future date.

Mr. Chairman, I'd like to ask Mr. Bateman if it is his distinct impression that Mr. Kierans in his observations on the second task force report was referring critically - I think we can agree he was referring critically, but what was he referring critically to? All of the work that was done with respect to firming up the flows, the CRD, the Churchill River Diversion-Lake Winnipeg Regulation, or was he silent on that? If so was he then referring critically to the proposal of advancing otherwise ahead of time 1,000 megawatt size plants on the Nelson in order to meet firm, longer term export possibilities.

MR. BATEMAN: He was not making any comments as far as I can determine by reviewing his report on the Churchill or Nelson schemes. He accepted those as being part of the development program. But he was critical of investing capital to build a plant ahead of when Manitoba would need it and that was a conclusion that had been reached long before Mr. Kierans made that conclusion. It was a conclusion that had been reached by the management of Manitoba Hydro.

MR. SCHREYER: Mr. Chairman, I don't know. Mr. Bateman, did you wish to seek further information on that?

MR. BATEMAN: No. I was going to suggest, Mr. Chairman, when the Premier finishes his questions or before that I could make a few comments that might shed some light on these areas.

MR. SCHREYER: Well I think I can confine it to one more question. Perhaps we can finish that, Mr. Chairman. I would put it this way, as a question. If there is a germ of validity to the contention that if there is a problem with Manitoba Hydro system planning to date, it is that it has resulted in Hydro having been over-built in relation to the present and foreseeable demand. Now just for purposes of elaboration let us assume that there is a nucleus or germ of validity to that assumption. If that is the case, then can Mr. Bateman advise whether from an engineering and systems integrity point of view, there would be any reason why - if that is correct - the management of Hydro, the Board of Hydro, should not be considering deferring Limestone to 1985, say, instead of 1982 or 1983. Would that course of action be imprudent from your vantage point?

MR. BATEMAN: Well in view of the fact that the critical answer here is that Limestone, in order to be ready for 1983, we must move on this coffer dam this year, which we are doing. We don't have to commit the major civil works, the structures itself, which will be a contract in excess of $150 million, I would expect, we don't have to commit that until perhaps 1978, or early 1979. So we have another couple of years to assess what the load is going to do. But if we look at the decision that the board made to defer limestone to 1983 when the staff had recommended that it be built in 1982, it was predicated entirely upon the fact that we are counting on being able to purchase from the Northern States Power Company of America, Minneapolis, 300 megawatts of capacity to

(MR. BATEMAN cont'd). . . . . carry our system reserve and firm load requirements during the winter of 1983. Now that is based upon an agreement that is just in the process of being finalized now. It's contingent upon getting National Energy Board approval. If it is not achieved - I have no doubt but what we will achieve it - then we will be short of capacity in the winter of 1983. Now you can't suddenly change. You could put some emergency capacity in like some gas turbines and burn No. 2 fuel oil. That's an expensive alternative solution. It's possible but very expensive. Our hope is that we will be able to meet the 1983 deadline. But if it should turn out that we could perhaps defer the Limestone Plant another year, we still have two years to make that decision, but we can't advance it. We must now accept the prospect that we are going to be short of capacity in 1983 if we do not get the U.S. tie and the seasonal diversity exchange.

MR. SCHREYER: Mr. Chairman, I'm sorry. I must put a supplementary on that because I would really like to get at the nub of the alternatives that have to be faced by Hydro management and the Board of Directors and that is: specifically what are the major factors uppermost in systems planning mind when considering the proposition, for example, that there ought not to be any commencement of construction at Limestone any sooner than is necessary to commission the first unit or two in 1985 as opposed to 1983. Why is that possibility regarded as imprudent or not feasible? That's the nub.

MR. BATEMAN: Well if we selected a 1985 date and consequently deferred the coffer dam that we just awarded, then we can't advance the date earlier than 1984 because we'd have one more year, we'd know whether we should have that plant in in 1985 or 1984 or 1983. Now if we make the decision for 1985 then unless we take action now we can't make the 1983 date. And that's the critical point, to be able to supply our load in 1983 because we would be very much in a negative supply position.

MR. SCHREYER: Well, Mr. Chairman, that is the point on which I would like to ask yet another supplementary question. Is Mr. Bateman indicating that according to Systems Planning projections, that by 1983 the probability is that without being able to commission additional new units on the Nelson that we may well be in a critical supply position. If that is the case then I would like Mr. Bateman to reconcile that with the layman's impression that somehow we have an over-extension problem in Manitoba Hydro today. If we were over-extended today, would we be looking at 1983 as being a critical supply/demand intersection point?

MR. BATEMAN: We might. But the point is that we are a little long on capacity when we bring Long Spruce in, in the first year.

MR. SCHREYER: For how long are we long on capacity?

MR. BATEMAN: For two years perhaps. But we'll be going into a negative position long before the Limestone Plant is in and if we don't get the 300 megawatts from Northern States Power in 1982 and 1983 then we're going to be in a below standard reserve position. We're just going to be not able to meet the contingency requirements of operating the system.

MR. SCHREYER: If we are long on capacity for one, possibly two years, is it a case of this capacity being unused or is it a case of this capacity being used for that one or two year period for the extra provincial sale.

MR. BATEMAN: Well knowing, Mr. Premier, that we were going to be slightly long on capacity in 1978 because of Long Spruce we undertook to negotiate with Ontario Hydro for a sale of the capacity from Long Spruce at the average cost of power from that plant, which means that we'll be achieving a very favourable revenue picture from the sale to Ontario which will lower the cost of power to Manitobans. This we've run through on a decreasing basis to 1982. So while we're long on capacity because we have a new plant, we have more than paid for the cost of the installation by the sale to Ontario.

MR. SCHREYER: Thank you.

MR. CHAIRMAN: Mr. Bateman, I believe you indicated you would like to make some general comments. At this time might be a good opportunity to do it. Mr. Green I have you on the list. Mr. Bateman indicated earlier --(Interjection)-- Well can we come back to it? Mr. Bateman.

MR. BATEMAN: Mr. Chairman, since it has been a few weeks since the

(MR. BATEMAN cont'd). . . . . committee met and a number of interesting things have happened I thought that it would be appropriate to bring the committee up-to-date on some of the more important issues. I'm going to ask Mr. Mills to distribute some copies of this material so that there'll be no question about the accuracy of what I'm going to say although I do expect to use this as a guide.

I think one of the most important things, Mr. Chairman, is that the financial figures for the fiscal year ending March 31, 1976, have now been audited and they are available. The forecast that I made when I spoke to the committee on April lst, that we would do better than our operating plan for the year which was to obtain a revenue of approximately $155 million to cover the expenses, and the reserves of $6 million that we need by our formula to meet our contingency reserve requirement, these have been exceeded.

The reason they have been exceeded is because the electricity sales in the Province of Manitoba through our residential and our farm sales have been much better than we anticipated. In fact they have been 13 percent increased over the previous year. Thirteen percent increase in residential and farm sales over the previous year and this has produced additional revenue which has permitted us to transfer a greater amount to our reserves than we had previously counted on. In fact our transfer to reserves will be $9 million.

Now one important point I'd like to mention as a hydro electric utility banking upon the supply of water for our generation, we are very susceptible to changes in water conditions in any year because these can cause large variations in our operating results and the financial picture that we present. So for instance we estimate the difference between a typical high and typical low water year - about $30 million in revenue requirements.

Now the water situation last year was above average as it seems to have been for the last ten years or so. However recent indications are giving some cause for concern. There is a deficiency in precipitation in all the river basins supplying our system, particularly the Winnipeg and Saskatchewan Rivers. When you consider that the Saskatchewan provides about 38 percent of the flow into the Nelson, and the Winnipeg River almost 40 percent and these are both now running at the lower quartile or less - in other words they're running at about 25 percent of their flow - we are not getting the input into Lake Winnipeg that we would like. Consequently, because Lake Winnipeg has now reached the licence level of 715, we are closing one control gate at Jenpeg to reduce the outflow of water from Lake Winnipeg and consequently hold the water back so that we can use it next winter.

Now if the dry conditions continue we shall have to import power over our tie lines and we shall have to run our thermal plants at base load commencing perhaps this summer. This should in turn greatly increase our operating costs. As I pointed out the difference between a low and a high year is in the order of $30 million. We're not looking for costs that high because we do have Lake Winnipeg full. But it will definitely increase our operating expenses this next year. However we are going to keep a close watch on this matter throughout the next month or so.

Now one point, Mr. Chairman, that was not very widely publicized and that was that our recent rate increase was referred to the Anti-Inflation Board and they have reviewed that increase and have indicated to Manitoba Hydro that we are operating within the spirit of the Anti-Inflation Program.

Now I'd like to make some comments about the Task Force Report that has been in the news, not the one we've been discussing just recently but the addendum to the Task Force which was produced by Mr. Kierans and which has caused some criticism of our Utility.

We, as far back as 1962 have been studying, and the basis of some of the input to this Programming Board Report which was tabled in 1967 did include studies on exporting power to Ontario and the United States. Those studies have continued through the sixties and into the seventies. In 1972 we thought we had a new proposal that might result in a tie line that would be commissioned between the Northern States Power and Manitoba Hydro and we undertook to investigate advancing the construction of one Hydro plant on the Nelson River for export purposes. We did this in conjunction with Northern

(MR. BATEMAN cont'd). . . . . States Power because both utilities recognized that there were extreme financial advantages and operating advantages, reliability advantages, to being interconnected with each other. This was such an important matter that the government appointed a task force to review this situation. In other words, could Manitoba Hydro accelerate the development of its generating facilities to provide for a firm base export of 1,000 megawatts to Northern States Power for a 15-year period commencing in 1979? Now the Manitoba Government, as I say, formed this task force to review this proposal, to ascertain its overall impact on the Manitoba economy.

Mr. Stuart Anderson who is a Board member of Manitoba Hydro and myself were named to this Task Force. Mr. Eric Kierans was later brought in as a consultant to this task force. During the time that the task force was reviewing this proposal studies and negotiations continued between the two utilities and as a result, the export plan was concluded not to be feasible. Therefore Manitoba Hydro did not proceed with the plan. The Task Force report correctly pointed out many of the problems of the proposal to accelerate the development of generation facilities to export the 1,000 megawatts. I understand, Mr. Chairman, that copies of the Task Force Report have now been tabled in the Legislature.

As an addendum to the Hydro Task Force report, Professor Kierans made certain comments. Some of these reflect on the policies of Manitoba Hydro, particularly in the financial area. I would like to make it quite clear, Mr. Chairman and members of the committee, that the board of Manitoba Hydro which is responsible for the policies of Manitoba Hydro, has complete confidence in the staff of Manitoba Hydro which carries out these policies in a competent and trustworthy manner.

I stress that Professor Kierans' comments were on the policies of Manitoba Hydro rather than on its operations. And further, I note that the policies which are being attacked are basically the same policies that have been in effect since Manitoba Hydro was created 25 years ago and the same policies that have been followed by the administration in existence in the 50s and the 60s and in the 70s; and I've mentioned the fact that Manitoba Hydro is now 25 years old.

Now the basic policy of Manitoba Hydro set out in Section 39 and Section 40 of the Act is to supply power at cost. At present, we judge that our rate structure is satisfactory. If rates were too high the Anti-Inflation Board would not have been satisfied with the recent increase that we made; and if the rates are too low we would find it difficult to raise the necessary capital that we need for our hydro projects.

Now in this latter connection I'd like to quote from the September 11th, 1975 issue of Moody's Bond Survey relative to a proposed new issue of bonds by Manitoba Hydro. And I'll quote: "The province pursues prudent fiscal policies with relatively small, direct financing requirements. The major increases in current expenditures are in shared - cost programs with the Federal Government. Net direct debt is moderate and the bulk of guaranteed debt is for well-managed self-supporting Crown companies. While these companies are under-capitalized by private sector standards, rate increases intended to check further erosion of their debt to equity ratios have recently been approved. We are rating this issue high-grade provisional AA and revising the rating of the Province of Manitoba including outstanding rated issues guaranteed by the province from Al to AA."

While I am discussing rates I would like to deal with a question raised at the last session by Mr. Henderson to which I promised a fuller answer, and this is the matter of rates for curling rinks and such other social institutions.

I have taken for my example an actual curling rink account in a small Manitoba town. --(Interjection)-- No, I'll tell you the town later, if you want to know. This account has three separate services all in our general service category. One is for lighting and general use, one for the artificial ice plant and one for cooking and heating use. On the basis of last year's electricity consumption, and the rates that are now in effect, we estimate that their bill in the current year will run to about $6,260 based upon our general service rate. If the customer is willing to combine his three separate services and consolidate them through one meter, we can bill this customer at our power rate which is calculated on the basis of the peak demand for electricity and upon the energy component. We believe that this will have two advantages to the customer. Firstly, his

(MR. BATEMAN cont'd). . . . . total bill will be lower. We estimate that the same consumption as last year would cost him not the $6,260 but $5,330 or 15 percent less than the three separate services would cost.

Now the second advantage is that the management of the curling rink can further reduce the power bill by reducing the demands they place on the electrical power system. For instance, by not running the ice plant and the building heating plant at the same time. Manitoba Hydro is working with the management of the curling rinks and other operations such as community clubs to provide advice on the lines of this example that I have given you.

On request, Manitoba Hydro will provide advice such as this to any customer to assist him make the best use of his electrical service and also to make the best use of our plant. We don't want these people to be putting a demand on the system at peak time when it's to our disadvantage. The more we can educate people to control their loads, the more economic we can develop this system for the use of Manitobans.

Now if we talk a little bit about construction matters, since I last spoke to you we've made further progress on the diversion of the Churchill River, the rock plug in the new channel at South Bay which I showed you in April has now been removed, and I saw somebody with a copy of our Hydrogram issue here which shows some rather interesting pictures of the actual blowing of the rock plug; and we shall certainly be removing the coffer dam holding water in South Indian Lake back from the new channel. I understand this is going to take place very shortly.

When this occurs, the Churchill River water will be diverted as far as the Notigi structure and the Notigi structure is now passing about 2,000 cubic feet per second into the Burntwood River. So we will then mingle some of the storage water from the Rat River with the new water from the Churchill and we will be passing diverted Churchill River water down the Rat and Burntwood Rivers this coming month. Now we plan to use this diverted water to increase the flow of course in the Rat River this fall which will in turn increase the power producing capability of the plant from the Nelson River next fall and winter when we have our heavy electrical use period.

Now there was one other unanswered question at the last session of the committee which related to the possible survey error at South Indian Lake; and for the record I'd just like to confirm that there were survey errors in the area but that these were resolved several years ago, and unfortunately erroneous survey markers were used when indicating marks were placed on the rock adjacent to the community of South Indian Lake and these were removed and corrected and I believe that there is no doubt now at all but what we're using the datum that is based on the 1927 geodetic survey data.

Manitoba Hydro has recently awarded a contract for the construction of the main coffer dam and certain other work at the Limestone Generating Station site. This work will involve the placement of more than three million cubic yards of material for the main coffer dam over the next three year period. While the inservice date for Limestone is not yet firm, the awarding of this contract means that first power can be made available from Limestone as early as 1983 if required. During the next two years we shall be reviewing the rate of increase in demand for electricity in Manitoba and reassessing this need before entering into contracts for the major work at Limestone.

Now as I stated on April 6th, the 1983 date is a postponement, and I emphasize that again this morning, from our previous plans, and this is made possible by the agreement with Northern States Power Company which will provide us with 300 megawatts of power import during this period. We've had a great deal of mis-understanding about power exports and power imports. Manitoba is not building anything for export other than what we have as surplus when we provide for Manitoba's requirements. It's Manitoba first, export second.

I dealt at some length on this subject at April 6th meeting of this committee, and particularly on the American interconnections, and I would just like to summarize the position for Limestone. There will be many summers when part of its production will be surplus to Manitoba's needs but on the other hand each winter we will need the full capability of Limestone for use in Manitoba; and the year after Limestone is completed we will need to bring in another new source of supply to meet the expected increase in demand.

(MR. BATEMAN cont'd)

I also described our labour relations situation to you on April 6th and since then we've made some good progress. After 18 days of negotiations with the IBW representative of Manitoba Hydro and the negotiating committee of Local 2034 of the International Brotherhood of Electrical Workers, have reached agreement on a new contract. I expect this will be voted on by the union membership shortly. I was also informed this morning that the Manitoba Hydro Employees' Association have voted in favor of accepting the mediator's award.

Now in conclusion, Mr. Chairman, I'd like the committee members to know that Manitoba Hydro is working to continue to provide an adequate supply of electricity for Manitobans at the lowest possible price and I hope that we can show you some of these things we are doing when the Legislature attends the invitation that we've now changed to July 10th and visit some of the facilities. Thank you, Mr. Chairman.

MR. CHAIRMAN: Thank you Mr. Bateman. Mr. Green.

MR. GREEN: Mr. Chairman, a little earlier it was indicated that there is no criticism of Manitoba Hydro expertise, its officials, its staff. My understanding is that the Manitoba Government asked that the Manitoba Hydro calculate an allowance for the resource value that would be affected by the Churchill River Diversion. Other than that, are all of the decisions that have been made to proceed in the way in which you have been proceeding entirely consistent with the officials, the expertise and the staff and the program planning of Manitoba Hydro?

MR. BATEMAN: Yes.

MR. GREEN: Thank you.

MR. CHAIRMAN: Mr. Craik.

MR. CRAIK: Mr. Chairman, I want to ask Mr. Bateman if it is clear to him that what I said was - lest it go on the record by Mr. Green that there's been no criticism of the staff of Manitoba Hydro and others. I don't think anybody's escaped criticism, was it clear that I said that the main differences and the main attack and the main argument has centred around the decisions that have had to be made of an economic and a socio-political nature. And I also would ask him if it is not a pretty fine line between technical decisions at times and economic decisions at times and common ground is claimed by both the economist and the engineer at times and that the decisions - I want to ask him, I have to ask it in the form of a question, if it is not clear that nobody has raised the question about whether the structures themselves are properly designed, nobody has raised a major question as to whether or not we aren't utilizing a maximum or close to a maximum of the resource available? That question was asked and he perhaps was queried and the Chairman clarified it to our satisfaction a year or two ago with regards to the maximum or optimum utilization of the resource available. Let me say that we may have queried but it is not clear that our main attack, our main concern, main opposition has centred on the economic decisions, sequencing decisions and other decisions that as much involve the matter of economic planning and socio-political planning.

MR. BATEMAN: Well, Mr. Craik, you can't divorce economics and engineering as you have indicated. They are closely interrelated. You don't make engineering decisions that are not sound economic decisions. And the whole thrust of the programming board report of studies on the Nelson River investigations utilized economic engineering side by side. It had to be that way in order to select the optimum program of development. Either Nelson River with its major components of plants on the Nelson, Lake Winnipeg Regulation, Churchill River Diversion, transmission lines and so on, select those as opposed to selecting some alternative form of generation such as the thermal route. And as you know, in those studies the thermal route proved more costly, it showed a slight advantage in the early years but very soon it became a very serious disadvantage and that was why we negotiated the 1966 agreement with Canada, to try and remove some of the burden of the early years of payments for the transmission system. But engineering economics, they have to be considered when you're making any of these major studies.

MR. CHAIRMAN: Mr. Craik.

MR. CRAIK: You mentioned earlier that most of what has been done was laid out or predicted or made a possibility by the '67 planning study. Am I correct in having

(MR. CRAIK cont'd). . . . . assumed that the first time we saw or heard of a power production facility at Jenpeg was in this report of August 1971?

MR. BATEMAN: I'm not entirely familiar with what you're holding up there, Mr. Craik.

MR. CRAIK: Well it's Manitoba Hydro, August '71 . . .

MR. BATEMAN: We did produce a report about that time, I believe, but the first mention of Jenpeg power dates back to, oh, a review of the power potential of the Nelson River, I think it was in the Lakes Winnipeg and Manitoba Flood Control Board report where Jenpeg was a site that was investigated at that time, in similar fashion to what we came up with. In other words, as I outlined to the committee, the Flood Control Report as opposed to the Programming Board Report of a pumping station at Warren's Landing, made it possible to produce power at Jenpeg as an economic site.

MR. CRAIK: With the pumping station at . . .?

MR. BATEMAN: No, no, with no pumping station. Once you eliminate the pumping at Warren's Landing and put some channel improvements in instead of the pumps, then the economics . . . in other words the flood control aspects of Lake Winnipeg help you select an economic site at the lowest part on that Nelson River which was Jenpeg.

MR. CRAIK: Were there economic studies done of Jenpeg prior to 1961?

MR. BATEMAN: Oh yes, these were part of the proposal.

MR. CHAIRMAN: Premier Schreyer.

MR. SCHREYER: Mr. Chairman, taking the non-construction aspect of Hydro operations first was raised by Mr. Henderson, the question of ways in which, if any, it is possible for a community recreation association, curling rinks, etc., to realize some economies in their operation. Given the fact, Mr. Chairman, that in my own experience in talking to people in a western Manitoba town near the Saskatchewan border - I prefer not to name the town for the moment - it was ascertained that indeed the curling rink and the skating rink had both heating and artificial ice installations, both; and that the operation mode was such that in order to make it perfectly commodious for the spectators, the heating plant was operated in such a way as to take the temperature above 32, at which point the ice plant cuts in. Is Manitoba Hydro already in the practice or if not would it consider detailing a person or persons with the specific task of making the rounds, so to speak, being available for advice in terms of how best to go about consolidating their service so as to take advantage of power rates as opposed to commercial or general service rates, the former of which would be cheaper, and also to give some practical advice as to how to avoid the very counter-productive habit of heating just a bit too much so as to . . . the heating and the body heat of spectators taking the heat of the ice surface area above 32 at which point the ice plant cuts in and keeps adding to the total load. Does Manitoba Hydro have it in mind to do a systematic bit of advisory service in this regard?

MR. BATEMAN: Yes, Mr. Premier, we have undertaken to advise these curling rinks of the need to look at those very sorts of operation and put some proper load control devices into place.

MR. SCHREYER: I hope Mr. Henderson has heard that so that he could perhaps take advantage of that free service.

The second question, Mr. Chairman, I apologize for harking back to the question of the relative attractiveness of Jenpeg as a generating station and let us say Manasan and Wuskwatim on the Burntwood, but is it possible for Mr. Bateman to indicate, at least in a general way, whether there would be significant differences or the same order of magnitude approximately in the terms of the attractiveness of Jenpeg, Manasan and Wuskwatim as a power generating site?

MR. BATEMAN: Well Manasan looks attractive at this point in time. We don't have to build any infrastructure, the infrastructure would exist in Thompson, the access is very easy. These were things that we didn't have at Jenpeg, we had to build fairly extensive road and so on. We had to maintain a big construction camp. Now we would have less of that at Burntwood, the size of the operation would be somewhat less. However it does have the problem of building the plant in the river with the diversion in place. This will require larger coffer dams, as it would under any of the conditions.

MR. SCHREYER: But in terms of output and approximate unit cost if one could measure it on a constant dollar basis, would you anticipate a significant or roughly same order of magnitude unit cost as between Jenpeg, Wuskwatim, Manasan, or is your answer going to be that you really would like to tighten up the estimates on this?

MR. BATEMAN: We're currently looking at that Mr. Premier and the preliminary field work is now progressing on the Burntwood River to reassess the full development for a minimum impact and so on, I think there are some attractive sites there. I wouldn't like to commit myself to their cost at this point in time until I've had a chance to review the engineering data.

MR. SCHREYER: My last question, Mr. Chairman, would be to ask Mr. Bateman, assuming that he has a good recollection of the Canada-Manitoba Nelson River agreement, whether in that agreement there is not a clear stipulation that among the terms of reference and objectives of the development of the Nelson is, among other things, as I say, the sale from time to time of significant blocks of power for export?

MR. BATEMAN: Well, Mr. Premier, in that agreement there are specific indications that if we don't undertake to maximize the use of the energy that can be transmitted over the power line the Federal Government would undertake to do it for us. we are not about to be in that position, we have taken the initiative of exporting the surplus power which is available from the Nelson River because of our seasonal use.

MR. SCHREYER: Thank you.

MR. CHAIRMAN: Mr. Johannson.

MR. JOHANNSON: Mr. Chairman, I just have one question to Mr. Bateman through you and that's a technical question. Mr. Enns just recently raised a question about the Russian bulb type turbine generators that are being installed I believe at Jenpeg . . .

MR. BATEMAN: Yes.

MR. JOHANNSON: . . .and he in a rather snide way implied that they weren't terribly good. Could you tell us whether the engineers of Hydro concur with Mr. Enns' engineering expertise?

MR. BATEMAN: Well all I can say is that the Russian turbines are being installed now, they have passed the inspection that we've had during the course of manufacture and I think the Russians are quite capable of building some pretty sophisticated equipment.

MR. CHAIRMAN: Mr. Wilson.

MR. WILSON: Mr. Bateman I wonder if you could elaborate on the . . . you said the excess from the Nelson River was to export for sale. Why are we selling it below cost, is there any reason why we can't go out and search, have we got a limited market or is there some way we can increase that bargaining power there?

MR. BATEMAN: Well when you say selling it below cost, who told you we're selling it below cost?

MR. WILSON: Well that's what I'm asking you.

MR. BATEMAN: Well we're not selling it below cost. I told you distinctly that we're selling it at . . .the average price of Long Spruce that's what Ontario's paying for the firm power they're buying from that. . .

MR. WILSON: Yes, I heard that, right.

MR. BATEMAN: . . .so that's going to reduce the cost to Manitobans.

MR. WILSON: Right.

MR. BATEMAN: Because if we don't make that sale, we're going to have to pay for the cost of that installation anyways.

MR. WILSON: That's a good sale, now the others.

MR. BATEMAN: Now the others are equally as good sales. If we didn't have the transmission line, some days we actually sell power at much greater than the average price that Manitobans pay, other days, we don't sell it at as much as the average price for Manitobans. But, the fact is that we sell it at all means that we get revenue that we wouldn't get otherwise, which means that we reduce the cost to Manitobans.

MR. WILSON: My point is, what leverage do we have to improve our sales position. What I mean is that . . .I'm suggesting,what are you suggesting we do to sell it at its true value so to speak?

MR. BATEMAN: Well, we're selling it at more than its true value. You'll find the marketplace and the law of supply and demand are two of the fundamental laws that govern transactions such as this and they are equally valid in the sale of power as they are in the sale of tomatoes.

MR. WILSON: Then are your contracts short term which I think is important when you go to the marketplace.

MR. BATEMAN: Our contracts are hour to hour, day to day.

MR. WILSON: Very good.

MR. CHAIRMAN: Mr. Premier.

MR. SCHREYER: Mr. Chairman, I forgot one of the two questions but I wanted to ask Mr. Bateman if in the event that Manitoba Hydro were to receive an oil painting of the bulk turbine from the Russians would he consider donating it to the Morris Stampede. I'm sorry, the other question slips my mind for the moment. Skip by me, please.

MR. CHAIRMAN: Mr. Blake.

MR. BLAKE: I have a very simple question and you probably have a very simple answer, Mr. Chairman, but for my own information, I had a friend that was visiting Grand Rapids recently and he came back and said there was only two units in operation out of the total number of units there and he asked me why, and I said why, and I said well I suppose it may be a surplus period right now and I wasn't really able to answer him.

MR. BATEMAN: Well the Grand Rapids plant was designed for a 41 percent capacity factor, which means that it's only going to operate 41 percent of the time, and the other time it's going to be ponding to try and recapture the water supply position so that next winter we'll have maximum use of it. The flow in the Saskatchewan this year is low, we're trying to pond as much behind the dam as we can so that we get all the energy next winter and therefore we'll only be running what we have to run out of Grand Rapids these days. There are times when you can go to Grand Rapids and see no units on or one unit on, or four units on, belting out . . .see the average flow in the Saskatchewan is about twenty odd thousand and the full plant capacity uses about 50,000. So when it's using them all in the wintertime it's using much more than the average flow.

MR. BLAKE: He was also told that this power wasn't used in Manitoba at all by whoever took him around the plant, that it was used in New York. Would that be a correct . . .?

MR. BATEMAN: I think we better talk with whoever was taking that chap around.

MR. BLAKE: It's pretty impressive to the tourists but I didn't think that was quite right either.

MR. BATEMAN: No, I think you'll find that first of all the power is used in Manitoba, if we were at the condition you indicate then we certainly wouldn't be in a surplus position and our export, I don't know where the export was coming from but it may have been Nelson River flow. It certainly wouldn't be Grand Rapids.

MR. CHAIRMAN: Mr. Johnston.

MR. G. JOHNSTON: Mr. Chairman, through you to Mr. Bateman. You made a statement in your remarks about there being a 13 percent increase in sales I believe you said, farms and residential . . .

MR. BATEMAN: Residential and farm sales are up 13 percent last year.

MR. G. JOHNSTON: Is that a dollar increase or . . .

MR. BATEMAN: That's a kilowatt hour consumption increase.

MR. G. JOHNSTON: Had nothing to do with . . .

MR. BATEMAN: Nothing to do with dollars, no; despite the increase in rates, the consumption went up 13 percent.

MR. G. JOHNSTON: About electric heat in homes, could you tell us just off the top of your head, like, your general knowledge, what the cost of heating say an average 3 bedroom bungalow, 1200 square foot, what it was five years ago, what it is today and do you have a projection on what that cost would be five years hence?

MR. BATEMAN: Well I produced some curves on that when I presented the information to the committee and we are going to be going up but the other fuels are going

(MR. BATEMAN cont'd) . . . . . up just as rapidly. I anticipate that based on the best information we have today, our rate for electric heat with the ceiling at R29, the walls as R14.7 and the basement at R.8 which is two feet below grade, that the electricity in 1975-76 would cost you about $268, oil would cost you $307 and the gas would be $178. Now those are on the basis of the rates that we know now. Since then, 1976-77, that's the year we're in now, the assumption has been made that the gas rate will be $189. Now that's anybody's guess. I think it might be more. And oil, 46.1. But on those assumptions, with that same type of insulation, the electricity cost would be 352 and the oil 350 and the gas 221. We have a projection for 1977-78, but I wouldn't like to conjecture on that at this point in time because I'm not sure of the oil or gas rates.

On the other hand, you know, the importance of your question is that if you have a substandard insulation in your home you're going to pay more than that, and that's why I emphasize and over-emphasize the fact that the best investment you can make, doesn't matter what type of heat you're using, put in sufficient insulation.

MR. G. JOHNSTON: The figures you give, 352 for the present year, is that a year?

MR. BATEMAN: That's for the year, yes, but it's based on the example I should have quoted here is a single storey, one thousand square foot floor area, and a fully heated basement.

MR. G. JOHNSTON: I know you're aware of the problems Nova Scotia and New Brunswick is having with their thermal generated or oil generated electricity and I know you don't foresee any skyrocketing costs like that, but in the five, ten year period ahead is oil heat still a good idea?

MR. BATEMAN: I would say, definitely no, electric heat is still definitely a good idea. I think within five years our competitive rate, unless there is such a transfer of other energy sources away from petroleum that the Arab nations, the OPEC countries lower the price of oil, now whether that's a possibility, I don't know, but if they do, then of course oil would be in demand again and the price would go back up. But I would think that in the long haul the only form of heat that people are going to be able to afford is electric heat.

MR. CHAIRMAN: Premier Schreyer.

MR. SCHREYER: Yes, Mr. Chairman, I have now recalled the question I was going to ask. I'm not sure that it's regarded by Manitoba Hydro as directly in their ambit but I will ask the question nevertheless. Does Manitoba Hydro have any data on file that would draw some comparisons as to the cost of, let us say, 10,000 kilowatt hours per annum, assuming that's the amount that equates to a household, the cost of 10,000 kilowatt hours per annum in relation to, as a ratio of the composite industrial wage today, ten years ago, 20 years ago, 30 years ago. Has Hydro done any kind of analysis of this nature.

MR. BATEMAN: We have, but I don't have those at my fingertips. But there's a striking decrease in the average cost of electrical energy relative to the wage in the last ten, twenty years; very striking drop.

MR. SCHREYER: So that, Mr. Chairman, would it be fair to say that notwithstanding the prognosis or the predictions being made that energy will become a larger part of national and even household budgets in the years ahead, that thus far at least, the cost of electrical energy in relation to composite industrial or any other type of income index has been constant or if not, diminished.

MR. BATEMAN: Yes, I think those are what the statistics show.

MR. SCHREYER: The second question, Mr. Chairman, would be to try to evoke from Mr. Bateman some examples, perhaps flowing from what Mr. Blake has asked and Mr. Wilson, although it's really for the information of the whole committee, is it possible in the wonderworld of utility pricing, with interconnections or ties, to have a scenario something as follows; that there is a contract in place, extraprovincially, let us say with another province, for the sale of energy at let us say, seven mills, and then because there is a kind of, and it's firm, but there is a temporary lull or diminution in the demand in that importing other province, does it happen indeed from time to time that the energy is not sold, in fact that the supplier, in this case Manitoba Hydro, would pay two mills a kilowatt to the importing province for them not to take it, they don't really need

(MR. SCHREYER cont'd) . . . . . it, they'd just as soon agree, and having paid two mills for them not to take it, to wield that power to some other province or south for 12, 13, 15 mills. Does that happen from time to time?

MR. BATEMAN: Well as a matter of fact I think that particular situation did exist last winter in our contract with Ontario. There was a short period of time with the paper mill strike that the firm energy we were selling to Ontario, I think their firm contract for the surplus power out of Kettle was 4 mills which terminates next year, 1978, and we actually bought that back off Ontario with a small markup and sold it to the American market at a higher price. So we made money on that basis.

MR. CHAIRMAN: Thank you. That concludes the questions on the Annual Report. Would somebody care to move that the report be received and reported.

MR. DEREWIANCHUK: Mr. Chairman, I move that the report of Manitoba Hydro for the year ended March 31, 1975 be reported.

MOTION presented and carried. Committee rise and report.