PUBLIC UTILITIES COMMITTEE
10:00 a.m., March 21, 1974

MR. CHAIRMAN: The Committee will come to order. We have a quorum, so proceed with the report from the Chairman of the Manitoba Hydro. Mr. Bateman.

MR. BATEMAN: Mr. Chairman, before I proceed, there were a few questions that I'd like to make sure we dispose of that were asked at the last meeting, and I'd like to just go through those now.

I think one of the first points that was raised that I had promised I would provide some information on, was the point that Mr. Craik was trying to draw out relative to the capitalized interest on all projects. Now, Mr. Chairman, I'd like to clarify for the members of this committee the reasons why costs have increased as they have, and what the present estimate for Long Spruce indicates costs are going to do. Now we have in our capital budget an estimate for Long Spruce generation which amounts to $444 million, and that consists of roughly $60-odd million dollars - I think it's $61-1/2 million - of definable escalation. It's not possible to define escalation relating to contracts that come in as firm prices later on because those are not included as escalation in the sense that it's escalation on our costs, but what we can call definable escalation relating to our labour and other components of the operation, about $61-1/2 million.

Now in addition to that, there is roughly $100 million of interest that's capitalized on that project, and of course these costs are 1980 costs, 1980 dollars, because that is when the plant will be completed. And if we look at Upper Limestone, we also have an estimate in our capital budget for Upper Limestone of $621.2 million. Now if we were to complete Upper Limestone in 1982 instead of in 1980 as presently contemplated, the cost of course would be quite different. It would be very comparable to the cost of the Long Spruce project. So that gives you an appreciation of the escalation that is taking place in the three-year period our present estimates indicate that we must allow for escalation and interest on the money to the tune of--well, it's not quite $200 million; and these are only valid as long as inflation continues at the present rates, and Upper Limestone's for completion in 1988, presently estimated at $845 million. And the Gillam Island site, which is the last one on the Lower Nelson of any significant size, is currently estimated in our budget for 1991 completion at 1 billion and 56 million dollars.

Now if those plants could all be put on the system in 1980, or if we were able to use 1980 dollars, then the costs are considerably different. The 444 million for Long Spruce I mentioned, the 621 for Upper Limestone, would become 464 million; the 845 million for Lower Limestone would become 530 million; and the Gillam Island site instead of being a billion dollars would be just about half that in 1980 dollars. And instead of roughly $200 million of capitalized interest in the Lower Gillam site, we'd have about $110 million of capitalized interest. Now that's just an appreciation of what an engineer is faced with in trying to estimate future projects and - I'm not happy to say this - we're not alone in this. Just the news this morning, the McKenzie Pipe Line that's going to bring gas from the far north, originally estimated somewhere between 1 and 2 billion dollars, the last firm estimate was 5 billion and this morning it's up another 14 percent or $5 billion 700 million. So these are things that are happening. They're not specialized for Manitoba Hydro's experience, they're happening in the construction industry across Canada and the United States.

He also, of course, brings out the point that it would be nice if we had more plants like Kettle completed before we get into those costs, that Kettle itself would be a very good plant. But it costs money to put it into service - $324 million - and those charges that we have to bear on our books for the Kettle plant this year are something in the order of $9.7 million made up of interest and depreciation, but by 1975 when that plant is all on our books, or nearly all on our books, it will be at an annual cost to Manitoba Hydro ratepayers of something like $25.7 million for the Kettle plant alone.

Now I also have heard some good news this morning. I was informed that they are lowering the rotor for the last unit at Kettle Rapids today, so we presently anticipate that the plant will be complete by the end of this year.

Now in addition to the interest costs and so on, we have some very alarming facts that we're faced with in procuring materials. Not only is the cost of money, which of course is one of the components of escalation, but not only has the cost of money over the past six years been rising, but Manitoba Hydro's effective cost of borrowing money for major construction projects does fluctuate. I mean, it's not a constant thing but one thing about it, it has been

(MR. BATEMAN cont'd) . . . . . going up. Our average cost of interest has been going up. And if the economy continues to experience high rate of inflation in the long term, this will inevitably result in higher interest rates, and I'll show you some of these sorts of details when I talk to you about rates shortly.

Now, just a quick look at labour cost indices and what they are doing. According to Statistics Canada, the construction industry has the highest average hourly and weekly wages and salaries of any of the standard Canadian industrial classifications, and the average hourly earnings in the construction industry in Manitoba increased by the following percentages in the year ending April 1973. For instance, the building trades average about 16-1/2 percent. The general contractors are up about 20.3 percent, special trade contractors about 13.8 percent, and engineering services up 18.2 percent. And of course, as I pointed out to you relative to the McKenzie Pipe Line and other major construction projects, they are all feeling the same impact of these sorts of increasing costs.

Construction labour costs on isolated projects such as we operate in Northern Manitoba tend to escalate at a slightly higher rate than the provincial average for the industry. Manitoba Hydro, of course, attempts to minimize the uncertainty of labour continuity and costs by signing relatively long-term labour agreements, and based on the Kettle Rapids and Long Spruce agreements, the average annual increase in salaries and benefits between '67 and '75 for representative trades are expected to average out in the order of 10 percent for the various classifications of labour. Some of them, of course, a bit higher than that.

Now we also have seen some rather alarming increases in prices over the last year. For instance in 1973 the price of reinforcing steel escalated 19 percent. Douglas Fir plywood went up 19 percent. Lumber - Douglas Fir lumber went up 13 percent, following - and this is the important thing - following a 41-1/2 percent increase in the previous year. Now the over-all Canadian Steel and Metal Work index rose 17 percent; the roofing index rose 24 percent, and of course I could go on and on giving you the various items and so on, but it's not--the special treatment that we're getting we're just one of many people faced with buying things that we need at higher costs.

And, of course, looking at the general area of supplies, and I'd hate to tell you what poles have gone up; I mean poles have gone up quite an alarming amount. But the increase in petroleum costs and food will be used to illustrate the way in which certain supply categories have been escalating at rates which have I think been totally unforeseen even two years ago.

In 1973 the average cost of fuel oil in Canada increased by more than 32 percent. The corresponding figures for gasoline and diesel fuel were 20 percent and 40 percent respectively. Now of course you all know that those are basic things that affect lots of other segments of our economy, and food prices in Canada rose an average of 17 percent in 1973. The cost of hamburger, for instance, increased by 35 percent. Honey, if you like honey, it's up 47 percent and eggs of course about 39 percent.

Now what can we conclude from all this? It's simply not possible for project cost estimaters to have foreseen cost increases of this magnitude. Even the world's leading petroleum and economic experts failed to forecast the quantum jump in petroleum product costs caused by the recent collective action of the OPEC countries. Today we are experiencing major increases in the cost of many of the basic construction materials and supplies, and even when we pay the highly escalated prices we frequently have no assurance that the goods will be delivered when they are required. A few years ago, anyone who had made appropriate allowance for these eventualities by drastically increasing project contingency reserves and escalation rates, would have been considered an unrealistic alarmist, and yet here we are today with it.

Now today the annual rate of escalation being applied on our northern projects is in the order of 7 percent - and I think that's low. It depends on what period of time we're talking about. Close in we're using a much higher rate; far out we're using about this average rate. And only a few years ago we were using a rate of about 4 percent - 4-1/2 percent. And if costs continue to accelerate at the present rate, it's conceivable that the capital costs of generation projects may soon be increasing annually at a rate of about 10 percent. Now, such uncertainties are of course disturbing and one of our few consolations is the fact that alternative forms of generation, such as nuclear power for example, are escalating at equally or higher rates. As a result, while our hydro power costs are increasing they are still the most economic of the major power generation alternatives available to Manitoba.

(MR. BATEMAN cont'd)

Now I mentioned that nuclear and thermo costs are going up and I just would like to draw your attention to the fact that the National Energy Board, Electrical Engineering Branch, put out a very interesting document last September - we received it October 15th, it's out of date already. It's the estimated prices for thermo generating stations as of July 1st, 1973, and one of the rather interesting things in this report - and I won't bore you with too many details - but it's quoting costs in the order of $500.00 to $700.00 for nuclear generation in the 600 megawatt size. But here's the crunch. They, on the basis of all this information and survey of all the sites that are under construction in North America today, including Canada, have assigned a 2-1/2 percent inflation rate. Now 2-1/2 - gee that's pretty good isn't it? Until you hear that it's 2-1/2 percent per month. That's what they're using in these estimates. And that's rather an alarming thing for anyone who's trying to do estimating, to know what you would have to think in terms of charging for a plant like this, which you cannot bring on the system until at least 1985. If we were to start next year we could probably make 1984 but it's rather doubtful.

Now with that little bit of background, I think we could deal specifically with the questions that Mr. Craik was raising about Lake Winnipeg regulation, the control and generating station, which in the last year has gone from the 178 million that we had in our presentation last year-- and I warned this committee last year that there was at least $9 million on top of that because of the fact that one of our bids had closed $9 million higher than our estimate, and the current budget, which shows $231 million for that project, resulting in an increase of some $45 million or approximately 24 percent. Really on the basis of the background it's in line, but there are explanations here and you've asked for them, I'd like to give them to you.

It's been implied that Manitoba Hydro's explanation of the substantial cost increases is not correct. Now to illustrate the reason for the revised budget estimate, I'd like to present for the record some further information to that which I presented at the last meeting of your committee.

The estimate of 178 million was submitted to the Manitoba Hydro Board in October of 1972, at which time it was recognized that the figures presented were on the basis of an initial concept for generation facilities which was then under review. At that time, this was the only complete estimate available and it was recognized that the final costs may substantially exceed this preliminary conceptual estimate. In fact I mentioned this at last year's meeting of the committee. The details concerning Lake Winnipeg control were reasonably well established but the entirely new concept of a power house with bulb turbine generator units at that point in time required some further study.

At the time of the March 1973 meeting with this committee, we were in fact in the process of preparing a new detailed estimate, and although the estimate was far from complete, I did advise that the total cost of this project would exceed the estimate, and since no precise figures were available it did not seem prudent to volunteer information which was of doubtful accuracy. It should be recognized by all concerned that Manitoba Hydro had no previous experience with construction costs for a power house incorporating bulb type units and in fact had no experience from any authority on the continent to fall back on. This type of power house is a first on the North American continent and it's not going to be the last. I can tell you that there's a great deal of interest in this bulb type concept with several American utilities asking us questions about the use of bulb type units, and also the Rothschild bankers are preparing to back the English design, which does need a development program to bring it into the position where it can be used in the North American market that's awaiting for it. And I think we'll see this proceed with some Canadian turbine expertise, or possibly with Canadian and American jointly being backed by the Rothschilds.

Now in consideration of these facts, it can be stated that the magnitude of the cost increase over the past year has not increased by 45 million. The 231 million estimate was presented to me and to the board of Manitoba Hydro in October 1973, the first available opportunity after the updating of the estimate from the initial figures based on the preliminary concept. Although the new estimate was increased substantially due to trends in escalation, there are several major increases from other factors. For instance, there's no question that the initial estimates at the conceptual stage for unit price work was substantially lower than the comparable prices accepted when the general contract for the Jenpeg structure was awarded, and that was in February of 1973 and that was the one that I told you came in at the 9 million higher than we had estimated.

(MR. BATEMAN cont'd)

The total cost of the civil work at Jenpeg calculated from accepted tendering prices, will exceed the initial estimate by some 3.1 million dollars. In connection with the other cost increases not totally associated with escalation, it must be recognized that conditions in the field are never completely as visualized by the designers and the estimators, and more often than not conditions are less favourable and hence more costly. To illustrate this point, for example, the Ominawin bypass channel. The data available from investigation drilling work that was done on the site resulted in an estimate of rock quantities to be excavated, and after the Overbergen Excavation had advanced at the site, we encountered substantially more rock than was thought to be there or was included in the estimate. And this has resulted in a million dollars of additional rock excavation cost.

Now you might wonder, well how does that happen? And if you ever take a cherry cake, for an example, and poke a straw down through it, what are the odds of you hitting the cherry or cherries? This is the same on a long channel that's excavated, you poke down a number of drill holes - you don't drill every five feet or every ten feet, it may be every several hundred feet - to get your engineering estimate, and you certainly can't hope to get all of the data just from that probing drilling. I think if you try the experiment with the cherry cake you'll realize how often you're going to hit the cherry.

Now there are also other examples relating to the dike quantities that were estimated from drill holes and topographic mapping, and it's not uncommon to find foundation conditions which require greater excavation than were anticipated, which of course increases the dike quantities and the resultant costs.

In the area of the Kiskitto dams and dikes - that's down where we're keeping Kiskitto Lake at a fixed elevation, we have had some unfavourable site conditions and that of course has resulted in increased work to the degree that our costs have risen by some 2.3 million dollars.

Another one is in the clearing area. The unit costs that we estimated were exceeded by reason of the fact that the clearing in that area is being done under collective agreement. Consequently the $168.00 per acre is now $356.00 an acre and the resultant increase in costs of clearing is about 2.3 million dollars. There are of course some other costs in that 2.3 million dollars, it's not all labour. There are some costs relating to the increased cost of fuel and spare parts and so on.

So we might summarize that the main points that are really worthy of note on the Lake Winnipeg regulation control and generating station, the fact that it was a new concept to our corporation, the first installation of bulb units of any location in the North American continent, and I think that's a point that we must recognize. It has affected to some degree the estimating.

Also, I think another very important point in the whole concept of Lake Winnipeg regulation is that it's an area of 140 miles in length, that we are spread out over that length of country in doing the job at all these various locations, and from Wabowden in the north down to Warren's landing at the exit of Lake Winnipeg, that's the extent of our construction activities. And obviously there's no room for error, or put it this way, there's more room for error in making an estimate of a job like that spread out over 140 miles of country, than there is compared to the Long Spruce job which is all concentrated in one location. So we have the biggest component in that estimate of increased costs is the interest charged, which is $12.5 million, and I can give you the impact of these various conditions that have resulted in the direct costs going up by some $33 million and the balance in the indirect costs, that is in the engineering, the camps, the preliminary work on site, the stores, the catering, and all of those factors which increase the balance of the estimate.

Now the next question, Mr. Chairman, I believe relates to the cost of transportation in the north, and I have a table here which I shall give to the Chairman for duplication and distribution unless we do have some copies here. Well, if we have copies here then they can be distributed, but this is a table, Mr. Chairman, which -- we can't make the comparisons that Mr. Graham asks for because two years ago we bought our oil at the f.o.b. site; in other words the supplier paid the transportation costs of the oil. In 1972 the contractors - the suppliers quote oil at their supply point, delivery extra, so this is rather a factual table of showing how many gallons or tons of freight we've been moving in to these various isolated communities over the last few years, and I'm sure you'll find, Mr. Chairman, that there's a great deal of useful information in there.

Now there were questions on the proposed inter-connection, and this was the inter-

(MR. BATEMAN cont'd). . . . . connection that I mentioned last week, with the Northern States Power Company which I am sorry, gentlemen, I apparently did not answer fully enough to give you the understanding that I would like you to have. I'd like to briefly outline what we propose to do, and there is no assurance that the U.S. utilities, of course, are going to accept this proposal that we have made, but we have presented Northern States Power with a letter of intent, if you like, which is subject to negotiation, and I think one of the basic points of interest is that both Northern States Power and Manitoba Hydro believe there are mutual advantages to inter-connect our two systems, and the benefits to the two parties would justify the investment in the facilities by each party, and Manitoba Hydro, of course, would build to the border - that is the Canadian border - and Northern States Power would build to the Canada-U.S. border. So we would each finance the portion of the transmission interconnection in our respective countries.

Now we might ask, what are these advantages to each utility? And I think one of the things that I'd like to emphasize here, despite what has been said, that this inter-connection will not advance any generation in Manitoba for export. It will not result in an increase in investment in the Manitoba Hydro System in the form of generation; the only increase in investment will be in the cost of the transmission link itself. Now then, if it was desirable to increase investment in generation after we have the inter-connections, then we could do it, but in the concept that we have developed, there is no increase in generation cost in Manitoba Hydro system. We are building a system to meet the load growth in the Manitoba system.

MR. CHAIRMAN: Mr. Bateman, could we interrupt for . . . Mr. Asper, a question?

MR. ASPER: I don't want to interrupt his train, but if he doesn't mind I'd like to ask one question while he is on that point. While there may be no increase in cost of generation, would you not agree that there's an increase in cost in absolute terms by advancing the date of construction to meet the power export commitments? That would be the interest on the capital spent a year, or two, or whatever, before Manitoba's needs required it. Wouldn't that be correct?

MR. BATEMAN: Well I think, Mr. Asper, you've just missed the point that I was trying to emphasize so clearly. There will not be one kilowatt of generation advanced for export beyond what we need for Manitoba's load alone. Now let me demonstrate that here on this curve. I've got an interesting curve here that I've pulled out. The earliest we can get this in place is about 1979 or 1980. So here is the load growth on the Manitoba system. This is 1979, '80, '81 and '82. This is 1,000 megawatts - 2000 megawatts. If we project this curve down this way, it would intercept. . .

A MEMBER: . . . . microphone.

MR. BATEMAN: Oh yes, I'm sorry. If we project this curve down this way, it would intersect the 2,000 megawatt mark which is just about what the load was last winter, and you can see from this curve - and this is projected from our capital budget, this is the basic data that we, or our engineers present to the board, for dollars that they need for new plants in the future to meet Manitoba's load -not export load, but Manitoba's load. Now we're projecting, or our load forecasting people are projecting that this will be the load in 1979-80 winter, and that's just about -- I could give you the exact figure but it's close enough to 2,000 megawatts to illustrate my point.

Long Spruce comes in in 1977 and it is completed, according to the present program, by 1980. Now, we need some spare capacity. We usually find that instead of investing or spreading out these steps of units going in over the period of time, that it is much more economic to put the plant into service and get the fixed charges carried. Anybody that understands the cost of money will understand that, that the soomer you can get some revenue coming from it, the sooner you can pay, or keep the costs down.

Now, here we are then in 1979, this is what we project will happen in 1980. Now I've taken those two points and I've projected them across here to this curve and I've enlarged this piece to show what is going to happen in one year. This is the year 1980. Now the load at that point is here, roughly 3,000 megawatts; the load at that point is about 3,200 and some odd; we are growing at that point in time, about 200 megawatts a year. Now the load isn't constant throughout the year. We do have a very noticeable winter-characteristic energy-consumption in the electrical utility business in this province. In fact, not only in this province but in Saskatchewan and in Ontario, we peak in the wintertime, we don't peak in the summertime. So we have a falling off of our load; it falls off here. So we are equipped with this

(MR. BATEMAN cont'd). . . . . surplus capacity - this is represented by the Long Spruce plant being completed at that point in time - there is the spare capacity and this we try to keep about 12 percent. You nor I could operate this system without at least 12 percent spare capacity. The utilities in the United States are going to much higher reserve capacities because thermal units inherently do require more reserve capacity than hydro units and hydro systems.

Now what are we going to do with all this surplus capacity? We can't sell it to Saskatchewan because they are in the same position exactly, they have surplus capacity in the summertime, so why would they want to buy it? We can't sell it to Ontario because they have the same characteristic load shape. They wouldn't want to buy it. So who are we going to sell it to? Either we're going to sell it to somebody that needs it or we're going to let it sit there and Manitobans are going to pay for it. Now, if we can sell this south of the border, where they do have a market for it, then we can net ourselves an annual return, and what we're proposing in this inter - connection, one of the justifications for getting it, is to sell 500 megawatts of this surplus capacity to the market area - and the only market area that's available to us - at a sum that will return to Manitobans $3 million a year.

Now that's what this piece of capacity's worth. We also have to look after the fact that we do our maintenance in this period of time . . .

MR. ASPER: . . . if you don't mind, was that $3 million a year?

MR. BATEMAN: $3 million a year - for the capacity, 500 megawatts of capacity only.

MR. ASPER: And what for the energy?

MR. BATEMAN: I'm coming to that. Last week I explained the energy components to you and what we have associated with this is a small block of firm energy, and there is a difference here between having capacity that's available to produce sitting there on the bus, not turning over, as opposed to when they want to use that capacity it does have to have some energy flow from it, and the energy will be priced at either 5 mills or cost-plus-10-percent. The 5 mills is subject to escalation from the day we sign the letter of intent - both parties sign the letter of intent; that's the day that the escalation will start on the 5-mill price and will relate to the cost of coal in the United States system from their two coal contracts in Montana and Wyoming. --(Interjection)--

MR. CHAIRMAN: Mr. Asper, would you take these questions down - I don't know if it's good at this particular time, but you can write the questions down and you can come back, and it'll be much more meaningful than having the questions put in and interrupt the report. Mr. Bateman.

MR. BATEMAN: Thank you, Mr. Chairman. Well, that amount of energy that we anticipate selling, if we look at it with the capacity, we've said that we will not provide more than capacity with energy for 20 percent of the time. That is the same as saying it has a 20 percent capacity factor or on an annual basis it has a 10 percent annual capacity factor. Now by some simple arithmetic, if you have . . .

MR. CRAIK: . . . two lines there on the left-hand side of your graph.

MR. BATEMAN: This? This is the installed capacity line. This I said represents the increments of Long Spruce which started in 1977 and this is the present schedule in the budget to have it completed in 1980. All ten units will be complete by 1980 and that will then be the capacity line. Now this is the projected load growth line, and I said that this is the reserve capacity or the surplus capacity that we have, and I also said that you and I must have at least 12 percent reserve capacity in that period of time. Now it will run out about here, we must put some more plant in place for Manitoba's system before 1982. Otherwise . . .

MR. CRAIK: Just to -- your 12 percent looks like it might be 12 by about 1982, but on the left hand side you're around 25 percent.

MR. BATEMAN: Yes, you're quite right, and how can you bring a thousand megawatt plant in on a less than 3,000 watt megawatt system and have a . . .

MR. CRAIK: Well, what are your steps? Are they units or plants?

MR. BATEMAN: Units. These are units in the Long Spruce Plant.

MR. CRAIK: Well, you said earlier that you are not installing capacity for this sale.

MR. BATEMAN: Well, I also said, Mr. Craik, that we can do two things. We can install these units to meet this 12 percent reserve and spread these out over a period of time. Now as soon as we do that we have escalation on the cost of the unit to contend with so a unit that we would install here as opposed to one that was installed there, would have at least

(MR. BATEMAN cont'd). . . . . 20 percent increase in cost, at least, plus the cost of maintaining the camp facilities that we have to maintain at the Long Spruce site over that long period of time to house the employees, the contractors and so on to do the work. Now, our studies show that it's much more economic to install these plants over a short period of time and sell some of that surplus capacity in the early years of the plant life as opposed to spreading it out over a long period of time. So, yes, we do have more than our design reserve. Our design reserve is 12 percent. When we get big enough and can add units, like when we get beyond say the Nelson River big plants and start adding small plants, these will fit nicely into the annual growth. We may even need two plants a year then, unless we get into nuclear where we could add a 600 megawatt unit each year. That's about the size of unit that would be needed after we get down the road away.

But we do then have to install some new capacity in 1982 to meet the Manitoba load. Now it follows that even then we still have - this curve by the way really looks like this. It goes down here, up here, down here, up here, down here, up here. It's just like a sign wave. This is a sign wave of - smoothed out of course. I mean there are fluctuations. Temperature will fluctuate up and down around this line but doesn't remove the fact that we do have surplus capacity even in the year when we get out here. There's still some summer surplus capacity in here that is not marketable in Manitoba. And we also have to provide some time for unit outages; have to do maintenance on this plant of ours and this is the maintenance outage portion. So we still are equipped with a vast amount of surplus capacity.

Now if we put, as we've said we'd associate 10 percent annual capacity factor. . .this capacity. Now that capacity is represented in hydraulic turbines sitting in the Kettle or Long Spruce or any of our other plants ready to roll if it's asked for. It's not going to be rolling until it's asked for. We are getting a retainer fee, if you like, to keep that available to supply some energy to the Northern States Power Company - when they want it. And that we're saying is worth roughly $3 million - well, $3 million a year for the 500 megawatts. Now then the energy will be on top of that and even on the base case of 5 mill energy, if you look at the combination of the capacity charge and the energy charge of 5 mills, it works out to roughly 12 mills a kilowatt-hour for that type of energy and capacity that's represented by this arrangement. Now in addition to that of course, we also have surplus summer energy and we can sell that in addition to this surplus capacity. Over the long haul, the next ten years beyond say 1979 and 1990 there will be an average of about 2-1/2 billion an average I say, of about 2-1/2 billion kilowatt hours a year which we are going to sell at straight economy rates. Not firm rates, but economy rates. This will be displacing higher cost generation in the utility south of us, or utilities south of us.

So that, Mr. Chairman, I think sort of briefly outlines the situation, except what do we anticipate by way of revenue from the sale of that surplus hydraulic. Now in addition to the 3 million a year that I mentioned to you there's roughly - at a modest sum if we estimate seven mill displacement power benefits to Manitoba, there's another return here of about 17-1/2 million dollars a year. Now then this isn't advancing any plant on Manitoba system, it isn't doing anything but what we must do to meet our own Manitoba load; and if we don't make this sort of sale, then how do we pay for the costs of the Long Spruce and other plants that we are putting in our system. We as Manitobans are going to have to pay for those in the rates that we charge for our power, and if we sell this sort of capacity south of the line, then it's going to mean that we have less to charge our own customers in Manitoba. So consequently we should be able to have more favourable rates than we would have without this arrangement.

Well, Mr. Chairman, I think before I do proceed on the subject of rates if you did want to open the meeting to a few questions, I would be quite happy to undertake them at this point in time.

MR. CHAIRMAN: Thank you, Mr. Bateman. Are there any questions to the Chairman of the Manitoba Hydro? Mr. Craik.

MR. CRAIK: While you were on the Lake Winnipeg regulation, I didn't want to stop you, but I think you indicated you could give a breakdown on the 231 million, and I gather this 231 million dollar was an estimate as of October, 1973?

MR. BATEMAN: I think I said October '73, yes.

MR. CRAIK: Which isn't necessarily an estimate of what you expect the costs will in fact be?

MR. BATEMAN: Oh, yes it is, Mr. Craik. We hope we don't anticipate inflation or

(MR. BATEMAN cont'd). . . . .escalation rates greater than what we have included in this estimate.

MR. CRAIK: You fell then that your 24 percent increase - annual increase that you are-

MR. BATEMAN: No, not annual. I said it's a 24 percent increase in this last year which is quite in line with construction experience in North America.

MR. CRAIK: Heavy construction generally as you said has run 10 percent over the last six or eight years.

MR. BATEMAN: No.

MR. CRAIK: You did quote some figures directly for labour in the last year, but the highest I heard was 18.

MR. BATEMAN: Well, I can refer you to any number of things including one in the Globe and Mail yesterday where the Mattagami zinc plant has gone up from 30 million estimate to 45 million estimate in the last year. It's a 50 percent increase in cost, I mean that's not 25. What we're saying is that our escalation rates that we were assuming last year are less than we have experienced this year, and in the October estimate we now think, I hope we have included in that, sufficient escalation costs to carry us through.

MR. CRAIK: Well your estimate then for - you ran in that 12 months 24 percent. I just conclude from what you are saying what would you expect from last October. Is your experience such you would say that you are going to repeat it this year?

MR. BATEMAN: No, I hope not. As I tried to make clear, Mr. Craik, we have included in the current estimate that's before the board, the costs that we anticipate until that job is complete. Now I hope that we don't run into any unforeseen costs but at the present time, I have been reasonably assured, subject of course to the exigencies of any job, that this will cover the costs we anticipate until the job is complete. Just as we anticipated three years ago that Kettle Rapids would cost us 324 million dollars and we are still right on target. We do have a job there that's all located in one area. It's not spread out the way the Lake Winnipeg job is and it's a little more possible to estimate the costs when you have a single construction location. In addition to that we are confident that Long Spruce, which is in at $444 million, will be not exceeded unless the escalation rates that we have in that estimate are going to increase, and this is always possible.

MR. CRAIK: Then the estimates that were given to us by Mr. Cass-Beggs where he said the variation on Lake Winnipeg control would be probably 5 percent and a maximum of 10 percent from his estimate, placing that attributed to the Lake at between 45 and 55 million. And I refer to his statement here September 10, 1971.

MR. BATEMAN: Yes, Mr. Craik.

MR. CRAIK: That estimate then you are now saying was based on - was too difficult to have been made?

MR. BATEMAN: Well, I think that that estimate was as good as we had available. You as an engineer know how engineers do make their estimates on the basis of the most up-to-date information. They never have all of the information. You don't get it all until the job is well under way. Mr. Cass-Beggs would have been declared an alarmist if he had anticipated escalation rates such as we have experienced over this last 2-1/2, 3 years.

MR. CRAIK: Well, Mr. Bateman, there is not necessarily just escalation rates, there are probably rates that are higher because of inadequate estimates too.

MR. BATEMAN: There are increases in that estimate that I made quite clear to you, Mr. Craik, that are increases because of additional information that has been determined on the job as the job progreased. I pointed out that you cannot, possibly, on a mile long channel anticipate all the rock that you are going to have in a 1200 foot wide by one mile long or whatever the length of the Ominawin Channel is, I . . . How long is the Ominawin Channel - Harris?

MR. WILSON: Little over two miles long.

MR. BATEMAN: So the Ominawin Channel, two miles long by 1200 feet wide, I think we would have been accused more of wasting money if we had drilled holes to give us an accurate rock profile of the base of that channel. I don't think any engineer would recommend such a course of action. You must use some judgment in the amount of money you spend in your field surveys and in determination of your information for final project design. You must also remain flexible during the course of the development of the project.

MR. CRAIK: Well, Mr. Bateman, in view of the construction on Lake Winnipeg and

(MR. CRAIK cont'd). . . . . the fact that you are going to have the control structure there, doesn't this pretty well dictate you have to go to the large plants on the Nelson as a priority if you are going to get any pay-out from your front end load charges on Lake Winnipeg?

MR. BATEMAN: Let me refer you, Mr. Craik, to a very important document that is called The Final Report of the Nelson River Programming Board to the Government of Canada and the Government of Manitoba, dated February, 1967. In this report there are many many references to the fact that Lake Winnipeg was an integral part of the Nelson River Development - - I could quote them all to you if you like, but I'm sure you are familiar with it. But the studies indicate that approximately 2.4 feet of regulation are required as a range of stage on Lake Winnipeg for the optimum River, Nelson River design flow. You know, that's on the basis of a pumping plant that would not have guaranteed elevations on Lake Winnipeg being less than what nature has given them in the past.

So we have a report here that not only does it include Lake Winnipeg for a Manitoba system alone in five years apart, but if we were to have exported as this report deals at some length with the export of firm power from the Nelson River, it would have required that these two projects were installed in the same year if the 800 megawatt of firm power had been used as an export to justify the Nelson River. Now the facts are that the negotiations never succeeded in getting as far as we've got right now - we are not complete now mind you, but we are a lot further than they were in this - but the present Federal legislation would limit an agreement for power export to the United States to a period of 25 years. Now for study purposes - I'm quoting right out of the Program Board Report. Ontario Hydro defined preferred schedule, and this was also talking about exporting 1200 megawatts of firm power to Ontario and corresponding import levels at Minneapolis of 400 in '70 increasing to 800 in '72 were used for most studies and a receiving end firm power annual load factor - annual load factor of 80 percent was agreed upon by both Ontario and the upper Mississippi Valley power pool for study purposes. And while this value was chosen as a compromise - - - so on it goes. But the conclusion of the study was that the export to Toronto is uneconomical, but the Minneapolis market represents a system capable of providing rapid load growth during the early stages of Nelson River Development. Now here you would have been putting dollars in place early to export power to the United States market. And then it goes on that the investigations - the benefits of Lake Winnipeg as a storage reservoir are twofold; namely, first to increase the utilization of the inflows through storage; and secondly, to ensure the reservation of a volume of water which varies throughout the year, and also, from year to year for use during the recurrence of a critically low water supply period. These benefits are the result of the carryover of water which would otherwise be spilled, as in the case of no control at the outlet of Lake Winnipeg. The reservation of water and storage is required to ensure that hydro electric energy on the Nelson River is always available as required, or "firm" as it is termed in the electrical industry. Also, this firm energy takes into account the existing system, thermal electric capacity and energy together with the outflows from the upstream reservoirs. And so on it goes. And there's no doubt at all, Mr. Chairman, that the Nelson River Programming Board and the studies that were done back in the '60s contemplated Lake Winnipeg regulation and Churchill River Diversion, and depending upon where the load growth was, the timing that these two projects would be required to be put into place. And if you had no export the time period as used in the studies and as shown in those exhibits right there was five years apart. If you had an export of 800 megawatts - and I might tell you for your interest that the load now is more than 400 megawatts above, that is the Manitoba firm load is more than 400 megawatts above what was used in those studies - and if you had that 800 megawatt export you were going to have to have that project in place at the same time as the Churchill River Diversion, in order to make the system firm for Manitoba's load. You know, I hate coming back to this all the time but, Mr. Chairman, it seems that it's the most misunderstood situation that . . .

MR. CRAIK: Well, Mr. Chairman, then since you've brought this aspect of it in in your reply, could I ask you then - - well first of all, the main architect for this whole scheme was the late D. M. Stephens, I think, who was held in a high degree of respect by, you know, most people interested in the power development scheme - - and in view of your statement there I find it a little difficult to reconcile it with the statements that were made at about the same time, perhaps just shortly after that report is dated, but at about the same time in Volume 1 of the report on Measures for Control of the Waters of Lake Winnipeg, and Mr. Stephens is quoted at that point as saying, "you can take confidence in the fact that it would be

(MR. CRAIK cont'd). . . . .silly to build control measures on Lake Winnipeg."

MR. BATEMAN: Well, I. . .

MR. CRAIK: And I follow that up with a second quote in a later one that said "Manitoba Hydro is no longer interested in Lake Winnipeg Control." Now, I buttress that with a 1970 report that was commissioned after Mr. Cass-Beggs came in that reported, and we've quoted this to you, that said, Lake Winnipeg Control per se may be of value when all plants are installed as late as 1990, whatever the figure was, and at a figure that would be less than half of the calculated value of 30 million, putting it at a value of 15 million dollars. So you are quoting one batch of statistics to back up your decision, I'm simply trying to quote sources that I think were your own sources that have said, buttressed by many other figures and facts, that says Lake Winnipeg Control as a front end load charge on this system is imposing ridiculously high costs on the ratepayers of Manitoba. And we are not opposed in saying this - I'm not opposed to saying this, to export sales to the United States. The point is that is your negotiating position such that you are going to get maximum value for what you are selling to the U. S.

I've brought in two questions here really that are triggered by your referrals to the report. I think that some answer is required to this because both yourself and the First Minister in the House have referred back to the original beginnings of the 1966 reports, and Mr. Stephens who was the head of your organization at the time, very clearly made these statements and these decisions prior to 1969 - were on his recommendations and I'm sure yours at the time.

MR. BATEMAN: Well, Mr. Chairman, if I may reply to that rather several pointed question. First of all, I am not familiar with the quotations that you are alleging Mr. Stephens has made. I had the utmost respect for Mr. Stephens; as a matter of fact it was Mr. Stephens who hired me to work for Manitoba Hydro. He was a great engineer and a wonderful person to work for. He also is a signatory to this report. He signed this report. What you are telling me is that he some time between signing that report and his death made some statements that I don't know where they were made, I would like to see the source you have quoted.

MR. CRAIK: I gave you the reference, Supplementary Volume 1 Report on the Measures for Control of the Waters of Lake Winnipeg.

MR. BATEMAN: Well, I will undertake to read the reference you are giving me, but I would also like to get it in context, because the advice that Mr. Stephens gave me when I was put in charge of planning and had recommended the high level diversion to him as a means of perhaps deferring for a short period of time Lake Winnipeg, his advice to me was don't leave Lake Winnipeg regulation too long. The longer you leave it the more costly it's going to be to you, not only in doing it but in system development besides. Now those were, you know, profound words. I've always remembered them. But looking at what they mean, you have to have - if you didn't have Lake Winnipeg, there was no way you could make this system firm without some massive thermal generation associated with it.

MR. CRAIK: Mr. Bateman, isn't that based on the fact that you look on Manitoba as an island?

MR. BATEMAN: No, it is not based on looking at Manitoba as an island, because if I had interconnections, which we haven't got yet, if I had massive interconnections, then I could pay for a guarantee, but that guarantee that I have to pay wouldn't be sort of a surplus power type guarantee. I would have to pay pretty handily for that type of guarantee.

Now the other thing you alluded to in your question, Mr. Craik, was the fact that Lake Winnipeg added some expense and I think you are alluding to the fact that it's costing Manitobans more because we are presently in the position of putting a rate increase in. Now this I think is really misrepresenting the effect of Lake Winnipeg because you know and I know that there isn't one cent of the Lake Winnipeg project that is presently on the books of Manitoba Hydro. It's being capitalized and it will not be charged against operating accounts until it goes into service, and it's not scheduled to go into service until late this year and next year. Part of it will go in this year and part of it next year. Now then, those reasons - and I'll deal with these as we get into it - the reasons why we are having a rate increase of course will become quite obvious when I show you the curves that we are up against. But the real reasons for those increases are because we are this year, last year and next year, putting the fixed charges associated with the Kettle Generating Station on our operating accounts. I think I could give an approximation. You see Kettle Rapids cost $324 million and each unit that we put on our operating accounts is worth about $27 million. Now when you put $27 million of capitalized value on your operating accounts it increases the net plant in service that has to be covered for its depreciation and its

(MR. BATEMAN cont'd). . . . . interest from your operating expenses, and at the present time we have 75 percent of Kettle Rapids on the operating accounts. And to give you an idea of what this has meant to us: In 1973 it was 9.7 million dollars of additional interest and depreciation. In 1974 it's 17 million dollars of interest and depreciation; and in 1975 it's 25.7 million dollars of interest and depreciation that has to come out of our rates. That's the only place we can get that. We can't continue to capitalize it. We must bring it into operating accounts, and really I think that was a - you know you asked a question last week which I didn't deal at sufficient length with, to bring out the amount of interest that is being capitalized and I gave you those figures today. It's very significant amounts of money. But if you were to pay for that interest out of your operating accounts as we built these massive plants, then you and I would be paying for the plants that our grandchildren are going to enjoy. Our accounting methods provide for us to capitalize interest, we've always done it that way. As well as paying for the plants that were built in the 20's and 30's and 40's, if we did a different method of accounting we would have to start paying for the plants that our grandchildren are going to enjoy in the year 2000 and some.

MR. CRAIK: Well, in effect then any current rate structure may be out by very large amount as a reflection of our actual obligations? Mr. Bateman, then, I know you are going to get into the rates but on the basis . . . with this capitalization of interest charges technique on a system that is going into a heavy capital program, the actual rate structure at a given time could be really no reflection of what the obligation is?

MR. BATEMAN: No, I think, Mr. Craik, you must recognize this fact. That in the declining balance method of depreciation - and I was going to deal with this more precisely in the rates - but the highest costs for this plant are the year it is first put on your books, and the reason for that is that you are depreciating some of it so you've got a declining value of plant. So you are only paying interest on the declining balance. As you get out in time, 67 years hence, the plant has no value on your books. The only cost it represents to you in having it there is the cost of operating, maintenance, water rentals and so on. These are the costs, but today we have to pay the interest and retire the investment.

MR. CRAIK: Certainly, on the figures you've given you know pretty well by the looks of it now what your costs are going to be in to the future, but all of these things leave the average person in the dark as far as being able to understand it at all. So in a nutshell, at what point then in paying for all of this capitalization, at what point are our power rates going to double in Manitoba, if. . . ?

MR. BATEMAN: Well, you're asking me to conjecture a lot of things. I mean if we are successful in getting this U. S. interconnection that will have one impact of slowing down that point in time; but sure some time in the future, I would anticipate within fifteen or twenty years, we might have double the power rates, but I wouldn't like to just say specifically. This is fraught with a great deal of assumption. You know, you must plug into that sort of a study, and I don't know how accurate it is to project that sort of thing beyond five years. Five years is about the maximum. We do need more revenue this year, next year, yes.

MR. CRAIK: Well, then we should ask you, and you are perhaps going to come to it, as to what you estimate the rates will be in five years?

MR. BATEMAN: Well, I'm sorry, Mr. Craik, I haven't got a definitive figure for rates, except I know in five years they are going to be higher than they are now.

MR. CRAIK: Well, what's - you know, just looking at it again from a layman's point of view with your 100 million dollar revenue a year and carrying costs on Lake Winnipeg alone probably being $23 million a year and adding the other plants to it . . .

MR. BATEMAN: Yeah, each year, each plant - of course, you see you've got two things going here. You've got a larger system; as you add these plants you've got more load to carry the more kilowatt hours you are selling, so the unit cost isn't - - if you had no increase in load and you added a new plant, then every unit of load that you had would have to bear a higher percentage than if you were increasing your load.

MR. CRAIK: But a lot of the things that are going to determine your rate five years from now are now committed under way and you know what the capital costs are . . .

MR. BATEMAN: Absolutely.

MR. CRAIK: . . . and will be on line at that point. And what I question is that even within five years the things that determine your costs are now known; a large number of them must be known; and all I'm asking is in view of the other solid information that you've, you

(MR. CRAIK cont'd). . . . . know, provided - - last year you told us . . .

MR. BATEMAN: Well, yes.

MR. CRAIK: . . . 10 mills on Jenpeg or whatever it was, this year you say that the costs are, you know, are fixed now with regards to Jenpeg and these others. Can you tell us, estimate what the rates are going to be five years from now?

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

MR. SCHREYER: I was going to raise the point of order. I think that can wait until - -

MR. CHAIRMAN: Mr. Craik.

MR. BATEMAN: I would like, Mr. Chairman, to get into the rates before I answer that question, but Mr. Craik raises one point that I would like to just comment briefly on. I told you that Jenpeg was about 10 mill power and so on. Yes, that's true, and if I can find the reference in this Programming Board Report I'll show you a curve that was produced back in 1960 that had the Manitoba Hydro cost of power at 10 mills in the early years of Nelson - here it is here - Exhibit - - drawing No. 11.1, New Energy Costs for Thermal and Hydraulic Sequence, and these are the X27A series and the X32A series, and in the early years of the Nelson River the cost of the power went up to 10 mills and then dropped back down to 6, you know, so, this isn't new information except that what was looked at as an average cost in those days of 5 mills for thermal, you couldn't touch it today. The whole thing has moved up. Now the fact that our load has grown faster than the studies, we have loaded our system much faster, means that we've got a more favourable revenue position than we would have had had we not had the bigger load growth and the export market. But let me get into, if I may, Mr. Chairman, I would like to have the little statement that I've prepared on rates delivered so that you can follow it, if you like, as I take you through it.

MR. CHAIRMAN: Well, possibly before we proceed with that there are a couple of people who have questions on this matter. Mr. Asper, do you have a question to the point we are at now?

MR. ASPER: Well, Mr. Chairman, while we're waiting I have two or three short questions that I think can be answered numerically without any great length. They don't necessarily relate to what's been said before but the time is coming to an end and, if you don't mind, I'll ask them now. The first question is: Your report generally indicates, Mr. Bateman, that there was a decrease in your last year of power use in the mining industry by 8.3 percent. Because I was unable to attend last week's meeting, I don't know whether it came up, but could you give us an explanation why mining used power 8.3 percent less, was that because of reduction in production or was it . . . ?

MR. BATEMAN: The last year's annual report which I would like to deal with also, Mr. Chairman, did make note of the fact that the mining load was off and this was principally due to International Nickel's cutback. As you know, International Nickel got into a very heavy over inventory position about a year and a half ago and they made some very drastic cutbacks in a great number of areas. The one advantage to us, though, on the Inco contract, which I really would like to bring this point out, that they had what is commonly referred to in the utility industry as a take or pay type contract; and it didn't affect their power bill, it affected us in this respect, that the power that they were paying us for and not using, we were able to turn around and sell to somebody else, so we made a very satisfactory return on it.

MR. ASPER: The report also indicates that the number, the absolute number of industrial users of power is down by approximately 80 for the year. Is that - my understanding is that that compares with an absolute increase in the number of industrial users in Ontario, and I should say my understanding also is that the number of industrial users in the preceding year of 1971 - sorry 1971-72, also declined. Is this some sort of a trend of either consolidation or are the number of industrial users declining absolutely?

MR. BATEMAN: No, it's not a decline in absolute, it's a change in nomenclature, as I understand it. I can get somebody, I'm sure, who knows more about this area than I do but as I understand the situation, we've changed like the category the customer is listed under, instead of being a power category it may be a general service category. It depends on the rate they are on.

MR. ASPER: Would it come under the category of industrial use or commercial use but no other category? Would those by the only two categories in your report to cover business or industrial use of electricity?

MR. BATEMAN: Would somebody from our Marketing people - - Bruce Porter . . .

MR. CHAIRMAN: Would you come forward and speak into the mike, please?

MR. PORTER: That's correct. I think what the problem is that we - - it's a matter of recording one customer that has two meters. In some cases those meters are not considered in our records now as two customers.

MR. ASPER: Well - - I'm not sure who should answer the question. The number of commercial and industrial users, regardless of category, is down though?

MR. BATEMAN: I think, Mr. Asper, - - yes, the number of customers is down. I see what Bruce is saying. He's saying that if a plant expands and has, say, a different category of service, you put in a different meter. Now it's much better to consolidate those. It has the impact of dropping one, statistically dropping one customer off our records. But I think the main criteria here is, look at the load that the power and commercial users are using and you'll find that this is increasing quite significantly.

MR. ASPER: Well, that might be up by virtue of expanded utility in the existing industry or business. I thought it was of some significance that the number of users in those two categories was down. The real question is - well, it doesn't relate to Hydro's performance - it does relate to our economic activity level and I am curious to know whether the number of industrial firms in Manitoba by your records would be down from 73 to 72 and from 72 to 71.

MR. BATEMAN: I think the answer is "no". But in our records, if you look at our records as a statistic, the number of meters may be down but the number of customers isn't.

MR. ASPER: Are you sure of that?

MR. BATEMAN: Oh, positive. And besides that I got a nod from Mr. Porter.

MR. ASPER: Okay, Mr. Chairman, I have a number of questions related to what Mr. Bateman has said to this point, but if you prefer to interrupt to have the rate issue deal dealt with - then come back?

MR. CHAIRMAN: Well, yes I think we can come back - so we can proceed now with the rate.

MR. BATEMAN: Well, Mr. Chairman, I have distributed this text, and I'll just go through it more or less as it's written. But I would like to make sure that we do understand the points as I reach them, and so we'll start off by telling you that we had a rate increase in 1968 which amounted to some 6% - and this was the only general rate increase in our history. And after some discussion, this was referred to the Public Utilities Board of Manitoba under Section 39.3 of the Manitoba Hydro Act which states: "The Corporation may apply to the Public Utilities Board for a determination by it of the price that the Corporation should charge for power pursuant to Subsection 1. Now after holding public hearings and listening to submissions from Manitoba Hydro and its own rate consultants, the Public Utilities Board in 1970 approved the 1968 increase and recommended that a further rate increase of about 14 percent be applied immediately - and immediately was open to some discussion as to what it meant; it wasn't applied, as you know.

I have here a copy of that Board Order, which is quite an impressive looking document - and I'll not read you all of it, but I have taken the liberty of quoting a few excerpts from it which among them are here. The Board observes: "It will be immediately apparent that the longer necessary rate increases are postponed, the greater they will have to be when they are imposed." Now, that's quite an obvious fact. The Board also observes: "It has already been noted the rate increase of 1968 was the first overall rate increase ever implemented by this electric utility. The upward trend in cost elements which go to provide the service has been long and unrelenting. It is perhaps scarcely a matter of surprise that Manitoba Hydro should eventually find itself in a squeeze of this nature. Other electrical utilities in Canada and elsewhere appear to be in similar positions, both already realized and prospective rate increases are prominent in the news, and more so recently.

The Board also in its perusal made the following statement: "Exhibit 11, for example, indicates that an increase of one percent in interest cost would create over a 10-year period, an additional revenue requirement of about $36 million." And of course, that's one of the unknowns in determining these rates, as Mr. Craik points out. He wants to get us to estimate ahead. Now, I really have to estimate, not only what our rates are going to be, what our own revenue requirements are going to be to cover our investment, but what the interest rate is going to be.

In presenting information to the Public Utilities Board, Manitoba Hydro forecasted in its presentation of 1969 that it would have a deficit position in the current fiscal year ending

(MR. BATEMAN cont'd) . . . . . we are going, and Manitoba holds an enviable position. On the subject of rates and for the benefit of those who haven't got the text, I'll show you what the typical residential bills are as of December 31st, 1970, based on--this is information, I believe, that was produced by a task force for the Ontario Government and these are typical bills in Manitoba for the 250 kilowatt hour load, or kilowatt hours per month, and the monthly consumption of 750 kilowatt hours, and you see that Manitoba is significantly below the Canadian average in both cases and it does represent a position that we've been envied in for some time.

Now you might also wonder whatother utilities have done in this same period of time and I have listed on the next two pages a series of increases that have taken place in other utilities and I must admit that I did not include Alberta but I can give you the Alberta figures, which I will do now. For instance, Calgary Power effective April 1st, 1973 had a 15.1 percent increase and they have an application for an increase of 5.2 percent effective April 1st, 1974. Alberta Power, which is another utility in Alberta, had an 18 percent increase last year and they also have another application under way. The City of Calgary had an 11.5 percent increase in 1973.

Now these increases, as you will see, in Ontario and in Quebec and in British Columbia have been very significant over the years starting back in 1970, the very time when we were faced with a potential increase. It was staved off, as I told you, by the favourable export position that we were able to enjoy.

Now unlike utilities that are dependent on fossil fuels for their energy with which to generate electricity, Manitoba Hydro uses a completely self-renewing resource-water flowing through the turbines that drive the generators on the major rivers in Manitoba. Consequently, while the capital cost of putting these plants in place is high - but of course, as I pointed out, no higher than the alternative nuclear source that is available to us today - the annual fixed charges are practically fixed, being composed principally of interest on the investment and depreciation on the plant. And just as a side note, Mr. Chairman, we were talking to our rate consultant yesterday and they tell us that the surcharge, or the fuel charge, that is added to every kilowatt hour that is sold by Consolidated Edison in New York, has a 2.2 cents per kilowatt hour cost added on to the basic rates. 2.2 cents fuel adjustment component makes the cost of power pretty expensive in that area. And I also pointed out in our declining balance method of accounting where we charge interest on the depreciated balance from the plant in service, it follows that each year the depreciation results in a lesser value of the plant and consequently a lesser amount of interest that has to be paid. It also follows, therefore, that the cost of power from the plant will decline over the period of time that it is being depreciated, and we use a period of 67 years until the actual power cost from the plant is made up of the operating costs and maintenance costs, water rentals, which represent of course a fraction of the total cost of the first year that the plant was in service.

You can see from this that Manitobans are still going to be favoured with long-term low-cost hydro energy from the Nelson plants that are being built today, even though they are costly to build. The Nelson as a source of electrical energy is more economic than any alternatives open to us today. Manitoba Hydro has the responsibility of providing energy for Manitobans at prices sufficient to meet its costs. The present rate increase will add about 3.4 million dollars to the residential consumer accounts in Manitoba, and this is less than 25 percent of the total revenue increase which we expect to achieve by this rate increase.

Now the primary reasons for the Manitoba Hydro Electric Board increasing the rates it charges for electricity are

(1) That we have interest charges; they have increased 262 percent since 1962, which requires about 39.5 cents out of every revenue dollar.

Our labour costs have increased 222 percent since 1962 and labour is the second largest component in our expense dollar, requiring 25 percent of our revenue, and we must charge rates to cover the cost of the Kettle plant which is now largely transferred to our operating accounts.

We have a summary of our rates and tabulations of what the new rates will mean in increased costs to our consumers, and I shall have these distributed now for your reference. That's all I have to say, Mr. Chairman, on the rates.

MR. CHAIRMAN: Thank you. Are there any questions at this time? Mr. Schreyer.

MR. SCHREYER: Well, Mr. Chairman, no doubt there are many questions that could be asked. I would try to pose an all-encompassing question to try and get the widest possible

(MR. SCHREYER cont'd) . . . . . perspective on this. Would Mr. Bateman be able to indicate whether in the dynamics of utility rates across the country, including the dynamics that work here having to do with the impending transfer to operating account from capital account of certain engineering works would it seem probable at this point in time that the ratio of Manitoba Hydro rates will keep about the same proportionality as, let us say, to the national average or to the neighbouring utilities in the future as has obtained, say, in the past decade, roughly the same proportionality as it moves along the graph.

MR. BATEMAN: Well, Mr. Chairman, the Premier always asks me the most difficult questions, but I would find it hard to be really definitive on that. My hope would be that we will, perhaps for the next ten or fifteen years, enjoy a more favourable position than the national average because our system is going to largely grow in the hydraulic area, and particularly I would say this would be the case if we were able to effect these interconnections with the United States and add to the net revenue each year that we achieve from the plants that we have in service. This will go a long way toward keeping our rates perhaps in the same relative proportion as they are today to other utilities. I don't know of a single utility in Canada that isn't either in the process of going for rate application or has been for one, with the exception of Saskatchewan, but of course they had substantially higher rates than we did in the first place and they have been warning now for two years that they can't--well, their revenue picture is declining and they are talking about a rate increase now.

MR. CHAIRMAN: Mr. Craik. Pardon me. Mr. Asper. I thought that you had concluded your questions, Mr. Asper, but I still have your name down.

MR. ASPER: Well, Mr. Chairman, I'm concerned about running out of time in about 30 minutes. There was one question that's been troubling me - going back to what Mr. Bateman said before. Perhaps this interlude will give people a chance to look at the rate schedule - it'll take maybe a minute or two.

MR. SCHREYER: We can always come back next week or the week after.

MR. ASPER: If we get the invitation.

MR. CHAIRMAN: Yes, it is intended that we would have another meeting. I don't believe we'll be able to conclude today unless you are so moved that we can proceed with the report and finish the Annual Report today.

MR. ASPER: I wouldn't think so, Mr. Chairman.

MR. CHAIRMAN: You don't think so. Mr. Asper, proceed.

MR. ASPER: The question arises from a statement made last week and alluded to again this morning relating to cost escalation. Now, Mr. Bateman, do I understand you correctly that your estimates now for the completion of the Nelson development and the Churchill development combined, scheduled for the next roughly ten years, will come in at an aggregate cost of about $4 billion?

MR. BATEMAN: That is correct, Mr. Asper.

MR. ASPER: And is that the $4 billion that was projected at $1.6 billion originally?

MR. BATEMAN: Not six billion.

MR. ASPER: One point six.

MR. BATEMAN: Oh. Yes, that's the same . . .

MR. ASPER: That's the total project.

MR. BATEMAN: It's no different really than the Mackenzie Valley Pipeline, and I think its first estimate was in the order of one and a half billion, and it was five billion and it's now 5.7 billion. The longer you leave these things off, the more they're going to cost. I also pointed out this morning, Mr. Asper, how time affects the estimating cost of our projects.

MR. ASPER: I want to go back now--at what point was the 1.6 billion a firm estimate? Was that 1966 or 1968? Can you tell me at what point the 1.6 billion estimate was firm? Was it in 1966 or 1968?

MR. BATEMAN: Oh, I think that was the estimate that was announced in this Legislative Assembly about February of 1967.

MR. ASPER: All right. So that could you recall--and you were going to, I notice from the transcript of last week, you were going to see if you could give us the cost escalation that has been discovered in the last twelve months since this Committee last met. Can you give me some approximation of what that escalation is? Of the 3-1/2 billion escalation over the past roughly six years, how much escalation has taken place in the last year?

MR. BATEMAN: Well I think, Mr. Asper, I went through all those figures this morning which gave you an appreciation of what's happening to both material and so on, and I indicated

(MR. BATEMAN cont'd) . . . . . that there was roughly about 61-1/2 million dollars in the Long Spruce estimate, which is definable escalation, which is definable escalation, which we can sort of put a handle on.

MR. ASPER: No, but if you had been asked, as you were last year at the Committee, what the total cost was going to . . . I believe you would have said about $3 billion as opposed to the four billion.

MR. BATEMAN: No, I hadn't even been asked and so I hadn't thought really about it. I was alarmed at the way costs are going up but I hadn't projected. It was just last week that somebody asked me a question and I used the best judgment that I was able to muster on the spur of the moment there, and it's surprising how close it was. It's the actual Nelson estimate for completion of the Nelson between the time span we're looking at, is just over $4 billion.

MR. ASPER: Yes. My question is, I believe we were under the impression here that last year we were looking at a cost of three billion. I believe either you or the Premier, or perhaps it was the Mines Minister, but somewhere we were given the figure of $3 billion. Well without identifying - I'll have to go back and look for it. I have some press clippings which aren't valuable because they're not Hansard, but you don't recall the three billion as being the target figure we were talking about last year?

MR. BATEMAN: It wasn't a target figure, Mr. Asper, but it may have been used. I have no recollection, put it that way, of being asked to provide a figure last year. It may well be that we discussed it but I just don't remember. I haven't read the transcript.

MR. CHAIRMAN: Mr. Schreyer.

MR. SCHREYER: To avoid any confusion on the matter, approximately a year and a half ago I did make reference to the over-all Nelson development as something aggregating in the order of 3 to 3.5 billion dollars during the entire duration of its . . .

MR. ASPER: That's my recollection too, Mr. Chairman. My point is: can you help us in any way outside of--we understand that the cost of labour is up and so on, and the cost of hauling. If we're looking at something and I don't think you feel particularly comfortable with the $4 billion estimate either, reading the notes, okay, we might be looking at 4, 4-1/2 billion or we might be looking at 5.

MR. BATEMAN: To substantiate the statement that I made last meeting, I asked for a new estimate; you know, a sort of a quick planning type estimate of what the Nelson plants that are presently projected would amount to, and I gave you those figures this morning and the associated transmission with that to get the power into the system is in the order of 4.3 billion dollars.

MR. ASPER: Now if it came in at 4.3 or 4.5 billion, the escalation from what the Premier spoke of, whenever it was, of a billion dollars is going to reflect itself in a $100 million approximately per annum cost in interest.

MR. BATEMAN: Yes. Down the road in 1990 some odd, that's about what the interest costs could amount to.

MR. ASPER: No I'm talking about the increment.

MR. BATEMAN: Oh.

MR. ASPER: The increment would be $100 million a year roughly.

MR. BATEMAN: Oh, the increment.

MR. ASPER: Would cost the taxpayer or the Hydro user something.

MR. BATEMAN: No, not the annual increment. No, no.

MR. ASPER: Well, if you spent a billion dollars you're going to pay for it at approximately 100 billion a year.

MR. BATEMAN: That's if you paid 10 percent interest charges, yes.

MR. ASPER: Well that's the cost of servicing right now. Maybe it'll be 9 percent or 11 percent.

MR. BATEMAN: Our average interest cost on the system at the present time is just a little bit less than eight percent.

MR. ASPER: Based on . . . old loans.

MR. BATEMAN: Well yes, yes. That's . . .

MR. ASPER: Money borrowed today surely will cost you 9, 9-1/2, 10 percent.

MR. BATEMAN: No, not for us. No, our long term bond issue that we--the last long term bond issue in the U.S. was 8.09 and the last issue in Canada was 8.--Ernie is it 8.3?

MR. ASPER: Excuse me, Mr. Bateman. I'm not talking about the interest rate, I'm

(MR. ASPER cont'd) . . . . . talking about service costs, which have got to bring it to 10, 11, 12 percent.

MR. BATEMAN: Well yes. If you want to take into account all, like depreciation, interest, operation and maintenance and so on, yes, it's in the order of--we use more than 10 percent.

MR. ASPER: Yes, I would think closer to 11, maybe 12. Well my question is, that cash flow to hydro must increase by $100 million a year, roughly, on that 3.5 to 4.5 possibility, some time in the next, over the next period of 10-15 years. Is that correct?

MR. BATEMAN: 20 years.

MR. ASPER: To 1994.

MR. BATEMAN: Yes.

MR. ASPER: Okay. Now that's that interest cost escalation or debt cost escalation . . .

MR. SCHREYER: What about the instrument . . . energy?

MR. ASPER: Well, my question is . . . No, no, no. I think the Mines Minister is quite right. It is to produce the same energy we were going to produce with 3.5.

MR. CHAIRMAN: Gentlemen, would you please, would you please stop your interjections and let's carry on with the questions to the Chairman.

MR. ASPER: My question is that the requirement is--you're going to have to raise somewhere along the line an extra $100 million a year to cover that cost. Could you now relate that to the rate increase received today? When you are going to have to start raising rates to meet that extra 100 million?

MR. BATEMAN: Well I'm not going to have to raise rates until I make those investments, but we are going to have to raise rates again next year.

MR. ASPER: Would we be safe in assuming, and obviously this is a mathematical not a management question, but are we safe in assuming that we face hydro rate increases this year, next year you suggest, and periodically until you've got that extra 100 million a year roughly.

MR. SCHREYER: Well who doesn't?

MR. BATEMAN: I mean this is--if we're going to have an increasing load and . . .

MR. ASPER: No but--Mr. Chairman, the First Minister says, "Well who doesn't." We haven't for a hundred years faced increases in the size anything comparable to the size we have to face now.

MR. SCHREYER: We haven't been adding to capacity then.

MR. ASPER: Yes, but we're still producing the same capacity with higher cost. Now that's the issue.

MR. BATEMAN: Those curves I showed you, Mr. Asper, I think the story is in the higher cost of money and the higher cost of labour that we've run into since 1968. We're really off on a spiral. Now Manitoba alone can't do anything about that and I don't think Canada alone can do enough about it. It's a global problem. We've got to come to some new understanding of what the value of a dollar's worth. Right now the value of a dollar is going down faster than we'd like to believe.

MR. ASPER: Well, Mr. Bateman, last year we were talking about the value of a dollar, the First Minister in this Committee put to you - and I think it was in this Committee or in the House - that the great saving from the Churchill River Diversion and the South Indian Lake flooding was $10 million over a period of five years, and that saving of $10 million was staggering enough to warrant that project. Now . . .

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

MR. SCHREYER: Yes, because the term has been used as a great saving. If the honourable member is really meaning to say "cost benefit" or what, I'm not sure.

MR. ASPER: The terms used I think a year ago, a little more than a year ago by the First Minister, were that the - yes, I think he's right. The benefit to Manitoba could be measured at approximately $10 million foreseeable over the five year period, and I'm not disputing his figure--it might get better, but the point I'm asking you to consider is that because of that benefit we said - or at least the public of Manitoba, I think, or the Legislature said, "Go ahead". Now we're looking at a non-benefit of $100 million in extra costs and we're not really batting an eyelash at it. I'm just wondering if we haven't got our priorities mixed up somewhere.

MR. BATEMAN: Well what's the alternative, Mr. Asper? Should we . . . ?

MR. ASPER: Well I'm suggesting the alternative is this. If we're not worried about

(MR. ASPER cont'd) . . . . . $100 million per year of extra cost, which might even be into perpetuity, why were we so worried about a $2 million per year cost of $3 million per year cost that you defended so strongly last year? That it was . . .

MR. BATEMAN: Mr. Asper, I'll defend very strongly a two cent increase in cost. I will strive for the lowest cost operation that we can possibly achieve in our system, in our day to day system operations, and in our annual investments that we're making. We are quite proud of the fact that we run a pretty good ship. We've got a lot of very good people and they're all very cost conscience. Everybody in our utility is very much aware of the value of a dollar. Now . . .

MR. ASPER: I wouldn't suggest anything to the contrary, Mr. Bateman. What I'm suggesting is this: That the cost of not diverting the Churchill was greatly - or the benefit of not diverting, was really a drop in the bucket compared to some of the other cost problems.

MR. BATEMAN: Oh no. I think, Mr. Asper . . .

MR. ASPER: About 2 million to 100 million.

MR. BATEMAN: But we've got to look at the--we've got to look at this in its proper perspective. Because the benefits that we looked at in that point in time were X millions of dollars, then as time goes on, compared to the alternative, they're still the same value percentage-wise and they may be even more valuable. And I would wager that the alternative that we had contemplated to the Churchill River Diversion of thermo generation . . .

MR. ASPER: For pumping or pumping development.

MR. BATEMAN: Well no, not pumping. Pumping would have cost you a lot more money and not produced as much energy, and it would have done just as much damage to the ecology or the environment except for the lake itself, but the rest of it would have been exactly the same. Now compare that with the alternative choice that was open to us and I'm happy to say we didn't take the alternative, because the alternative has been escalating far more rapidly than what our program is escalating at.

MR. ASPER: Well, Mr. Chairman, I'll come back to it but I think we'd better get to the rates.

MR. CHAIRMAN: Mr. Craik.

MR. CRAIK: Mr. Bateman, I wonder if you could put into layman's language what's contained in your rate structures here so that there can be some sort of direct interpretation. Perhaps I could ask you, in terms of gross revenue to Manitoba Hydro, what does this mean?

MR. CHAIRMAN: Mr. Craik, possibly . . . Mr. Green, do you have a question on matters that we've been dealing with up to this point before we go into the actual questions on the rates?

MR. GREEN: No, Mr. Chairman.

MR. BATEMAN: All right. Mr. Craik, proceed.

MR. BATEMAN: Mr. Craik, what does it mean in revenue increase? About 15 million dollars a year.

MR. CRAIK: Based on, you know . . . 15 million, and that's without the normal growth.

MR. BATEMAN: No that's, I think that includes our anticipated growth factor.

MR. CRAIK: Yes. So what do you estimate your revenue, current year?

MR. BATEMAN: Well, the current year's revenue is $100 million and this is an increase of 15 million-odd, is that the order Bob? Am I . . . ? Yes. All right. Our general consumer revenue is about $80 million for the current year. Our total revenue this year will be just, well, perhaps slightly in excess of $100 million and this rate increase . . .

MR. CRAIK: You mean March 1974.

MR. BATEMAN: As of March '74 yes, we'll be just over the $100 million total revenue.

MR. CRAIK: So on the basis of sales without any growth it would be 115 next year, but it will be more than that with normal growth.

MR. BATEMAN: I haven't got that sheet in front of me. Have you got a copy of that, Bob, that I could refer to? Well, Mr. Chairman, the projected revenue for next year without a rate increase would be about $80 million. Now with the rate increase it will be $95 million on the general consumer accounts.

MR. CRAIK: On consumer accounts. And the other would take in, if you were to take total that doesn't include export sales and stuff like that.

MR. BATEMAN: Well it doesn't include export sales, it doesn't include the power sale to the City of Winnipeg and so on.

MR. CRAIK: But in general, in total, the rate increase that this table tells us, brings you in 15 percent increase in revenue roughly then.

MR. BATEMAN: No that would be more. If you put the increase, the 15 percent on 80 million, 15 million on 80, it's about 18 percent.

MR. ASPER: Could you . . . the consumer householder rate rise, not in rate but in actual cost.

MR. BATEMAN: In dollars and cents? If you could tell me what your present rate is or what your present bill is in the City of Winnipeg now, I'll tell you what your new bill's going to be.

MR. ASPER: I burn the lights late in my work, Mr. Chairman, but the average consumer who lives in a three bedroom house with the usual normal appliances. Could you give us some approximation of what he's looking at.

MR. BATEMAN: Well let's say if his rate at the present time is $10.33 in the City of Winnipeg, his new rate will be $12.10, or an increase of $1.77 per month.

MR. ASPER: Approximately 18 percent average at that level.

MR. BATEMAN: That's about three packages of cigarettes or so, isn't it?

MR. ASPER: I guess it was in the Committee room where we were meeting last.

A MEMBER: He'd better quit smoking.

MR. ASPER: Bring the candles, bring the candles.

MR. CRAIK: These tables are very detailed but they're quite awkward in comparison to the table that you put out with your speech in which you took sample homes in Ontario and Manitoba and showed what they were in 1970, and I think if you showed these in the same fashion it would have been pretty meaningful to the everage person trying to interpret this. It shows here that for all electric your rate goes up 13 percent.

MR. BATEMAN: Which sheet are you on?

MR. CRAIK: Page 1.

MR. BATEMAN: Page 1? The residential Winnipeg standard rate and then the next is the residential Winnipeg all-electric. Are you looking at the rate comparison? No, you're looking at the summary sheet.

MR. CRAIK: I'm looking at Residential Services.

MR. BATEMAN: Well you see, there's two tables you've got here, Mr. Craik.

MR. CRAIK: Standard and All Electric.

MR. BATEMAN: Yes. Don't look at this one, look at this one. This gives you the-- it's called Monthly Bill Comparisons - Major Service Classifications. That's what we've distributed to try and make it easy so you can relate your present dollars that you're paying to the new dollars you're going to pay.

MR. GREEN: Can you tell me what this all-electric means?

MR. BATEMAN: Well that's a rate that the City of Winnipeg put into effect when they went into electric heat back in the days when the central heating plants went out of business. They put in an all-electric, an attractive all-electric rate.

MR. GREEN: It's a greater consumer and . . .

MR. BATEMAN: It's a greater consumer and the intent in time is to make this the same as the standard rate, but to have made that adjustment all at once this time would have represented too big an increase in those consumers' bills.

MR. CRAIK: I wonder if I could just finish this, Mr. Chairman. What status is the Rate Stabilization Fund at?

MR. BATEMAN: The Rate Stabilization Fund in our current year's accounts stands in your Annual Report that's before you about 12.8 million dollars. We did project a deficit for this year of something in the order of $4 million, but then we ran into some very dry conditions and actually projected a deficit of close to $11 million by midsummer last year. But fortunately we got some very favourable rains and the deficit will end up, the increase in operating costs over operating revenue will be about four and a half or five million dollars, four million dollars, somewhere in that range, to which of course we must also take from the rate stabilization reserve that amount that our operating revenues are short, of our operating expense, plus the contingency reserve account which is at this point in time the formula calls for a transfer af about $4.5 million, I think it is. So we'll be taking out of that rate stabilization reserve, which stood at $12.8 million in your last year's Annual Report, we'll take out about $8 million which will leave about roughly 4.8, 5 million dollars.

MR. CRAIK: Is there an allowance in the rate increase for increasing the fund?

MR. BATEMAN: Yes. There's a modest allowance for it but we're a little bit concerned about the present projections that, depending upon new wage settlements, that we anticipate coming into the next year. It could affect the revenue position to the extent that there won't be as much in the new rate increase to make a full transfer without taking some more out of the rate stabilization reserve to put it into the contingency reserve.

MR. CRAIK: You mentioned earlier that these new rates reflect only the putting of Kettle on stream as far as paying the . . .

MR. BATEMAN: Three-quarters of it.

MR. CRAIK: . . . retirement charges on it. Three-quarters of it at this time. I come back to the other comment earlier, that with the massive capital expenditures how do we really tell, you know, whether this thing is realistic at this time or not? The amount of money now committed and borrowed in many cases is going to be used for that plus future borrowing that's going to be used to capitalize interest charges for the likes of Jenpeg for the next, what, five, six years?

MR. BATEMAN: No, not that long. Jenpeg will come on our operating statements in the 1976-77 period of time.

MR. CRAIK: I come back to my question as to, can you at this time project, with the commitments we have, what the impact is going to be on our rate structure for the period of the next five years?

MR. BATEMAN: I would project that you would ask me to generalize on that and don't expect this to be entirely accurate. I would hope that we could get by with something less than a 10 percent increase each year.

MR. CRAIK: So we're talking then at that rate, we're talking of doubling in six years, really. Money at 10 percent doubles in seven.

MR. BATEMAN: If the cost of interest goes up another percent, as you heard the judgment of the Manitoba Public Utility Board, each half point rise in interest costs at that point in time was going to make a difference in $36 million over the four-year period. And, you know, that's a pretty big additional cost to absorb, in addition to the fact that labour costs are rising quite dramatically at this point in time. With inflation the way it is, most settlements are going to be in the order of 10 percent, I'm afraid.

MR. CRAIK: Well then in spite of that, are you satisfied that other forms of energy source, you know, which puts us at 20 mills in, say, if we assume we're at 20 mill power by six years from now, if we assume we are, are you reasonably sure that other energy sources are still to be more expensive or at least that high?

MR. BATEMAN: I'm confident, Mr. Craik, that the hydro plant will represent the least cost alternative. Looking at the escalation costs that are going into nuclear, for example, what we were estimating at $560.00 about a year ago when we had some consultants looking at a proposal, is now in excess of $730.00 a kilowatt. It's just absolutely alarming. You almost get to the point, as one engineer said, you've got to quote the day and the time that the estimate is valid because things are changing that fast. You know it's a serious problem this inflation. But the alternative - one real advantage to going to these hydro sites is that you do fix your costs, largely you fix your costs for the next 67 years.

MR. CRAIK: Or as long as inflation continues, you're a winner?

MR. BATEMAN: If inflation continues you are a very good winner, because you're going to pay them off with dollars that are worth very much less; but even if you have a bust, you're still going to be better off with a fixed cost hydro installation than without it.

MR. CHAIRMAN: Mr. Green.

MR. GREEN: I am not very good at reading these charts and I just want you to tell me what the difference in rates are again, in layman's language, as between the various cities that you have listed here.

MR. BATEMAN: All right. The first two pages dealt with the standard residential and residential all-electric for Winnipeg. The next chart gives you the residential Brandon, Portage la Prairie, Selkirk, and that's the standard and the all electric. This is a combination rate.

MR. GREEN: What is the difference in the rate?

MR. BATEMAN: Well the difference in the rate is on that other table, which summarized quite easily. The first 75 kilowatt hours in Winnipeg are 4 cents; in Brandon, Portage and

(MR. BATEMAN cont'd) . . . . . Selkirk they're 6.4, and if we look at our present published rate schedule for these cities without the prompt payment discount, the present rate in Brandon Portage and Selkirk is 6 cents and is going up to 6.4. The Dauphin, Thompson and Flin Flon rate is presently . . .

MR. GREEN: Can I stop there? The Winnipeg rate is 4 cents, the Brandon rate is 6.4?

MR. BATEMAN: Yes.

MR. GREEN: Now why is there that difference in the two rates?

MR. BATEMAN: Because of the difference in density of supply - the difference in cost of supply.

MR. GREEN: It has to do with the economies of scale in terms of the number of users?

MR. BATEMAN: Yes, the number of users and the density of their location.

MR. GREEN: Okay.

MR. BATEMAN: And the next rate, in Dauphin, Thompson, and Flin Flon, their first block is presently 7 cents and the new block is going to 7 cents. The towns, the villages and the rural users, presently the first block is 8 cents and that is going to be 7.5 cents. Now the next block which is presently 100 kilowatt hours at 1.2 in Winnipeg on the old rate, is going to 1.4, but there's also going to be an increase in the block. It's going up to the next 125 kilowatt hours at that increased rate.

The rural rates are all 2 cents now, they're all going to be 2 cents except the town, village and rural which goes up to 2.1. And the balance all electric, they're the same rate on our system but in the City Hydro system they're a little different. That's everything else that you use in the City will be 1.05 or 1 cent, whereas in all parts of the Manitoba Hydro system it will be 1.13 cents. And the minimum bill goes up 25 cents a month.

Now looking at what this means in cities like Portage la Prairie and Selkirk, the present bill under the old system of $10.75, which is what you asked, that's at 600 kilowatt hours, your new bill will be $11.82 or an increase of 1.07 - $1.07, but you will also have another dollar of prompt payment discount which is being eliminated. The prompt payment discount is being eliminated in all accounts that Manitoba Hydro has, which is in line with the recommendation from the Public Utility Board.

Looking at Thompson, Flin Flon, and again say at the 600 kilowatt hours, the present bill is $11.50 subject to a prompt payment discount of 10 percent; the new bill will be $12.27 or an increase of 77 cents plus the loss of the prompt payment discount which would amount to another $1.15. So you see the increase is quite nominal there.

MR. CHAIRMAN: Gentlemen, it's now almost 12:30. We will be meeting on April 2nd, our next meeting of the Public Utilities, to hear the report from the Chairman of Manitoba Hydro, on April 2nd. I understand that there is supposed to be a brief ceremony following the recess or Committee rising this afternoon. Those people who are interested - in a few minutes after the maps are removed, there will be an official unveiling of the portrait of the former premier of the province, Mr. Walter Weir, and the picture will be right behind us. So Committee rise. The people who indicated wishing to ask questions I have them on the list. April 2nd is the next meeting.