Page 1

(9:07 a.m.)

CHAIRMAN:

Q. Thank you and good morning. Good morning, Ms. Newman. Any items before we begin?

MS. NEWMAN:

Q. Yes. Good morning, Chair and Commissioners. I did want to comment on the schedule for this week. It was raised on Friday that perhaps we might sit on Wednesday. Just to let everybody know, it doesn't look like the schedule will require that we sit on Wednesday, but if we do have to, then the parties are prepared to sit as long as we need to on Wednesday. Also, I think that counsel for Hydro has a comment on an undertaking.

CHAIRMAN:

Q. Beg your pardon?

MS. NEWMAN:

Q. Counsel for Hydro has a comment on an undertaking.

CHAIRMAN:

Q. Okay. Thank you. Good morning, Ms. Greene.

GREENE, Q.C.:

Q. Good morning, Mr. Chair, Commissioners. There were six undertakings provided on Friday, and

Page 2

at this time, I would like to speak to one of those. There were two given by Mr. Haynes. The first was to update the undertaking provided in U Hydro No. 3 when we have filed a revised revenue requirement. So the key performance indicators, as listed in U Hydro No. 3 will be updated following our filing the revised revenue requirement. So we're not in a position to respond to that, of course, at this time. But the next one, we are, and it was an undertaking to Mr. Seviour and it is U. Hydro No. 18, where the undertaking was to provide the generation or the local loads upon the Great Northern Peninsula during the incident that started on September 18th.

We have distributed a written response to this undertaking, as Mr. Haynes is off the stand, but I believe it is self explanatory. If you look--I have circulated copies to the parties. If you look at either the hard copy that's been just distributed or the copy that there's on the screen, you'll see that we have, in the first column, the time. The next column which is headed "transmission load" indicates what the load is on the two lines on

Page 3

the GNP, the 66 kV line and the 138 kV line. The next column, with the heading "St. Anthony Generation" indicates what the load was when the standby diesel generation was started at St. Anthony, and similarly the next column, which is headed "Roddickton Generation" shows the load that came on when the Roddickton standby was started, with the last column showing the total load. If you look at the time, you'll see 2100 or 9:00 p.m. That was before the incident. So before the incident, the load to the GNP was 21.77 megawatts being fed from the Interconnected grid. At 2200 or 10:00, which was just after St. Anthony started, because the St. Anthony standby came on at around 9:56 p.m., you'll see at that time, there was 14.01 megawatts going up the GNP on either the 66 kV or the 138 kV line, and we had 3 1/2 megawatts on at St. Anthony, for the total load on the GNP being 17.5 megawatts. I don't plan to go through each of those, but I'll just do the next one. At 2300, you'll see that the load on the Interconnected grid, the 66 kV and the 138 kV lines have reduced to 10.47 megawatts because

Page 4

we had increased the generation at St. Anthony to 6.2 megawatts and Roddickton standby had also come on. So the total load on the GNP would have been 18.17 megawatts at that time. And similarly, you will see that when the incident was over, at 1:00 in the morning on the morning of the 19th, the load, because of normal drop in load due to the night conditions, had dropped to 14 megawatts and we had no generation on at St. Anthony or Roddickton. It was all being fed by the Interconnected grid at that time.

And you'll see the explanation there in the words that of course the reduced transmission load, as a result of the generation coming on in the GNP freed up generation elsewhere on the Island Interconnected system that enabled customers to be restored to service during the Bay D'Espoir plant outage. And the last thing we show there on the bottom was what were the loads in the St. Anthony Roddickton system, because of course that was what was interconnected in 1996. So the top column shows the full GNP load and how it was being

Page 5

GREENE, Q.C.:
serviced during the incident and just before and just after, and the bottom column shows just for the St. Anthony Roddickton area, which was the area interconnected in 1996. So hopefully that's self-explanatory. However, if the Industrial Customers have additional questions, I'm sure we'll follow them up.
Thank you very much, that is the response to U. Hydro 18.

CHAIRMAN:
Q. Thank you, Ms. Greene. Good morning, Mr. Martin.
A. Good morning, Mr. Chairman.
Q. Mr. Kelly, good morning.

KELLY, Q.C.:
Q. Good morning, Chair.

CHAIRMAN:
Q. When you're ready, please.

KELLY, Q.C.:
Q. Thank you. Good morning, Mr. Martin.
A. Good morning, Mr. Kelly.
Q. Mr. Martin, there was another undertaking from Friday, which I understand you're ready to address as well, and that was the question of

Page 6

the number of vacancies in the TRO department as of the end of '02 and as of current.
A. That's correct.
Q. Could you address that, please?
A. Certainly. At the end of December 2002, the vacancies in the TRO division were six, and three of those were backfilled, and as of October 24th, on Friday past, the vacancies were 14 and seven of those were backfilled.
Q. When you say "backfilled" you mean currently filled with a temporary employee?
A. That's right.
Q. Okay.
A. Or another employee advanced into that position and their position backfilled.
Q. Okay. So there are currently 14 vacancies in your department, and that is after the elimination of the seven that we saw as of August '03? We saw that in NP-9 and 10.
A. That's correct.
Q. Right, okay. Let's move from there to another question. I want to talk to you about transportation a little bit, and let's start this by looking first at NP-10, and this is the permanent and temporary employees of all

Page 7

of Hydro to start off with and if we go down to 1998, because that's the year we'll need here for a point of comparison, and compare it with the end of '02. The permanent staff has dropped from 889 down to 801 or a drop of 88 employees in total, and if we go and look at your division next, Mr. Martin, which is NP-9, at page 4 of 6, and we again look at 1998 and we come down from 1998 to 2002, we have 406 to 349, for a reduction of 57, and up to August, a reduction of 64. So we've had reductions both in your division, fairly significant reductions, and reductions in Hydro's staff overall. Now can we just put NP-24 on the screen? And this gives us the number of vehicles in Hydro's operations from 1998 to 2002, and if we go to page 2 of 6, scroll down to the bottom, we had 274 in 1998 and then if we go over to page 6 of 6, we had, at the end of 2002, we had 282. So Hydro's employees have gone down by 88 in total and transmission and operations during that period are down by 57, yet the vehicle complement is up by eight. Can I get you to explain why that would be the case? I would have thought that the vehicles

Page 8

would go down.
A. As I believe I mentioned on Friday, the reduction in staff doesn't necessarily mean a reduction in vehicles. I tried to point out that if we had a line crew that comprised of three or four individuals and we eliminated a line worker position, we still need the line truck. If we have commissioning crews or any other type of crew that involves more than one individual, eliminating one of those positions doesn't necessarily eliminate the vehicle for that group. Some of these layoffs have been in the engineering department. Some of these layoffs have been at the clerical level. Those individuals are not participants, if you will, in the use of company vehicles on a regular basis. So I don't think it's fair to draw the conclusion that necessarily because you reduce the number of employees that you should automatically reduce the number of vehicles.
Q. But why would the number of vehicles increase? Because here we've seen an increase of eight.
A. I think we responded to that in an RFI whereby we said that there was an increase, but it was

Page 9

MR. MARTIN:
because of an increase in project vehicles netted out against a rationalization of the crew sizes and the number of vehicles we needed for operational purposes and the result was a net increase, I believe it was, of eight. And I could try to find that RFI if you'd like. I think it's NP-193. I think this particular RFI was in direct response to the very question you've just asked, and we said the increase--if I can read from the answer at line 12, "the increase in vehicles from '98 to 2002 reflects the difference between 15 units purchased for capital projects and seven units eliminated as a result of fleet rationalization."
(9:18 a.m.)
Q. So what I take it that means that you got 15 during that period up to 2002 for capital projects?
A. Right.
Q. That were ongoing?
A. Right.
Q. And would that be primarily Granite Canal, especially in the latter period?

Page 10

A. That would certainly have been Granite Canal. It would have been the Avalon upgrade project and any other capital projects that required a vehicle.
Q. Okay.
A. A permanently assigned vehicle.
Q. Let me just ask you this question. You talked about the fact that certain line crews, you'd still need the same number of vehicles, but would some supervisory personnel have been eliminated and would some of those have vehicles which would be redundant, no longer necessary?
A. I certainly think that's possible, but I mean, I don't have specific answers to that, to tell you the truth.
Q. Okay. Well, let me take you next to NP-261 and your reference here to NP-193 is helpful for this question. This provides a breakdown of transportation costs from 2001 actual up to 2004 forecast, and if I take out the aircraft, fuel and aircraft costs, what I'm left with, as I understand it, Mr. Martin, and correct me if I'm wrong, the next five entries, the last five all relate to vehicle operation?

Page 11

A. That's correct.
Q. Okay. Now if we go down to the 2002 actual and we take out the amounts for aircraft, fuel and costs, I have 791,885 left over, in other words, 792,000 for 2002 actual. But when I come over to the 2004 forecast, I have--and I do the same exercise, I have 994,386, almost 995. So that from 2002 actuals, despite the reduction in your capital program, the operating expense for vehicles has gone up 25.6 percent at the same time that we've had this reduction in employees and elimination of capital projects. Why would that be the case? If the capital projects were over or at least reduced, why would vehicles costs go up?
A. Because the capitalized expense is a credit to the bottom line.
Q. Yes, I understand that. And if we look down through 2002 actual, we have a credit on capital fleet of 485,000.
A. Right.
Q. And if we go across to 2004, we have a credit of only 300,000?
A. Right.
Q. Now I would have thought that if you had

Page 12

vehicles that were used and only being used in the capital project that the elimination of those would now reduce the overall expense, as opposed to simply what's happened now is we've got another 185,000 being charged to operating?
A. Only again because the vehicles that we use on capital projects are not necessarily specific vehicles purchased for the project. As I tried to explain again on Friday, our regular vehicles that we use for O&M purposes, when they're used on capital projects, and only when they're used on capital projects, they are expensed to those particular capital jobs.
Q. Let's phrase the question this way. If it only took you 791,000 of operating expense in 2002, because those vehicles were employed on capital projects, why does it take 995,000 of operating expense for vehicles in 2004?
A. Because obviously again, to my mind, those crews, the line inspectors, the commissioning crews, the telecontrol technicians who are out commissioning all these capital projects are gone back to doing their routine operation and maintenance work and we don't get the credit

Page 13

MR. MARTIN:
available on the capitalization of the fleet for those vehicles.
Q. But you didn't reduce your operating maintenance work while Granite Canal was being built, surely?
A. I would certainly say there were things that were delayed on the maintenance side because of our requirement for our own individuals to go out and commission these projects and inspect them, definitely.
Q. Has Hydro conducted any review of its fleet requirements now that Granite Canal is completed?
A. Well, I think, as I mentioned in my direct examination by Ms. Greene on Friday, we are currently in the throws of doing a complete vehicle or actually, yes, the complete fleet review, something that we hope to have completed by the end of this year and presented to management and although we're expecting some changes, like I said in the evidence on Friday, I really don't know where that's going to go right now. So we'll have to hold judgment on that, in my mind at least.

Page 14

But we are undertaking that review right now.
Q. Let me just take you to IC-212, to page 5 of the attached document, to item 4, vehicles. And your union, and this is in 19--sorry, 2003, suggested there in item 4, "we are recommending that a minimum of 15 vehicles be removed from the system." Has Hydro had any discussion with its union as to which vehicles the union thinks would be appropriate for removal?
A. I know that the president and CEO and two executives met with the union on all of these issues. Whether or not they specifically addressed which 15 vehicles the union thought could be eliminated, I really can't comment on. I don't know, but again, I would caution you that before this letter was even written, we were in the middle of this vehicle review or fleet review and the outcome of that will be what it is.
Q. But this letter is back earlier in 2003.
A. Right.
Q. How long has this fleet review been going on?
A. We started this in the spring.
Q. In the spring? When -

Page 15

A. April of this year.
Q. Will the results be incorporated in the refiling?
A. No, it will not.
Q. It will not?
A. The refiling is going to be done at the end of this month and we will not have a chance to look at their final determinations until sometime towards the end of this year.
Q. Let me move to a related question, which relates to aircraft costs. If we go back to NP-261, we had the aircraft costs along the first two lines, and running roughly about a million fifty thousand dollars during that period on average. Can you just give the Board a brief explanation first as to what would go into aircraft costs? What does Hydro primarily use them for?
A. Aircraft costs primarily are the leasing of our helicopters. We have a contract with a joint venture of Canadian and Universal for helicopter services. It would go into any fixed wing aircraft we rent to try and get to remote sites in an emergency situation. And at times, either if one of our contract

Page 16

helicopters are not available or it's not suitable for a piece of work, we have arrangements for what we call casual helicopter services.
Q. Okay. Let's just take that a step further and look at NP-27, and this gives us the breakdown of helicopter rentals and retaining fees.
A. Yes.
Q. And I take it the top three columns are the TRO columns?
A. That's correct.
Q. And, for example, for 2002, just to break that out, it's 709,000 out of a million and twenty-four, for approximately 69 percent. So you've got the bulk of the helicopter charges. In the other non-helicopter component, you talked about fixed wing. Is that like only up to the coast of Labrador? Is that used--what else would be included in there?
A. No, that's the bulk of it.
Q. Just to Labrador.
A. If we need to get a flight out of St. Anthony to, I don't know, Port Hope Simpson in an emergency situation to respond to a problem, we may lease a fixed wing aircraft to get a

Page 17

MR. MARTIN:
line crew or something over there.
Q. Okay. Now what I'd like to understand a little bit about this one is how this helicopter program works. Let me just start it this way. At the top of this one, it's talking about rentals and retainer fees. How much of this is in retainer and how much is actually the rental? Do you have that information?
A. I do. On the island, the fixed fee per day is $800.
Q. Is that just to have it available on standby or is that -
A. That's the fee to have it available on standby.
Q. And is that like every day of the year?
A. That's every day.
Q. $800?
A. Yes.
Q. Okay.
(9:30 a.m.)
A. In Labrador, it's $400 or 450, in that neighbourhood.
Q. Why is it only about half in Labrador?

Page 18

A. I think, again, it's because it's at their base in the Happy Valley Goose Bay airport and it may even be a different aircraft or helicopter. I'm not sure of the different types. But the one that we have on the island is based in Bishop Falls. So it's away from their centre of operations, if you will. So I think that comes into play as well. But those are the numbers that I have. Fixed fee per day on the island $800. In Labrador, it's 400 to 450.
Q. And how much does that come to in total retainer fees for the year?
A. I don't have my calculator.
Q. Okay. And tell us the rentals then?
A. The additional fee per hour of usage is $ 280 per hour when it's flying, and that's at both locations.
Q. Why do you pay a retainer fee for every day of the year? Is it not possible to determine that the helicopter will be required only for certain periods?
A. No. I mean, much of the usage of this helicopter is in response to emergency situations. If we have an outage in a place

Page 19

like Southeast Bight and we have to respond to that, the crew that services that area is based in Bay D'Espoir. The helicopter is dispatched from Bishop Falls to pick up a line worker or two in Bay D'Espoir to go to Southeast Bight. That can happen on Sunday, Christmas Day, any day of the year.
Q. Okay. Let's go -
A. So we've determined, with regards to reliability and continuity of service to our customers, we need an aircraft, a helicopter available on a retainer basis.
Q. Let's have a look at NP-191, and this addresses the question of helicopter costs and you talk in the answer about helicopter patrols for the period '98 to 2002 were conducted quarterly and then you explain what the patrols are intended to do. First of all, I understand that the helicopter patrols are now no longer quarterly, they're semi-annually?
A. That's correct. That was a result of our RCM initiative, we cut back the routine line patrols by a factor of two.
Q. And we see the answer to that in NP-277, but

Page 20

how much of a saving is there then in that elimination of half of the helicopter line patrol?
A. I personally have not done any estimates of that. The contract that we have with the joint venture is a valid contract until February of '05, but again, you need to understand that it's not only the routine patrols of our transmission lines that the helicopter is used for. There's many other purposes that the helicopter is used for. One is like dyke surveillance at our sites. We use it for the crew changes for the water controllers at Burnt Dam. As I mentioned before, not only do we use them for patrolling of a transmission line or distribution line on a routine maintenance basis, we also use it after an outage or during an outage to try and find problems so we can more readily dispatch crews to the appropriate areas to try and speed up their recovery of service. There's a whole host of things that these aircraft are used for, other than just routine patrolling of our transmission lines.
Q. Right. I understand there are other uses, but

Page 21

KELLY, Q.C.:
isn't one of the purposes of the Reliability Centred Maintenance program and the reduction of helicopter patrols intended to save money?
A. Not only is it intended to do, it is going to save money.
Q. But you don't know how much that is?
A. We put in an estimate in the response to an RFI, I think, on at least one or two occasions that we anticipate a savings of one million dollars a year annually starting in the test year.
Q. Yes, but that's for all the Reliability Centred Maintenance program.
A. That's correct.
Q. How much is helicopters?
A. The estimated savings in helicopters, as a result of the actual flying time, is in the order of 70 to $75,000.
Q. And did I understand your answer that that won't happen until after '05?
A. No, we have introduced that particular saving this year, part way through 2003.
Q. And is that in the '04 test year?
A. Is that in the '04 test year? I would have to

Page 22

say no, it is not. That particular savings of the 70 or $75,000 I would anticipate going to the bottom line of our vacancy adjustment, the extra 1.5 million dollars that Hydro has budgeted for these savings as a result of process improvement.
Q. You lost me now. Helicopter costs is not a salary item. Why would it go in the vacancy allowance?
A. The vacancy allowance is made up of two items. One is the actual vacancy allowance that we've always carried of a million dollars. The other 1.5 million dollars is anything that we can recover as a result of business process improvement.
Q. So it's intended to not only cover salary items, but any item? Is that what you're telling us?
A. That's what I'm telling you.
Q. Just go back to NP-27 for a second. In 2002, we had taken out the--confining it to TRO, we had 709,000 in TRO and if you go back to 2001, it was 534,000. So we had $170,000 odd of increase from '01 to '02. Do you have any sense of what the '03 and '04 projections are?

Page 23

A. Just on the helicopter?
Q. Yes. Because I'm trying to understand, we got this reliability centred maintenance. There's supposed to be some savings. I'm trying to see where, in fact, it reflects, if anywhere, and I'm -
A. Those savings will not be reflected in the '03/04. You will see the savings in '03 obviously.
Q. But if we -
A. But the saving of $70,000 will be reflected in the vacancy adjustment allowance that's in my particular department of $1,068,000.
Q. Okay. We'll leave that one for argument. Just take it back to NP-191, and if we scroll down to line 21, ground patrols for the same period were conducted on 20 percent of all lines annually. That would be approximately once every five years. When do you decide to use a ground patrol versus helicopter patrols?
A. I think it says here in the answer, if you just continue on to read, "ground patrols are typically conducted using ATVs and targeted items not readily assessed from helicopter patrols, such as exposed footings, ground line

Page 24

damage to structures, guys, and access road conditions. These are things -
Q. I probably didn't phrase the question very well. Let me try it again.
A. Okay.
Q. Is there a regular one every five years of ground patrol on all your lines? In other words, it talks about 20 percent of all lines annually. In other words, is there a fixed, once every five years we go around and do this on all our lines?
A. Prior to the RCM initiative, it was a frequency of once every five years.
Q. And that, I take it, is now changing as well, is it?
A. That has changed as well.
Q. Have you figured out how much of a saving is in that particular component?
A. I don't have that specific information, no.
Q. Well, are those savings then incorporated into the '04 forecast numbers or is that also a savings that's in the vacancy allowance?
A. Any savings as a result of RCM that are not offset by other work that we're going to be doing is reflected in the vacancy allowance.

Page 25

MR. MARTIN:

I think what you're getting at is the fact that we've eliminated a significant amount of preventative maintenance work as a result of RCM, where are all those savings showing up. And again, I'll go back to an item we discussed on Friday, our Wood Pole Management Program, for example. That particular program is going to be done by our own line worker forces in house. We've trained our people. They're out there this year testing and treating 1500 poles. The objective next year is to do 3200 poles as a new program to try and extend the life of these particular assets. That work previously, the small amount of work that we had done previously in that regard, was done by a contractor, and what you would have seen is in an item like the system equipment maintenance budget, that particular budget item would have gone up by roughly $650,000 as a result of this Wood Pole Management Program. We have not put that in there now because as a result of RCM, we're able to take our line worker forces, some of the material costs for that and put it towards

Page 26

our Wood Pole Management Program.

Q. Are you telling me that the million dollars of RCM savings that we understood then are not reflected in the test year?

A. They are reflected in the test year.

Q. Okay. Those are, but all of these particular ones about helicopter patrols and line patrols are not because they came later?

A. Not specifically. I think if you look at what I'm saying, see if I can put it in context of numbers, if we saved roughly a million dollars in RCM, and again that's only estimate, roughly a million dollars in RCM, our Wood Pole Management Program is going to cost us in the order of $650,000. Those savings are reflected in the actual numbers that's in Schedule 5 of my evidence. The difference in those numbers, which I'll in round numbers call it $350,000 is going to go into that vacancy adjustment account, if you will, in the 2004 test year.

Q. And how much do you think that is in total that's getting reflected in that vacancy? Can you give us an order of magnitude?

A. Roughly $350,000.

Page 27

Q. 350,000. And now is that for your department then?

A. That's in TRO.

Q. In TRO. So let me see if I got this right. In addition to the million dollars which is reflected, there's about 350,000 of additional projected savings that is being captured in that vacancy allowance?

A. In the $1,068,000.

Q. Okay, but that's in--that 350,000 is in addition to the million dollars which is already reflected?

A. The million dollars in savings in RCM is reflected in the 2004 forecast.

Q. Yes. And if I got it correct that there's another 350 not -

A. No, the 350 is included in the $1,068,000 in the vacancy allowance item.

Q. That's what I'm saying, it's in the vacancy allowance item?

A. Right.

Q. Okay. All right. Let's just have a look at NP-277. When you go down through this one, I'm going to touch on the transmission items. We looked at your helicopter patrols reduced

Page 28

from four to two annually, and that's where you say you think there's about $70,000 worth of savings?

A. That's my recollection, yes.

Q. Okay. And the snowmobile patrol is eliminated. How much do you figure that one is?

A. I don't have those numbers individually.

Q. Okay.

A. But all of those are totalled up into the expected one million dollars total savings as a result of the RCM initiative.

Q. And let me just ask you a couple of questions on the next one. The wood pole lines less than 15 years of age, the inspection cycle changed from five to ten years, and for steel and aluminum tower lines, the inspection cycle changed from five to ten years. I'm curious as to what that means. Does it mean that they're not inspected at all or they're--how is--what sort of inspections would take place during that period?

A. Under our new Wood Pole Management Program that we're looking at, any poles less than 15 years of age, we wouldn't necessarily inspect,

Page 29

MR. MARTIN:
that's correct.
Q. At all?
A. At all. Unless there was a known problem. But we would not spend our time--what we found in the past is that poles that are less than 15 years of age, there's very little, if anything, we ever find as a problem with those poles. It's only when we get beyond that 15-year time line that we start to identify problems with these poles and therefore the frequency would change. Again, as part of our Wood Pole Management Program, what we're looking at right now, and we'll be bringing this forward to the Board following approval by our management committee, is a ten-year cycle where on a ten-year cycle basis, perhaps even for 20 years, two ten-year cycles, we will inspect, test and treat all of our wood pole transmission structures.
Q. And does the same answer apply on these steel and aluminum towers, that there'd be no inspection for ten years?
A. Yes, and again, I think that refers to like a climbing inspection. That's not to say we

Page 30

won't do line patrols obviously. That's still included. I'm talking about climbing inspections by line workers.
Q. That's what I was trying to understand. And you'd still do the helicopter every half year?
A. Absolutely.
Q. And you'd still do an ATV patrol once every five years?
A. Exactly. These are climbing inspections that are referred to in this. Sorry for the misunderstanding.
(9:45 a.m.)
Q. On this reliability centred maintenance issue and looking at the poles is probably a good example or we can choose anyone, is there some sort of test that Hydro is using as to what maintenance is enough? In other words, how are you determining that this much reliability is appropriate? In other words, is it like outages per customer or--do you follow my question?
A. Yes, I think I follow your question, and it's not based on the outages per customer. It's based upon an analysis and a review of the various components that make up a system.

Page 31

It's based upon the regular maintenance, I'll call it the status quo of how we do maintenance, what type of inspections we've done in the past, the frequencies we've done, the tactics we've used. It's based upon what we've actually found in doing that maintenance and those inspections, and then there's a value judgment made that we need to continue doing that. We can change the frequency, either increase or decrease the frequency of that. Perhaps we need to change the tactic. And at the end of that exercise, I'd like to call it the sanity check, there's always a sanity check made to make sure that the conclusion that's reached is a valid conclusion and we move forward. I think it's also important to say that the RCM initiative, once it's implemented starting in 2004, is not a dead issue. It's going to be a living program. We will be revisiting that from time to time, based upon what we find, the outcome of the initiatives, and no doubt, in my mind or anybody's mind, that it will change over time as we become more familiar with the new schedules and the new tactics.

Page 32

Q. You talked about though a value judgment and then a sanity test.
A. Check.
Q. Check. Is there any--what I'm trying to understand, is there any kind of objective standard against which Hydro will determine that this amount of maintenance is appropriate and that amount, beyond that, it's better not to spend the money? I'm trying to understand the process.
A. No, like I think I said, it's based upon an analysis of what we have been doing, what's standard in the industry, what we've found in the past. I mean, obviously if we change the frequency of inspecting wood poles to a ten-year climbing inspection and after seven years, we notice we're starting to get into problems or things are not progressing as we thought they would be, then we will change it. We will rectify it. But I don't think it's fair to say that we're going to use any specific yard stick with regards to the number of customer outages or outage times or anything like that.
Q. Mr. Haynes, when he was on the stand, referred

Page 33

KELLY, Q.C.:
to it as almost a run to failure program. What do you say to that?
A. Run to failure is an RCM tactic that is always applied to non-critical components. In other words, if you have a system that's made up of numerous components and you have, I'll say, two pumps that are 100 percent redundant, then you may not spend an awful lot of time repairing and doing maintenance on both of those pumps, because you could conceivably let one run to failure and the reliability of the system as a whole stays at 100 percent. We have looked at that as part of our RCM initiative and I can't tell you anything right now, as a matter of fact, I'd be very surprised if we've identified anything that we're prepared to let run to failure. We don't have a lot of redundant systems. As an example, in some of our terminal stations we had redundant or I'll say, we can take care of our power transformers with the loss of the largest unit, but if a power transformer is $2,000,000.00 to replace and on an annual basis it cost us $10,000.00 to inspect and

Page 34

maintain it, we're not going to let that power transformer run to failure. It doesn't make economic sense, even though you've got, perhaps, redundancy already in the station.
Q. It's a balancing process.
A. It's a balancing process, exactly.
Q. Can I take you to Mr. Brushett's 03 report to page 42? And the part that I want to take you to, Mr. Martin, begins at about line 2 there, and it talks about in 2002 there was a significant increase in the TRO division--we're talking about maintenance here--which was primarily due to certain non-recurring extra maintenance costs in central and northern regions. And those requirements, the extra maintenance requirements in these areas included inspections and replacement of wood poles; reconditioning transformer oil at the Bay d'Espoir site; repairs to the air blast circuits at Sunnyside; repairs to diesel plant units due to a leak in the exhaust manifolds; et cetera. And some of those would appear to be projects of a capital nature; in other words, they're either a betterment or would extend the life of the asset. In particular,

Page 35

replacement of poles and reconditioning of transformers--I'm not quite sure what the air blast units are about. Can I get you to comment on that?
A. That's in fact air blast circuit breakers.
Q. Circuit breakers?
A. Yes, should be the correct reference there.
Q. Were those air blast circuit breakers replaced?
A. No, they were refurbished.
Q. Okay, well if the refurbishment, another example then of something that is, the life is extended. Can I get you to comment on why some of these items would not be capitalized as part of your capital program?
A. Well just, for instance, start with the wood poles, the way we treat is again, as I understand it on the financial side, is we have units of property set up within Hydro. If we replace a single pole in a single poled transmission line, then we capitalize that. That is a structure, it's a unit of property. If we replace that single pole in a single poled structure transmission line, we capitalize it. If we have a three-poled

Page 36

structure transmission line and we replace one pole or the cross arm or the knee braces on that particular structure, that is not the replacement of a unit of property, so that's expensed as an operating--under an operating budget. Reconditioning transformer oil, whether or not you'd call that life extension, those people that provide the service say it is, others in the industry say it's not, it's a maintenance tactic that if you don't do something like that, you're going to lose your transformer earlier. Does it actually extend the life of the transformer? I personally don't think that it does. Same thing with the refurbishment of air blast circuit breakers. We're spending $35,000.00 on an unit, the capital cost replacement of a breaker is in the order of $200,000.00, so what we do is we break the breaker down, we replace contacts, we replace oil rings and seals and all the rest of the stuff like you would on a normal overhaul, if you will, put the thing back together, put it back in service. Should that be capitalized? In our judgment, no, that's the way we treat it, so -

Page 37

KELLY, Q.C.:

Q. But each of those examples extends the life, does it not? Take for example your reconditioning of the oil, your answer kind of puzzled me. Why would you do it if you don't think that it extends the life?

A. Because if you don't do it, it's like your car, I mean, you change the oil and the filter in your car, it doesn't necessarily extend the life. It's a normal maintenance practice and all power utilities at some point or other recondition their oil. I don't know, some may capitalize, some may not, but I don't think it's a life extension tactic, if you will.

Q. I think I understood from one of your questions with Ms. Greene that in fact Hydro is looking at the question of capitalizing certain pole replacements, did I understand that correctly?

A. Yes, if the work that we do this year and next year pans out the way we hope it will, we will be looking at the potential for a twenty-year program to extend the life of our wood pole assets. That will include not only the testing and inspection of the pole, but the

Page 38

inspection and testing of the conductor, the insulators, the hardware, the whole transmission system. And we firmly believe that that formal program will be--we expect it to be a life extension program and we will be bringing that forward as a potential capital investment. The replacing of one pole here and another pole there on a wood pole transmission line is not necessarily, at least in my mind, a life extension exercise for that complete transmission line system, if you will.

Q. The new program that you're talking about, how is that intended to work in contrast with what you're doing now? I didn't quite follow.

A. What we've been doing up until recently is, I think similar to what Newfoundland Power and some other utilities are doing, we do an inspection, we find nothing, we leave it alone. We find some minor problems, we leave it until the pole deteriorates and then we replace the pole. That's what we've been doing up until now, and again, I might--I have to caution you if we replace two or three poles in a two or three-poled structure, we

Page 39

would capitalize that. We would, it's a unit of property, if the materiality is there, we would capitalize it. If we went out and changed the cross arms or the knee braces or whatever on a multi-poled structure, that is not the replacement--you still have the other one or two poles there. We have not extended the life of that structure or the line. So I think that's the difference I'm trying to distinguish.

Q. What I didn't get is what's new in what you're going to do that is going to lead to capitalization?

A. Oh, I'm sorry. What we're going to do is these poles typically have a life of, I'll say 40 or 50 years. Under this Wood Pole Inspection Program, we are going to drill the poles themselves, we're going to insert boron rods and the idea there is to regenerate, if you will, the preservatives that were in the pole initially to try and extend the life of the pole. We're going to test the pole with regards to its remaining strength. We're going to catalogue all of that, we're going to inspect the rest of the pole and the

Page 40

structure, the insulators, the hardware, the conductor and so on, the whole effort being that we're not going to let these poles deteriorate to the point that we have to replace them. We are going to regenerate them, we're going to put new preservatives in them with the intention of trying -

Q. And that, I take it then you're going to capitalize the cost of doing that program, is that what I'm understanding?

A. Our intention right now and obviously we have to bring this before management and the finance department, our intention right now is if we can formalize this into a long-term program with a Cost Benefit Analysis behind it that shows that this will work and this is the way to go, rather than replace poles on an ad hoc basis, then our intention is, again, subject to approval of the Board, obviously, that we would capitalize this formalized program on a go-forward basis.

Q. And perhaps my question is premature, but do you have a sense of the Cost Benefit Analysis of that yet, from your preliminary work?

A. No, I'm very reluctant, until we get this

Page 41

MR. MARTIN:
thing finished and get a chance to put it together with a recommendation to management, I wouldn't want to hazard a guess in that regard.
Q. That's fair, I'll leave that one. Mr. Martin, I want to turn next to look at the Rural deficit a bit and to start with this, can we go to the report which is attached to Mr. Wells' evidence, corporate overview evidence in chief on the Rural deficit, to page 2 of 14. And we have there a table which shows the Rural deficit from '92 to 2002 and in particular, by 1999 it was 22.1 million, in fact have reduced down to 1999, but then has had marked increases since then, so it is now forecast at about 41.6 million for '04. Do you just want to comment, first of all, briefly on the reasons for the particular large increase from '99 to current?
A. If I remember correctly, part of that is as a result of the assignment of the transmission line on the GNP. I understand as well that that's affected by fuel prices and no doubt, other things. My only comment beyond that in

Page 42

this regard is that, as I mentioned before, I think TRO's role in trying to control the Rural deficit is one of trying to minimize costs and being as innovative as we can in operating and maintaining the system.
Q. Let's go to NP-56 next and there we have a breakdown between Island Interconnected and the Isolated System. And there are a couple of things, first of all the total continues to be forecast to grow, so it rises to 44 million, but what I'm curious about is the Isolated System, which I understand includes Labrador where the growth is, you've indicated is taking place, in fact, is forecast to be pretty stable, out to 2007? Roughly 23, 22 million?
A. Right.
(10:00 a.m.)
Q. While the Island Interconnected is forecast to rise from 19 million to 22 million, an increase of almost 16 percent. Can you help us understand why the Island Interconnected is rising and the Isolated is not; in particular, the Labrador Isolated?
A. No, I'm afraid I can't.

Page 43

Q. Is there any particular driver on the Island?
A. I would assume, again, it's driven by fuel oil, No. 6 fuel oil at Holyrood, and other than costs are just increasing, I mean, our operating costs, I'm sure, are increasing at a rate greater than our recovery through revenue, so that may be another factor that's driving it.
Q. Has Hydro done any study to see what is driving the growth and the Rural deficit both wholly and in terms of the Island Interconnected?
A. A study?
Q. Yeah, any kind of internal analysis as to what the drivers are?
A. Not that I'm aware of. I wouldn't be surprised to hear that we had done one, but I'm not aware of one.
Q. But it would come under your department, would it not?
A. No, it wouldn't.
Q. Why wouldn't it? We were all told you were the man with the Rural deficit, why does it not come under your department?
A. No, again, I need to correct you again on

Page 44

that, Mr. Kelly, I'm sorry. With regards to the Rural deficit, I'm not sure how much control or influence Hydro has on it in total. TRO, as I mentioned before, what we can do is try to minimize the operating and maintenance costs of the Interconnected and Rural Systems, and in that regard, I am totally responsible and I take the responsibility very seriously. But with regard to trying to monitor what's called the Rural deficit and the external influences that are had on that by various sources, and internally, including the cost of No. 6 fuel oil and so on which I have no control over, I think that's a bit of a stretch. I like responsibility, but you can go too far.
Q. When you--when Hydro puts forward a project, evaluates a project, does Hydro consider the impact on the Rural deficit in deciding to bring that project forward?
A. I think that was discussed previously. I don't think Hydro would specifically look at, again, the bottom line numbers with regards to the impact that that project would have on the Rural deficit. I don't think we would. Now,

Page 45

MR. MARTIN:
I stand to be corrected on that, I think what we would want to do is look at it and make sure that overall, for the consumers of electricity in the Province, that it was an economic and viable project that was fully justified and reasonable to bring forward. But I don't think we would try to tie it into what impact it might have on the Rural deficit numbers we see before us.
Q. Let's say for example you were bringing a project to the Board as part of your capital project, one of your capital expenditures, would Hydro do any determination of what the impact of that might be on the Rural deficit and advise the Board accordingly?
A. I don't think we've ever done that. I've certainly never seen in done on any projects that we brought forward.
Q. Let's just have a quick look at NP-277 again, this comes back to reliability centred maintenance, if you go to the last page of that, there's a million dollars of forecast savings of RCM, that's what we talked about a few moments ago. Has Hydro done any analysis

Page 46

as to what, if any, impact that has on the Rural deficit? In other words, any attempt to trace that through to see what impact, if any, it has?
A. Not to my knowledge, again we're trying to be as cost effective in carrying out our operations as we can. The reduction of a lot of these things from the overhaul of diesel engines in these Isolated communities, to reducing preventative maintenance routines on distribution systems, to transmission, all of these will go towards controlling, if not minimizing or reducing the Rural deficit. I certainly am not aware of any study that Hydro would have done to determine the impact of this particular initiative on the Rural deficit, no, I'm not.
Q. Okay, does Hydro report to the Board annually on the Rural deficit at all? Is there any report that goes to the Board?
A. I would have to say that I'm not aware of one, but again, I wouldn't be surprised if we did.
Q. What would you think of that as an option, that Hydro would report annually to the Board and report as to the changes in the Rural

Page 47

deficit and the reasons for it?
A. I can only surmise that if the Board thought it would be of some benefit and help to them in their deliberations, that we would--and it could be done, that we would do it.
Q. Okay. Let me look at a couple of examples to kind of focus some of these questions a little more. And the first one I want to look at is the L'Anse au Loup System and I went through this a little bit with Mr. Wells and I'll just summarize some of the key items and if you want me to take you to the references, I will. At the time of the last hearing, the deficit was $1,062,000.00 and it's now forecast in RDG No. 1 to be $1,250,000.00, so an increase of almost $200,000.00 since the last hearing in '01 to where we are in '04. And the demand on that system has grown really exponentially, rapidly. If we go back to 1996, the demand was 9,657 megawatt hours and in 2004, if we go to NP-211, you'll see it forecast to be 16,810 megawatt hours. Do you see line 12 there?
A. I do.
Q. So a seventy-five percent increase over eight years. First of all, is that your--what I

Page 48

just indicated, is that your general understanding of what's happening up in L'Anse au Loup?
A. The load growth in L'Anse au Loup has grown significantly, yes.
Q. And in a nutshell, can you summarize why?
A. I think it's been as a result of the rates in that particular area, a general load growth in electric heat and I think the General Service Customers as well have picked up significantly in load in that particular system.
Q. Now, you see in NP-211, the answer that you got up there, that some of the power is purchased from Hydro Quebec, but there's a diesel generation component as well?
A. That's correct.
Q. Can you just explain how that works?
A. Yes, routinely, as the norm, we buy secondary energy from Hydro Quebec's hydro facility at Lac Robertson through their Blanc Sablon distribution system. Under contract, the small amount of diesel generation you would see there is a small allowance made for any time that we're, again, it's secondary energy, any time we're dropped from the Hydro Quebec

Page 49

MR. MARTIN:
system, for whatever reason, and we have to put the diesel plant on, and there may be some small component of station service there as well for the diesel plant, just to keep it prepared to go.
Q. So is the diesel plant maintained because the Hydro Quebec power is non firm? In other words, it can be dropped at any time?
A. That is certainly one of the reasons, yes. We can be dropped at any point in time and we have to provide service to the people in the L'Anse au Loup system.
Q. Okay, so we have the cost of the interconnection, but we're also maintaining the diesel power up there and the diesel plant as well, is that--have I got that correct?
A. That's correct.
Q. Okay. Under the Hydro Quebec contract, are there maximum purchases or minimum purchases under that contract?
A. If I remember the contract correctly and I haven't read the document, I understand there is a limit in the contract of three megawatts. I also understand that we regularly exceed

Page 50

that with their knowledge and concurrence, and we are about to sit down with them in early November as part of the initiative on the protection and control issues I discussed on Friday, to see if we can increase that contractual three megawatt limit to something higher. I know we've gone as high as three and a half megawatts take from the Hydro Quebec system.
Q. Is there any discussion contemplated with Hydro Quebec to try and make any of that power firm power, so that the diesel component is reduced or eliminated?
A. I'm not sure if there's been any discussions recently. I would suggest that--I would think Hydro Quebec may be somewhat reluctant, they want to have that power available if and when they see the load growth on the Quebec system. It probably will be discussed, at least in some form at this meeting coming up in November.
Q. Well let me just take this a step further. Let's have a look at NP-41 and this question addresses how Hydro balances the issues of cost and reliability and generation capacity,

Page 51

planning on Isolated systems and the criterion is Hydro shall maintain firm generation capacity to meet the system peak load. Firm generation capacity is defined as the total installed capacity on the system, minus the largest single unit?
A. That's correct.
Q. So there's always a redundant unit, and I don't mean that in a negative sense, but there's always an extra unit on the diesel generation system in each of these communities to provide for a failure in any one of the units, is that the basic concept?
A. That's the concept.
Q. Right and we've looked at, for example, Mr. Browne took you through a table that showed the multiple generating units in each of these communities?
A. Correct.
Q. Okay, now with the load growing in L'Anse au Loup, do you expect to add another unit in L'Anse au Loup?
A. No, I don't necessarily think we do. I believe, and again, I stand to be corrected on this, I believe the Hydro Quebec

Page 52

Interconnection is assumed to be the largest unit.
Q. Okay, well let me take you to CA-14 because there's a report on reliability that Mr. Browne took you through. Can I take you to page 4 and this is a report which was just filed recently with the Board, as I understand it. And in the middle of the paragraph, about a third of the way down, it says, "Based on current load forecasts, Hydro is proposing to increase the present capacity of the L'Anse au Loup plant from 3,900 kilowatt to 4, 900 kilowatts in 2005. The present load is 3, 265 kilowatts and the load forecast in 2005 is 3,982." And then it goes on to talk about it's provided through Hydro Quebec with secondary power. The diesel has sufficient capacity to meet the area's load should it be required to do so, et cetera, et cetera. Can you just explain that to us then, because I read this as you're contemplating another generation--another generator in L'Anse au Loup?
A. Well, if this is correct and it says Hydro is proposing, I would assume we have not proposed

Page 53

MR. MARTIN:
anything yet, but in response to your last question, I said I stood to be corrected and if you need a firm answer on that, I can certainly check it for you. You are right, this statement here obviously contradicts my previous answer.
Q. And what I'm trying to understand is, you've got this power infeed from Quebec, why is this generator needed and if in fact Hydro is proposing this new generator, what will be the impact on the Rural deficit from this generator?
A. I would like to use the term here, instead of proposing, contemplating, again, that may be a fine line, if you will, but I think the one thing we have to do is we have to have these discussions with Hydro Quebec. We, as you suggest, perhaps want to see if we can firm up this energy. If we cannot firm up this energy, then we have a responsibility to provide service to the folks of L'Anse au Loup, and if that determination is made that we need to expand that capacity there, I'm sure there will be great discussion on it. I

Page 54

don't think it's fair to say that we are proposing it. I would like to think at this point in time we are contemplating it.
Q. Do you know the capital cost of a 500 kilowatt diesel generator?
A. A 500 kilowatt diesel generator is in the order of total capital cost, $500,000.00.
Q. And does that include its installation?
A. Yes.
Q. Now, if you were to come to the Board, I asked you earlier about would you advise the Board, as part of a capital program, what the impact on Rural deficit would be. Is this not an example, Mr. Martin, of why it is important if Hydro comes forward with a capital project that materially impacts the Rural deficit, that the Board be advised what the impact would be? Would you agree with that?
A. I see your point, but I don't think I necessarily agree. I'm sure that if we brought forward a proposal for a new 500 kilowatt diesel gen. set for L'Anse au Loup, I've never seen the justification for including an analysis of the impact on the Rural deficit, but in this particular case

Page 55

here, I'm sure there would be, the justification would include the contract that we have with Hydro Quebec, the concerns that we have, the rationale for bringing forward that half a million dollar capital budget proposal, and then it would be up to the Board to make the determination whether or not they thought it was valid or not. And ask the right questions with the intervention of all customers.
Q. Right, but the difficulty with that is that L'Anse au Loup may stand out because it's been a point of focus, but there would be numerous other projects that potentially impact the Rural deficit that unless Hydro tells us what the impact is, as it comes forward, neither the Board nor Intervenors would really know; and hence, my question: does it not become logical to report to the Board annually as to what is happening with the Rural deficit and why, and as part of capital projects, what the proposed impact would be?
A. Again, all I can do is reiterate what I said before. I'm sure if the Board thought that that would be of value and significance in its

Page 56

deliberations and if we could do it, I'm sure we would be prepared to do it.
Q. Okay.
A. I have difficulty in trying to understand or rationalize how we're going to mix things with regards to reliability and cost to the impact on the Rural deficit. That almost seems to me like we're going to start to distinguish between customer groups and how we justify projects and the level of service we're going to supply to our customers. And, I guess, personally speaking, I have a little difficulty in grasping that.
Q. Let me touch on a couple of other things. If I take you to page 8 of your evidence, lines 4 to 14, there's a reference there of the various generators which have been replaced, and down at line 12 "only the diesel plant at St. Lewis is currently in Hydro's future plans for replacement." In terms of replacement, that's what the paragraph addresses, but are there additions that are not reflected in that paragraph? Because we already just looked at L'Anse au Loup which has at least a possible addition. Are there other additions or

Page 57

KELLY, Q.C.:
possible additions?
A. You mean with regards to new or larger capacity diesel generators?
Q. Yes, exactly.
A. In the future?
Q. Within the next, you know, reasonable period of time, '05, '06.
A. I don't have the five-year capital plan here, but it wouldn't surprise me to know we have some engines in there, absolutely not.
Q. But what about--you talk here about the only diesel plant at St. Lewis is currently in Hydro's future plans for replacement. This project is tentatively scheduled for completion in '06.
A. That's the plant itself.
Q. The plant, yes. And what is the distinction that you're drawing?
A. No, I thought you were asking could there possibly be any more diesel generators, stand-alone diesel generators that were going to be changed, either because of obsolete units having to be replaced or increases in load growth in some of these Isolated communities.

Page 58

Q. Right.
A. And I wouldn't be surprised to find out there was some of those in there that are not mentioned in this. We were talking here specifically of the plants, themselves.
Q. Okay, and on the L'Anse au Loup system, has Hydro examined the potential impact on this continual load growth of moving to a price for energy that would be closer to the cost of supplying it? In other words, has Hydro looked at revisiting that issue of the price at which it is supplied?
A. I think that's perhaps a question better left to the rate's people.
Q. Okay, what about on the L'Anse au Loup system on the question of Demand Side Management, with this growth taking place, has Hydro looked at any initiatives in L'Anse au Loup to try to limit growth on the system?
A. I'm not aware of any specific initiatives that the Customer Services Department might have looked at with regards to Demand Side Management on the L'Anse au Loup system.
Q. And that's the case, even though there's the possibility of having to put in a new

Page 59

generator in '05?
A. I'm not saying they haven't done it, I'm just saying I'm not aware of anything that they may be looking at.
Q. Okay, who would be the person to ask that question to?
A. That would come out of our System Planning Department and our Customer Services Group.
Q. Which would be Mr.?
A. System Planning is in Mr. Hayne's area, production division.
Q. Right, but I kind of got the impression that they wanted you to address Rural deficit, I'm just trying to figure out who -
A. Well, if you want to talk about an initiative with regards to Demand Side Management on the L'Anse au Loup system with regards to the witnesses that are coming forward, I can try to answer something after the break, if you have a specific question or I can refer that to Mr. Banfield.
Q. But I take it there is no plan that you are aware of to look at Demand Side Management Programs for L'Anse au Loup?
A. Not specifically. I mean, I have to say that

Page 60

every time, and I think Mr. Haynes mentioned this in his evidence, every time we go for a capacity increase on an Isolated System, whether it's the addition of an engine, the increase in capacity of an engine, even changing out the capacity or its dissation (phonetic) service transformers to step the voltage up from the generator voltage to the distribution voltage. In every one of those cases, the economic analysis division or department within the system planning group, does a DSM Analysis to determine whether or not there is some way there that we can defer that particular capacity increase. Every single time. Even the Capital Budget Proposals we bring before the Board, I'm sure you will remember contained those DSM Analyses for each and every one of those. I'm not specifically aware of any particular program that the System Planning Department or anybody else is looking at with regards to L'Anse au Loup, but if we brought forward or contemplated bringing forward a capacity increase in L'Anse au Loup, I can assure you there would be a DSM Analysis completed as

Page 61

MR. MARTIN:
part of that proposal.
Q. But even though it's seriously being looked at now for '05, that's what your document indicated a few minutes ago, that analysis is not taking place yet?
A. Not to my knowledge.
Q. Right, okay. Let's just turn to a related question and I want to look at this question of Charlottetown and Little Bay Island, and I take it you're familiar with the new--with the diesel plant expansions that took place there?
A. I am.
Q. Okay, let's go to NP-50, and the capital cost at Charlottetown was approximately a million six and Little Bay Islands was $60,000.00. Now, the one up in Charlottetown, in fact in each of these cases that was brought about because of fish plant, either expansions or openings?
A. That's correct.
Q. And if we go to NP-51, we get the cost impact on the Rural deficit, if we just look at Charlottetown by way of example, depreciation is 72,000 and financing is 96, so about

Page 62

$170,000.00 in impact on the Rural deficit by virtue of these expansions. Now, did Hydro go to the Provincial Government to get them to put this in, if this was needed for a fish plant?
A. I don't think it's fair to say, at least based on my knowledge, that we went to the Provincial Government. I think Mr. Wells in his testimony indicated that when he found out this was happening, he made some personal contacts in that regard, but whether or not we actually went forward and asked the Provincial Government to pay for this, I'm not aware of that.
Q. When either of these projects came before the Board, I take it the Board wasn't advised as part of the capital budget process, the impact that these expenditures would have on the Rural deficit?
A. Again, not specifically to my knowledge, no.
Q. And let's just look at NP-52 and the report that's attached, Section 5.3.5.
A. Okay.
Q. I'm just waiting for Mr. O'Reilly to -
A. Oh, I'm sorry.

Page 63

Q. - bring it up on the screen here. There we go. Now, in--this will be a document that was a report on Hydro's Isolated Diesel Systems, and I take it this report went to the Board, and item 535 says "a new policy is required to cover the recovery of the capital cost of installing generating equipment at the request of a major general service customer. The policy should have the same underlying philosophies and principles as the distribution and service line policy." And when you come down to the action list, it's "prepare a new policy," et cetera. Responsibility is your department, and the completion date is late 1994. Now was that ever addressed by TRO?
A. That was addressed by Hydro, I'm sure with input from TRO. This was before my time at TRO, but I know it was addressed. I believe we responded in another RFI that when we had a more focused look at this issue of a contribution in aid of construction for capacity increases, we found it extremely difficult to be able to distinguish the benefit of an additional generation capacity

Page 64

increase to one particular customer, similar to what would happen on the bulk electrical system. If the load growth on the system is driving a new Granite Canal, we don't necessarily go for a contribution in aid of construction of the customer that's driving that, and I think the same principle, if you will, applied in their thinking on this particular item.
Q. Let's just touch on those. NP-209 indicates that the policy has not been developed, line 11, and NP-210 says Hydro could not resolve the difficulty of assigning common generation to one customer. But this report went to the Board, if Hydro couldn't resolve the difficulty, did Hydro apply to the Board to resolve the issue or to have the issue resolved?
A. Not to my knowledge.
Q. So despite the implementation of 1994, Hydro simply continued on without bringing the issue back to the Board for determination, even though it resulted in the Rural Deficit each year going up by 170,000? Is that -
A. I'm not saying--I think in my last answer, I

Page 65

MR. MARTIN:
said I'm not aware of that. I can't say for sure whether Hydro did or did not, not to my knowledge.
Q. But not to your knowledge?
A. No.
Q. Okay. Now I just have one short area to touch on, Mr. Martin, and then I'm finished, and this deals with the price of diesel fuel for all of the diesel plants. When Hydro refiles its application, will that application have a new price for diesel fuel?
A. Yes, it will.
Q. So it will be based on current pricing?
A. It will be based upon the latest forecast we have for diesel fuel, the same as No. 6 fuel for Holyrood.
Q. Okay. I'm not going to spend a great deal of time on this. We were a little concerned about there's some references in Mr. Haynes' evidence that diesel fuel was being driven by the high short term fuel prices at the time that the application was filed. Do you know how the diesel prices have changed from the spring to the fall?

Page 66

A. Only that I can say we get a weekly report on diesel fuel and if I remember correctly, it's gone from a peak of like 55 cents a litre in February/March down to roughly 35 cents now.
Q. Right.
A. Something like that.
Q. Yes, and that's why I was concerned. Those new--the drop in diesel fuel prices will be reflected in the new filing that Hydro is bringing forward next week?
A. The latest diesel fuel forecast that we have from PIRA will be filed at the end of the month.
Q. Do you have a sense of the order of magnitude that that will bring to the savings?
A. No, I have no idea.
Q. Okay. We can probably do some math from the numbers. I won't bother to take you through that. Thank you very much for your patience, Mr. Martin. I appreciate it.
A. Thank you, Mr. Kelly.
Q. Those are my questions, Chair.
CHAIRMAN:
Q. Thank you, Mr. Kelly. Thank you, Mr. Martin. We'll move now to Mr. Seviour.

Page 67

MR. SEVIOUR:
Q. I'll be conducting the cross-examination, Mr. Chairman.
CHAIRMAN:
Q. Good morning, sir.
MR. SEVIOUR:
Q. Good morning, Mr. Chairman, Commissioners. Good morning, Mr. Martin.
A. Good morning, Mr. Seviour.
Q. Mr. Martin, a couple of the areas I plan to take you through in some detail have been covered by Mr. Kelly this morning, and I'll begin by asking you to turn up page seven of your evidence. I have a couple of questions on some items that are touched on, on that page. At lines 11 to 13, there's reference to an innovative approach to the management of Hydro's wood poles that is being investigated and I'm not clear if this was the program you were discussing earlier this morning, but could you elaborate and advise us what that program is?
A. This is the Wood Pole Management Program that I referenced earlier, and as I mentioned before, traditionally what we've done with

Page 68

regards to our wood poles, both on the transmission and the distribution systems, is routine inspections and a replacement of poles when they deteriorate to the point that we have to replace them. They're rotted out in the base or whatever or at the connection points, the cross arms or knee braces or whatever. What we're planning on doing now, we did some limited testing in 1998/1999 when the Avalon upgrade was on the go and this question of whether or not we should upgrade the wood pole lines, as well as the steel lines. We did some limited testing back then. We were somewhat surprised, I think, at the amount of preservatives that we had lost on average in a lot of these poles. At the same time, we did some treatment as well, boring the base of the poles and connection points and installing these boron rods, which basically dissolve over time and put the preservative back into the wood to try and protect the pole and extent the life of the pole. What we're doing this year is again we're doing the same thing. We're going out and we're looking at roughly 1500 poles.

Page 69

MR. MARTIN:

We're going to test them. It's a non-destructive test where we can try to determine the remaining strength of the pole compared to what its initial strength would have been. We are treating the poles with the boron rods. We're doing the climbing inspections and so on to look at the rest of the system, the insulators, conductor and so on. There will be an analysis of that information done. It will be correlated with the information that we got back in 1998, and one of the key things is that we're also going back and revisiting some of the poles that we treated in 1998/99 to see how well they've stood up since that treatment was done five years ago. Depending upon the results of that and the analysis of that, looking at a program to continue to do that throughout the entire system over a 10 to 20-year cycle, comparing that to the replacement of poles on an ongoing basis. If the cost benefit analysis clearly indicates that that's the way to go, we'll be bringing that forward as a proposal to carry on with a full-fledged capital program for the extension

Page 70

of the life of those poles.

Q. Thank you. I think that completely answers my inquiry. Can I ask you about the next paragraph in your evidence dealing with the Canadian Ohio Brass insulators? You indicate that there's a systemic problem with these devices and I wonder if you could indicate what the nature of that problem was?

A. This is an industry-wide problem. It's throughout North America, and in fact the world, with the COB type insulator. Over time, the cement that attaches the metal cap and pin of the insulator to the porcelain body of the insulator, it grows and it causes the insulator itself to crack and obviously fault. This is a problem that was noticed back, I guess, in the early 1990s. We and every other utility that came across it initiated a program to replace them all. We have proposals in next year's budget to do TL 233, I think it is, and it's part--that's of 230 kV line and TL 214 which is a 138 kV line treating the Doyles-Port aux Basques system. Once we do that, we'll have one 230 kV line left on the system where we have these

Page 71

insulators and that is transmission line TL 231 from Bay D'Espoir to Stoney Brook. We'll also have a couple of 138 kV lines and 69 kV lines from Howley down to the Hampton Jackson's Arm area that will still have this type of insulator on them, but we are very quickly coming to the end of the program to replace these COB insulators.

Q. Okay, and I assume that -

A. I think, just to complete the story.

Q. Sure.

A. We also have a batch of similar type insulators on the distribution system and we are currently trying to compile an inventory of what's left out there on the various distribution systems in regard to this particular problem.

Q. I assume that this is a case where there's no recourse against the manufacturer and that this is purely a cost to Hydro?

A. Yes, Canadian Ohio Brass went out of business in the mid 80s.

Q. And what was the percentage of failure of these units that was identified, Mr. Martin?

A. I can't give you a specific answer on that.

Page 72

My recollection is when we brought forward TL 203s replacement program before the Board, this past spring, we had gone from a failure rate of I think it was three percent to I'll say six percent. It was obvious that the failures were increasing and it was that determination that we felt justified in completing the change out on that particular line.

Q. And was there a system wide cost benefit analysis to the change out done by Hydro?

A. No. I think it would be very difficult, at least from my perspective, to do a cost benefit analysis. You're looking at the reliability of the system and whether or not you want to sustain outages on your 230 kV transmission backbone because of a known problem, and again a known problem throughout the industry. So we felt it wise, as did other utilities, I believe even Newfoundland Power had the same problem and they took the same action to get rid of these things and to ensure the reliability of the system.

Q. And had there, in fact, been system outages which are attributable to failures of these

Page 73

MR. SEVIOUR:
insulators?
A. Yes, there were.
Q. And do I understand then that the cost of this are capitalized?
A. Yes, it is.
Q. Okay. Jump ahead to page eight of your evidence and you talk about the 54-megawatt gas turbines, Stephenville and Hardwoods.
A. Um-hm.
Q. And you indicate that they've been in service for more than 25 years.
A. Right.
Q. And that there is a concern that as the units get older, they're going to require more maintenance. My reference, Mr. Martin, for your assistance, is lines 25 to 28 of page eight. These units are, as I understand it, in the nature of additional resources, as opposed to continuously operating generating units. Is that correct?
A. They had been used in emergency situations. They've also been used, as I understand it, for peaking purposes and they've been used, as well, in the synchronous condenser mode for

Page 74

voltage support on the system.
Q. But they haven't been continuously used for the last 25 years, and -
A. No, they haven't.
Q. - and in terms of their useful life, Mr. Martin, do you have an assessment as to their likely useful life, notwithstanding the fact that they're currently at the 25-year age?
A. I mean, obviously we don't know for sure, but I did respond to an RFI and I want to make sure I don't contradict my answer in that one, if you'll just bear with me for a second. I think it may be IC-284. Let's try that one first.
Q. And I think you have pulled it out, but this response indicates that they should be good for another 15 to 20 years, all things being equal?
A. Yes. Again, as long as we continue to take care of them and maintain them properly, we should be able to get another 15 or 20 years out of them.
Q. Thank you. I wanted to ask you a couple of questions about the Burin Peninsula, where Hydro has a relatively small presence and

Page 75

Newfoundland Power has a significant presence. You may have been in the hearing room when there was evidence touched on that indicated that of the load on the Burin, 99.5 percent was Newfoundland Power and .5 percent was Hydro load. Do you recall that evidence?
A. Yes, I do.
Q. What is the level of the TRO workforce that would be dedicated to servicing the Hydro customers on the Burin Peninsula?
A. I can't give you a specific number. The resources for the maintenance and repairs to the transmission system down there works out of our Whitbourne office. That's our transmission line crew. For distribution services on the Monkstown Petit Forte systems, including the recently interconnected Southeast Bight, those resources, our distribution crews are dispatched from Bay D'Espoir.
Q. Okay. So it'd be two separate service centres, if you will, maintained by Hydro which would be resources for the Burin customers?
A. Yes, and again, they are only a portion of

Page 76

obviously the responsibilities of those two groups.
Q. I appreciate that. Can you--the Whitbourne office, it is an office of Hydro?
A. It's what we call an area office in the Central region. It reports back in to our central region headquarters in Bishop Falls.
Q. And what is the size of that office, staff wise?
A. I can guess. I don't like guessing. I'm always wrong when I guess. If you'll just bear with me, I may have that here somewhere actually.
Q. Thank you.
A. Sometimes I forget the good information I do have available. Are you thinking in terms of just the transmission crew or the total office?
Q. Let's start with the total office, please, and then we'll talk about the service personnel that might be involved in the Burin work.
A. I'd say there's in the order of 20 to 25 people there.
Q. And how many of those would be involved in doing the servicing done from Whitbourne on

Page 77

MR. SEVIOUR:
the Burin Peninsula? Do you have a sense of that?
A. The transmission line crew itself, with the supervisor, is eight people.
Q. Eight people?
A. Yes. They are responsible for all of the maintenance on our high voltage transmission system from Oxen Pond here in St. John's right through to Sunnyside, as well as down the Burin Peninsula.
Q. Thank you. And they would report to the central region manager?
A. Yes, they do.
Q. Okay. And just in terms to complete this loop, would we expect a similar service crew would be supplied to the Monkstown area for issues arising down there and they would come from the Bay D'Espoir offices of Hydro?
A. If I remember correctly, the distribution crew in Bay D'Espoir is again eight people, eight or nine people. But again, they're responsible for everything, I think, from Southeast Bight, Petit Forte on the eastern end of the island, through to, I believe it's

Page 78

MacCallum, as well as Fogo, St. Brendan's, all these various areas.
Q. In other words, it's not just the Burin that they serve?
A. Oh, my heavens, no.
Q. And does that crew as well report to the manager from central region?
A. Ultimately to the manager of the central region, yes.
Q. Okay. There's been some evidence filed in terms of the Newfoundland Power and Hydro cooperative efforts and their studies of potential joint initiatives and I wonder if we could just turn that up for a moment. It's Exhibit FHM No. 1. And my interest was at page nine of the Exhibit. And you're familiar with this review process, are you, Mr. Martin?
A. Yes, I am.
Q. I wanted to touch on two areas. One is the one described under working group No. 8, and this deals with, in the second paragraph, the joint cooperative effort in providing emergency service and I understand that that applied on the Burin Peninsula, from earlier evidence that was before the Board.

Page 79

A. That's correct.
Q. Okay. What exactly does this all involve? How does this all work?
A. What happens here is if we have an outage for even say in the Petit Forte system and we need someone to respond, there is a protocol established whereby we can contact Newfoundland Power and ask them to respond to that emergency situation, and they will go into the community. They will locate the problem. They will fix the problem and then they will charge us accordingly as per the memorandum of understanding that's referenced here in the document.
Q. Okay. And what circumstances would they do that service for Hydro, given the available Hydro resources that you've described?
A. In a situation where we have an outage to a community and we cannot--we could not possibly get the community back on, you know, rather than respond from Bay D'Espoir, we would first ask Newfoundland Power to respond from their crews down on the Northern Peninsula. I think this particular group comes out of Bay L'Argent. So again, it's response time to try

Page 80

and get our customer service restored as quickly as possible.
(10:47 a.m.)
Q. That what I was trying to understand, it's a response time issue. What do you know about Newfoundland Power's level or resources on the Burin?
A. I have no detailed knowledge of their resources at all.
Q. That's fine. We can deal with them on that. Just moving down the page, on page nine of this report, there's reference to cooperation with respect to switching arrangements.
A. Yes.
Q. Can you explain what this all involves and help us out on that?
A. Yes. Again, any time that there needs to be any switching done on the system, either switching required for routine maintenance or to provide isolation for a faulted section of line, so we can get the rest of the system restored, again, under the same type of protocol, we can call upon Newfoundland Power to go into Monkstown, for argument sake, and open the lockout disconnects on our behalf.

Page 81

MR. MARTIN:

Again, it's a response initiative in an emergency situation.

Q. And I've looked through this report and apart from these two particular initiatives I have taken you to, the emergency support by Newfoundland Power and the switching arrangements, are there any other Newfoundland Power/Hydro cooperative efforts that relate to the Burin system, do you know?

A. With regards specifically to the Burin system?

Q. Yes.

A. Not in particular. I mean, I know we have other initiatives underway with regards to we do joint training exercises. As a matter of fact, I believe right now, we're involved with Newfoundland Power in a training exercise involving some of our people at Whitbourne. So that would be one area that, although it's not specifically related to the Burin, it is indirectly related, if you will, and there are certainly other initiatives that we have ongoing with Newfoundland Power of a more general nature, like our meter testing, our protective equipment test facilities, doing

Page 82

some work for them and so on. But specifically on the Burin, no, I don't think there's anything else.

Q. So you've got switching and emergency support, and that really, apart from the other general initiatives, is that -

A. Perhaps before I answer I should just quickly have a look at what else we've got here.

Q. Please do.

A. Again, there's the sharing of services and equipment. If there's a specific requirement for some equipment or whatever that they may need on the Burin, there is a protocol in place where we can loan them equipment to respond to a situation down there. I think that's pretty much it.

Q. Thank you, Mr. Martin. I wondered if, just to finish up in this area, this emergency support that Newfoundland Power provides from time to time, you know, how frequently is that availed of? Is it something that's a daily event or a monthly event? What's the situation there?

A. No, I certainly wouldn't think it's a daily event. It's certainly something that we've taken advantage of in emergency situations.

Page 83

They have done switching--I believe it says in the document here, they have done switching for us in Monkstown and in other locations, and we for them at locations where we can help them out. They certainly have responded to trouble calls on our distribution system down there. It's certainly not a daily or even weekly even, but when it's necessary, they respond, as do we where we can help them.

Q. And given the minimal presence of Hydro on the Burin Peninsula, relative to Newfoundland Power, have you, in your capacity as a senior executive within Hydro, been party to any discussions or considerations of the transfer of those assets to Newfoundland Power?

A. No, in my brief tenure, I have not.

Q. And you're unaware of any consideration of that issue at your level now? Is that correct?

A. Yes, that's correct.

Q. And just finally, so I have a complete picture and the Board has the complete picture, apart from the Whitbourne office and, I think there's a warehouse there, if I understand the evidence correctly, is there any other

Page 84

physical location of Hydro on the Burin Peninsula? Do they have any offices there apart from what you've described?

A. No, we do not.

Q. Thank you, Mr. Martin. Those are my questions, Mr. Chairman.

CHAIRMAN:

Q. Thank you, Mr. Seviour. Mr. Hutchings, do you have any questions?

HUTCHINGS Q.C.:

Q. No.

CHAIRMAN:

Q. Okay. Thank you. We'll move now to Mr. Kennedy. Good morning, Mr. Kennedy.

MR. KENNEDY:

Q. Chair, if we could suggest that if we could take the break early, I'd be able to organize my thoughts. Mr. Kelly covered over a fair amount of material that I had intended to cover, so a few minutes would help a lot.

CHAIRMAN:

Q. Sure. We'll break now. We'll reconvene at 20 after.

MR. KENNEDY:

Q. Thank you.

Page 85

(BREAK AT 10:53 A.M.)
(RECONVENE AT 11:24 A.M.)
CHAIRMAN:
Q. Thank you. Mr. Kennedy re-jog your questions?
MR. KENNEDY:
Q. I have, Chair. I think we'll all benefit from the break, especially the witness.
CHAIRMAN:
Q. When you're ready, please.
MR. KENNEDY:
Q. I have mostly just some very short snappers for you, Mr. Martin, that cover a number of different areas. The first one I wanted to ask you about was undertaking number three, that's the KPI documents. And the line that I'm interested in is under "Productivity", the transmission controllable cost figures.
A. Yes.
Q. And this is the OM&A cost per 230 kilovolt equivalent circuit by kilometer. And you've got--in 2001 the figure worked out to $3,883 and you can see that that figure is significantly below the 2000 figure and significantly above 2002, given that these are costs per kilometer. And then 2003, 4,304,

Page 86

which is forecast and I guess we'll get to 2004 when the document is updated with the latest revised financial figures, but could you explain or do you have an explanation for why the 2001 figure is as low as it is and why it would have gone back up again in 2002?
A. No, I really don't have an explanation.
Q. I was just wondering, maybe, the Grant Thornton report on the 2003 application, at page 42, and this is the section that Mr. Kelly had some questions concerning, but it was the first line in 2002, "There was a significant increase in the TRO division which was primarily due to certain non-recurring extra maintenance costs in the central and northern regions." And I think some of those expenses would have been transmission related so I thought well that might explain why the 2002 figure is higher than the 2001 figure, but the 2003 figure is still higher than the 2001 figure by a fair amount? That doesn't jog anything, does it, in your memory?
A. No, it doesn't. George is not speaking to me and--no, I'm sorry, I can't help.
(11:31 a.m.)

Page 87

Q. The other question which was productivity related was that at page 9 of your pre-filed testimony, line 14, you indicate, "After bench-marking the number of Hydro's line workers and driver ground workers against that of similar utilities, it was concluded that there were areas where improvements could be made and efficiencies gained and consequently, realignment of this workforce was implemented in 2001, resulting in the reduction of 11 line worker positions and 13 driver ground worker positions being changed from permanent to part-time temporary." Now tell us who you bench-marked yourself against for the purposes of doing this analysis of your line workers? Do you know what utilities you compared yourself with?
A. No, I really don't. I can't tell you the utilities. I knew there was a number of utilities looked at and we looked at, I believe it was the average number of kilomters of distribution line per line worker and based upon that, and again, an analysis with regards to the realities of their system versus ours, there was a target established of the number

Page 88

of kilometers per line worker, and that's the basis, if you will, that resulted in the analysis and the conclusion that we could eliminate some of these positions. But specifically which utilities, I don't know.
Q. So just leaving aside then the issue of the specific utilities, the analysis involved looking at the number of line workers per kilometer of distribution network or something in that nature.
A. That was one aspect of it and the other one then obviously was the response time to be able to respond to emergency type situations so that we could provide a reliable level of service to all of our customers. That was the second aspect of it, if you will.
Q. So that latter point then, would that show up in the SARI in undertaking number three again?
A. I mean SARI would certainly be impacted by those deliberations but whether or not SARI itself with regards to a specific number, whether that was considered or not, I don't really know.
Q. In that SARI figures, I notice that the 2003 figure is quite a bit higher than the

Page 89

MR. KENNEDY:
preceding years. Is there a simple explanation for why the 2003 figure seems to be out of whack?
A. Yes, I think 2003, the both electrical systems are going to put a lot of our statistics or at least some of our statistics out of whack with regard to the number of major outages we've had. I'm thinking the failure of the lightning arrestor at Oxen Pond on January 30th of this year. We had a double lightning strike on two, 230 kV lines east of western Avalon. I believe that was in July. In March of this year we had a jumper pad, an aluminum jumper pad fail at our Stoney Brook terminal station which caused a blackout of the west coast. There's been a significant number of what I'll call major outages this year that I think would have impacted on that particular number.
Q. So the figures indicated by Mr. Haynes that, in sofar as for the area that he covers, targets would be identified for some of these productivity indices related to generation specifically later on this year, I think he

Page 90

indicated, or early next year for 2004? Would that be the case for your department as well?
A. Yes, we'll be looking at additional indicators as deemed appropriate by the Board for reporting to the Board. Certainly SAIDI and SAIFI on the bulk electrical system and the distribution systems is one of the measures that we are always concerned with.
Q. Would you have, or is it your intention to set a target for 2004 of what you hope your SAIDI, SAIFI and SARI are going to be?
A. Yes, we will.
Q. And in the case of like a SARI figure, there's a fair amount of volatility it appears in the number year over year as the result of abnormal weather events and the like?
A. Yes, there's a significant variability.
Q. Do you try to smooth that out and normalize it somehow by looking at SAIDI, SAIFI and SARI figures that are driven by events over which you have control versus events over which you have no control?
A. We haven't, to date, to my knowledge, done that. We've typically taken the statistics based on the raw data. I can tell you as an

Page 91

exercise we're now starting to look at the SAIDI and SAIFI numbers on the bulk electrical system over the last ten years to see what kind of trend we're seeing in the reliability of the system and I think it's going to be evident from that that there is a significant improvement in the overall reliability of the system or say the last ten year period.
Q. So, can I ask you what drives your target for reliability in the aspects of the operation for Hydro that you have responsibility for?
A. On the bulk electrical system we look at the SAIDI and SAIFI. But having said that, it's not just good enough to look at the specific numbers themselves. We need to look at the root causes of the problems we're having on the system. And as I think I mentioned in my direct testimony, we typically propose programs and projects to correct known problems. And, again, I'll go back to the lightning arrestors on TL-206, the re-routing, if you will, of TL-220 on the Conaigre Peninsula, the Avalon upgrade project, the program we got for TL-214, these are all targeted at correcting known problems to try

Page 92

and maintain, if not improve the overall level of reliability on our system. It's not the number itself that drives us. It's a good indicator of where we are and how we're doing, but that in itself as you suggest can be all over the map. It can be very misleading if you don't know the root causes of what some of these outages are.
Q. So it's a case then of in the Avalon upgrade project, it's an analysis conducted to see what the reliability has been for that system prior to the work being performed I mean and then a judgment based engineering decision exercised ultimately, to determine whether to proceed with the upgrade?
A. I think it's a little more than just a judgment. I mean on the Avalon upgrade, typically transmission lines were designed in the late 60s looking at one or one and a half inches of radial ice as a loading. Over the years we experienced much heavier loadings of that and on a much more frequent basis. So if we were to prevent these prolonged black-outs that we experienced in the 70s, 80s, and early 90s, we needed to do something with regard to

Page 93

MR. MARTIN:
the design criteria. So we did a detailed analysis, wrote the report and brought forward the proposal to upgrade the Avalon transmission system.
Q. So when you upgrade that Avalon transmission system, it's going to presumably improve the reliability of that system?
A. Absolutely.
Q. And then, in turn, your overall system, reliability statistic will improve.
A. Exactly.
Q. You'll agree with me then that in areas of where there hasn't been improvement of those numbers, for like again some individual section of your transmission system will end up becoming further away from your overall system reliability.
A. They could. Again, I would suggest that if it was a recurring known problem that we were experienced in those particular sub-systems, if you will, and we could come up with what we thought was a reasonable cost effective solution, then we would bring that forward as a proposal to remedy that particular problem.

Page 94

Q. I guess it's a question of when do you know when to stand pat, for instance?
A. I think you're right. In that particular aspect there's a lot of judgment goes into it. But, again, I think I take comfort in the process that we go through with regards to bringing these proposals forward. I mean first of all there's the internal review in the engineering and operations groups. The proposals and justifications are brought forward to the management in the areas. They're brought forward to the executive management of Hydro. They're approved by the Board and ultimately they're brought forward, obviously, to the Board of Commissioners for final approval and debate and discussion with regards to all the customers. So there's a fairly rigorous and onerous approval process, if you will, with regards to turning over every stone and making sure that we're all comfortable with regards to what we're proposing to do on the systems.
Q. And I take it then you're confident that that process that is in place is sufficient to ensure that the projects that do ultimately go

Page 95

forward are ones that are required, that would be your position?
A. It is.
Q. I wonder if we could just turn to page 10 of your pre-filed. And in your Section 3.5 there, "Isolated System Cost Containment", you refer down at line 18, "Some of the initiatives implemented include interconnecting isolated systems to the main grid were cost effective", so that would be the L'anse au Loup project, for instance, as an example of that?
A. And Southeast Bight, Westport, LaPoile, all of these interconnections, yes.
Q. And just skipping the next one, you reference multi-skilled workforce and that's your DSR program, you've spoken to that. And as well the RCM, you've spoken to that. There's one there though, utilizing new technologies. Is there something specific that you have in mind when you're referring to utilizing new technologies that would hope to have some impact on the cost of these isolated systems?
A. The first one that comes to my mind, I guess, is back in the early 90s when we started to

Page 96

use programmable logic controllers for the automation of our diesel plants. And this reduced the requirement for full-time staff to be available there and reduced the number of operators we needed. These control systems can automatically schedule units on and off depending on the load profile. They can do other kinds of data collection, data trending and so on. That's one of the first ones that comes to mind where we use technology, if you will, to try to control or at least minimize the increases in the deficit.
Q. Is there anything on the horizon for new technologies that Hydro is looking at that would generate further cost savings?
A. Well, I think I mentioned again in the direct testimony we are doing a demonstration project now on a wind farm down at Ramea. I think it's everybody's expectation that in the future, wind energy will become cost effective and be able to be utilized on some of these systems. I think everybody is looking forward to the day when perhaps fuel cells may get to the point where they're cost effective, compared to diesel systems. But right now

Page 97

MR. MARTIN:
with regards to something that we know of that we're going to implement say next year or whatever, there's nothing comes to my mind.
Q. Nothing on your drawing boards at this point.
A. Not with regards to technologies, no. I mean we are continuing to go through business process improvements and there may be some initiatives there that will result in some cost savings, but not necessarily related to technology.
Q. You mentioned Ramea, I did have a couple of questions about that. So I understand, there is a proposal before the Board at this point as filed by Hydro concerning the Ramea wind generation project, I believe?
A. Right.
Q. And can you just briefly explain, what does that involve? There's a wind turbine going to be potentially placed in Ramea that would provide or service some of the load that you're experiencing in Ramea?
A. There are six, 65-kilowatt wind turbines to be installed. I think the Proponent is hoping to get them in by the end of this year. And to

Page 98

go back on your original question, I don't believe that's before the Board.
Q. So this works in conjunction with your diesel plant?
A. Yes, it does.
Q. And these wind turbines, they would be akin to not having capacity or sort of storage capabilities, it operates similar to a run on a river kind of generation plant, correct?
A. That's right. They're non-dispatchable, if you will. Whenever the winds blows and they can generate, we take the energy and defer fuel at our diesel plant.
Q. And I take it from Hydro's perspective, well if you're deferring fuel and that's what you're willing to pay for the energy out of the wind, it's up to the person who is operating that wind turbine to ensure that they're providing it at a cost lower than what they're receiving in revenue.
A. That's their concern, yes.
Q. And does Hydro see or has it identified any cost savings, vis-a-vis, the installed plant or how you operate it that would be achieved as a result of these wind turbines, other than

Page 99

the replace fuel cost?
A. No, I don't think we've identified any specific cost savings. I mean, the benefit to Hydro is going to be in the knowledge it gains with regard to this particular demonstration project and its potential application at other sites. I do understand that if there's any greenhouse gas credits associated with the plant in the future when they become saleable, if you will, that they are accrued to Hydro. You know, I could say there's some possible minor savings to be had and we don't have to operate the units perhaps as much or at high a load level or whatever, but -
Q. So your variable O&M may decrease.
A. Marginal. Again, I'll use the term, marginally.
Q. Would it have any impact on your state of policy regarding the--ensuring that there's enough installed capacity in a plant that if your largest unit goes out you'd still have the ability to carry the load?
A. No, I don't think it would.
Q. It wouldn't have any impact on that policy.
A. Not with regards to Ramea. I mean if we get

Page 100

into a situation where it works out well and we're looking at future sites, it may have some impact, but wind turbines are not necessarily known for having capacity available when you need it. I assume there are still calm days on the island of Ramea, at times.
Q. Over at page 8 of your pre-filed testimony, this is where you refer to some of the plant refurbishments that you did in some of your diesels, starting at line 4 there. And then at line 7, you say, after you refer to since 1994 new plants at Grey River, Port Hope Simpson, Nain and MacCallum, it says "Also, a major upgrade was completed at Ramea."
(11:47 a.m.)
A. Yes.
Q. So what was the major upgrade at Ramea and does that tie in somehow to this wind generation project that's being proposed for Ramea?
A. No, the major upgrade at Ramea was done some years ago. I'm not sure of the exact year. I'm guessing mid to late 90s. And it was--we re-engined the whole plant, put in three new

Page 101

MR. MARTIN:
engines there. We upgraded the building and some of the other sub-systems in the facility because they had deteriorated to the point where we could no longer provide reliable service to that community. It had absolutely nothing to do with the wind project at all.
Q. So given that Hydro went through this major refurbishment at Ramea and so presumably your plant there is as good as any of the ones that you have in the -
A. It's one of the best ones.
Q. - in the rural isolated areas. Was there any consideration given by Hydro to if you're going to try an alternative project like the wind generation, of putting it somewhere other than Ramea where the plant may not be in as good as shape and therefore, the wind generation might be more useful?
A. Well I think the actual siting was perhaps chosen by the Proponent based upon the wind regime available and I guess in their analysis Ramea was the best place that they thought they had an opportunity to put this thing and to make it work. It was in a system again

Page 102

where we could avoid fuel costs so--but I think the main Proponent obviously of the project would select the site, where they would want to install it.
Q. A question was considering inter-company transactions and I wonder if we could go to page 48 of Grant Thornton's 2003 report. The amounts involved aren't very large for transmission of rural operations as you can see from that table but I just had a couple of questions first about the specific numbers. There was an amount, presumably, forecast for the 2002 test year in your 2001 GRA that there would be charges to CF(L)CO from TRO of 135,500 and the number ended up coming in at 67,387. Now, in actual fact, that would have been--the 135,500 would have reduced the revenue requirement for the 2002 test year, correct?
A. Yes.
Q. So the fact that there was only 67,387 in charges by Hydro to CF(L)CO didn't hurt the rate payer, but is there a reason why the figure came in only at half of what was projected?

Page 103

A. I can only assume and I believe there was a project that they had intended us to look at on their transmission system up in Labrador. And I believe at the end of the day they decided not to go ahead with that particular work. That's the only thing I could put it down to, that there was something planned that they had budgeted for, that we had budgeted for and it just didn't materialize.
Q. According to the Grant Thornton report here and it would have been information obtained, presumably from your application or their own direct analysis of Hydro that the forecast 2003 charged to CF(L)CO by TRO was $37,000. Do you know if you're tracking at that same level for 2003?
A. I really don't know.
Q. Wouldn't know?
A. No.
Q. Would you have any involvement then in the setting of the budget for your forecast 2004 test year of the same amount, 37,000?
A. Yes, I think what would have been done there is if we had what we thought was a reasonable estimate for 2003 we would have just carried

Page 104

that over into 2004.
Q. Do you yourself end up--would your own time be included in that $37,000 for 2004? Would you to expect to complete work for CF(L)CO in 2004?
A. I would not personally. I think the work that would be included in here would be work by our engineering department in support of their transmission system and perhaps some support from our environment department as well.
Q. Do any members of your division in TRO, your engineering department or your environmental services provide services to any company other than CF(L)CO?
A. Yes. Outside, like I mentioned before, we have provided support to the federal government on the Natuashish project. That's the only one that comes to mind right away.
Q. And I think it was established that the cost recovery or that the charge out there for the work that you've done for the federal government is just based on a cost recovery similar to the CF(L)CO charge out?
A. That's correct.
Q. Just one last question concerning your street

MR. KENNEDY:

lighting. You referenced, I believe it was in your direct testimony that you'd been switching from mercury vapour lamps to high pressure sodium lamps?

A. That's correct.

Q. And high pressure sodium lamps in your street lighting would use less energy than the mercury vapour, that would be the reason for switching?

A. That's correct.

Q. And you described as well, I think, or some of the witnesses, about the great lengths that Hydro has gone through to decrease the amount of energy consumption that it itself is responsible for in its rural isolated communities, which included switching out to florescent light bulbs, I believe, in your plants you indicated?

A. That's correct.

Q. That there was no rock left unturned to try to determine how you could lower the amount of energy that you were consuming in these rural isolated communities.

A. There was no rock that we could find that was

left unturned.

Q. You're aware that there's a third alternative for street lighting involving low pressure sodium bulbs?

A. I'm very aware of that.

Q. And could you explain why you wouldn't have, or is it Hydro's intention to review its policy in that regard and use low pressure sodium bulbs because I believe they use lower energy again, do they not?

A. My understanding is they do and I'm sure you remember this was brought up at the capital hearing. Hydro made the commitment at that time to have a look at this whole issue of the dark skies and whether or not low pressure sodium lamps could be used for street and area lighting. And we fully intend to do that. I hope you'll appreciate we haven't made a lot of progress on that front yet, but it is certainly our intention to come back to you with a formal response in that area.

Q. That's all the questions I have, Chair, Commissioners. Thank you, Mr. Martin.

CHAIRMAN:

Q. Mr. Martin, we'll move now to re-direct. Ms.

Greene, please.

GREENE, Q.C.:

Q. Thank you, Mr. Chair. Actually I do have a limited number of re-direct and then we will be in a position to respond to the undertakings that were given on Friday by Mr. Martin following the re-direct. The first question in re-direct arises from questioning by Mr. Kelly and here if we could, please, go to the transcript, Mr. O'Reilly of October 24th at page 115. And in reading the transcript there was some confusion in my mind with respect to the transportation budget. If we look at page 115 and it's really--it's in the question starting on line 8 going down to I guess line 15 where we're talking about the size of the TRO transportation budget in relation to the overall Hydro transportation budget. And I wonder, please, if we first could look at your Schedule 6, Mr. Martin. The transportation budget forecast for 2004 for your area of TRO is how much?

A. It's 1.73 million dollars.

Q. And is that the entire budget for Hydro for transportation for 2004?

A. No, it isn't. There is approximately another 300,000 dollars in transportation accounts. I believe it's in the finance department and the human resources and legal department.

Q. And production as well, I believe?

A. And production.

Q. And I wonder if we could go, please, to Schedule 2 of Mr. Roberts' evidence. If we just see the heading on that Schedule 2, please, this is "Overall Corporate", is that correct, Mr. Martin?

A. That's correct.

Q. And the transportation is shown there in line 18, could you indicate what it is forecast for 2004 for Hydro overall, please?

A. It's two million, forty-four thousand for 2004.

Q. The next question arising in re-direct is also I believe in discussion, this time with Mr. Browne and it related to whether there are mobile diesel units that are available to Hydro and here, please, if we could go to the transcript, Mr. O'Reilly, of October 24th at page 128. And it begins there, the discussion with respect to the GNP and as to whether we

GREENE, Q.C.:
have portable diesels that would be available and if you look at your answer that begins there on line 17 down to lines 24 and if you'd look specifically at line 22 your answer was, "To answer your question in the context in which you're putting it, I would have to say now we don't have any mobile generation up"--could you go to the next page--"there that could quickly respond to a problem in some small community, no." And I wanted you to explain the context of your answer first.
A. Yes, I thought the question was being asked do we have any mobile units that are available at regional offices or depots that are just sitting there in containers waiting to go to a remote location, should we have a problem. And the answer to that is no. Specifically, we do have five mobile diesels right now; three of them are in-service, if you will at St. Lewis, Charlottetown and Little Bay Islands to provide load to customers on those systems. And of course we have the other two what we call mobile diesels at the Roddickton diesel generating facility in the community of

Roddickton. They are also classified as mobiles but they are connected to the system in a standby mode waiting for the call for production.
Q. Would they be able to be moved to respond to an emergency?
A. Yes, they could. If we got into a serious problem somewhere with some time, perhaps a day or so, be able to be moved to respond in an emergency situation.
(12:00 p.m.)
Q. So the period of time required to get them into service I take it is for several hours?
A. At least several hours, if not longer, yes.
Q. Does Hydro have access to any other mobile diesel units?
A. Hydro has access to Newfoundland Power's seven and a half megawatt gas turbine which I think is normally located at Port aux Basques, as well as I believe a 700 kilowatt mobile diesel generator set.
Q. And Hydro would request that of Newfoundland Power again if there was an extended outage where that mobile could be of service?
A. Yes, those particular gen. sets come under our

MOU with regards to the sharing of resources that we have with Newfoundland Power.
Q. The next question in re-direct arises on the cross-examination of Mr. Kelly and there was a fair bit of discussion with you with respect to the staffing changes in TRO and in Hydro, generally. And there was some discussion with respect to the union versus the non-union distribution of those changes in staffing. And just to illustrate, I wonder if we could bring up, please, Mr. O'Reilly, CA-42. Could you scroll down, please, I just wanted to see the--okay. The status there is shown as M and NM by each position and if you go back up, could you please read beginning there at line 11 what the NM means, Mr. Martin?
A. NM represents bargaining unit and N represents non-bargaining positions.
Q. So with respect to Hydro, what is the breakdown between union and non-union positions at Hydro?
A. Hydro's structure is such that 60 percent of its workforce are bargaining unit positions; 40 percent are non-bargaining positions.
Q. So when the M there represents non-bargaining

positions you're saying that approximately 40 percent of Hydro's complement is non-union?
A. That's correct.
Q. What type of positions are in that 40 percent figure?
A. They're obviously not all supervisory people, there's a lot of those people that are non-supervisors but they are also not in the union and there's--to give you some examples, our engineering staff, all the members of our environment department, administrative assistants and other clerical type staff would not be classified as union employees.
Q. And for ease of convenience in doing the RFIs, they were put in as M for management because they are not in the union, is that correct?
A. That's correct. The M does not necessarily mean that they're managers or even supervisors.
Q. The next question in re-direct arises from the questioning of Mr. Kelly this morning with respect to RCM. And I haven't had the benefit of reading the transcript and there was one area where there was some confusion, at least in my mind, with respect to that. And I'd

Page 113

GREENE, Q.C.:
like first to look at CA-113. And is that correct, Mr. Martin, that the savings you have estimated, TRO has estimated to be available from the RCM initiative in TRO is forecast to be approximately a million dollars in 2004?
A. That's correct.
Q. Now the next RFI raised is NP-277, page three of three. Now NP-277 provides a breakdown of the million dollar estimate for RCM, is that correct?
A. That is correct.
Q. And is the million dollar savings from RCM reflected in the 2004 test year revenue requirement?
A. Yes, it is. It is reflected in Schedule 5 in the salaries and fringe benefits account, the system equipment maintenance account and the travel account.
Q. And line 11 there refers to CA-202. Can we go to that, please, because I think that shows what you've just said. So the savings that have been estimated arising from RCM are indicated in the TRO in the area of salaries and fringe benefits, system equipment

Page 114

maintenance and travel, is that correct?
A. That's correct.
Q. And if we go to Schedule 5 attached to your evidence -
A. Yes.
Q. You would see in the 2004 forecast that the RCM has been reflected in the numbers shown in those particular categories, is that correct?
A. That's correct.
Q. In the course of your discussion with Mr. Kelly this morning, there was some reference to $350,000.00 being the non-salary component and as to where that was, can you please expand on that?
A. Where I was getting mixed up in my own mind, I think, was the relationship between the dollars we're looking at in RCM, versus the cost of our Wood Pole Management Program. The RCM initiative, the savings as a result of that program are reflected in the salaries, system equipment maintenance and travel budgets.
Q. In 2004 revenue -
A. In 2004.
Q. So they are not to be found in the enhanced

Page 115

vacancy adjustment.
A. No, they are not.
Q. Turning now to the discussion with Mr. Kennedy, the cross-examination by Mr. Kennedy. Again, there was one small area that I wanted to explore with you and that's with respect to the wind project in Ramea.
A. Yes.
Q. And I think you mentioned that this is not before the Board and that is in the context that it is not a project--that a displacing fuel cost with no specific capital dollars for Hydro, other than I believe there's some capital dollars associated with interconnection, is that correct?
A. That's correct.
Q. And the amount of the interconnection cost is approximately 98, 100 thousand dollars, in that vicinity?
A. That's correct.
Q. And Hydro has applied to the Board for approval of those capital dollars for the interconnection, is that correct?
A. That's correct and it's fully recoverable from the Proponent.

Page 116

Q. The last thing in re-direct arises again, from Mr. Kennedy and there was some reference to the key performance indicators that you use in evaluating performance from your perspective in the TRO division. And I just wanted to briefly ask you how does Hydro measure its service reliability to Newfoundland Power?
A. There are two factors. Basically it's the SAIDI and SAIFI on the bulk electrical system. In other words looking at the delivery points where we provide power and energy to Newfoundland Power and the second factor is the number of under frequency load shedding operations that we have at any given point.
Q. With respect to how we measure performance directly to our customers, our own rural customers, how do we measure that?
A. We look at the customer basis. In other words, the total number of hours that an individual customer or customer group on a specific feeder are without power. We go right down to, to use Mr. Haynes' expression, the meter socket.
Q. And is this similar to how Newfoundland Power keeps delivery point performance to its

GREENE, Q.C.:

customers?

A. Yes. As I understand it, Newfoundland Power does not keep statistics on a delivery point basis but they do exactly the same as what we do on a customer service basis, looking at the customer, their own customers themselves.

Q. And our last group of customers, the Industrial Customers, how does Hydro measure its reliability performance to its customers?

A. With regards to Industrial Customers, the same as we do Newfoundland Power at the delivery point performance.

Q. That concludes the re-direct and now I was going to move to the undertakings that were provided on Friday through Mr. Martin. And the first one arises at page 149 of the transcript and beginning on line 15, this is really two undertakings are set out there in the question from Mr. Browne to Mr. Martin. And the first one is found at lines 11 to 19 where Mr. Browne asked you to determine whether Hydro has undertaken an analysis prior to the purchase of a diesel generator as to whether its more economical to lease as

opposed to purchase. Have you had the opportunity to review that, Mr. Martin?

A. Yes. Our engineering staff has talked with our prime supplier of diesel engines and although it's not typical for a utility in a prime power application to lease engines, for that application, they can certainly be prepared to do so; however, they feel in the long run that cost would be more prohibitive than what we're doing now; i.e., the purchase of our diesel gen. sets.

Q. Has Hydro ever leased a diesel unit?

A. Yes, we've leased diesel units many times.

Q. And would it have been for prime power supply on a long-term basis?

A. No, it would not.

Q. So it would only have been for short-term purposes?

A. It would have been for short-term purposes, for example, the MacCallum upgrade we leased a couple of units down there until we got the new plant built and re-engined.

Q. The next undertaking begins on lines 20 again on page 149 and it was to provide information with respect to the new unit at Black Tickle

and its fuel efficiency in comparison to the old unit that had been in Black Tickle prior to the installation of the new unit. Have you now checked that answer for Mr. Browne?

A. Yes, we have. The fuel efficiency of the new 455 kilowatt unit that we put in there to replace the old obsolete 300 kilowatt unit was 3.8 kilowatt hours per litre. We estimate that the obsolete unit it replaced, the 300 kilowatt unit had an efficiency of approximately three kilowatt hours, per litre. In other words, a 26 percent improvement. Had we replaced it with another comparable 300 kilowatt unit just for comparative purposes, the fuel efficiency would be estimated at around 3.5 kilowatt hours per litre or a 16 percent improvement. In either event, our system planning people who undertake these analyses indicate that on a project like this, the fuel savings alone required to just balance the capital cost investment of a diesel unit would be in the order of 40 to 50 percent requirement, just to break even.

Q. So it wouldn't seem based on what you just said to make economic sense to justify

replacement of engines for fuel efficiency only?

A. That's correct.

Q. The next undertaking is found on page 151 at lines 13 to 17. And, again, this relates to Black Tickle on a question by Mr. Browne as to whether you could provide the amount of fuel for each of the three units at Black Tickle and have you been able to review that over the weekend, Mr. Martin?

A. Yes, we have and as I indicated on Friday, we only measure the total fuel coming from the fuel storage facilities to the plant. We do not have individual fuel meters on each individual engine. So we cannot measure specifically each engine's consumption.

Q. The next undertaking that is referred to in the transcript is at page 152 and I just wanted to point out that while it is listed as a separate undertaking in the transcript it actually is a repeat of the ones with respect to the amount of fuel burnt in each of the units at Black Tickle that we have already answered. It wasn't a new undertaking, it was a repeat. And the last undertaking that was

Page 121

GREENE, Q.C.:
given on Friday is found on page 172 and it was to Mr. Kelly relating to the number of vacant positions in TRO and you'll see it on page 172 there, really beginning at line 9 in the question. And I just wanted to point out that that undertaking was answered this morning by Mr. Martin and that was the number of vacant positions in TRO at the end of 2002 and the number of vacant positions as of Friday. So that all of the undertakings on Friday were responded to with the exception of the ones to Mr. Kennedy which was to update U Hydro number three when we have filed the revised revenue requirement.

CHAIRMAN:
Q. Any particular follow-up questions in relation to those undertakings? Okay, thank you. We'll move now to more questions, Commissioner Saunders.

COMMISSIONER SAUNDERS:
Q. No questions, Chair.

COMMISSIONER WHALEN:
Q. I have no questions, thank you, Mr. Martin.

CHAIRMAN:

Page 122

Q. I have no questions either, thank you very much, Mr. Martin for your testimony.
A. Thank you for your mercy, Mr. Chairman.
(12:15 p.m.)
CHAIRMAN:
Q. We'll, I guess, conclude for the day, certainly and I guess, Ms. Newman, we'll be undertaking to hear evidence from Ms. Richter tomorrow morning at 9?
MS. NEWMAN:
Q. Yes, that's correct, Chair. We estimate that we should be finished that tomorrow but -
CHAIRMAN:
Q. Okay. Sounds good. So we'll adjourn for today and we'll see you at 9:00 tomorrow morning. Thanks once again.
Adjourned till October 28, 2003 at 9:00 a.m.

Page 123

CERTIFICATE

I, Judy Moss Lauzon, hereby certify that the foregoing is a true and correct transcript in the matter of Newfoundland and Labrador Hydro's 2003 General Rate Application for approval of, among other things, its rates commencing January, 2004, heard on the 27th day of October, A.D., 2003 before the Board of Commissioners of Public Utilities, Prince Charles Building, St. John's, Newfoundland and Labrador and was transcribed by me to the best of my ability by means of a sound apparatus.
Dated at St. John's, Newfoundland and Labrador this 27th day of October, A.D., 2003