

PUBLIC UTILITIES COMMITTEE

10:00 a. m. , Tuesday, March 12, 1974

CHAIRMAN: Mr. Harry Shafransky.

MR. CHAIRMAN: Would you like to introduce the chairman, Mr. Premier?

MR. SCHREYER: Well, Mr. Chairman, and Members of Committee, the meetings of this committee relative to Manitoba Hydro were scheduled for the 19th and 21st, there was some change in plans which make it possible to meet this morning in addition to the 19th and 21st. I have no lead-in or introductory remarks, Mr. Chairman, except to indicate that it's the annual report that will serve as the basis for Mr. Bateman's introductory remarks flowing from the report, and matters flowing therefrom. So I'll simply call on Mr. Bateman at this time.

MR. CHAIRMAN: Do I understand you wish we proceed with the actual report or have the introductory remarks first?

MR. SCHREYER: Well, I suppose it's semantics, Mr. Chairman, but it is the report that is before the Committee and it's certainly convenient for Mr. Bateman to make his introductory remarks in a sense flowing from the annual report that's before the Committee.

MR. CHAIRMAN: Fine. Mr. Bateman.

MR. BATEMAN: Chairman, Members of the Committee, Mr. Premier, I would like to just say a few words if I may by way of introduction to the annual report. It's been a year in which we have had some rather significant achievements. We are here this morning to answer any questions, and we have some members of our staff here who will also be in a position to make contributions if it's needed. I think that the Chairman has indicated that we are going to deal with the Annual Report and then I can have a few moments to talk about some of the things that I would like to talk about; and if you would like to proceed through this report now. Are you going to take us through it Mr. . . .

MR. CHAIRMAN: Yes, page 1 pass? Mr. Craik.

MR. CRAIK: This page 1 contains the Chairman's comments, like his submittal statement. This is probably the place to deal with the broad picture of what eventually he wants to bring to the attention of the Committee. It's a general statement and what we want at this point is a general picture updating from twelve months ago.

MR. BATEMAN: Yes, well I'm quite happy to do that, Mr. Chairman. Well, I think just to refresh the gentlemen's memory here I would like to just go back to the Act and Section 3. The intent and purpose of this Act is to provide for the continuance of a supply of power adequate for the needs of the province and to promote economy and efficiency in the generation, distribution, supply and use of power. That sets out the terms under which we are supposed to operate and that is what we do our best to make sure we do to provide an adequate supply of power to meet the needs of the province.

Now, electricity as we know it is one of the items of energy consumption in the Province of Manitoba. It's not the major item of energy, it provides about 15 percent of Manitoba's energy requirements, but it wasn't too many years ago that, I'm sure many of you can remember the days when coal was a more prominent fuel than it is today, and in those days electricity was perhaps less than 5 percent - less than two generations ago, in the order of 5 percent of the energy requirements of the Province of Manitoba. Now, in addition to energy needs growing in all sectors, all of the energy requirements of the province are growing, electricity has been growing faster than other forms of energy use and I don't think it takes much imagination to wonder why this is so. It's such a convenient form of energy to use. It has also, as I point out, been growing at a faster rate than the total energy requirements of the province. and it points to the fact that society itself is becoming more and more dependent upon a reliable supply of electricity. Now, the growth rate that we saw in the use of energy really came about by the very low cost fossil fuels that were available to us in the form of natural gas and petroleum, and those fuels perhaps caused us some lack of appreciation of the value of energy, the low price at which they were available, but I think those days are rapidly coming to a close and we anticipate that as the price of fossil fuels and natural gas increase that the demand on the electrical supply system will likewise increase, because I don't think our costs are going to go up nearly as rapidly as the other forms of energy; and of course, the increasing dependence upon our product that society has come to take it for granted. We walk into a room and we are rather surprised if there isn't a light on or if there isn't a light that can be put on.

(MR. BATEMAN cont'd) When power is interrupted to this system, it makes news because we always think it should be there under any conditions, so society has become increasingly dependent upon our product and of course we have been very concerned about the increasing dependability of our supply.

Now, Manitoba is fortunate in that it is a province which has an abundant supply of water power but it hasn't many other indigenous forms of energy. I think we must look back to 1966 when the decision was made to develop the Nelson River, and that decision was reaffirmed by the Government of today, and I think we will all have to agree that this was a very wise course of action to follow. I think that we should hopefully proceed now to develop the remaining hydro resources in an orderly and logical manner and what we are trying to do is just that. We are proceeding with the job of harnessing the Nelson River, of providing for an assurance in the supply of water to those plants we are building on the Nelson and also improving the operational characteristics of those plants by diverting the Churchill River into that Nelson system. So, the object of regulating the Nelson is to provide a flow pattern that more nearly meets the requirements of Manitobans in their use of electricity; and of course, diverting the Churchill improves the utilization of those plants.

Now, we've had some stormy years. I think we have to admit that there are people in Manitoba that don't agree with the procedure that we are following of harnessing the Nelson and diverting the Churchill. I'm not quarrelling with those views. I think that this is a country that people are entitled to have views, they're also entitled and free to express those views, but we have both the Provincial mandate and the Federal mandate to proceed with these programs and this is what we are attempting to do with all the speed that is required to ensure that we do have an adequate supply of electricity.

We are not alone in the fact that we are experiencing rising costs. Everybody is aware these days of the pressures that are forcing costs of almost every commodity you can think of in an upward direction and we are going to need more revenue. But I think the importance of Hydro under these conditions is that once the plants are built, the costs are relatively fixed for the life of the project, and that is a great asset in a day when we have seen the short course of the last six months, prices in the order of several hundred percent increases in some of the fossil fuels. I certainly wouldn't like to be running a system that had to buy oil or coal as its basic source of energy because there would be no way you could avoid rate increases on almost a monthly basis. As a matter of fact, there is quite a program on in several United States utilities to conserve electricity. The whole country, as you know, has some supply problems in their fossil fuel areas. I was told about one of our staff holidaying in San Diego who sent a letter back which was rather interesting in that this lady had written to the editor complaining about the fact that her light bill - she had done everything she was told to do. She put the thermostat down. She shut the lights off and she conserves energy in every way possible but every month her light bill went up. She wondered why. And the San Diego, that's the Pacific Light and Power, I think it is in that area, had written back to say that it was like trying to bale a boat with a sieve because they had had five rate increases since last October due to the price of oil going up and so on. I am glad in our case, even though we are going to need more revenue, we certainly can look forward to stable prices for our product in the years ahead.

Well that, Mr. Chairman, I think, completes the general remarks I wanted to make about the wisdom of proceeding with the project. We have some maps behind me which indicate that these projects have a significant impact upon the lives of Manitobans. We have on this map over here, indicated the number of jobs that are going to be filled this summer at the peak of employment, and I think that some of our people would tell me that this is a conservative estimate, but there are roughly 4,500 people employed on these various projects of ours in northern Manitoba, and that's quite a significant impact on any economy.

MR. CHAIRMAN: Page 1 pass? Mr. Craik.

MR. CRAIK: I would like to direct some general questions to Mr. Bateman on the comments he has made. Before us in the Legislature, tabled yesterday, we have spending, or capital borrowing requirements for Manitoba Hydro, 480 million dollars, which is something of a milestone in the capital borrowing requirements of the province. I think it represents for one year almost half of what was projected in 1966 to be the billion dollar project of the Nelson development. I wonder, Mr. Bateman, if you could be a little more specific about what's happened to costs that you've referred to and of the requirements for this coming year, 480 million dollars, how this fits in with what you expect to be the total capital requirements for the whole development.

MR. CHAIRMAN: The Premier.

MR. SCHREYER: Mr. Chairman, I wonder if I could just make this point, that with reference to 480 million approximately in so-called borrowing requirements there is a need to make a distinction between authority and actual borrowing requirements. Authority that is being requested may be in the order of 480 million but the borrowing requirements would be very close to half of that. I just feel that that distinction ought to be observed. I'm sorry, thank you.

MR. CHAIRMAN: And I believe that those just tabled last night or yesterday afternoon, you will have the opportunity to debate those but if it is the wish to proceed at this particular time. . .

MR. CRAIK: I don't want to debate, Mr. Chairman, I just thought it would be a good opportunity to get an explanation. I think there's a carryover into this year of 230 or 240 million in addition to what's requested. . . . At any rate whatever the figure is for 1974-75, I wonder if Mr. Bateman could give some indication of where we stand now in terms of total borrowing authority and what our overall requirements are likely to be?

MR. BATEMAN: Well, of that money this year our capital program will probably be the largest for the next number of years anyways and it's about 268 million dollars, of which some 34, I believe, is refinancing, of which - Bob, have you got any figures, is that about the right order of magnitude?

MR. CRAIK: What, Mr. Chairman, would the refinancing be?

MR. BATEMAN: Those are two issues that I'm sorry they're coming due because they are nice low interest rate issues. We will see those in the report I believe, they are shown here as series 1B 3-1/2 percent interest due March 15th, that's this week, and that's - what is the size of that loan? - 12 million.

MR. CHAIRMAN: Order please. The one thing that we had not established was whether we were going to have this meeting of the Public Utilities on the annual report of the Manitoba Hydro have a transcript. I've just instructed - Mr. Sly will take note to get this meeting, the transcripts available to all members, so that if the members do speak into the mike we will be able to pick up their comments.

MR. CRAIK: Mr. Chairman, on that then I gather that it will be recorded and transcribed?

MR. CHAIRMAN: Right. (Agreed)

MR. BATEMAN: The next issue, Mr. Craik, is a 5-1/2 percent issue due on the 20th of December of 1974.

MR. CRAIK: Can you give me any indication out of the borrowing requirements what is required for capitalization of interest payments on what has already been borrowed. How much that has been borrowed is being used to capitalize the charges until the plants get into operation?

MR. BATEMAN: I could get those figures. I don't remember them off the top of my head, but the normal procedure, as you know, in these projects is to capitalize the interest during the construction period and when the plant becomes operational then those interest charges on the money you borrowed have to be paid out of your operating costs. So the charges that we're faced with this year, the increase in revenue requirements this year really relate to the fact that Kettle Rapids is coming on-stream, so to speak and consequently, the depreciation in interest charges are now appearing on our operating statements as opposed to being capitalized.

MR. CRAIK: Right. Well, that was what I was wondering if we had any specific information on how much is being capitalized, and how much of it has been put on on-stream?

MR. BATEMAN: I think we have now capitalized - the board at a recent meeting has put eight units, the eight units that are operational now are all on our operating accounts and the other four will likely come in this year.

MR. CRAIK: Well, but your other construction. You have Jenpeg, and you've got Churchill Diversion. . . .

MR. BATEMAN: Yes.

MR. CRAIK: . . . and these other ones that are under construction and have been for some time, presumably are being - the interest charges on those are being capitalized at the present time.

MR. BATEMAN: That is correct. That is our normal practice.

MR. CRAIK: There is no ready figures on this?

MR. BATEMAN: I can get those figures.

MR. CRAIK: Okay. You made reference to having your clearances from both the Federal and Provincial Governments regarding the Churchill. Is there determination yet as to the cost implications of the Federal license on the lower Churchill?

MR. CHAIRMAN: Mr. Bateman?

MR. BATEMAN: No. There's no conclusion of those discussions. We are in discussion with the Federal Government now on what they mean by some of those requirements in the license and we will not be able to say anything until those discussions have been concluded.

MR. CRAIK: When are we likely to have some idea?

MR. BATEMAN: Well, I'm sorry I can't give you a definitive answer on that. It took some time to get that license, as you know, and I just can't indicate how long it would take to complete those discussions.

MR. CRAIK: Might be a couple of years?

MR. BATEMAN: It might be two years but I would hope not.

MR. CRAIK: Can you give us any figures now on the diversion costs of Churchill, South Indian Lake and other - related costs?

MR. BATEMAN: Well, as you know, in the Churchill job we haven't yet let all the contracts. The Notigi structure is still to be let but--I'll leave the microphone . . . Well, the Missi Falls structure is let and that contract is under way now and access, of course, is by winter road around this way. The diversion channel is under way and not entirely on schedule but not far enough behind schedule that we are concerned at this point in time. We've had a very severe winter up there, very cold weather, but we have that under way. The Notigi structure is the one that tenders are due in on within the next month or so, and I can't give you therefore a definitive answer on the costs but I can tell you one thing, that the costs are going to be going up. The estimate that we talked to you about this time last year of 109 million dollars, I think, will be perhaps 50 percent light. I would anticipate that costs on the Churchill when it's finished with all the mitigation effects would perhaps be in the order of 150 million dollars.

MR. GRAHAM: Did you say litigation or mitigation?

MR. BATEMAN: Mitigation.

MR. CRAIK: By mitigation are you referring to the downstream requirements?

MR. BATEMAN: Well, I was referring to downstream requirements, not necessarily those that are referred to in the license but there are requirements on the Burntwood River at the town of Thompson a new pumphouse, which we of course had contemplated, that price is going to be higher than we anticipated. All of these costs are escalating due to the escalation of labour costs and material is in short supply in a number of these areas.

MR. CRAIK: That figure 130 doesn't include the Notigi?

MR. BATEMAN: Yes, I hope the Notigi structure is in that 150.

MR. CRAIK: It's included in the 150?

MR. BATEMAN: Yes.

MR. CRAIK: Mr. Bateman, how does this compare with the original projected costs when you are talking high level?

MR. BATEMAN: Well, I don't have that figure with me, Mr. Craik, but it's like asking me if I was building Plant A and comparing it with Plant B, regardless of what I estimated Plant A would have cost me in 1968, it would cost somewhat different dollars now. The curves I showed you in my presentation last year have indicated the tremendous increases in labour costs that have been going on in this country. We are not the only ones that are affected by those increases. I think the City of Winnipeg Commissioner of Public Works recently before the committee indicated that there was no way of making a realistic engineering estimate any more. Everybody now has to keep in mind that it's a moving target. The longer you leave these things off, the more they are going to cost. The idea is to get them built and into service as quickly as possible.

MR. CRAIK: The contract was let in 1969 for part of the same thing that's just been let in the last 12 months?

MR. BATEMAN: The Missi Falls structure? The contract wasn't let but we did call for tenders and that came in about 16.8 million dollars. If my memory is correct, we let the contract at Missi Falls for about 15 something, I've forgotten the exact figure, but . . .

MR. CRAIK: A different structure though is it?

MR. BATEMAN: It's a different structure, right.

MR. CRAIK: Wasn't the total though somewhere in the order of 38 million?

MR. BATEMAN: No, I've never had an estimate of Churchill River Diversion as low as that. I think the lowest estimate that I can recall without any clearing, without any reservoir management, without any major replacements on the Burntwood, was, I think there was a million dollars for downstream effects and that was 49 point some odd million, as I remember it.

MR. CRAIK: How much of your 150 million is for clearing?

MR. BATEMAN: I think there is about 12 million dollars at the present time for clearing. That may not be all. There may be more clearing.

MR. CRAIK: Has any part of the 150 - are you budgetting for any restitution costs for the Town of South Indian Lake?

MR. BATEMAN: Yes, there's some funds in that estimate for houses that are presently below the flood line that will have to be replaced.

MR. CRAIK: Are your costs significant?

MR. BATEMAN: At the present time there are about eight homes that I know of that have to be replaced. There are others within the severance line that could also be replaced but we have just undertaken to enter into a contract with Northern Manpower, I believe it is, to place eight homes in the townsite area for the eight that have to be removed from the flooded area, and that's a little over 100 thousand dollars for those eight homes.

MR. CRAIK: The other costs on Southern Indian Lake are being borne then by other agencies in the upgrading of the community and you know, the fish plant requirements and other things, you have no obligations to these costs?

MR. BATEMAN: I think we will have a modest cost relative to fish ladders between the time that the water is raised and now, between now and the time the water is raised, to make it easier to get the fish in and out of the areas where these camps are built up on land high enough to be clear of the flood plain. As far as the town itself is concerned, I think those are developments that are under way through other governmental agencies.

MR. CRAIK: Your total costs then with regard to the community adapting and the people that use the lake adapting, are not significant in your overall costs. If there are costs, they are somewhere else?

MR. BATEMAN: No, there is a resource management program there of continued clearing and preparation of spawning beds and things of that order that will be in the millions of dollars. The continued clearing of that reservoir, if it's required, we will undertake to do that and that is going to be a fairly long-term program. It will provide employment for a number of people on the lake.

MR. CRAIK: This would be in addition to the figures that you have indicated here.

MR. BATEMAN: Right. In addition to the 12 million that is presently expended for clearing.

MR. CRAIK: What other governmental agencies then are involved in the - does Hydro have to deal with in working out the problems with regard to South Indian Lake?

MR. BATEMAN: Well, most of our work in South Indian Lake area is with Northern Affairs and we both have representatives that drop into South Indian Lake periodically and it's a very good arrangement. It's a co-operative venture to ensure that these people that are going to be affected are satisfactorily looked after.

MR. CHAIRMAN: Mr. Graham.

MR. GRAHAM: I just want to ask another question here. You had mentioned earlier that the total cost of the South Indian Lake community might have some other governmental agencies involved in the cost of relocation. Is that correct?

MR. BATEMAN: Well, perhaps my minister, I could refer that one to him because I'm not aware of how that is being financed. It's not through Manitoba Hydro, that's . . .

MR. CHAIRMAN: Mr. Schreyer.

MR. SCHREYER: Well all I could say at this time, Mr. Chairman, is that there is the presence of Northern Affairs and Northern Manpower Corps at the community of South Indian Lake with respect to both, making preparations for building of some remote housing, new housing, at the community and Northern Manpower Corps is involved in some of the clearing work that's under way, and I believe in some of the construction activity right at the community relative to the townsite. Some of the financing for the housing is through CMHC, some input by MHRC in the remote housing program and some input by Hydro, relative to those seven or eight houses that are below so-called severance line.

MR. GRAHAM: Isn't this a change in policy that has occurred? I understand that in earlier days Hydro assumed all responsibility for any dislocation or problems that existed in any area where Hydro is involved.

MR. CHAIRMAN: Mr. Bateman.

MR. BATEMAN: Mr. Chairman, we assume responsibility when we are affecting the area but in the case of South Indian Lake, the only people that are being affected there are the ones that are going to be affected by the flooding. Now the vast majority of those homes in the village of South Indian Lake are not going to be affected. It's, I think, found desirable in the program of aid to these northern communities that they are being upgraded on the same policy that would apply to say Garden Hill or Red Sucker Lake, or any of these others that are in other parts of the province where Manitoba Hydro's only involvement is one of providing power, and we are providing power to all of these isolated communities in the north, but we aren't expected to pay for the relocation of houses because we go in with power.

MR. CHAIRMAN: Mr. Graham.

MR. GRAHAM: I would like to ask another question which isn't related but refers back to a statement you made earlier regarding the Missi Falls control structure where you said you are moving materials in by winter road to the Missi Falls site, and I would like to ask, are you able to move sufficient materials in there and warehouse them to cover a full summer's operation or do you use another means of moving in the summertime?

MR. CHAIRMAN: Mr. Bateman.

MR. BATEMAN: Well, we use both means, both the winter road and summer barging. We barged last summer and we've used winter roads - as a matter of fact, the contractor on that job mobilized his entire operation over the winter road as I understand it. Perhaps Mr. Wilson could comment on that. Is that right . . . ?

MR. WILSON: Basically mobilized over the winter roads.

MR. BATEMAN: Now as far as storing summer requirements, it would also, I am sure be our objective on that same winter road to move all the oil that we would likely need this coming summer. Is that what you did, Harris?

MR. WILSON: (Not audible).

MR. CHAIRMAN: Mr. Harris, possibly if you could come forward and take that mike at the end and put that on the record.

MR. BATEMAN: This is Harris Wilson our Director of Generation Projects.

MR. CHAIRMAN: Mr. Wilson.

MR. WILSON: Right. Basically the general contractor will stockpile oil to carry himself over the period from March to June. Now it's more economic to barge it in than truck it in but he does have to cover the period of breakup, and basically that's his plan. He will stockpile oil at Missi Falls, with some safety factor, to carry him into June and then he will barge it in.

MR. CHAIRMAN: Thank you, Mr. Wilson. Mr. Craik.

MR. CRAIK: I wonder if we could come back to the comments, earlier. There was reference made to the overall costs escalating on the, you know, the whole project, the Nelson, the Churchill development.

MR. CHAIRMAN: Mr. Craik, would you use the mike please, if you would move forward.

MR. CRAIK: Are there any estimates at this point of what your overall costs are likely to come out at?

MR. BATEMAN: I think we have a ten-year budget figure that I could indicate to you. I'm just wondering if I have that with me. I'll have a ten-year budget figure here in a minute. Yes, our ten-year capital budget which includes of course all the Nelson River, that we have within that period, plus our transmission, plus our terminal stations, plus our distribution and all of these things, is over the ten-year period, 1.93 billion dollars.

MR. CRAIK: By ten years, that's ten years from now?

MR. BATEMAN: Yeah, that's 1984, total for the ten-year program.

MR. CRAIK: At that point, what percentage of your potential is harnessed?

MR. BATEMAN: 1.93. And at that point in time - let's see, we'll be well into, I guess we'll be well into the third plant by that time. That is the third one, that's Long Spruce, Upper Limestone, Lower Limestone. By 1984 Lower Limestone would be under construction.

MR. CRAIK: You would have two-thirds of the potential harnessed, is that . . .

MR. BATEMAN: Oh, it would be, I would presume close to that, but I would have to check that to give you a more accurate answer.

MR. CRAIK: Is completion of development still the same as originally, 1990, thereabouts?

MR. BATEMAN: Well that of course will depend upon a number of factors, but by 1990 we should have the Nelson and the Churchill River Diversion route plants all developed if we proceed under the present estimated forecast, yes.

MR. CRAIK: Is your present forecast for development any different than it has been in the past?

MR. BATEMAN: No, our basic program is to provide these Nelson River plants to meet Manitoba's load only. That's the figure I'm quoting you. This is not an accelerated figure. If we for some reason wanted to accelerate those plants, then these figures would be accelerated, but this is the capital budget to provide the electrical energy and the transmission and distribution system with which you can use that energy for the citizens of Manitoba.

MR. CRAIK: I think last year you indicated your growth was substantially higher than originally predicted, ten versus seven or something of that order.

MR. BATEMAN: Yes, and if you look in this report you'll see it was back to six.

MR. CRAIK: So, you are still really working then to somewhere around seven percent?

MR. BATEMAN: Yes, a little less than seven percent long-term growth. Now that may be affected and we are currently reassessing the load forecast which we do about this time every year and within the next month or so we will have a new load forecast on which we will then build the dollars into our capital budget that we have to get for the future generation program, and transmission, distribution and so on.

MR. CRAIK: In terms of 1974 dollars, to take the complete development to its completion, have you any figures on that beyond your ten-year budget. I know your costs will change but you have to make some assumptions and . . .

MR. BATEMAN: Yeah, that's a moving target and under the present escalation rates that we're assuming - I could get that figure for you. I haven't got it in my mind at the moment but I could get it for you.

MR. CRAIK: Does your ten-year budget, 1.9 billion dollars, include what's already been spent?

MR. BATEMAN: No, it includes the current capital budget.

MR. CRAIK: It's your requirements for ten years?

MR. BATEMAN: For the ten years starting April 1, this April 1.

MR. CRAIK: Right. What would we add to that to get at a total for what has already been spent up to April 1?

MR. BATEMAN: Well, I think if we look at the components of the Nelson River scheme, I would have to determine from the costs - for instance, on the Kettle Rapids project, it's estimated cost at 324 million, we are getting pretty close to 300 and some odd million now and we fully anticipate that project will be completed within its estimate. So there will be some dollars in this budget year that I've quoted to you for you for Kettle. There will also be dollars in it for Long Spruce and Jenpeg and Lake Winnipeg regulation project and also dollars for the Churchill River Diversion. All of those dollars are being expended over the period. Now, some of them have been expended of course up to now as you know, but at the moment I don't have those figures with me. I could perhaps get them for you next meeting.

MR. CRAIK: Well, what I'm trying to get at is an estimate, what your projected total estimate would be, and if you're . . . 300 and some million, that would bring it to 2.3 billion by 1984?

MR. BATEMAN: Yeah, the total Nelson, I mean if you were asking me to sort of guesstimate a figure right now, by the time we go through the unknown escalation rates that we are currently facing, I would estimate that the original billion and a half dollar job that was contemplated would be closer to a three billion dollar job. It may be more than that.

MR. CRAIK: Yeah, that would be pretty . . . you still got seven years to go after . . .

MR. BATEMAN: Well, there are a lot of - yeah, I think it would be more than three billion, you're right. The original billion and half dollar Nelson River Development would probably be closer to four billion, yes.

MR. CRAIK: Are you able to give us any estimates at this time in view of this - at that point this will be producing the majority of our power supply for Manitoba, I gather?

MR. BATEMAN: It is now really. It's producing more than - well, it depends on the month but on the average it's producing - between Kelsey and Kettle, they are producing close

(MR. BATEMAN cont'd) to 50 percent of the energy requirements of the province each month.

MR. CRAIK: What are the implications - in view of this, if costs are going to double - what are the implications then for our rates?

MR. BATEMAN: Well our rates are going to go up obviously, but our rates are still going to be lower, I think, than the competitive way of generating electricity.

MR. CRAIK: You mentioned the rapidly escalating costs of oil and gas, other sources of energy.

MR. BATEMAN: Yes.

MR. CRAIK: In the total picture do you see electrical escalating in the same manner?

MR. BATEMAN: No, not in the same manner. I see electric rates going up and I think that one of the things - that in Manitoba we have been spoiled with no electric rate increases whereas in many other parts of the world and in Canada, too, these electrical rates have been going up on an annual basis. Now it could be that because most electric utilities have run out of the economies that they can make by going to larger units and larger items, the economies of scale are something that we used to talk about to achieve lower costs. I think we've been caught up in that at this point in time because the rising interest rates and the rising labour costs more than offset the savings that you achieve from the large units. Now it doesn't mean that you should go back to small units, because if you went back to small units you'd be into much higher costs than you're faced with now. But you just can't expect to add new plants and not be faced with rate increases due to the cost of putting it there. We are operating in terms of depreciating plant that has been added with dollars that are worth about half what the dollar is worth today. And interest costs were considerably lower in the past also.

MR. CRAIK: Well, you know, last year you showed us some figures that led us to believe, at least to assume, that the costs were running at that point probably around 10 mills, on site.

MR. BATEMAN: Yes. On dependable flow, I think I differentiated there. But anyways, in the order of that, yes.

MR. CRAIK: Around 10 mills, and with costs escalating, you know, just to be very blunt, are we looking at 20 mill power at site by 1984.

MR. BATEMAN: No, not by 1984 I hope, but I think we are looking at costs of that order, yes. As a matter of fact right now the last estimate on nuclear generation that we have it looks like in excess of 15 mill power.

MR. CRAIK: For nuclear power?

MR. BATEMAN: For nuclear power.

MR. CRAIK: While you're on that topic, what about thermal power from coal.

MR. BATEMAN: Well I can't tell you what's going to happen to coal prices but presently coal prices have risen less than any alternative, but how long that remains is a good question. We have got some indication of what coal prices have done in the last few years and if you extrapolate those you know they are going up each year.

MR. CRAIK: You mentioned that we've been spoiled here by fairly steady low cost power rates but didn't the rates go up last fall?

MR. BATEMAN: The rates didn't go up last fall, the rates were equalized with the City of Winnipeg last fall. More people got a decrease than got an increase.

MR. CRAIK: With a removal of the deduction though, aren't they . . . ?

MR. BATEMAN: Well, the prompt payment discount was removed in the City proper but it was reflected in the rates.

MR. CRAIK: But the removal of a discount still constitutes an increase in . . .

MR. BATEMAN: It's surprising how many people do not take advantage of that prompt payment discount.

MR. CRAIK: I have a surprising number of people who did.

MR. BATEMAN: Well it's interesting to note of course I believe the Public Utility Board in its order of 1970 suggested that the discount be removed as a means of making rates more commensurate with the service given.

MR. CRAIK: Can you tell us what the costs now stand at on Lake Winnipeg, or what are the projections on Lake Winnipeg and Jenpeg control, causeways or . . . ?

MR. BATEMAN: Lake Winnipeg costs, I went into those pretty thoroughly last year and I indicated to you that there was one contract to come in at some \$9 million more than we had estimated it would come in at, so our 177 million was then 186; now since then we've had

(MR. BATEMAN cont'd) some reason to believe that with the escalating labour and material costs that we will have some increases above that. Our current capital estimate for Lake Winnipeg control and generation is \$231.3 million.

MR. CRAIK: That's \$50 million in one year?

MR. BATEMAN: Well no, it's not . . .

MR. CRAIK: Forty, forty-five.

MR. BATEMAN: It's - yes, it's about that, yes.

MR. CRAIK: Well, Mr. Bateman, there must be some sort of explanation for an escalation of that kind.

MR. BATEMAN: Yes, there are very logical explanations for all of these increased costs, and I can outline those to you if you'd like to hear them.

The control channel, the eight-mile channel that we're currently excavating, we were very concerned about the downstream end of that channel and we have had to provide some - that is to prevent its complete erosion - and I don't know whether you're familiar with the area in detail, but where the eight-mile . . .

MR. CRAIK: Mr. Bateman, is that where we had the engineering breakthrough back a couple of years ago?

MR. BATEMAN: I'm not sure that I understand what you're alluding to, Mr. Craik.

MR. CRAIK: We had an announcement in the Legislature by Mr. Mackling at the time, who was Attorney-General, that there was an engineering breakthrough where this channel project was going to be a cheesecake operation I think it was referred to as.

MR. BATEMAN: Well I think, Mr. Craik, I'm quite prepared in any technical society to defend the action of our engineers in designing and building this Lake Winnipeg regulation project. We have not held back on the technical information, we have been invited to give papers in a number of learned societies; it's a tremendous engineering achievement and it's going to have profound benefits to Manitobans, in both the flood control of Lake Winnipeg and in the supply of a dependable source of power from the Nelson plants. And it's no different really than the plan that was conceived back in 1966, except that nobody had done any engineering to determine how and why you were going to have to do these things.

MR. CRAIK: There had been a cost-benefit study done.

MR. BATEMAN: Yes. Cost-benefit studies in those days indicated it was still a benefit.

MR. CRAIK: Well not, Mr. Bateman, in the cost-benefit studies that have been referred to in this Committee. You had a cost-benefit study done in 1969 that showed no benefits on Lake Winnipeg if the costs were not under a figure that is about one-fifth of what's shown here.

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

MR. CHAIRMAN: Mr. Schreyer.

MR. SCHREYER: There has been complete latitude allowed in the questioning. I believe, Mr. Chairman, that the line of questioning is now departing from questioning and bordering on being argumentative. Still and all if we are going to engage in second guessing of cost estimating, and if we're going to engage in extrapolating of cost estimates for let us say five years and ten years down the line, I think it would be useful as well to engage in some cost estimating by extrapolation of Lake Winnipeg regulation "had it started" - had it started in 1979 or 1980 rather than in 1973. But my point of order, Mr. Chairman, is that we're now engaging in argumentation rather than questions.

MR. CHAIRMAN: Thank you. I was about to mention to Mr. Craik that you were just merely arguing the point rather than asking a question.

MR. CRAIK: Well, Mr. - you know I stand to be corrected, but the information that was provided to this Committee not more than three years ago, was an attributed cost figure to Lake Winnipeg control of not more than \$50 million, and a figure not larger than that attributed to power benefits development. And the figure now that we do have is of course substantially higher than the combined of those two figures; and not only substantially higher it's clearly higher by \$45 million than it was last year. And one of the justifications that was given to this Committee and to the Legislature was that the work on the channeling was found out to be not nearly as difficult as was originally thought to be. A statement was made that it was found to be very largely clay over burden and not as much rock as was figured on.

Now if the costs do lie in this then nobody's questioning anybody's engineering integrity, we're simply referring back to statements that were made in the House and in this Committee. I think that for this size of an overrun then we would be remiss in not asking where \$131 million

(MR. CRAIK cont'd) at least has appeared from since those original justification days. I don't think the inflationary has been that high in three years.

MR. BATEMAN: Well I did, Mr. Chairman, give the Committee last year a very thorough and detailed resume of all the factors that were affecting us in the Jenpeg generating station and Lake Winnipeg regulation project. Now those costs, I indicated also, could likely be exceeded and I did indicate that that one cost of the tender that had come in was up 9 million above what we had estimated it and consequently that was a direct effect on our estimate.

Now looking at the current status of this project - yes, it's quite alarming; you know, it's just as alarming to us as it is to you I'm sure to see these costs going up, but when you look at each one of the areas that are affected there's a real logical reason for them. The construction costs, for instance, as I started to mention on the channel, on the eight-mile channel, that's not something that you could say was--it's a matter of engineering judgment. Now you could limit the amount of work and have people complain about the environment and the impact that we've left on it but we would have got our job out by spending that minimum. But we don't want to be brought back to task for having left a mess, we want to make sure that we have a good clean environment when we're finished.

Now in order to ensure that we could do that we've put a dike in on the north side of that channel to pump into behind that. It also will provide our engineers say with a greater assurance of stability in the channel. Now those are engineering decisions that are looked at, they're not made lightly. The Board makes those decisions on the basis of the best engineering advice that's coming to them and the recommendation for expenditure. So these things are, you know, they're engineering judgment matters, and we're not alone in the rising costs that are facing anybody that's trying to build anything today. All you have to do is think very close to home, the examples of why prices have gone up. In the Convention Centre, is a good example. I'm not faulting the original estimator because in 1968 or 1969 or 1970 whenever it was that these detailed estimates were made, they were made by people using the best judgment they had with the best information they had; and we can't fault them for not having seen what was going to happen to labour prices or what was going to happen to interest costs and so on. Interest costs in 1968 were just beginning to take off.

MR. CHAIRMAN: Mr. Craik.

MR. CRAIK: Mr. Bateman, if you're justifying this on the basis of judgment, are you saying your judgment was not exercised until after the original figures were given for those costs?

MR. BATEMAN: No, I'm not saying that.

MR. CRAIK: That these additional costs have come in from judgment that's been exercised since plus labour costs?

MR. BATEMAN: No, I'm not implying that I didn't use my best judgment then, I hope that I always use my best judgment.

MR. CRAIK: Well maybe we can get to the specifics if you have it. What has happened to the costs of the channeling?

MR. BATEMAN: Well the channeling, that's not a major part of the increase, that's \$5.3 million, that's not a major part.

MR. CRAIK: Is that still the total cost of the channel?

MR. BATEMAN: No, that's not the total cost of the channel. The channels with the directs and indirects I suppose are in the order of \$38 million. That's all channels.

MR. CRAIK: It started out at 15.

MR. BATEMAN: No, no, no, no. They didn't start out at 15, Mr. Craik. The bid for the Ominawin channel came in at \$12 million, the bid for the other two channels came in a little bit better than twelve; the decision to put in a supplementary dredge last year which I reported on to you was several million more, I think that was a contract of 2.8 million. Now those are firm contracts for the work prescribed but you know there are other costs associated with any engineering job. The engineering costs, the field inspection costs, the camp costs and all of those associated things have to be added. You can't compare a figure for a specific job without indirects, the costs of running the job and keeping the people there to do it. They have to be included.

MR. CRAIK: Mr. Bateman you also said here that you could justify these on the improvements of the condition on Lake Winnipeg. Do you think that that statement is in keeping with the Water Commission's Report on the projected control of Lake Winnipeg?

MR. BATEMAN: I'm not sure that I follow your question, Mr. Craik. The Water Commission Report on the projected control of Lake Winnipeg? What are you referring to?

MR. CRAIK: Well I'm referring to the Water Commission's Report in which they show the water levels during that critical part of the year from August through until after freeze-up when you are going to be exercising your greatest desire for control of the lake, and the indication that the average water levels are going to be, you know, higher by a significant amount during that critical period of the year.

MR. BATEMAN: I think on the contrary, Mr. Craik. There might be some change in average water levels of Lake Winnipeg but the important thing is that when we get those channels in we'll be able to control the high levels and the lake will be at least a two-foot lower level than it would be in a state of nature.

MR. CRAIK: Well a two-foot lower level than your very highest peak ever recorded but, Mr. Bateman, does the Water Commission Report not say that Lake Winnipeg on it will be above 813 in the fall of the year more frequently under your control . . .

MR. BATEMAN: Yes, yes.

MR. CRAIK: . . . than it would be under normal conditions?

MR. BATEMAN: Yes, that's understandable too, Mr. Craik. That water as I pointed out to you last year, each foot of storage on Lake Winnipeg is worth more to Manitobans than all the oil produced in an entire year in the Virden oil fields.

MR. CRAIK: Well, Mr. Bateman, you're now referring to a hydro conclusion and I don't dispute that. But your earlier statement was with regard to the aesthetic values on Lake Winnipeg and my question is simply as to whether or not that statement is in agreement with what the Water Commission Report would lead us to believe.

MR. BATEMAN: Well, Mr. Craik, I don't mind arguing with you about the aesthetics of Lake Winnipeg because I happen to be one who enjoys Lake Winnipeg. I have a cottage down in the Village of Dunnottar and the neighbours that I speak to aren't concerned about water levels of the order that we have had in the last year or so. As a matter of fact, most people that enjoy that south end of the lake are quite happy with that range of water levels.

MR. CRAIK: Well, Mr. Bateman, the original undertaking, if I can come back to it here, the justification or judgment or whatever you would like to refer to it as, that was presented to this Committee was that Lake Winnipeg control would be attributed \$50 million as the cost, and one of your board members said that he could justify this on the basis of saying there's \$25 million of resource benefits going to come from control of the lake and that the \$50 million figure was acceptable. Can you now tell us out of the \$231 million cost what do you attribute to these benefits?

MR. BATEMAN: Well first of all I have to straighten you out on the comparison you're making. You're making a comparison for a regulating structure that was located in the Whiskey Jack Channel, that was the original engineering, Crippen Report. Now we, as I outlined to you last year, we moved the control structures away from that area down to the Ominawin and the Metchanis channels because of the engineering information that indicated it was better. We also had under observation for a year the ice conditions in the Saskatchewan Rapids Beach which is just above Jenpeg for a year, which indicated that we would have serious ice conditions if we were going to be controlling at that Ominawin and Metchanis channel section. Consequently the engineering decision based on the best engineering that we could get and the best consulting that we could get was to move that structure as far down the river as we could to avoid these ice problems. So consequently the job is no longer the same as your 50 million, the estimate for that job was something in the order of 79 or 80, I can't remember the exact figures in the report, but it was not the same 50 million, it's a different job.

Then when you move down to the Jenpeg location it was then the next logical thing to do to develop power at that site as well and that is what is presently being estimated at \$231 million, not one control structure in the Whiskey Jack Narrows. You know yourself that engineering decisions have to be made, which cost money, in order to achieve the results you want to achieve. If we had built the structure where it was first recommended I think we would have been in real trouble if we couldn't have got the water out of Lake Winnipeg in the winter-time, the whole object of this exercise is to get that water out of Lake Winnipeg in the winter-time when you can use it for power generation on the Nelson River.

MR. CRAIK: Well I guess the obvious question has to be is if you knew the costs were going to be \$231 million for this project for the control and the power benefits you're going to get, could you have justified it?

MR. BATEMAN: Well I think that if I had known in those days that the cost was going to be this high I think you're going to suggest that I would have done something else. And perhaps I would have. Perhaps I would have recommended oil fired generation down in the south end of the province here instead of up there; but if I had recommended that surely I would have made the wrong decision because the price of oil would have priced power right out of your house. So I don't think I made the wrong decision, I think that we have to look back to 1966 when the agreement was made to develop the Nelson River as Manitoba's future supply of electricity. And when that decision was made - and I'm not quarreling with it, I think it was a good decision, but it fully contemplated in the agreement that was signed with Canada the regulation of Lake Winnipeg, the diversion of the Churchill River, the development of the Nelson River plants and the transmission of that power down from the north on a DC transmission line. Now surely in 1966 we made the right decision you know by, well by fault if you like, but if we had made another decision to go thermal I think everybody would have said we should have gone to our Nelson River, a renewable resource.

MR. CRAIK: Well, Mr. Chairman, nobody that I have heard here has questioned the decision for northern power development. The only thing in question here is the matter of the costs with regards to Lake Winnipeg in view of this - I have to say stunning information that is being presented here, in view of the fact that one year ago in the House when I suggested that the costs may have reached 176 or eight million dollars, in that order, I was accused of making a fallacious statement in the House, and we now find that these costs are at \$231 million, far in excess of the gross misstatement that I was accused of making a year ago. Now it isn't my statement, there was other people that have warned about the overall costs that were going to be incurred and despite the fact that you may be exercising good engineering judgment it really boils down to a matter of economics, and that if the economics of Lake Winnipeg control are as far out of line as the basis of judgment was used when this project was undertaken then I think that even the worst and most ardent opponents of what was being done fell short in their predictions of the costs, and I think that really there's some explaining to do to the ratepayers when they're going to have to pay this thing.

MR. CHAIRMAN: Mr. Craik, I believe the Chairman, indicated that had we gone - if we had known, had gone to the oil generation . . .

MR. CRAIK: We're not talking about oil, Mr. Chairman.

MR. CHAIRMAN: Well you're arguing the point; I don't know if this is the particular time to do it in Committee. We are here to listen to the report and ask questions and you can make those statements in the Legislature. The Estimates are up and I think that you can have many opportunities to introduce a resolution and to debate that question.

MR. CRAIK: Well perhaps then if I appear to be debating let me rephrase the question, Mr. Chairman.

MR. CHAIRMAN: Fine. Mr. Craik.

MR. CRAIK: If you had foreseen costs that exceeded the original Lake Winnipeg, and if we can assume that these were at least \$100 million less than what is indicated here, and if we look at the costs on South Indian Lake diversion as being not in the same dollars but even looking at the difference in dollars \$100 million more than what was originally the rough figure even though those dollars are out of date, if you are looking at a cost that was 200 or 250 dollars more and facing the decision as to whether you went to another level, a high level on South Indian Lake as was originally proposed, and put in it in those clear economic terms, would this not have a bearing on what had been done with regards to the sequence of diversion? Well what I'm saying, Mr. Chairman, is from the observations that are made from figures given here that the information that was given to this Committee at different stages through the years, first of all that the high level was the sequence that were available for development on the diversion as opposed to the Lake Winnipeg control, when you isolate it it's somewhere of the order of \$200 million or greater. My question is whether or not this \$200 million could not be foreseen when those decisions were undertaken to lower the South Indian Lake down from . . .

MR. CHAIRMAN: Mr. Craik, I do not wish to debate. You are trying to debate with me and I think we are here to ask the questions from the Chairman of Manitoba Hydro on the Annual Report. I don't know if you expect me to get into a debate, you are an engineer, I am not.

MR. CRAIK: I'm not pretending, Mr. Speaker, to be anything except a person that has sat at this table over a period of years and listened to all the representation that has been made,

(MR. CRAIK cont'd) here and elsewhere, and doesn't it really boil down to the fact that we have capital costs now that are \$200 million at least higher than what we could have achieved had we gone to perhaps an environmentally unacceptable level but nevertheless in clear economic terms was the alternative.

MR. CHAIRMAN: That again, you state as "could have been" which is hypothetical and could have been \$400 million more.

MR. BATEMAN: See, Mr. Craik, the assumption you're making is that you could have done something or something else. But really in the final analysis it wasn't an either/or situation, it was both. These two projects were not at any time considered as alternatives. They were always considered as both being necessary to full utilization of the Nelson River.

MR. CRAIK: Mr. Bateman, then let me ask you then if you had the tie-ins that provided you with the ability to take out the fluctuations in your supply of energy . . .

MR. BATEMAN: If I had . . . ?

MR. CRAIK: Yes, if you had your tie-ins with other systems or with other components to your system, such as thermal or a tie-in, you gain no new water through what you're doing on Lake Winnipeg, you simply are controlling it from one period of the year to the other.

MR. BATEMAN: Right.

MR. CRAIK: If you were to offset those fluctuations with either a tie-in or a supplementary power source in your system and you had the full capability of the Churchill available to you, are you still putting the same emphasis, would you still put the same emphasis on the requirements for control of Lake Winnipeg.

MR. BATEMAN: Yes. In fact you've raised an interesting question. You see with the Churchill River I have the full availability of the Churchill River if we can get the 30 thousand out at the channels that were--the sure, we've got the full energy capability of the Churchill. Now then . . .

MR. CRAIK: You got the full storage?

MR. BATEMAN: Well why do I need storage? I mean the storage in South Indian Lake was, even under the high level diversion was not adequate to do what we have to do. You had to have some supplementary thermal of significant proportions, and with Lake Winnipeg your question about the ties, why the value of that storage is far greater to you with those ties than without them. You can buy cheap night-time energy from the market where those ties are connected, put it in your reservoir, use it yourself in the daytime or sell it back to them at a higher price in the daytime. So the value of storage is far enhanced by the ties. It's not an alternative for them.

MR. CRAIK: So you're saying in effect that if you had known that Lake Winnipeg was going to cost you \$230 million two years ago when we were of the belief that we were talking about half that, that you would still have recommended Lake Winnipeg had you even had a free hand on South Indian Lake?

MR. BATEMAN: Well I point out to you, Mr. Craik, I didn't know what the costs were going to be in the future any more than you did.

MR. CRAIK: But there were people who predicted those costs, Mr. Bateman.

MR. BATEMAN: Oh I can't deny that there were lots of predictions made but they were remiss in making them about both areas. Both areas have increased in cost.

MR. CRAIK: It turns out to be pretty accurate.

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

MR. CHAIRMAN: Mr. Evans.

MR. EVANS: On a point of order, I don't think that Mr. Craik is treating the Chairman of Manitoba Hydro fairly. He's making a number of assumptions and in his questions he's taking a hypothetical position and one can take many hypothetical positions and we're not getting on with the job of getting a report on the progress of Manitoba Hydro, and to consider in detail the Annual Report made by Manitoba Hydro. One could debate here forever and a day the merits of various schemes and certainly we all realize there are trade-offs, including environmental trade-offs, and one recognizes that any Crown corporation operates within the guidelines of the government of the day and therefore, Mr. Chairman, I think this line of questioning is out of order.

MR. CHAIRMAN: Thank you, Mr. Evans. Mr. Craik.

MR. CRAIK: Well, Mr. Chairman, I think the evidence is pretty clear and I'm quite willing to ask some other questions if it's going to bother the Minister of Industry, but . . .

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

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

MR. SCHREYER: I believe that it can be said that there's been very wide latitude in the questioning and the questioning can continue for that matter, it's not out of order as long as the element of argumentation does not get accepted. The questioning itself is I would think in accordance with the rules of proceeding in Committee and it's a case of being next on the list because one can redirect the line of questioning with respect to second guessing everything including the decision to go ahead with the Nelson itself and how accurate the cost estimates were back in 1965 or 1966. If that's the exercise that wants to be engaged in it can be engaged in.

MR. CHAIRMAN: Mr. Craik.

MR. CRAIK: Mr. Chairman, I'm quite willing to go on but I have some difficulty in accepting this as a normal sort of occurrence when we get in this short period of time from last year a \$45 million difference in one year, which represents roughly 50 percent of the present total sales of Manitoba Hydro, albeit being written off into the future it still represents \$45 million out of total sales of \$90 million and the interest charge alone on \$231 million at even eight percent it is going to cost \$20 million. I find it difficult for the observations to be drawn that what I am attempting to do here is to present an argumentative scene when all I'm attempting to do is to raise these questions so we can get at the actual facts.

MR. CHAIRMAN: Proceed, Mr. Craik. I have been very easy with you on all of your questions hypothetical and otherwise.

MR. SCHREYER: Carry on.

MR. CRAIK: Mr. Bateman, can you tell us what stage the negotiations are at on the export of power?

MR. BATEMAN: Yes. The discussions are proceeding with Northern States Power toward entering into a standard interconnection agreement for export of summer surplus and seasonal diversity capacity and surplus energy. We hope to achieve a standard interconnection agreement which would make it possible to find a market for that capacity which Manitobans can't use in the summertime. As you know, at the present time we are developing this electrical system to meet Manitoba's requirements. In doing so, because of the difference in demand characteristics of our customers, they want more capacity in the wintertime than they do in the summer, we are faced with a large block of surplus capacity in the summertime and if we could find a market for that--and there is no market for that in Canada, that's clear, there's no market for that in Canada, because the other Canadian utilities have the same pattern of use as we have. Consequently by interconnecting with a southern utility of some size we could sell that block of summer capacity for a nice return to Manitoba Hydro. In addition to that we would have some energy that would be associated with that which would be a relatively low capacity factor energy. It would be about 20 percent of the time that we would guarantee to provide energy with that capacity and the energy price we are currently setting is one that would escalate with the corresponding escalation of coal prices that their alternative generation comes from. So that this protects us against any locked-in price today for the future.

The alternatives that the American utility would have to this is to put in their own plant, which of course would be faced with escalating fuel prices but it would be a fixed cost installation. In other words, on their accounting practices the price for that capacity would decrease annually thereafter, but on the basis of buying it from us we're expecting to get a levelized price for that surplus capacity. Now in addition to that we're also contemplating selling surplus hydraulic energy when we have it available at economy rates, which are rates that will reflect the price it costs us to generate it and our alternative price of generation and their alternative price of generation. So this is standard utility practice of sharing the benefits.

Now we are proceeding on that sort of an approach. If we are successful then we'll be able to benefit in other ways as well by changing some of our summer capacity for some of their winter capacity. So we would use the diversity of use between these two utilities to save investments on Manitoba Hydro system and also they would do the same thing to save investments on their system and by this means it would improve the overall economics of such an interconnection.

Now in addition to that what we would like to have in case of a dry year, we would like to have the ability to buy some of that energy that you were talking about earlier, Mr. Craik. We'd like to be able to buy that at the lowest possible price from any of the large producers of energy in the U.S. area; and we could time our purchases to meet the proposed price scale

(MR. BATEMAN cont'd) that they would be offering and consequently with the value then of Lake Winnipeg storage we could put that off-peak energy into our storage and use it, we could upgrade it and use it in the daytime or use it next winter or sell it back to them in the daytime.

So there are a great number of very interesting possibilities opening up and none of these would require any additional capital other than the cost of the interconnection between us and the border, and if we then decided that after achieving an interconnection agreement such as this, if we then decided that it was in the best interests of Manitoba, and not just Manitoba Hydro but in the best interests of Manitoba because of the capital requirements we could invest in earlier generation in plants on the Nelson River earlier than we would require them for Manitoba's load and sell the surplus until we needed it ourselves and those would be relatively short-term contracts and perhaps very lucrative from a revenue point of view. So we're into a very, what I would like to think of as the homestretch of negotiations on this sort of an interconnection.

MR. CHAIRMAN: Mr. Craik, do you still have questions along this line?

MR. CRAIK: Yes. Can he indicate what size of an interconnection you're talking about?

MR. BATEMAN: Yes, we're talking about two 500 KV transmission lines.

MR. CRAIK: What does that give us in terms of you know, megawatt capacity.

MR. BATEMAN: One thousand megawatts of capacity.

MR. CHAIRMAN: Mr. Schreyer. Mr. Craik proceed.

MR. CRAIK: Perhaps we could just finish this. Do I gather then from your remarks that you will be talking about summertime firm power and temporary surpluses?

MR. BATEMAN: Yah, the summertime - what we're doing or hope to do here is to sell some of our surplus summer capacity, some of it in the form of straight cash and some of it in the form of banking it so that we can take it back in the winter.

MR. CRAIK: With the waiving of the environmental requirements in the United States with the burning of coal that you referred to, what sort of costs are being suggested there for, you know, coal fired thermal?

MR. BATEMAN: Well I'm not sure I have the exact coal fired price but their nuclear price which they think would be - well I think within the order of either of these nuclear or thermal it's somewhere between 15 and 20 mill power.

MR. CRAIK: And your surplus. That I assume refers to your firm power, those costs?

MR. BATEMAN: No, our surplus is surplus. I mean we have no market for it in Manitoba. We're offering it first to Ontario and to Saskatchewan and then if they don't want it we offer it to the United States and we usually get a better price in the United States anyways.

MR. CRAIK: Does this give you some safeguards with regards to Manitoba during winter heavy demand here as far as failures are concerned?

MR. BATEMAN: Well, safeguards insofar as normal interconnection practice between utilities is you agree to interconnect for your mutual benefits. You will come to each others rescue in times of stress, and yes, I look forward to this not only in the wintertime but in the summertime providing a higher degree of reliability of power supply than we would experience without such interconnections.

. . . . continued on next page

MR. CRAIK: Then it's important not only from the point of view of exports but to . . . The question has been raised as to at full development of the Nelson, the vast majority of our power supply is going to be dependent on two sets of power lines. If there is a catastrophe of some sort on those lines, will we have adequate supply to carry where the bulk load is at least in the southern part assuming the north is still supplied?

MR. BATEMAN: Well, we would have to put some time scale on that, but the transmission capability, firm capability of the circuits would be 1000 megawatts. Under duress you probably could push more up as high as 1500 over the two circuits. So you can see that if we were bringing down -- and that's one bipole from the Nelson River -- if we were bringing down 3000 megawatts from the Nelson River, which is about the late 80's that we would be doing this, the loss of both circuits would be literally catastrophic. Now when we get into the area above the 3000 megawatts in the Nelson River, we have to build a third transmission line from the Nelson. The route and location of that hasn't been finalized yet, but in any event, if we lost a block of power of the order of 1500 or 2000 megawatts, we would, with very modest load shed, be able to ride through on the spinning reserve that's available south of the line that would come to our rescue immediately, and then if you have to use it for more than half an hour, you have to start paying for it. But it's a great feeling to have that sort of back-up available in such a large interconnected system as the United States immediately south of us. For instance, the map area that we are interconnected with now has a connected firm peak of something in the order of 11,000 megawatts compared to our 2000 this last winter. They have instantaneous spinning reserves of close to 1400 megawatts, which they require to look after the risks in their interconnected system. If we were interconnected with that system by two good transmission lines, then we could take the advantage, if we were members of that operating unit we could take advantage of those rescue efforts that we might need from time to time and I don't think anybody would notice that the lights went out. You wouldn't notice any dip in the lights under the switching surges that would be associated with the loss of transmission in the north unless its load was higher than the transmission capabilities in the south. And to the extent that it was, then you would have to shed load. But this is a great thing to do, to integrate the power systems, and there would be occasions when we of course could reciprocate on those sorts of connections by supplying spare capacities to them on short emergency bases as well.

MR. CRAIK: How does this fit in with an arrangement, north south arrangement fit in if the talked about national power grid comes into being?

MR. BATEMAN: Well, the national power grid wouldn't be adversely affected by such a strong north-south interconnection. The cost of providing a national power grid though, is one that - you know, somebody is going to have to pay for that and until you can develop transfers of power between utilities in Canada, of sufficient magnitude and duration to pay the operating costs of that line, then it's going to be difficult to justify such an interconnection unless it was a Federal Government policy to provide one. Now, if it was a Federal Government policy, then there would be the added problem of adding a surcharge on the power that we presently can interchange with Saskatchewan. We presently have transmission capability of 300,000 kilowatts with Saskatchewan and a corresponding amount with Ontario. Now, if we could get a broader market, such as say one that stretched all the way out to the west coast and there was merit in this sort of interchange of power, then perhaps it would be self-supporting, but these are things that have not been finalized as yet in the study phase. The last in-depth look at this indicated that it was not an economic proposition.

MR. CRAIK: The national power grid wasn't?

MR. BATEMAN: Yes, but that doesn't mean to say that it wouldn't be under different conditions.

MR. CRAIK: Different conditions being some national political reason for . . .

MR. BATEMAN: Well, not necessarily political but different in cost of energy. The difference in cost of energy may well have a significant impact on the value of a Trans Canada interconnection; but you still have the same problem between here and Toronto that the gas line or the pipe line has, it's a long area without any load in it, to speak of.

MR. CRAIK: In round terms, the annual report indicates that 20 percent of production was outside the province, sold outside the province and accounts for about 10 percent of the revenue which would give some indication that it's being sold at a substantially lower rate than what it could be returned to Manitoba Hydro within the province. Do you see any improvement in this?

MR. BATEMAN: Well, let me make it clear first, Mr. Craik, that it's only sold outside the province because we don't need it inside the province. If we needed it inside the province, we couldn't sell it outside the province.

MR. CRAIK: That means our neighbours don't have that similar situation?

MR. BATEMAN: Well, they have higher cost generation, so we can displace higher cost generation. Now, I see an improvement in that, yes. This last winter we did get substantially higher rates of return on the sale south but not on the sales in Canada.

MR. CRAIK: Do you see a substantial improvement in the north-south return. . . ?

MR. BATEMAN: Well, I think that as their price of energy goes up so is the return to us going to go up, because we are displacing higher priced energy and we benefit to that extent.

MR. CRAIK: Has an application been made to the National Energy Board for export?

MR. BATEMAN: No. We have our current licenses that relate to the present tie but we have not made an application to the Energy Board yet.

MR. CRAIK: Do you expect to make an application fairly soon?

MR. BATEMAN: Well, if we put some hypothesis in here, with the Chairman's permission, I'll hypothesize for a minute or two. There has to be, first of all, we have to get some agreement that we both want to do this, and we are getting close to agreement on a 230 KV tie with MP and L, as a matter of fact, we think that one will go for sure, but this high interconnection that I'm talking about, we haven't yet reached agreement with the Northern States Power Company. Now then, after we do get to the form where we can get agreement, subject of course to government approval, and we get government approval and then we get National Energy Board approval, these are the sorts of logical steps that have to be taken.

MR. CRAIK: I have other questions but there are in a different - if someone else wants to speak. . .

MR. CHAIRMAN: Right. Mr. Schreyer.

MR. SCHREYER: Well, Mr. Chairman, there's not much point in my asking any great number of questions. I would like to ask, however, Mr. Bateman to put into context the size and scale of the Nelson Development and the costs of Nelson Development, including all engineering works to firm up the flow on Churchill River Diversion, Lake Winnipeg Regulation, etcetera, and draw a sort of global comparison of Nelson River costs in light of the dynamic cost factors, in comparison say with James Bay. Has Manitoba Hydro monitored in any detailed way the approximate comparative cost of the projected James Bay Development in terms of cost per megawatt, or a thousand megawatts of capacity as compared to the Nelson, say at the end of this decade or whatever basis of measurement you'd care to use, would Nelson River power be well in line per thousand megawatts compared to James Bay power?

MR. CHAIRMAN: Mr. Bateman.

MR. BATEMAN: Well, I'll try that, Mr. Premier. That's a tall order, but I think in broad brush terms, perhaps I could start by saying that Kettle Rapids Plant is going to come in at less than \$300 a kilowatt. It will be around \$280 a kilowatt, which in today's market is real cheap power. It's like somebody arguing that we should be building Pickering because Pickering prices are 6-1/2 mills a kilowatt hour. Well Pickering prices were achievable when they decided to build Pickering but it's not achievable today. Prices have been going up, and the same is true in Nelson River or in James Bay, but in James Bay, starting as they are now, from scratch, their average prices are considerably higher than our average prices on the overall project, but nevertheless, they are going ahead. In terms of dollars I think, if my memory is correct, it's something like 11 billion dollars that the James Bay project is talking about.

MR. SCHREYER: They keep having to revise their figures as well, but I just wanted to know if in a general way, there was any doubt in your mind in terms of Nelson River power when the entire project is put in place being at least, to say the least, well in line per 1000 megawatts capacity as compared to James Bay power. It would seem to be easily so but . . .

MR. BATEMAN: No, I'm quite confident, Mr. Premier, that the decision to harness the Nelson was a wise one and I'm very pleased that you have given the support for pursuing that project that you have given because it is in my opinion, the wisest thing we can do, and looking at the alternatives, you know, there's just no way we could anticipate an abundant supply of reasonable cost electricity in this area unless we do harness these rivers, and part of the overall prospect in the future of not only harnessing them but interconnecting with areas where the cost of generation and energy is much higher, then to the extent that we, in

(MR. BATEMAN cont'd). . .Manitoba, can sell that surplus, we can also keep that amount of money coming into our coffers from outsiders instead from Manitobans. So I think Manitobans can benefit by lower rates to that extent.

But in the overall context of Nelson River, I think, by the year 1989 or 1992, or whenever it is that we do finish it, it will be of lasting value to Manitobans as a reliable source of low cost power, and it will never be any more expensive because, in accordance with the straight line depreciation methods we use, it's the first year that hits you the hardest. I mean the interest on that first undepreciated plant is the highest cost and from then on all you can expect is that each year you've written off some of the plant and you get lower and lower cost power as time goes on.

Well, here's one of, Will Tishenski from Planning has given some more definitive figures, Mr. Premier. The James Bay, 11 billion dollars, which is what I think I had quoted, and the capacity of that plant or of the overall project, I believe, is 15,000 megawatts. Now, our Nelson River Project is going to be in the order of four billion and its overall capacity is in the order of 6,000 megawatts. So, it is about . . .

MR. SCHREYER: Right now the ratio compares favourably.

MR. BATEMAN: Yeah, the ratio compares favourably. They have some higher head sights. It's very difficult to make a comparison like this that . . .

MR. SCHREYER: Well, I did want only an overall perspective view on that, not to bog down in detail. The next question, Mr. Chairman, has to do with what is suggested from time to time from certain places, that Lake Winnipeg Regulation ought to have been deferred until perhaps 1979 - 1980. Using a simplistic straight line projection of cost experience, construction cost experience, could you give again a broad brush or a long-term prospective estimate as to what Lake Winnipeg Regulation would cost if it were to be commenced in 19 - say five years from now, instead of now?

MR. BATEMAN: Well, Mr. Premier, that's even more difficult, but all I could indicate here is that our experience on labour costs and the associated fringe benefits with those labour costs have been going up in excess of 11 percent a year and I don't think that's going to stop. In fact, I think it's going to perhaps increase. Now, if you take that as one component of the Lake Winnipeg job and you look at the other materials that are necessary in the overall program, steel prices have been going up at an alarming rate this past year. We have various indices of material components that indicate very substantial increases in the last year and whether those are going to level off or keep going, I wouldn't know, but under the most optimistic assumptions, I would think we'd be lucky to come out if we were starting today, to decide to go and do Lake Winnipeg, we would be faced with all of those engineering costs and equipment rental costs and information gathering costs which would be in the order of three, perhaps four times what they were. By the time, we got the job done I would think Lake Winnipeg would be at least twice, maybe three times - that's just a ball park figure and if you wanted us to do some more definitive estimating on that we could, but there would be so many assumptions in it that I'd question how valuable the estimate would be.

MR. SCHREYER: Well, I realize, Mr. Chairman, it's only an hypothesis and definitely only hypothesis now, but given that there has been persistent suggestion that at least this aspect of Nelson River development could have been deferred to the end of the decade rather than now, it would have been helpful, without incurring any great cost in working out the projected costs of deferral, it would have been, I think, useful in order to obtain a perspective.

But in any case, Mr. Chairman, my third and final question at this stage is to ask Mr. Bateman if he could relate to the Committee what the current thinking is relative to the best way to juxtapose, with optimum schedule of construction of Nelson River development, any possible nuclear capacity, say, in the order of well, five, six hundred megawatts. Is this foreseen as something that has to be put into systems planning now and what appears at the moment to be the time frame for juxtaposing into development of the system a nuclear capacity in the order that I have referred to, 600 megawatts or thereabouts.

MR. BATEMAN: Well, Mr. Premier, we have been giving some pretty serious thought to when nuclear should be installed on the Manitoba system, and I think there are several factors here. First of all, it's a new thing for Manitoba Hydro to be moving into and I would not want to move into it if I was dependent upon it for a firm supply of energy for a given year without having some lead time on that so that I could walk up the learning curve, so to speak. I think we've got a lot of people that we'd have to put into the millstream of association with

(MR. BATEMAN cont'd). . . other people who are in the nuclear field, and we'd want some of that capability back in our own shop as opposed to engaging a consultant for a turnkey job; because we would have to operate it and maintain it after it was built, it would be only proper that we have people that were knowledgeable in both its design and in its operation. So I have been seriously thinking about when nuclear should come into the Manitoba system, and I would believe that the latest I would like to see it come in is about 1986. It may come in earlier under more favourable circumstances but 1986 is not very far away in the time scale that we're talking about when you think that such a plant, a 600 megawatt nuclear unit, for which, by the way, we could get 50 percent federal financial support for, would take in the order of eight years to construct after site selection and all of the studies relative to site and so on were completed. So we're quite seriously looking at this problem of nuclear right now.

We have had some of our staff attending lectures last winter on it, not this winter but last winter. We had hoped by now to have assigned some people from our organization to one or more of the utilities in Canada that have nuclear, either through atomic energy at Sherridon Park to get the feel for the thermal problems associated with it and the development of it, or with Ontario Hydro to get some more in-house detailed design experience. Now we haven't been able to do that this year because we have had the biggest construction program in our history under way. All of our people are extremely busy. We just can't spring anybody loose right at the moment. Perhaps this time next year we'll know a little bit more definitively how we can proceed into that nuclear picture that you're asking about, Mr. Premier.

MR. CHAIRMAN: Mr. Schreyer.

MR. SCHREYER: One additional question relating to the possibility of a much larger interconnection with Ontario, and in that connection, Mr. Bateman, given that Ontario at the present time exports or sells about roughly five to six times as much hydro-electric energy to the United States than does Manitoba Hydro, how do you see an interconnection, a major interconnection with Ontario, being of any particular impact other than perhaps enabling Ontario to maintain that ratio or even increase the ratio of sales relative to Manitoba Hydro sales. Would we in effect be simply transmitting energy which would perhaps involve a wheeling charge or something, but that in any case Ontario Hydro exports to the U. S. would probably be augmented partly with Manitoba energy.

MR. BATEMAN: Well, Mr. Premier, Ontario Hydro of course has got a very large thermal and nuclear generation base now, compared to their hydro, and they are able to sell energy into a much bigger market than we have. They're interconnected in the northeast portion of the United States and they have many good interconnections. Now the purpose of our interconnection with Ontario at this point in time is to help them supply the northwestern region, the Lakehead to -- or say Nipigon Lake in that area to Kenora and the border, and this seems like a normal or natural route for energy to flow from our system into theirs to offset the need for them to build some thermal at the Lakehead which, by the way, they are proceeding to do now anyway. But if we were to interconnect in a bigger way with them, it would be a very costly transmission between here and Toronto where we would get into the part of their thermal system, and they really don't need that energy from us at the price they would have to pay on top of the Nelson River generation cost, because they have such a good thermal base and they are so close to other energy sources in the U. S. where they do trade back and forth. So to the extent that they were able to buy from us cheap enough, I'm sure that's exactly what they'd do with it, they would sell it to a much higher-priced market, which is really what we would like to do. I mean, there's a much higher-priced market south of us and I think that we can achieve overall greater benefits to Manitoba Hydro and its customers than we could by supporting such a long interconnection to, say, Toronto. Just looking at that in miles, I guess we're talking about roughly a 1,200 mile interconnection into the Toronto area as opposed to a little bit less than 500 miles into the Minneapolis area, and in the Minneapolis case we only have from here to the border, which is some 70 miles, and the rest of it is going to be built by Americans. So it's a much more attractive proposition from our point of view.

MR. CHAIRMAN: Mr. Enns.

MR. ENNS: Thank you, Mr. Chairman. I'd like to take the opportunity of Mr. Bateman's presence here to seek some information on a subject matter that concerns us at the moment in the Legislature, and I do so, Mr. Chairman, in speaking to Mr. Bateman as the chairman of a large group of Manitoba employees, I believe the report indicates that you're employing in the neighbourhood of 3,000.

MR. BATEMAN: More than that.

MR. ENNS: More than 3,000 employees. My question to Mr. Bateman is simply this: have you received any representations either through your personnel people, from your employees in general, about their desire to be more actively involved in the political process, either during elections or in-between elections?

MR. BATEMAN: Well I think, Mr. Chairman, we do have an employee of Manitoba Hydro who is very actively involved in the political process. He's a member of your Legislative Assembly.

MR. ENNS: Well fine. I'm asking a serious question, Mr. Bateman. I recognize the Chairman's presence on your board. I'm speaking about the rank and file employees of the . . .

MR. BATEMAN: He's not an employee.

MR. ENNS: No.

MR. BATEMAN: Steve Derewianchuk of Vita, Manitoba, is the Member for Emerson, is he not?

MR. ENNS: Well I was not aware of that.

MR. BATEMAN: You are now.

MR. ENNS: Now I am aware of it. I assume that the same policy regarding that kind of involvement as is generally accepted for other members of the public service that a leave of absence is granted and should the person wish to come back to Hydro or something like that, you know, that position would be there for him.

MR. BATEMAN: There's no question about that. Steve's a very good employee of Manitoba Hydro and he is on leave of absence while the House is sitting and he will have a job when he's ready to come back.

MR. ENNS: Now my question really comes down a little harder down to the same position in terms of actively engaged in the campaign or in the promotion of a political party by your rank and file employees.

MR. CHAIRMAN: Mr. Enns, I do not believe that that is a question that you should direct to the Chairman. If you have that question, that question is being debated in the House these days, you can express your particular views. The Minister would be able to answer those questions and you have the Premier here, who is the Minister responsible. I don't see why you should put the Chairman in the position of getting involved in the political discussions that you would like to continue.

MR. ENNS: Well, Mr. Chairman, I don't wish to argue with you but, you know, we sometimes work in a vacuum in the House, we haven't been able to have the opportunity of speaking to the people who to some extent represent the very people that we are talking about, all that often. We are currently being asked to make decisions on it and I think it's eminently fair to ask, you know, in a general way to receive a general impression of the Chairman of Manitoba Hydro, who is an employer of many persons here in the Province of Manitoba.

I put another question to Mr. Bateman. Manitoba Hydro is a major purchaser, and has the Board at any time, or have you or would you consider what position the Board would take should, for instance, we pass an Act which would encourage or enable senior members of Hydro to actively solicit funds for a political party from, say, some of your suppliers?

MR. BATEMAN: I'm not sure that I understand what you're driving at, Mr. Enns. I mean, when the employees are working for us between the hours of 8:00 and 4:30, we have control over their time and it's not for such purposes as you outline. When they're off duty they're free citizens, they can do what they like providing--well I was going to say providing they're available for work the next morning.

MR. CHAIRMAN: Mr. Schreyer.

MR. SCHREYER: On a point of order. I don't see anything wrong with the line of questioning, it's just a case of not being completely sure of the precise nature of the question or the information it's seeking to obtain. I think it could be said that there has been no intrinsic or substantive change for some time. The reference was made to what hypothetical problems could arise if employees of Hydro or members of the Board of Hydro were involved in political activity on their own time. Would this pose a problem in purchasing, etc.? Well, given the fact that members of the Board do have policy decision-making to carry out, including passing on tenders and purchasing etc., members of the Board I think for many many years have been, at least some members of the Board, have engaged like many other citizens in some degree of political activity. I don't know that it's caused problems in the past and I don't believe it is in the present.

MR. ENNS: Well, Mr. Chairman, I won't pursue this line of questioning. I think perhaps I was attempting to do the Chairman of Manitoba Hydro a favour and inform him of the current matters under debate in the Chamber right now and that it indeed may be a subject matter for future discussion at Manitoba Hydro Board meetings as to the degree of political involvement that you, Sir, would see as desirable, and to the extent that you would encourage your employees to take part. Thank you, Mr. Chairman.

MR. BATEMAN: Well, Mr. Chairman, I have a normal process for receiving that sort of information from my Minister and that's the normal process I follow when I think I should offer him some advice.

MR. CHAIRMAN: Mr. Graham.

MR. GRAHAM: Mr. Chairman. The Chairman, before this line of questioning came up, was talking about an interchange of power involving lines of, what did you say? Fifteen hundred miles, twelve hundred miles?

MR. BATEMAN: You mean to Toronto?

MR. GRAHAM: Yes.

MR. BATEMAN: Toronto is 1,500 - well 1,200 to 1,500 miles, in that order.

MR. GRAHAM: Once the James Bay project comes into effect, what would be the distance for an interchange, say, from Kettle to James Bay. It would be considerably shorter would it not?

MR. BATEMAN: Yes. That Kettle to James Bay interconnection is somewhat less than 1,000 miles, but you know we're interested in what value would there be to such an interconnection, just as we are currently discussing with B.C. Hydro, what value there could be for an interconnection with James Bay or with Peace River, for example. Now it's all very well to interconnect two sources of hydraulic generation providing they have very different characteristics as far as the flow in the watershed; but you also would have to have additional transmission from James Bay to their load centre or from Nelson River to our load centre in order to utilize the alternative source of generation. If it came from James Bay to Kettle then you still have to get it from Kettle to our load and that is an expensive proposition for the small number of times that you can make use of such diversity. It's much better, much better if you can justify to interconnect the load centres where you could then make use of the generation to the load to displace a higher priced generation, or in times of shortage of supply you can supply the alternative load.

MR. GRAHAM: I had one or two other questions on an entirely different line, Mr. Chairman. This is dealing mainly with what proposals are being put forward by Saskatchewan Power for utilization of the upper Churchill? Could the Chairman indicate to us what - I'm sure there must be close liaison between the two corporations and if he could give us some indication of the plans that are being put forward at the present time for the utilization of the upper Churchill.

MR. BATEMAN: Very good. Mr. Chairman, the Province of Saskatchewan is currently embarked on an environmental study in conjunction with the environmental area, the Federal Government and also Manitoba Government Water Resources or Mines Energy and Environmental Management are participating.

Now the object of this study is to determine what the impact of two Hydro sites on the upper Churchill River would be in the Province of Saskatchewan, and one of them is just below the confluence of the Reindeer and Churchill Rivers which would have the added advantage of being able to put storage from the Churchill River into Reindeer Lake and vice versa, take it out. And consequently it would have an improvement in flow characteristic of the Churchill River in the reach coming into Manitoba. It would tend to level out the flow pattern better for our generation requirements just as it would for theirs, and there's a plant part way down the river below that which would make use of that same storage, it would be another run of river plant and then of course Island Falls. Now this of course will require some further interconnection with Manitoba and some transmission away from that down to their load centres. So these are currently under investigation; we have joint committees on the planning of the electrical system which is proceeding but it will be a year or two before any decision is made, I believe, on that Churchill River generation.

MR. CHAIRMAN: Mr. Graham.

MR. GRAHAM: So it will be at least two years before those studies are completed?

MR. BATEMAN: Well I won't say at least two years. They've been under way for some months now but it will be in the order of a year before that report is ready as I understand it. I'm sorry I can't give you the exact date, but even after the report is completed there's still an assessment period and so on for them to go through.

MR. CHAIRMAN: Mr. Patrick.

MR. PATRICK: Mr. Chairman, I have a question for Mr. Bateman. You stated a little while ago that you are on the homestretch of negotiations in the stage of exporting power and entering into a standard interconnection agreement. My question is: For an average layman like myself, what would it amount in sale, in dollars and cents? What kind of revenue do you see Manitoba getting, let's say the first year if you enter into an agreement like that - what does it mean in dollars and cents?

MR. BATEMAN: Well in the sense that I spoke about, standard interconnection agreement with the sale of summer surplus capacity, some energy with it, and the sale of surplus energy in an average year and other benefits, we anticipate revenues in the order of \$25 million a year from such an interconnection.

MR. PATRICK: Would that be an average or would that be high?

MR. BATEMAN: That's an average year.

MR. PATRICK: That's an average year?

MR. BATEMAN: Without the sale of any firm capacity from Nelson plants that are built earlier than required, without that. This is just an average year.

MR. PATRICK: I see.

MR. BATEMAN: Now the cost of building it of course is quite substantial but the annual carrying charges on such an investment I think are in the order of \$16 million, is that? So we would net about \$10 million a year.

MR. PATRICK: From the sales.

MR. BATEMAN: From sales.

MR. PATRICK: You also stated that the summer sale would be "firm sale". Can you explain firm sale, and you talked about short term and long term. Can you give us some indication and what do you mean by long term and short term? How many years is that?

MR. BATEMAN: Well in my context then I was using five years as long term and short term on a summer to summer basis. But the agreement, if we do reach an agreement on this it would be for a term of somewhere between 10 and 15 years, that is the 10 or 15 years would require that we sold them each summer capacity that was surplus to us at a pool rate which is established now and the energy would vary as coal prices vary.

MR. PATRICK: But in that agreement you'd have to have it predetermined what is your surplus would you not or you'd have to have some figure.

MR. BATEMAN: Well yah. We're putting a figure of 500 megawatts as the present figure on our surplus. That's summer surplus.

MR. PATRICK: That would be for 15 years?

MR. BATEMAN: Well somewhere up to 15. I'm not sure that we will go for 15 years. Now the other advantage, of course, we'd like the longer term because there are advantages to us as well. But I can't foresee 15 years as clearly as I'd like to see it.

MR. PATRICK: The price for that sale would escalate as the cost of . . .

MR. BATEMAN: The energy price would escalate.

MR. PATRICK: Yes, that's what I mean.

MR. BATEMAN: And the energy price of course for that portion that I referred to is firm which is just a small amount of energy, 20 percent of the time that that capacity is available we have to provide some energy with it. That's what I refer to as the firm energy.

MR. PATRICK: But the 15 year sale that would escalate, the sale . . .

MR. BATEMAN: The energy price associated with that capacity each summer would escalate in accordance with the present--we've said from the date we sign such a letter. If it was tomorrow, from the date we sign that letter then we're going to start escalating the price of our energy, which we've said now is 5 mills or cost plus 10 percent, and that price will escalate until the term of the agreement is over.

MR. CHAIRMAN: It is now 12:30. There are still a couple of people who wish to ask questions. Is it the intention that we adjourn today and the next meeting of the Committee will be on March 21st at 10:00 o'clock in Room 254. Committee rise. Mr. Graham.

MR. GRAHAM: Mr. Chairman, before Committee rises I would just like to ask the

(MR. GRAHAM cont'd) Chairman one question. Maybe he can provide us with information for the next meeting. There has been quite a bit of controversy over the winter road system and the movement of supplies into the remote areas of northern Manitoba and I realize that it's very difficult to give a complete breakdown, so I was wondering if the Chairman could give us a breakdown of the cost of moving supplies by winter road, by air, the amounts moved say into a community such as Garden Hill, for example, over the past five years, the amount that has been required each year, how it was moved, how much went by air, how much went by winter road system, so that we can better determine a program which is not involved with Hydro at all but we can use Hydro as an example of one of the major users.

MR. BATEMAN: To the extent that we have that information available for five years I'll try and supply it for the next meeting.

MR. GRAHAM: Thank you.

MR. CHAIRMAN: Committee rise.