(9:00 a.m.)

MR. NOSEWORTHY, CHAIRMAN: Thank you and good morning. Before we get started this morning, Ms. Newman, are there any preliminary matters this morning?

MS. NEWMAN: Yes, Mr. Chair, there is one matter that Mr. Alteen wants to speak to.

MR. ALTEEN: It's just housekeeping again, Mr. Chairman.

MR. NOSEWORTHY, CHAIRMAN: Mr. Alteen.

MR. ALTEEN: Good morning. Today we filed the response to the Consumer Advocate's RFI, CA-125, which was directed to us by the Board, I believe, and it contains copies of the 2001 and 2002 advertising and marketing report of Newfoundland Power. That's all, Mr. Chairman.

MR. NOSEWORTHY, CHAIRMAN: Thank you very much, Mr. Alteen. That's it, Ms. Newman, is it, for preliminary matters. Thank you very much. Good morning, Mr. Ludlow, how are you this morning?

MR. LUDLOW: Very well, sir, good morning.

MR. NOSEWORTHY, CHAIRMAN: Good morning, Mr. Young.

MR. YOUNG: Good morning.

MR. NOSEWORTHY, CHAIRMAN: Welcome. I wonder could I ask you to start your cross-examination, please?

MR. YOUNG: Sure, thank you very much. Good morning, Mr. Ludlow.

MR. LUDLOW: Good morning, Mr. Young.

MR. YOUNG: It's always a good morning when it's your last day on the stand, I would think *(laughter)*. I don't know if the record will ...

MR. NOSEWORTHY, CHAIRMAN: You hope, you hope ...

MR. YOUNG: I don't know if the record will catch the roll of the eyes on that one. Mr. Ludlow, Ms. Greene started at the outset of this hearing indicating that Hydro's focus and intervention wouldn't be on particular projects, but it would be on policies and procedures as they related to the capital budget approval process, and that's where my cross-examination will be. In particular, I want to concentrate, first at least, on finding the boundaries between three different elements of your capital budget. To Newfoundland Hydro's perspective, they appear to be related, but I'm sure there's reasons for them to be set out separately, and I'd like to explore that, if I might. I wonder if I could turn first to page 43 of Schedule B, which is the reconstruction heading.

MR. LUDLOW: Yes.

MR. YOUNG: This is roughly two and three quarter million dollars of capital money. I notice that the way the table shows, and a bit lower, Mr. Wells, if I might, it's broken down by region and I assume that's because the projects, the specific projects have not been identified yet, is that correct?

MR. LUDLOW: That's correct.

MR. YOUNG: Would you have any idea of approximately how many projects would be comprised in any of ... you know, I don't know if you want to pick a region at random, or if you happen to have some experience in the history of the company that can help on this, but roughly how many projects would that be, how much would they cost each?

MR. LUDLOW: Two points, the first reason, the reason that this is broken by region, this is first of all the structure of our business. We have a western region and an eastern region; western being from specifically Little Harbour, just east of Clarenville, right through to Harbour Le Cou, including all the Gander, Grand Falls, Central, and the west coast. Burin and the Avalon Peninsula is what we classify as our eastern region, just for point of clarification, and this account typically is made up of, I would suggest thousands of projects. These are typically small, $5,000 to $10,000, $10,000 to $15,000 projects, and these are not, how would I say ... they're predictable in that we know we will be replacing poles, or a pole, or arms, or those types of things, but not predictable to the extent that we know where it is ... in that this is based upon a, the basis behind this account, if I may, to give a little bit of background for you, it's based on a six year historical average, and it's ... what we do is we take the

expenditures in the account, we take out any, what we call large storms. Would this be helpful to explain the building of the account, Mr. Young?

MR. YOUNG: Yes, this is exactly what I needed to know, yeah.

MR. LUDLOW: So in that there is an RFI, the number escapes me, but we classify storms of $100,000 or greater are taken out of the account to make sure that the average is not skewed, or large storms are not skewing the average over a six year period, and typically, we know when we run the 8,000 kilometers of distribution line, and subsequent other attachments, secondary and what have you that go with running the electrical system on the distribution end, there will be need for work as we go.

Reconstruction is typically a result of long haul wear and tear on the system. For once I didn't bring a piece of wire with me, because usually I carry a piece wherever I go, Mr. Chairman, but ... and what you get is over the years the continuous beating and wearing and wear and tear, causes deterioration, but not a concentrated area.

So throughout the year, as there are attachments made, or as there are clearances required for roadways, or if there is a line extension for a new subdivision coming in and attaching to an existing distribution line, to make the attachment there is either upgrading required due to wear and tear, or due to requirements of the day that have changed. There's a multitude of small projects that come up, and that's basically how the reconstruction account has been managed, or has been built and managed over the years.

I go back to my first comment in that the reason I hesitate on the number of projects, there are few what I will call large projects, actually there's none. This would be a multitude of smaller ones. The ones that would get in there of any size would be those such as, I mentioned storms, and that's the trigger that would come out of the, the ... say the lightning storm in August and those types of areas.

MR. YOUNG: So storms that do damage levels of $100,000, is that right?

MR. LUDLOW: Large storms, yes.

MS. BUTLER, Q.C.: Mr. Chairman, the RFI is PUB-14.2, if the witness needs to refer to that for his answer.

MR. LUDLOW: Just for the sake of clarity, that's the ... 14.2, and that's simply the removal of those storms in the historical average that have been taken out, I said $100,000 and greater, and there's one there for $99,000 but we're not that precise.

MR. YOUNG: How much lead time would you normally have between the time that you identify work that has to be done that would fit under this category, and the time that it actually is done. I gather from the, from the description of the nature of the project, that it's something that's fairly imminent as far as ...

MR. LUDLOW: I'm sorry, it could range from a month, it could be a day, and I guess in the ultimate, it could be hours. This is short-term, non ... projects that don't reach over budget years. I'm going to give ... I don't know ... for example, we're building a subdivision in Manuels, and there's one being built across the road from Cherry Lane. I forget the name of it now, it goes up over the hill through a rock cut. Where that line comes down and taps into the main distribution feeder on that road, if we have to replace that pole on the main feeder, that's a reconstruction account. That would be about a $2,000 to $3,000 job.

Alternatively, if in our distribution line inspections that we do on a rotating basis now, once every five years, we come up on a pole that says this pole will not last for the next three to four months, or these two poles. We have to do something now. That's the short term type of thing. If this was greater than a $50,000 project, we would then either exercise it through the unforeseen, trigger it that way, and take the appropriate moves there, but on a one/two pole base, that would fall in the reconstruction account.

MR. YOUNG: So there wouldn't necessarily have to be, and I guess in most cases, in fact, there wouldn't be an outage that would trigger this kind of activity, is that correct?

MR. LUDLOW: No, that's correct. It would actually be probably the exception where an outage would trigger the reconstruction account, but it could.

MR. YOUNG: I'm just wondering if I could discuss with you what the difference might be between regular maintenance and work that would go into this capital

account, I'm thinking of operating maintenance, I mean would this be something that might be recognized by someone in the field at a particular time that some work has to be done, and then within the next, as you say, up to a month it has to be dealt with. That sounds to me like regular maintenance. Is there a distinction in your mind between that and this heading?

MR. LUDLOW: Well, if I were to put a term on it, I would almost put the term of capital maintenance, which is an oxymoron in itself, I guess, and I guess that's your point. When we look at our distribution facilities and you look at units of property within our codes of accounts, a pole is a unit of property. The fixture on the top of the pole, and fixture, be it a single phase, two phase, or three phase, is a unit of property, and as such, when we work upon that, or if work is completed, that is part of our capital structure, and hence the reason I use the term capital maintenance, and so I guess, Mr. Young, I am agreeing with you in that light.

(9:15 a.m.)

MR. YOUNG: At what level, going down from that, at what level do you take things out of operating budget? What sort of work would not come into this capital maintenance, if we can use that word, heading, but fall just in the ordinary operating budget for maintenance work?

MR. LUDLOW: I think Mr. Perry last week gave some of the general accounting guidelines that we would be following regarding the capitalization or the operating, and these would be to extend the life of the plant. Let me just check my note. It would also have to, and particularly in the ... and I'll just take it to the small tools, items under $1,000 are usually charged to the operating account. Over $1,000 would go to be capitalized. It would improve the asset and extends the life of existing assets. Now that's the accounting, that's the ... sorry, no disrespect meant to Mr. Perry, but that's the financial or the accounting descriptions. From my end, on the example of a distribution line inspection, Mr. Young, I would have engineering technicians, as I described to this Board earlier, that would have geographical responsibility for the City, and we would be inspecting those lines. The time spent inspecting, looking, and whatever else goes on in between there, the walking, all that time is an operating expense. If there are things such as street light connections, or street light maintenance identified, or lights that aren't working, that is all operating expense.

If the fixture is broken, that is it's beaten off the pole, the street light, that would be a capital expense, so it's not necessarily a dollar value. If the pole has deteriorated to the point that it needs immediate replacement, that is a unit of property there. That would be the work to replace the asset would be a capital expense. So it could range from street light installation, a street light is $75, to a pole, typically $1,000, $1,100, $1,200 range, and the work associated with that, the line work, would also be for the reconstruction account.

MR. YOUNG: I wonder if you could turn to, Mr. Wells, please, NLH-20? And I think, Mr. Ludlow, you've just described fairly thoroughly what's in the lower end, in particular of the reconstruction account. I'm just wondering on the upper end, if this is where the boundary is, perhaps you could read the first three sentences of your response?

MR. LUDLOW: This is NLH-20.

MR. YOUNG: Yes.

MR. LUDLOW: Just give me a second to review it first, please.

MR. YOUNG: Sure.

MR. LUDLOW: This is a description of the reconstruction versus the allowance for unforeseen items, and the first sentences would be projects included in this category are forecasted based on average historical expenditures and forecast number of customers. A number of repairs are anticipated annually due to the deterioration and minor storm damage. There is a budgeting methodology based on forecasted units and a means to access the actual cost relative to a historical pattern. That is in reference to the reconstruction account.

MR. YOUNG: And the next sentence, perhaps you can read that too, please?

MR. LUDLOW: This fundamentally differs from allowance for unforeseen items in that the type of expense is known, and there is a projected expenditure based on past experience.

MR. YOUNG: I'm wondering if we could perhaps look into this distinction, and you refer to it as a fundamental difference. In the reconstruction, you have a pretty good handle, I gather from your evidence, that ... a pretty good handle on the fact that these costs will be incurred and that they are incurred, in fact, year after year, and you can budget them fairly reliably based on your averages. What is it that changes that sort of experience so that you, you know, put that in one category and then you look at an allowance for unforeseen items with a fairly comfortable, I would suggest to you, idea of what the overall magnitude would be? Is there a distinction there, or are we looking at the nature of the work as opposed to the nature of the overall dollar impact?

MR. LUDLOW: I think it's two points first of all. As my learned friends, my legal counsels have informed me actually many years ago, that under the Act that I am not in a position to respond to work without prior approval of any project that's greater than $50,000, and I think Mr. Kennedy raised that point last week with Mr. Hughes, without prior approval of the Board. And to explain the operation of the unforeseen account, if that would again help?

MR. YOUNG: Sure.

MR. LUDLOW: The, it can be twofold. First, the unforeseen account is just what it says, it's unforeseen, catastrophic and typically large. Now these are definitely open words, but that's my qualifier as an engineer. For us to react quickly to respond to restoration of power and stay within the spirit and the legal confines of the Act, we need a mechanism or an enabler or a trigger.

So let me give you an example. Let's go to Burin in May, and in particular it was April and up to Mother's Day in May when we lost T-4 in Salt Pond, and that was a power transformer that had failed. That power transformer in particular, the costs were estimated anywhere from $50,000 to $200,000, with repair time running multiple months. Immediately we moved in our portable, P-435, and it was on Mother's Day that that thing failed. Now this is unheard of ... my name was Murphy during that month, I would have agreed, I think, Mr. Chairman. When that unit failed, we were down now ... we had almost our second contingency used. Immediately, I had to start some emergency work. That unit on a Friday, Saturday, and by Tuesday was on a boat to Montreal, and by the following ... I think it was Wednesday, give or take a day, it was in plant and under repair. By Sunday of that weekend, I had committed between $700,000 and $800,000 to get the service restored. So what happened from there is as we moved into June, we took a period of time, about four or five weeks, and we assessed what had happened, where we're to, and what do we need to do, and that was the basis upon which we filed a supplemental budget in June before this Board, and subsequently upon receiving the Board's approval in early July, we then basically cleared that unforeseen account, and said, look, we've filed to the Board and have received approval. Hence the reason in the variance report put before this Board in this proceeding, it dropped to zero. So that's one example.

A second would be, what would I do, heaven's forbid, that we have another ice storm this weekend? Now, we're late in the year, we have said that the variance ... we're showing zero at this point. I'm at the beckon of the winds and weather obviously. Would we file for supplemental if we had a $500,000 storm hit us? I think that's going to be a matter of judgement of timing as to whether we come back before the Board for supplemental, or use the unforeseen account at that point. It would be a matter of judgement, time, and magnitude. That's roughly the distinction I would draw between those two accounts, Mr. Young.

MR. YOUNG: I notice if the reconstruction description it refers to deteriorated or storm damaged distribution structures or electrical equipment, and I've got a pretty good idea what distribution structures are, but electrical equipment is pretty broad. I'm just wondering, is this really strictly speaking in the way you use the distribution account, or for example, could the electrical equipment be associated with generating plant or with terminals or others?

MR. LUDLOW: Generally in the reconstruction account, the equipment that would be referred to would be dealing in that area.

MR. YOUNG: Is that because of the size of the investment?

MR. LUDLOW: Well, this investment ... well, yes, that's one of the ways, but it's also for managing the accounts and managing the infrastructure we have in place. I wish I could give you some flavour on size of the investment, but I think you're probably well versed in that end.

MR. YOUNG: So, for example, there wouldn't be any problem replacing a pole top transformer, distribution level, under this account. If it failed and it needed replacement, this is where it would go, is that correct?

MR. LUDLOW: Two things. First of all, there is a separate account for transformers, the actual purchase cost, right?

MR. YOUNG: Uh hum.

MR. LUDLOW: And our labour would be in the extensions account, that's my understanding.

MR. YOUNG: Okay.

MR. LUDLOW: And it's subject to check, but that's where I see that labour going.

MR. YOUNG: So that would not be a piece of electrical equipment that would fall into here because it's dealt with elsewhere, is that correct?

MR. LUDLOW: The transformer?

MR. YOUNG: Yes.

MR. LUDLOW: The purchase of the transformer is in another account, unhighlighted within the budget under distribution, that's correct.

MR. YOUNG: Okay, okay, so aside from distribution work, and I have a pretty good handle on what that is, you know, it's poles, conductor, insulators, etcetera, what other kinds of electrical equipment fall into this?

MR. LUDLOW: Under this, potentially, let's see, what else would I find? Bear with me one second. If you'd give me that page again, I'd appreciate it. My pages are getting dog-earred. Okay, primarily the equipment here would be outside the substation, and that would be on, like ... by far the largest portion of this would be your poles and wires. The equipment here could easily reference areas such as cut-outs, current limiting fuses, but possibly regulators. I'm not quite sure as to whether that falls into that account, but potentially it could, so, but by far the majority would be in the poles and wires end, Mr. Young.

MR. YOUNG: Would it be fair, I'm just trying to get a handle on this, would it be fair to categorize this budget area as almost strictly distribution, and something less than catastrophic loss, is that right?

MR. LUDLOW: I would characterize this, that's a fair assessment, in that this account is distribution, it's the planning of the account and the budgeting and forecasting is less than catastrophic, and based on historical patterns, and however, it is predictable. Now that's a quandary, but that's what it is.

MR. YOUNG: Like death and taxes, heh?

MR. LUDLOW: You got it.

(9:30 a.m.)

MR. YOUNG: Perhaps we can turn to major electrical equipment repair, and it's on page 17 of Schedule B. And just by the title and the description and the nature of the project, which is, I'm sure, not exhaustive, but it's indicative, we're not talking about cross-arms, insulators and things of that nature, and there's probably nothing distribution oriented in this heading, is that correct?

MR. LUDLOW: The only one that would possibly swing is the one I referenced before, the regulators, and I'm not sure which one that would fit into, so that's ... you're assessment is fair.

MR. YOUNG: Would this relate to ... and I think you've answered this before, but I just want to make sure that I'm clear on this. Would this relate to ever a catastrophic loss of distribution plant, for example, the $100,000 plus, or would that always go into that other account that we're coming to in a minute, the allowance for unforeseen items? You know, if you have, you know, the situation you described, for example, on the barrens of Old Perlican when the line is flat.

MR. LUDLOW: No, this would not be this account.

MR. YOUNG: That would not be here. What is the threshold for a replacement to go into this account? Is it a dollar figure amount or is it by nature of equipment? I know that they sometimes can be the same thing, but I'm just wondering if there's a guideline?

MR. LUDLOW: Well, this is primarily ... I'm going to give you an example of one that's here. This is within our energy supply section, you'll note.

MR. YOUNG: Yes.

MR. LUDLOW: I mean right now we're in the process of rewinding one of our Rattling Brooks units that failed, that would fall here. You're into ... when you run, let's go back to the hydro plants for a minute. We have, say 23 hydro plants out there and I hate quoting stats but they are 57 years old. The only thing I can tell you for certain is that something will fail. I don't know where it is, I don't know what it is, but in managing that, and I'll group the 23 as an asset, they're from Rose Blanche to Horse Chops, I'd bet my bottom dollar something will fail in the next 12 months. It's that kind of balance, and again, when we talk in terms of that equipment, to rewinds and so on, that would be the type of place, Mr. Young, that that would fall. It's not whether it's $5,000 or whether it's $50,000, it's that type of piece that would fall in here.

MR. YOUNG: And just to clarify, although I think you've mentioned this, the way you had your budget set up, this is, as you say, energy supply, so something like a, even though they're very expensive, a line truck would never fall into this because that's dealt with elsewhere, correct?

MR. LUDLOW: No, it would not. I'll take you, if I may, to ... maybe this would be of an assist, Mr. Young, to the Schedule E of the, or actually it's the capital expenditure status report. Maybe this would assist, and I would take you to Appendix A, page 1 of 10, item number five.

MS. BUTLER, Q.C.: Yes, Mr. Ludlow, I think you said Schedule E.

MR. LUDLOW: I'm sorry, it is the capital expenditure status report.

MS. BUTLER, Q.C.: Okay.

MR. LUDLOW: It's right behind Schedule E in my book, sorry. Appendix A, page 1 of 10, excuse me. Item No. 5, and maybe here, this will give you a flavour of what I'm referring to, and both these deal with the hydroelectric generators, one being Rattling Brook, which was a failure of a winding, and the second, again, was a Seal Cove whereby the generator, we lost the generator bearings. Both these will total in excess of $600,000, so that's the type of major equipment repair that would fall here, Mr. Young. Now, the other point, these are not net numbers. If there are insurance proceeds they would come back against that account. I need to make that point as well, but this is, and in particular, the one on Seal Cove, we're in negotiations or discussions, or I guess the next stage is argument, with the insurance company in trying to settle that insurance, and then that would come back against the rate base in this area.

MR. YOUNG: I note that the rewind of the unit, for example, at Rattling Brook, $266,000, that far outstrips the amount in this pot. Is that because of ... I take it that's not forecasting insurance proceeds, and I think you indicated yesterday, that's not the way it works.

MR. LUDLOW: This has nothing to do with insurance.

MR. YOUNG: Exactly.

MR. LUDLOW: These are our gross anticipated numbers.

MR. YOUNG: Okay, so that if you were to have a major event of this sort in an energy production area, $150,000 perhaps doesn't buy very much, is that correct?

MR. LUDLOW: That's a fair assessment, yes.

MR. YOUNG: Most years you're going to be beyond it?

MR. LUDLOW: That's correct, this is an account ...

MR. YOUNG: One big one will do it.

MR. LUDLOW: ... it enables ... it will.

MR. YOUNG: That's very obvious from that schedule, thank you. And perhaps if we can now look at page 60 of Schedule B, that's the allowance for unforeseen items. I guess my first observation is there's not much text on these words, but they're rather effective at grabbing a lot, the first sentence, any unforeseen capital expenditures which have not been budgeted elsewhere. Unlike the other two, I'm wondering, is this available to all areas of the capital budget?

MR. LUDLOW: I think the answer to that is yes, however, I am unaware of this being used in areas other than distribution, transmission, substations, and those types of accounts which deal with the core of the, I guess, mission-critical style of accounts and mission-critical being customer service and the provision of

electricity. That's been traditionally the reason for this enabler as I explained earlier in the allowance for unforeseen.

MR. YOUNG: Just to clarify, what's left over from distribution and transmission and substations, I would presume is generation, so you don't use it for that, is that correct, or you haven't tended to?

MR. LUDLOW: It is possible that we would. I have not seen, and at least nothing comes to mind right here while I'm under these circumstances, it's subject to check, but typically it would be in those other style of accounts. That is my recollection for the last number of years, at least since '98.

MR. YOUNG: We heard some testimony yesterday about what I'll call, generally speaking, line trucks, boom trucks, and you had, I think you called them aerial devices or something, it's not terminology I'm terribly familiar with. The total cost of one of those could be fairly significant. If one of those caught fire, for example, or was involved in a serious accident and there was no obvious immediate insurance recoveries, would that be an issue where this would fit, or is that something else?

MR. LUDLOW: I guess there's nothing else that I can see here. In the event that, it depends on the time of the year, it would depend on the commitment that would be required to be put out there. The insurance would not play a role there at all, because first of all, the insurance is just one thing ... I made a commitment earlier that something will go wrong, and it usually do, and another second piece to that one is, you will never settle an insurance claim quickly. I've learned that fairly consistently through my career as well, and so the insurance is not in play in the decision. Could it fit? Yes, however, there's nothing comes to mind immediately that I would have used it. What I would attempt to do is I would push out as hard as I could, as long as I could, without the immediate replacement. If I could do that then I'd take it to the next year. If I couldn't, and this was, you know, again, I'll go back to my terminology of mission-critical, we would go there.

MR. YOUNG: Okay, so you haven't used it?

MR. LUDLOW: Nothing comes to mind. I know I had vehicle accident in the Trepassey area, and I'm not sure what happened with that. Something tells me it didn't come out of this unforeseen, but that is definitely subject to check.

MR. YOUNG: I'm just wondering on the, I think you've answered this already but I just want to make sure in sort of a categoric way, coming back to the generation equipment, would that be something also that ... you say generally speaking it wouldn't fall into this, but are you aware of any occasions where you've used it for, you know, rewindings or things of that nature?

MR. LUDLOW: Again, there's nothing that steps out. The ones that we have used, I've identified here. This year in particular, under the account as listed in the capital status report, I can't remember the second word ... capital expenditure status report. That's typically where we would head with those types of hydro plant equipment issues. Keep in mind the process in looking at the allowance for unforeseen, and it's unforeseeable, and under the Act, at least the way I have been advised in the last four to five years, is that we need an enabler to move and in catastrophic events, we can't hold ... it has to happen, it can happen overnight, and that's the basis. Last year I used the terminology of large catastrophic, we have to move and it's based on a provision of service back to our customers, and hence the reason in the filing of this budget that we reduced that $750,000 back to zero, Mr. Chairman, that was the basis that we ... I guess we were optimistic.

MR. YOUNG: Would you use this in a situation where, for example, you had equipment which, and I don't know if this is going to be a good match considering what you've already said about the sorts of things you use it for, but you use it for substations, for example, so if you have a large transformer, I don't know, 69 kV, 25 kV size, and there's an oil test and it shows that its failure is imminent, it's still working but failure is imminent. You certainly can't drive it on peak loads or whatever, and you have to move quickly. Would you use this account for that where the outage actually hasn't occurred?

MR. LUDLOW: No, I would not, what I would do, and at the sake of ... this is the example I used ... actually it's a very good example, one we've been using all last week. Deer Lake, and what we would do is we would try and run that unit, we would offload, and I'm not going to get into the engineering, I'm not going to get away from your question ...

MR. YOUNG: No apologies.

MR. LUDLOW: We would then bring in our portables, we would take it through, we would try and get the portable in, which we've been successful in doing to date, and then we would offload that transformer and if the repair in this case may very well be in the $10,000 to $15,000 range, rather than multiple hundreds of thousands of dollar range, that's the way we would manage that. That $10,000 would not go back against the unforeseen account.

MR. YOUNG: Okay, so ...

MR. LUDLOW: Because it's managed, the bulk of this would, in fact, be an operating expense because of the moving of the mobiles, the person power to get them there and so on.

MR. YOUNG: I'm not sure if you've answered my question, but you've come close, I think. If, and the only reason I say that is because you quoted a dollar figure of, say, $10,000, I believe. If it was something much more significant than that and the thing was essentially, you know, you had to do the ... send it back to the mainland, say it was old enough that there were no warranties, you know, this could conceivably easily be hundreds of thousands, if not more, correct?

MR. LUDLOW: Exactly.

MR. YOUNG: And ...

(10:45 a.m.)

MR. LUDLOW: Let me take the following extension away from the Deer Lake case and let's be hypothetical and let's hope Murphy returned to Ireland. We can get through with the replacement of the parts instead of losing the tap change. On the assessment that we lost the tap changer or the transformer which could easily be in the multiple hundreds of thousands, that could, in fact, trigger through the unforeseen account, as I explained in Burin, that's our enabler to get that going. We'd take the unit and we would then use the unforeseen account to say, alright, we can do it within this account. We will go, depending on the time of the year, like right now if I lose it, there's a good chance it will stay within the unforeseen account and we would report accordingly under that account. If it was early year, and we were seeing how things were progressing, as I described in the Burin ... what we would do, as we did in June, we would see what was happening, look at the value, and if it was felt or deemed necessary, we would file a supplemental budget back to the Board as we did in June, to then change the accounts accordingly and look for the approval outside of the unforeseen account. That was the ... so if you look at it as $750,000, that's one block of money. It is also a mechanism with which we can start work and go to work. That is in effect the way this thing is designed and operates. So ...

MR. YOUNG: I'm just wondering on the, you know, you've been in this job for a while in the Atlantic Provinces, and you know a bit about Murphy's Law, and you say, I think, that with the major electrical, and certainly with the reconstruction, these are areas, it's probably not fair of the major electrical to the same extent, but with the reconstruction, these are areas where you know, year after year you're going to have these items. Now, I would suggest to you because of the numbers of poles you have, just the laws of large numbers and averages will assist you in reaching that conclusion. You're forecasting on the allowance for unforeseen events, is it the same though? Are you pretty confident you're going to have these things in just about every year to some extent, just doing the difference between the number.

MR. LUDLOW: The reason that number is at $750,000, could that be $800,000 or $700,000, the idea here is that under the Act, and again as my counsel has informed me, many, many, many times I might add, an engineer has a tendency to build and get on with work. There has to be a way to work within the Act, and the $750,000 provides that enabler, and that basically becomes the point. The $750,000, okay, the $750,000 ... a $750,000 storm is quite substantive, there's no question about that. We have had multiple million dollar storms, as you've probably ... if you're from the city you'll know full well, the last one would have been '94, so the $750,000 is not a historical projection. The $750,000 is a number that has been used and we've used consistently with this Board as a means for which to enable us to go to work and work at restoring the power to the customers. If there is a draw from there, we would report back to this Board, and that's the basis, so I do know though, that if it is catastrophic and unforeseen, a power transformer, you're in the range. If it's a transmission, it's going to be within that range, and being from Newfoundland Hydro, you know full well that a $750,000 ice storm can easily happen. That's the basis. I can't give you five year historical averages on this, that's not the way it's built.

MR. YOUNG: I'm just wondering, how many events would normally, not events, but how many particular items would normally fall into this? For example, in the average year, if you can't give me dollar figures, and to some extent, I suppose, as you just suggested, that would be a hypothetical anyway, in your experience, how many items would normally fall in this category in a number of years, in a typical year?

MR. LUDLOW: I would suggest, you know, I hope there's none, but usually that's not the case, and this year there's been, I guess, a couple. We would run two to three that would probably trigger within this account, Mr. Young. I don't have the details with me but that would be ... if I have two to three that would trigger this account, that would be ... that would not be a good year.

MR. YOUNG: So I would assume then, and I know this is pretty phoney arithmetic, but if you have two or three and that wouldn't be a good year, that these would be typically a quarter of a million dollars or more by item, or is that ... that's an extension I can't go to, is that correct?

MR. LUDLOW: I think that's a fair assessment of your mathematics. The math is correct, but, you know, to say that I currently have P-435 sitting on a shop floor and my estimate to get that back on the road is $695,000, and so there's not ... and you talk in terms of catastrophic events, to say that it is $250,000 because the $750,000 over three ... the math is correct, the logic doesn't apply. That's my professional opinion.

MR. YOUNG: I wonder if I could distribute something and ask you to comment on a document, if I might. Mr. Chair, this is actually an excerpt from PU-7, the recent order of the Board concerning Hydro on this issue. This is along the theme, Mr. Chairman, and I hope having Mr. Ludlow as an engineer, I might get his comments on this item.

MR. NOSEWORTHY, CHAIRMAN: Can you just speak up a little bit, Mr. Young, I just ...

MR. YOUNG: I think the problem is I'm moving away from the microphone.

MR. NOSEWORTHY, CHAIRMAN: Possibly, yeah, I'm having a little bit of difficulty in hearing, please.

MS. NEWMAN: Before you proceed, this will be information number nine, and I believe an excerpt of this order was provided earlier, but I believe it was a different excerpt.

MR. YOUNG: I think that's correct, yes.

MS. NEWMAN: Yeah.

MR. YOUNG: Mr. Ludlow, I don't know how familiar you are with this particular order. As you can see though, it's under the heading, this particular part of it, under the heading of contingency fund, which is the words that we more typically use in our company, at least in a generic sense to deal with these issues. The Board, I won't bring you through this and ask you to interpret the order, but I'll just mention for the, as an introductory part to my question that the Board says that Newfoundland Power has a similar provision in place called allowance for unforeseen items, so I think that these are generally similar. I wonder if I could bring your attention to Roman numeral (ii) there, about two thirds of the way down the page.

MR. LUDLOW: Sorry, which one?

MR. YOUNG: Two.

MR. LUDLOW: Yes.

MR. YOUNG: It says the project must be seen both by Hydro, and subsequently by the Board, to be urgent circumstances and must require that immediate action be taken, and it must be evidence that any delay resulting from the time taken to file an application with the Board could have serious negative consequences for the company, it's customers, or the public. Would that also apply to some extent, or not at all, I'd like to have your comment on this, to, would it apply, number one, to your allowance for unforeseen items, as you interpret it, and also, perhaps though, to many events that you have on your reconstruction budget item?

MR. LUDLOW: Let me just read it once again if I may, please? Without the benefit of a lot of study on this document, my comments would be this would not apply to the reconstruction account. The reconstruction account, as I've attempted to explain, is a multitude of small projects that go on throughout the year. It has been shown historically that these units with the 8,000 kilometers that's out there, we will have poles that require work and so on, so that's that piece. With

respect to the unforeseen account, the $750,000, the unforeseen account that I've described is described as being catastrophic, large and exceptional. Those, I think, were the used words, and the unforeseen account was also used as an enabler to get the work started immediately, not a day, not two days or a week, it's immediately. If I have the benefit of looking ahead and getting the planning time, which I think is the ... will we notify the Board? If I have a problem on the Burin, the Board is notified as soon as possible, and that's the same day, hopefully within hours, and that's the approach, the reporting process we've been attempting, based on the number of customers and outage times, and public safety. That's a standing reporting relationship with have with the Board, so that meets that criteria within here as well. So ... and we wouldn't be notifying the Board if it didn't have negative consequences to our customers or to other parts of the business, so that do fit.

Keep in mind that we do report on those items and that's the basis, so are they the same? I don't know. You're going to have to take my explanation of what we do, how we do it, and why we do it.

MR. YOUNG: And number five there, close to the bottom of the page, says that the allowance for unforeseen items, events is the word in this term, will be considered by the Board annually at the time it considers the Hydro capital project and may be varied from year to year. It goes on to say unused balances in the account will not carry forward. I'm just wondering, how much variation has there been in Newfoundland Power's balance over, you know, the last several years that you've been involved in it, or that you're aware of it?

MR. LUDLOW: Well, first of all, this whole discussion is based on the premise that your budgeting process is the same as ours, and I don't know that it is and I don't know that it's not, so I'll start there, okay.

MR. YOUNG: Don't assume the premise that I've made that assumption, I'm just wondering what your experience has been.

MR. LUDLOW: From my end, the last two to three years, my recollection, this account has been at the $750,000 level, $750,000. I know it was definitely there last year because I testified before this Board. The year before, Mr. Evans testified and if recollection is correct, it would have been the same at that point. That one would be subject to check, so there has been no variation in that amount in those years, and I can't go back beyond that too far.

MR. YOUNG: Thank you.

MR. LUDLOW: But I do agree that the unused balances should not be carried forward. In effect, it is not a balance.

MR. YOUNG: I wonder if I could draw your attention to NLH-8? This shows, I think it's fairly obvious, a range between, well depending on if you read the footnote or not ...

MR. LUDLOW: Just bear with me one second please.

MR. YOUNG: Oh sorry, sure.

MR. LUDLOW: Until I just get my cross-reference back to my book. Okay.

MR. YOUNG: Now, the small table there in your response shows, as I say, depending on the numbers you're looking at in the footnote or not, but I mean the range on the table is $51,000 to approximately $168,000. Do you have any sense of whether your allowance for unforeseen items has a similar kind of range pattern or is it ... is it sort of all over the place or how does it work?

MR. LUDLOW: What I would comment is that I know last year the actual balance in the account at the end of the year was zero because at the capital expenditure status report filing we had undertaken a similar process and come back before the Board, and this year, and I'll cross my fingers on this one, that it will be zero, if I can get through the next five weeks, and that's the reason that we've filed that it be zero as well, so my objective is to keep it at zero. It don't mean I won't use it, but I'm using the account, as I said, as an enabler to get me going to do the work.

MR. YOUNG: I'd like to change topics, just ... I'm almost finished, Mr. Ludlow, but I do have one question on one other topic and it relates to cost benefit analysis done in particular ... and I guess my question relates in particular to those that were done, or that which was done for an energy project. As I understood your testimony yesterday, there was some consideration of this issue in relation to the Lockston penstock, is that correct?

MR. LUDLOW: That's correct, yes.

(10:00 a.m.)

MR. YOUNG: Would there have been other cost benefit analysis done for the energy projects?

MR. LUDLOW: Let me see where I'm to here now for a second. We would have completed cost benefit and/or energy studies, those types of things, on, let's see ... the strict financials of whether we've done them, from an engineering base, there are several of them filed. Definitely the Lockston one comes to mind. To my opinion they do not apply to distribution projects.

MR. YOUNG: When you look at them for an energy supply issue, do you look at the specific amount of energy that can be available or the alternative, not become available, or any alternatives you may have in between, sort of all or none, for that specific project, or do you ... because there's a reference in one of the responses, I believe, to looking at the whole, I think it's 426 gigawatt hours, do you look at them, you know, by the each, by the each energy project you do and do a study for each one?

MR. LUDLOW: Before we would have any significant investment in a hydro plant such as Lockston or Seal Cove, or any of those, we would evaluate the continued future viability of that plant based upon the capital expenditure that are foreseen within five to ten ... I think one of them goes out to 25 years, and I think the Lockston may even be that one ... and then the cost of the energy and that, in turn, would be compared back against the, well we're using the short run marginal costs at Holyrood. So the answer, I hope I understand your question. Yes, we look at the plants before we invest. Some of the plants, if they are, in fact, marginal, we would not go, we would have to make a decision to take out. If we don't invest, I would make a decision not to continue operation, and that may be based on environmental or public safety issues, so there's a balance on all these issues outside of just the financial arms as well.

MR. YOUNG: So do you actually produce a document in each case, a cost benefit analysis sort of document, or is it an internal evaluation?

MR. LUDLOW: Well, similar to what we did at Lockston. If we have a project that we are heading towards, for whatever reason, we would evaluate that project and we would file with the Board upon request, that document.

MR. YOUNG: All the ones that are in your energy budget this year, there's a number of them, they were all analyzed that way, were they, by the each one and determining the value of the plant that's remaining or at least the availability to get energy on a cost-effective basis from each plant, is that what you're telling me?

MR. LUDLOW: Just take me to ... let's go to the ... if we go to the energy supply, Schedule B, is that your ...

MR. YOUNG: We could do it that way, sure. It's page 9 of 82.

MR. LUDLOW: Let's take the hydro plant facility rehabilitation, if that would be of assistance, Mr. Young.

MR. YOUNG: Sure.

MR. LUDLOW: The $2.345 million, I would say, sir, that of those the Blackwoods, there was no formal report, but it has been answered in an RFI that that represents roughly three gigawatt hours. The math, three gigawatt hours represents $150,000 roughly, and the cost is $200,000, so without going into a long formal study on all these individual items, can I give you a report on each of these? The answer is no. However, where, as I said, there are substantial projects, we would do them. This whole hydro plant facility rehabilitation of $2.345 million represents an expenditure across 23 plants. These are geographically dispersed, and I would suggest to you probably the hardest facilities that we have to manage. I would take distribution lines over these any time, that's not my personal preference. These are old, they're unpredictable, and so on, so before we would go in and spend, say, $50,000, do I look at the viability of that plant? I can tell you the general operating cost of that plant is between .5 and .6 cents per kilowatt hour.

MR. YOUNG: That's the beauty about hydro plants.

MR. LUDLOW: That's the beauty of them, and that's the reason, to quote one of the Board's auditors actually, from, I do believe it was 1998, Mr. Dan Brown, that these are a very valuable asset, old, however providing cost efficient energy to the province. It's not a quote, but it's in there in the executive summary.

MR. YOUNG: So that, but if a project comes up, and I don't know what the threshold level is, and I'm not sure if that's what you're suggesting to me, that there is a threshold level exactly, but if a project comes up which is a little bit more expensive than the others, you would look at it, but I don't mean just whether or not the plant exists or not, but whether or not you actually get the additional energy or the additional years or whatever other benefit you're hoping to achieve by doing that work, is that assessed on each case, on the basis of what it's bringing to the ratepayer?

MR. LUDLOW: Let me try one more time. When we look at a governor, the second line item on this page, that's a governor in Tors Cove, if my memory serves right. I shouldn't be relying on memory, but I think I'm pretty close on this one. Without the governor, the plant won't run. We have already had 29 failures on the Tors Cove governor in the last four years. To that end, if we're going to continue to receive cost efficient energy from Tors Cove, we must do something. It's not only the energy produced, it's the cost of employees going to that plant, you can't get parts, it manifests itself in increased down time, so does it extend the life of the plant? The plant was built in the early fifties, late forties, yes, it will extend the life of the plant, definitely, so what we've done, there is an engineering study done on the governors. We've looked at that, but as I described yesterday to the Board, one of the points that we get into on the planning under cross-examination by Mr. Browne, was that we've seen a repeated occurrence on the governor front. While we speak, we've engaged third party consultants to do a full evaluation of all hydraulic governors and controllers within the company. That's underway between now and year end, and subsequently next year we would come back to that, so that then would lay itself out to the continued viability of our small hydro.

MR. YOUNG: That would not doubt apply to a governor for a hydro plant, but would it apply to all of these? I mean you picked that example, would that be ... are all of these sort of break ... you know, go/no-go circumstances?

MR. LUDLOW: Well, let's go to the building in Petty Harbour. I've got a roof that's leaking. I have digital equipment, I have gear in that plant that I have to keep dry. The rain's coming in and I'll tell you, if I don't fix that roof, I've got a problem. I've got a bridge in Cape Pond *(phonetic)*. I also know that I have been taken to, there's legal action because of conditions. If you have a plant, you have it in place, you have bridges and infrastructure, you have to maintain it to code. That's the type of work that's going into these, this account as we go forward, so no, I have not got a cost benefit study done on the bridge replacement at Cape Pond. Have I got anything on the canal rehabilitation? Yes. We have looked at that, that's been filed. There are dam safety inspections and that's not meant to be a derogatory term, they're inspections of our dam at Lockston. They've been filed with the Board. We have external evaluations by the Bae Group, and also by New Lab Engineering, and that, in turn, was part of the economic evaluation and would have been included into that penstock replacement evaluation which was also filed.

MR. YOUNG: Those are all my questions, thank you, Mr. Ludlow.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr. Young. Thank you, Mr. Ludlow. We'll move now to Board Hearing Counsel, please?

MR. KENNEDY: Chair, is possible to get about a five minute break. Mr. Young covered a bit of the material that I had down, and that would make me a lot more efficient if I could just step through that now and I might save a half an hour of questioning of Mr. Ludlow.

MR. NOSEWORTHY, CHAIRMAN: Sir, if that will save a half hour of questioning, and for other reasons, it's probably appropriate to take a five minute break, but keep it around five minutes, please, if you could, thank you.

(break)

(10:20 a.m.)

MR. NOSEWORTHY, CHAIRMAN: Thank you. Mr. Kennedy, may I ask you to begin, deducting 25 minutes from the original time.

MR. KENNEDY: Mr. Ludlow, I have five topic areas, but some of them are related to each other. I'm going to start close to where Mr. Young left off, which is just more of an analysis of your budget and start with the unforseen allowances account (unintelligible). I wanted to discuss with you aspects of the, Newfoundland Power's policy concerning urban versus rural customer bases. I want to deal with some specific projects, Old Perlican, the proposed purchase of mobile diesel

generation, and the Salt Pond turbine move, and also deal with the part of this budgetary process, your policy on the proactive capital maintenance, and then just a couple of miscellaneous issues, so just so you have the heads up, so to speak on where I'm going with some of this. Just starting with the unforseen allowance account, and I think Mr. Young has brought you through this part already, which is the 25 minutes you can deduct, Chair. Just so I understand the conceptualization, if you will, that Newfoundland Power is using to differentiate between the different categories that it has in its budget. In the 2002 capital application you provided some testimony and you said that the unforseen account is an amount that's included to avoid, to provide us with the opportunity to start quick repair in massive unforseen circumstances, so that's inkeeping with what you stated?

MR. LUDLOW: Yes, it is.

MR. KENNEDY: And in response, I believe, as Mr. Young pointed out, that it's also been described as repairs due to major storms or equipment failure?

MR. LUDLOW: That's correct.

MR. KENNEDY: And that the, and that the major electrical equipment repairs section, which Mr. Young also covered, repairs needed due to deterioration or catastrophic failure?

MR. LUDLOW: Pretty much so, yes, particularly in the hydro plant or the energy supply section, that's correct.

MR. KENNEDY: Now, then we come to the reconstruction section, which Mr. Young also touched upon, and ... in the 2000 capital application that Newfoundland Power had it said that this category includes expenditures for unplanned reconstruction, and that would still be the case, I take it, that there's certainly a component to the reconstruction which is expected but otherwise unplanned for.

MR. LUDLOW: That's probably the best description that I've been able to come up with yet, yes.

MR. KENNEDY: And in the, in the 2001 capital application Mr. Evans indicated that most importantly we rely on our workers and their inspection and their day to day contact with our facilities to know what to repair, and I take it that that's still the case, that in ... that the reconstruction budget, if you will, or the category, the work completed under that category is in response to conditions in the field that your personnel encounter.

MR. LUDLOW: That's, that's a reasonable assessment, yes, primarily through work that's, to distribution inspections, as I referred to earlier, and also through the area technicians and operating engineers. Sorry, that's a wrong term, I shouldn't use that, the engineers in the field, I guess.

MR. KENNEDY: Okay. And similarly in the rebuild category in your budget, Newfoundland Power makes a distinction between these two categories. And the rebuild category, would that be then planned work?

MR. LUDLOW: Could you just take me there, please?

MR. KENNEDY: I'm sorry. That's at page 46 of 82. Schedule B of the application. Mr. Wells, just pop it up. So is ... yeah, go ahead, Mr. Ludlow.

MR. LUDLOW: I missed your question, I'm sorry, Mr. Kennedy.

MR. KENNEDY: Okay, as I understand it the, Newfoundland Power describes the construction aspect ... maybe we can just flip back three pages, that's at page 43, Mr. Wells. It says this project is necessary to provide for the replacement of deteriorated or storm damaged distribution structures and electrical equipment. If we could just go ahead now again to page 46, and the trunk feeders rebuild. This project is necessary to provide for the replacement of deteriorated distribution structures and electrical equipment for entire sections of trunk lines that have been previously identified through ongoing line inspections, so is my understanding right from reading those two descriptions, and I guess also as it's been elaborated on in some of the replies to the RFIs, that the reconstruction budget is a budget of, based on historicals of what Newfoundland Power expects to have to spend in the field, but it's not decided where it's going to spend that money until it actually encounters the field condition that requires the expenditure to be made.

MR. LUDLOW: That's a fair assessment, yes.

MR. KENNEDY: Versus the rebuild, in this case the trunk feeder rebuild, is a planned project that Newfoundland Power has already (unintelligible) out, if

you will, and conducted the engineering, the detailed engineering design work that underlies the project.

MR. LUDLOW: You're almost correct on that assumption, Mr. Kennedy. If I could clarify a little for you to give you the flow. If you go to page 46 of 82, Schedule B, to the table. And let's just use the example of the King's Bridge, I don't (inaudible) a good one, King's Bridge 08, and that's the Rennies Mill Road, Monkstown Road, Military Road area. There would have been an assessment done through walking inspections and potential climbing inspections, climbing, literally going up the pole, all the condition of poles, hardware and so on. During that time of the actual field inspection, if there was a pole identified that ants had literally eaten at the ground level that would not last, that would fall into the reconstruction account for the year the inspection was done, so let's go there. The overall condition of the line, where Mr. Browne took me yesterday in cross, was if there were sections of poles, if there were general plant conditions that basically could be something that's a year away or two years away, depending upon the assessment, so that then would be a planned project, and that's the reason that line or that account falls into the rebuild distribution line, so I draw that distinction. The actual detailed engineering will not be completed until we move into the construction year. We know we have concerns on that line, we know generally the length, and again yesterday I was questioned as to you must have a rough estimate of what your cost would be. That's the basis upon which the budget proposal is prepared, and once approved we will move to pole by pole, house by house, detailed engineering planning, I guess, is the word I would look for. So that's the, the process.

MR. KENNEDY: Just on the King's Bridge project, as I understand it in previous budget, the capital budget that Newfoundland Power submitted, there were plans for conducting a rebuild of a substation at your King's Bridge substation, is that correct or ... and that the project got delayed because of some, some difficulties encountered in the field on repairing some transformers. Does this all sound familiar? No, okay, we can come back to that after the break.

MR. LUDLOW: I don't mind, if you can show me the reference I'll go there and ...

(10:30 a.m.)

MR. KENNEDY: Okay. I guess in the rebuild project, as we, where you have up on the screen there now on page 46. So is it the case then that, these are as we've, I think, ascertained, projects that Newfoundland Power has already done the detailed engineering work for and which they plan to do as a major rebuild in the next year, but that is it also the case that once you get into the field and go to do that rebuild that you may end up having to make adjustments to your plan?

MR. LUDLOW: I think what we're discussing is the difference between a lawyer's words and an engineer's words, so, Mr. Kennedy, I'm sorry. We have done a detailed field assessment. I do not have a detailed engineering plan to tell you what I'm going to do at every pole, at every house on the King's Bridge feeder. I think we're violently *(phonetic)* agreeing here.

MR. KENNEDY: Yes, yeah, yeah.

MR. LUDLOW: Okay, so ...

MR. KENNEDY: And engineers have their own arcane language.

MR. LUDLOW: I'll acknowledge that as well.

MR. KENNEDY: I apologize to the engineers, there's lots of them in the room. They all just want to be lawyers anyway. So just going back to your reconstruction budget then again, and again this is a budget category that in particular is one that Newfoundland Power uses to conduct repairs in the field that are in response to field conditions that it encounters at the time.

MR. LUDLOW: Correct.

MR. KENNEDY: Okay, I just want to take a little bit of an aside then on your, on Newfoundland Power policy on the proactive capital maintenance methodology, I think ... you didn't use the word methodology, but you called it proactive capital maintenance, I believe, or ...

MR. LUDLOW: I may have. I'm not sure.

MR. KENNEDY: And, and I understand that that's somewhat of a departure from Newfoundland Power's previous method of, of I guess what I would call a failure to respond methodology. Is that fair assessment?

MR. LUDLOW: My terminology would be breakdown maintenance.

MR. KENNEDY: Breakdown maintenance, if broke it needs to be fixed.

MR. LUDLOW: That's correct.

MR. KENNEDY: And you'd agree with me then in a case of a broken piece of equipment, it's pretty clear that it's broken, it's not working, the electricity is not flowing and it needs to be repaired, as opposed to in a proactive maintenance you're actually going in and removing assets from your system and replacing them with new assets prior to the failure, that's the distinction between the two.

MR. LUDLOW: That's reasonable.

MR. KENNEDY: Okay.

MR. LUDLOW: You're managing your assets to the optimum point, or at least that's your goal, to maximize your asset life and provide the service to your customers without the interruption.

MR. KENNEDY: And one of the devices that you use to, or that assists Newfoundland Power in conducting this proactive maintenance is your thermoscanning units?

MR. LUDLOW: That is correct, yes.

MR. KENNEDY: And in canvassing some old documentation, actually I don't think it's part of the record of this hearing through the RFIs, but I've seen some pictures of your thermoscanning of pole tops and the like, and it didn't mean much to me. Is it, is it fair to say that the operator of the thermoscanning unit is a trained operator, is someone who has been given training on how to use this device and interpret the results that come back from it?

MR. LUDLOW: That is correct, yes.

MR. KENNEDY: And is it fair to say that, that that person then needs to exercise judgement in interpreting the results that the thermoscanning unit gives them?

MR. LUDLOW: That is correct.

MR. KENNEDY: And, and then ultimately there's a decision made based on the results that they receive about whether a particular piece of equipment needs to be replaced or not.

MR. LUDLOW: That is correct.

MR. KENNEDY: And that there would be judgement exercised in determining whether that piece of equipment should be replaced or not.

MR. LUDLOW: That is also correct.

MR. KENNEDY: And so it's fairly clear, isn't it, that there's certainly more judgement, both at an operator level and an engineering judgement level required under this proactive capital maintenance program versus the break and fix maintenance program.

MR. LUDLOW: That's a fair assessment, but I think it's also important, Mr. Kennedy, that you use the equipment called thermoscanning. And to give you an example of that, before this hearing I had the distribution feeder servicing this building thermoscanned, and the reason that the thermal gun is used, just to bring you up to speed a little, is a byproduct of electricity is heat. It's relatively simple, it's either cold or it's hot. All a thermal gun does, it picks up temperature difference, and if that temperature difference, which is shown in these coloured pictures you were referring to, are, they go from white to blue and so, the various colours of the spectrum, the interpretation, it will show you what piece of equipment is failing. And take this, the thermal gun is used ...

MR. KENNEDY: I'm sorry, if I could interrupt you. It's not the case that the piece of equipment is failing though, is it?

MR. LUDLOW: That piece of equipment has failed, or is nearing catastrophic failure or breakdown. What happens with a thermal gun is the piece, the connectors ... at this capital hearing last year I spoke in terms of the Nema pads, the four bolt connectors. I had one here actually. There's a piece in this budget now to continue working with the breakers and transformers. What it is, the thermal gun will focus on the actual connection and it will tell you, it could be that the bolt is slack, it won't tell you that the bolt is slack, it will tell you that the connection is heating. If the connection heats the wire melts, the wire melts, we have an outage. So the long haul use of a thermal gun for, as you put it, proactive

capital maintenance on a King's Bridge 08 feeder would not be your key tool. The key tool for the thermal gun would be spot checking and almost like emergency identification. We use that at ... to give you an example, the Junos, we used it prior to that; if the Lieutenant Governor comes to town, we'll do it there; Y2K, we focus those; we'll do major industrials, and we'll do residentials, and those types of circuits, and it will pinpoint ... and what you draw from that then becomes ... if you find 500 items that are failing, that's how you'd use it for forward looking. If I know that I'm losing Nema pads, if I've scanned 500 and I'm losing a 100 of them, I've got a problem. I need to know why, and then I go further, and then do I go on and complete the project in future years. So that, just to give you that little piece.

MR. KENNEDY: Sure, so there's two possible outcomes from, from using this thermal scanning unit as an example, that you could end up having to make the change-out right there and then.

MR. LUDLOW: Yes.

MR. KENNEDY: Or it could trigger off a more general review of, that Newfoundland Power needs to make more system-wide repairs or, or concentrated effort in a certain rebuild of a certain feeder or what have you.

MR. LUDLOW: Correct.

MR. KENNEDY: Okay.

MR. LUDLOW: Or a piece of equipment that's generic to all feeders. Keep that piece in mind in that it's usually equipment, being connector or location specific on a distribution line, or a transmission line.

MR. KENNEDY: Back, I don't know if it was yesterday or the day before now, they all seem to be blurring together at this point.

MR. LUDLOW: They have a tendency to do that.

MR. KENNEDY: I'm sure they are for you. You've indicated that Newfoundland Power's focus on, would be to focus on feeders which are performing poorly, is what I have you down as indicating, and I'm just wondering, you'll agree with me, if you will, that performing poorly is, and this is the lawyer in me, that that's a subjective term, about what's considered to be performing poorly and what's not, so can you, can you give me some indication about what level of performance Newfoundland Power looks for before it's deciding whether to switch out an asset, for instance, or a piece of equipment like a feeder if it's ...

MR. LUDLOW: I won't go back to Mr. Evans' quote, I think that you used the other day, which said that I won't be content till get to zero. John is an optimist and so am I, I guess. I'd like to get it to zero. Now you look at where we stand in relation to the Canadian averages, you take that and balance it back against the Atlantic Province's averages, which brings it more in line, (unintelligible). We're not performing as a corporation to those.

MR. KENNEDY: Can I just interrupt? Can I ask you when you say comparing it to the averages, what averages are you comparing it to?

MR. LUDLOW: I would compare those to the SAIDI and SAIFI indexes, the duration index, and the frequency index.

MR. KENNEDY: Or in comparison to whom though?

MR. LUDLOW: They would be in comparison to New Brunswick Power, Nova Scotia Power, Maritime Electric, Newfoundland and Labrador Hydro, and that would be the pieces.

MR. KENNEDY: Okay, so now in the case of Newfoundland and Labrador Hydro and Nova Scotia Power in particular, they're certainly more generation transmission related rather than a distribution company, so would that affect your comparison on safety, or reliability statistics between the different jurisdictions?

MR. LUDLOW: No, because ... I think it was Mr. Hughes used the analogy of slices. And when you look at a customer in New Brunswick and a customer in Rose Blanche, (unintelligible), it really don't make any difference, if the power goes out, the power goes out. And then you have to look at why the power goes out, and you look at from a loss of supply, a loss of supply through transmission or generation, then you take it down to Table 6 *(sic)*, Table 1, page 6, within my evidence, which deals with the unscheduled distribution outage statistics. And I just take right from that down to that level, if I could, Mr. Kennedy. When that table was prepared it was dealt with on the basis that a capital investment would and could impact the statistics seen by the customers on the distribution

system. An investment of capital by Newfoundland Power in Milton will not impact the reliability of the Holyrood generating plant. It will, however, impact the ability of Newfoundland Power to supply 12,500 volts from Milton through Elliot's Cove. So when I do the comparison, I'm not including the delivery point performance, as referenced in the, one of the information items that was passed out yesterday, I am talking as to what the customer sees, and I would do the comparison on a customer basis.

MR. KENNEDY: Newfoundland Power is on record as indicating, I guess, what you would, or what I would offer as a truism that the reliability experienced by rural customers, or is unlikely to ever be as high as the reliability experienced by urban customers.

MR. LUDLOW: I don't have the, the, point. I may have said it myself. If it was said, it was said because of the complexity of the electrical system in the respective areas, and also the past expenditure programs, as well as developments that we've gone through. I would think that's the basis for the context.

MR. KENNEDY: Okay, I took it, just is that it's, it's a (unintelligible) to circumstances, in many respects, beyond Newfoundland Power's control that some of these rural customers are living in areas as Newfoundland Power has indicated, are subject to high winds, salt spray, and also on radial lines, and that all makes them subject more to the vagaries of outage, weather caused outages, for instance, and that, just for that reason alone their reliability is likely to be not as high as an urban residence here in the province?

MR. LUDLOW: I think that's a reasonable assessment, however, many of those urban areas, the rural areas would not be impacted through loss of supply from the generator as much as the urban centres would be, that's reasonable assessment.

MR. KENNEDY: Being in town, if you'd prefer ...

MR. LUDLOW: I wouldn't go there, sir. I'm both.

(10:45 a.m.)

MR. KENNEDY: So in, in your job, Mr. Ludlow, in, and in implementing Newfoundland Power's proactive capital maintenance program, can you tell me how you take that into account, how you take into account the fact that there are these special conditions in the rural areas as opposed to the, in comparison to the urban areas?

MR. LUDLOW: The way we've looked at this has been one of the points that I tried to explain yesterday. As we started this change back in '98/'99, and there was a fundamental change in the way we approached, and I'm going to use the word vigorously attacked, some of the under performing areas of the province. The two that come to mind are Dunville and the Old Perlican, 86(b) or (d), whatever it is, I'm not going to go back there right now, similarly with the (unintelligible) and so on, you've seen the list. Prior to that we have used the approach, look, it will happen, we will do piece by piece by piece, and over a five, six year period we might make differences. In '98 we made a concerted effort to change approach, target, right to the trouble spot, and that's where we were going. And these were performing, I would suggest, four, five, maybe even six times under what the corporate average were, and you've seen those numbers, Mr. Kennedy. What I am going towards is that as we move now the direction is more towards parts of feeders, and the expectation of rural customers versus urban customers, whether it should be the same or whether it's not, I really don't want to get into that debate because I don't think I'm qualified to do it. I can say, however, that the expectations of rural customers through everything from bank machines, debt machines, computers and so on is becoming ever more important as we go forward, and that's true. So, how do I bring it in? I continue to look at our unscheduled distribution, I look at it by feeder, and then I even have people look at it by parts of feeder, and hence the reason for the Milton project. So, how do I get feedback myself, regularly I'm in council offices ... they're getting less and less that I'm getting called into, by the way, but I've spent my share in front of those too, meeting with the customers, and that's part of my job, is to sit in the customer's premises, and I bet you there's not a week goes by that I am not in continuous contact with these people. You put all that together, combine it with the field data from the engineers and the technicians that pull it together from the statistical perspective, and that's basically the parameters that's brought in.

MR. KENNEDY: Okay, because in the 2000 capital budget Newfoundland Power was on record as saying that it had 300 feeders, which I think is the number that's still being used, and that it would replace those

that have a failure rate above the company average, and from a layperson's perspective that means, well, 150 of them. And I appreciate that it may not be right at 150 because you may have some feeders being better than others, but if you use the company average as your test, that it seems to always indicate that you're always going to be chasing an average, because as you repair feeders your average is going to get lower and you'll always have feeders above that average, so I'm just trying to get a sense of, of when you go to actually determine where you're going to spend your money in a budget year, this year, and that trunk feeder project, which ones are you targeting? You indicated, well, you're targeting specific feeders that you think are failing below, but what's that measured against?

MR. LUDLOW: I'm just going to come back now in a second. I don't know where the 150 feeders are coming from.

MR. KENNEDY: No, that's my number.

MR. LUDLOW: Okay, that's 300 over two, I assume.

MR. KENNEDY: Absolutely, if it's ... exactly. One would expect that there's an equal number of feeders above the average as opposed to below the average, but not the case.

MR. LUDLOW: Not at all.

MR. KENNEDY: Absolutely, and that's why I said ...

MR. LUDLOW: As a matter of fact, if you take the 300 feeders you would find by far the majority would be, there's a skewed relationship in that they would be far below the average, and there were some that were far above the average, and hence, you come in on the target point, okay. As I mentioned here yesterday, we're now finding that total feeder rebuilds are becoming fewer. I've put three from the historical ... I've gone back to my screen. The historical perspective as we look at backward looking performance, there has been three of those identified, that's Glovertown, which is the second half of last year's project; it was Milton, and the feeder itself, if you go through the mathematics is at or below the company average. It's the ten kilometer section of line within that feeder, that's three times the company average, that's the piece we're targeting, ten kilometers, not the 60. So those are where we're looking now, we're looking to pick out those small subsections, the same thing with Long Lake. So what is the target on a number, that's been the approach in designing this. We take the company average, we compare the feeders on a performance base, if there are trouble spots within, we go in there, we do not rebuild all the feeders, haven't started and not going to.

MR. KENNEDY: Okay, and so that's, that's in a case where Newfoundland Power has the, the opportunity, the time, if you will, to be able to conduct an analysis of the feeders on a feeder by feeder sort of basis and sections of the line. Just go back to the thermoscanning person again that's in the field and is making determinations on the spot that things need to be replaced, that's a decision that's made there on the spot, so to speak, rather than with some detailed engineering and statistical analysis of reliability statistics, correct?

MR. LUDLOW: Correct.

MR. KENNEDY: Would you agree with me that, you know, that the Board entrusted with carrying out the provisions of the Public Utilities Act must safeguard against assets being replaced too quickly, that they are being replaced prematurely, that that would be the, that would be the risk, so to speak, of a proactive capital maintenance program?

MR. LUDLOW: I agree that the, that would definitely be the Board's concern, and I would also say that the, the, the balance between the right time of change and asset, what's the word I'm looking for, asset age and asset performance to replacing that asset, becomes the trigger point or the whole challenge in the, this process. So I guess I'm agreeing, the engineering judgement has brought to bear by many hundreds of years of assessment in the field, and I say hundreds of years because that's what it is if you add up all the employees. That becomes the basis upon which those decisions are made. And it was like yesterday when asked about how do you know if a pole is bad. I may look at it and you may look at, and it may be full of holes, somebody else might say that it will last for five years, it is a person that's been trained in what to look for that would move that forward. My objective is to maximize asset life and maximize/optimize is the goal, not to run it to failure.

MR. KENNEDY: So what, what measures can you think of that could be employed to, to test that hypothesis, or to test that objective of maximizing asset life, other than

your, your own statement that that's your, your objective?

MR. LUDLOW: Well let's, let's take ... we're talking poles and wires a bit here. If we take equipment, for example, okay, and we talk about proactive versus reactive. Actually, I was probably under cross from yourself, I don't know if this is formally cross or whatever it is, last year, Mr. Kennedy, when we were talking about a move in oil based maintenance, and we moved from a number of operations and a calendar based schedule of maintenance to ... let's start looking and assessing oils. I'll take you there because this is a true example of where this year alone we have diverted almost two and a half million dollars of expenditure. What happens, these oils within the equipment has obviously certain characteristics of dielectrics *(phonetic)* and gasses and particulates. One of the key measures or parameters that you look at is what's changing with this oil. Now, we've never done that. We've let them run, we do the maintenance, and we've had failures, so we shifted. Last year we bought a power transformer for, I think it was Rattling, the place escapes me, so we started to test the oils and we did a baseline measurement on all oils, and that's what we're continuing to do this year. This year alone through that proactive move we've diverted two power transformers that would have gone to failure within two years. So a move in that end, we continue to monitor practices through the distribution counsels of the CEA, equipment through the CEA, I actually chair part of it, because you're continuously into the goal *(phonetic)* of what's happening on utility practice, and you pull back out of that what are the best management practices to get better life out of that equipment. Can I tell you if I tap the pole four times that it will ring back at a certain frequency, no, I can't. I can tell you that if I have dissolved gasses, as I had in Deer Lake last week, of acetylene and hydrogen, get it out of the system, it has to come out. I wouldn't want to go back to your unforseen argument.

MR. KENNEDY: No, and I understand that, and in each specific case, you know, you're clearly in sound command of the engineering aspects of these individual projects and examples, but I guess the RFI issued, PUB-22.

MR. LUDLOW: One second now.

MR. KENNEDY: Go right ahead.

MR. LUDLOW: Another cross on this one. I think it's referencing PDH-1. Excuse me one second, Mr. Kennedy. Okay, yes, sir.

MR. KENNEDY: I guess this was, it was just a question asking, using the current rate of replacement of assets as evidenced in the company's proposed 2003 capital budget, when will the company have effectively completed the total replacement of the original distribution assets. And it says the composite, it's about the middle of that second, main paragraph, the composite depreciation rate of 3.7 percent implies an average life of Newfoundland Power's fixed assets of approximately 27 years. Now the reply goes on to state that reality does not fully conform to this with respect to the company's assets generally or distribution assets specifically. And I guess that was an attempt to try to find some other objective means by which to measure the replacement rate in Newfoundland Power to see if there was some objective test to determine whether the asset life of your (unintelligible) was being maximized, as opposed to, especially under this proactive maintenance methodology not being turned out too quickly, not being replaced before the end of its life.

MR. LUDLOW: I guess this, this response of 27 years, at our current rate we'll be a long ways from that at the rate we're going, I might add too by the way, and I wouldn't suggest we need to pick it up. I think what we're seeing here, Mr. Chairman, is a case whereby we're bringing to bear a combination of statistics, inspection, and judgement, and again, that's a word we've talked fairly significantly about earlier this morning. And you're using localized judgement, and you're also using the, the impact of customers in this discussion as well, so I do not have a, that I will have all my assets replaced in 27.8 years, I don't have that. As a matter of fact I can tell you I won't and nor do I need to, but I do need to say that of the assets that have been replaced ... I'm going to take a sidestep. Last evening on the way out of this building I met a lady from Branch. She said, Earl, how are you, I said, good, I'm testifying on reliability, and she said, good, I'd like to testify myself on (unintelligible), St. Bride's, and it was a very interesting conversation ... that was the Dunville 02 feeder. We fought it for years and years and years, and in 1999 we made a concerted effort to fix it. So, and I'm not sort of arguing with you, Mr. Kennedy, more to give the point that I do not have five years, ten years, or twenty years. I'm not doing this on a mechanistic turnover rate that in 15 years I will have 26 percent of my plant turned. It is based upon what

our customer sees, what they tell us, and also what we're obligated to do under, and I'm back to the act and my lawyers will tell me, I'm sure, I shouldn't go there, but it's related to our obligation to serve, so that's the basis behind it. I'm sorry, I don't have an answer.

MR. KENNEDY: No, fair enough, and just one more question on this before I move on. And just going back to your example of the lady affected by the Dunville project. That was a planned rebuild, a, analysis of, of cause and effect, a determination to act, a plan, engineering plan, developed about what to do and then the work completed, and that would fall under a trunk feeder like rebuild category?

MR. LUDLOW: You are correct. Sorry, that would fall under reliability initiative.

MR. KENNEDY: Okay.

MR. LUDLOW: Sorry, this was based on backwards historical statistics.

MR. KENNEDY: Okay.

MR. LUDLOW: Backward as in looking back, not as in ...

MR. KENNEDY: Yeah, that would be a different kettle of fish though than the reconstruction type of work where it's an ongoing response based type of category in response to field conditions experienced.

MR. LUDLOW: A fair assessment.

MR. KENNEDY: That's a good place to break, Chair, if it's appropriate.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr. Kennedy and Mr. Ludlow. We'll break until 11:30, please.

(break)

(11:30 a.m.)

MR. NOSEWORTHY, CHAIRMAN: Thank you. Mr. Kennedy, could I ask you to continue? Are you ready, Mr. Ludlow, ready as you're going to be?

MS. NEWMAN: Before we begin, just a matter of housekeeping, I'd like to advise that the Board has filed information, a response to information request CA-127(a) and (b). That's it.

MR. NOSEWORTHY, CHAIRMAN: Mr. Kennedy, please?

MR. KENNEDY: Thank you, Chair. Mr. Ludlow, I went through the Schedule B projects and just tried to pick from those, those items which Newfoundland Power has indicated are projects under $50,000, where there was a category given. I'll give you an example, if we could go to page 9 of Schedule ... page 9 of Schedule B, Mr. Wells, and if we could just scroll down there, Mr. Wells, there you go ... so what I've done is I've just gone through the different projects and the different schedules and I've just picked out wherever it was indicated, various projects less than $50,000, and in this case it was a total of $403,000, and I guess I found six instances of those, just for people's reference, they're at page 9, 18, 23, 31, 46 and 62. If we could just turn to page 31, just so we get another example, Mr. Wells, and if you could scroll. So this is the rebuilding of the transmission lines, and there's details, and then there was the projects less than $50,000, a total of $750,000 in that category, and I think there's actually an RFI concerning this one in particular. It provides the details on that $750,000, if I recall correctly. When I add them up, having gone through that Schedule B, I get $2.1 million roughly in projects under $50,000, and I'm just wondering, as I don't actually think there was an RFI that specifically asked for the difference between the under $50,000 category and the over $50,000 category as a proportion of the total $55 million. Would you know offhand how much that is?

MR. LUDLOW: No, I would not, but if your mathematics is roughly $2.1 million?

MR. KENNEDY: Yeah.

MR. LUDLOW: I'd have to think it's roughly about four percent.

MR. KENNEDY: And does that sound about right to you that ...

MR. LUDLOW: I have never done the calculation other than in this setting here, a couple of seconds ago.

MR. KENNEDY: In light of the way that Newfoundland Power describes some of its categories and projects, and I think you were here when I examined Mr. Perry on

this, is there any reason why, for instance, these projects that you're sometimes describing as less than $50,000, couldn't be given their own category of a certain type of work that you're doing here?

MR. LUDLOW: I don't see why there's a difficulty doing it. The reason that it's presented the way it is presented is, again, I'll refer back to the advice that I was given several years ago, and it's regarding the approval of the projects greater than $50,000 would be presented in a table, as presented, and those under did not necessarily require individual approvals.

MR. KENNEDY: Okay, but in the reconstruction budget again, just to step back to that for a moment, I think you indicated there just before the break that in that category there is quite a number of small projects. There's no actual large project inside that $4 million expenditure.

MR. LUDLOW: That's correct.

MR. KENNEDY: Okay, and so could I ask how that, how that differs from this, how that reconstruction with all projects under, or extensibly and conceptually you could say that they are all under $50,000, it's different than this one under $50,000.

MR. LUDLOW: Well, let's just take the one on the screen, if we may. If, Mr. Wells, if you could go to the top. Is this page 31 of 82? It is, and if you scroll back down to that table, please? What you're seeing here in this line item, that $750,000, would be the result of the previous year's transmission line inspections and as such, with all the lines we have, we annually either patrol them, and hopefully we get a good snow cover this winter so we can use the skidoo and travel them efficiently in the snow, and they're inspected, and pole by pole, arm by arm, they're identified, and those are done on a line by line basis, and basically that would be the bulk of what's in that project under $50,000. And in here, I guess we could ... that's how that is built. There's ...

MR. KENNEDY: Okay, so this would be, would this be synonymous with the, like the reconstruction part of transmission?

MR. LUDLOW: No, this is not, these projects, for the most part, should be identified or would be identified to the pole number.

MR. KENNEDY: And when you say identified, identified now, aware that work is going to be actually done in 2003?

MR. LUDLOW: For the most part that is correct, yes. However, if in the inspection there was a pole that a group of woodpeckers had moved in, which is quite common, you'd end up having an emergency repair.

MR. KENNEDY: So you would adapt to, again, the conditions that are actually experienced in the field.

MR. LUDLOW: Yes, we would.

MR. KENNEDY: You don't blindly go forth and conduct a repair that's not necessary, or alternatively ignore something that needs to be repaired, just because it hasn't been specifically line itemed in this process here today.

MR. LUDLOW: I've got to ask you to repeat that again there, Mr. Kennedy, please?

MR. KENNEDY: Okay, I guess what I'm ... just so we're clear that you've developed this budget here under this particular one that we're looking at now, the rebuilding of transmission, but that there is again an aspect of this budget that involves Newfoundland Power responding to actual field conditions.

MR. LUDLOW: There definitely is, and this, this would by far be the bulk of what you're seeing in this particular project.

MR. KENNEDY: So again, if I go through the Schedule B, I found that there were a total of eight areas where the budget category, if you will, included work that would be determined during the actual implementation of the work. For instance, and we've covered some of these, reconstruction, major electrical equipment repairs. They would be two examples of the conceptualization that I'm talking about of the work, that this is work that is budgeted for but unplanned. It's work that's actually carried out in the field in response to field conditions.

MR. LUDLOW: It's predictable, but predictable from the fact it will happen, you don't know where it will happen.

MR. KENNEDY: And in the, for instance, page 18, Mr. Wells, the same schedule. This one is rebuild

substations, $557,000, and this project is necessary for the replacement of deteriorated and substandard substation infrastructure such as bus structures, poles, and support structures, equipment foundation switches, and other equipment, so you've got, for instance, the first one, replace switch connectors, various substations, $60,000, so would that be, again, a case of this is work that you expect to have to complete for 2003, and where you actually do that work is dependent on the field conditions that you encounter once you get there?

MR. LUDLOW: No, it is not.

MR. KENNEDY: Okay.

MR. LUDLOW: This is a case where we'd use the thermal guns that we went through before, and in effect, this is the four volt Nema *(phonetic)* pads that I referred to in my discussion. That is a grouping and a trending that has come out of the substation inspections, and we are showing failures on these to the point that if we lose these bolts, these connectors, we lose a substation or we lose a breaker, then what's happening here, is we know where these are and that's where we would go in, so it's not a, if we find when we would do it, we know we have to do those Nema pads.

(11:45 a.m.)

MR. KENNEDY: Okay, could we just go to CA-28(c), Mr. Wells? So this was in reply to an RFI from the Consumer Advocate, provide the engineering study to justify each and every project contained on page 31 of 82, and the answer was, except as indicated, there are no engineering studies for each of the projects in the rebuild transmission lines category, so I guess that's what I'm trying to get a handle, if you will, on how is it then that this work proceeds if there's no engineering studies done, and is it a case then that this is generally where you're going to spend the money as per the list that you've provided but that, again, you can't be sure of that until you get into the field and know exactly what conditions you encounter?

MR. LUDLOW: Two things here, and I can, I'll explain this through. We went through the 24-L scenario with respect to 24-L versus 17-L on the southern shore, and the historical changes within the electrical supply, and I'll just go there for a second. We have determined that 17-L is no longer viable and, as I said yesterday, I will not be back here next year or the year after for its rebuilding under cross-examination by the Consumer Advocate. 24-L will be the main link to the shore, so do we have an engineering study on 24-L, no, but what we do have is we have identifications along that line. It's been looked, inspected, so there's a fine line between field inspections. We've been through it. There's poles identified and there will be upgrading. It will not be a total overhaul or upgrade for that section of line. Just to work the next one, 301-L, just to give you a flavour, I'm getting the impression you think this is something we're going in next year and have a look at it. The 301-L, if you go to Attachment A, it's a copy of the analysis of the failure of the conductor done by Power Tech, and if you read through this report, you will find that the malleability ... I've got to give up that word, Mr. Kennedy ...

MR. KENNEDY: The malleability.

MR. LUDLOW: The twistable, the ability of the conductor to sustain torc *(phonetic)*, or torsional strength is basically nonexistent and it has become brittle over the years. There's a high concentration of chlorine, and as well with sulfides, and immediate replacement is warranted. 123-L, and I'm going to use ... I had this here, I didn't know I was going to use it, it's a bolt. These are deteriorated bolts, and when we talk about this, this is a bolt that's used to hold the insulators onto the crossarm. I won't throw it, I promise. It's held this way, and what you have, this was built back in the early seventies, and if you look at the wear and tear that's occurred in the bottom part of the bolt ... and if this was one bolt, that's not an issue, but this is systemic on 123-L that we've come to find on the Bonavista Peninsula. So do I have an engineering study? No, but we have field inspections. I can show you what we've got, and we have had failures, and that's how we've found these actually, because we were reactive in our approach, so I just tie it all back that way, if I could.

MR. KENNEDY: Okay, while we, can we just go back to the previous exhibit, Mr. Wells. I have one curiosity about the rebuilding of 24-L, and I have an excerpt of, it's an actual reply issued by the Public Utilities Board pursuant to Newfoundland Power's 2000 capital budget application, and I wonder if the Clerk could pass them out for me, and Mr. Ludlow, this was a question asking Newfoundland Power to provide a record of inspection, maintenance and replacement done on the southern shore transmission line system for 1995 to 1999. I think under response to a question by the Consumer

Advocate concerning 17-L, you indicated that you weren't sure about the number of insulators that had been replaced on that line. If I'm reading this correctly, in 1998 Newfoundland Power replaced 738 suspension insulators on 17-L, is that right?

MR. LUDLOW: By the look of this chart, that's correct.

MR. KENNEDY: Okay, now over on the next page ...

MR. LUDLOW: Do we understand though what a suspension insulator is?

MR. KENNEDY: No, I have no idea.

MR. LUDLOW: Okay, let me give you a flavour of what this is. 738 insulators, a single string of insulators has seven, six or seven ... I'll use seven for the sake of mathematics. That's roughly 100 strings. A typical dead-end could have six on it, so to bring that down, six into 100, you could be as low as 15 structures, so let's be careful on the analogy of how we look at ... these aren't, these would typically be on the, from my recollection, $15 to $20 range for a disk and a suspension insulator. These are not the two piece, I call them for the sake of colloquialism, flower pots.

MR. KENNEDY: I guess, just as an aside, under questioning you indicated that Newfoundland Power doesn't have a capital budget that goes much beyond a couple of years into the future, but I think you indicated that from an engineering perspective you do have a multi-year plan into the future.

MR. LUDLOW: That's correct.

MR. KENNEDY: And just on its face, you know, and again, reading this from a lay perspective, it seems that up until fairly recently, in 1998, you were spending, you know, money on 17-L and now it's decided that you're going to decommission it, so it sort of looks like a waste of, of capital improvements, if you will, and I'm wondering if you could just comment on that.

MR. LUDLOW: I most certainly can. 1998, four years ago, and if you look at where we were at that point with respect to 24-L, you had two lines servicing the southern shore or vice versa, the southern shore servicing St. John's, depending on which way you look at the power flow, both lines running at 69,000 volts. Last year before this Board, if my memory serves right, I brought in a clamp, a conductor saddle clamp, that as we continued to investigate, there was no question something had to be done. Whether we waited too long on 24-L may be the question, Mr. Kennedy, or not, but as long as that line is energized, I cannot run it in a less than fully operational condition. These insulators, suspension insulators are usually on the key points, the key strength holding points. With the failure rates that have been identified, the only option would have been to decommission at that point, which we deemed not to do because to build and plan 24 as we're doing this year and next, would have taken time to do, and that's where we were and we are. At that point, would we have the plan to decommission 17? No, I don't think we did.

MR. KENNEDY: Because actually, over on the third page of that reply, or it's ... actually that's PUB-28, or the third page attached to that document. It's showing that there was money spent on relocating 17-L for the Goulds bypass road in 1999.

MR. LUDLOW: Yes.

MR. KENNEDY: So clearly it wasn't in your mind then to decommission this line.

MR. LUDLOW: Well, think about this, in that you just can't say in, let's say December, we're going to no longer service 17-L, we take it out. We can't take out 17 until we've got 24 stabilized. Running on two 50 year old transmission lines or one solid transmission line is what we're proposing now. We're rebuilding 24 which is the piece that's underway. After that's complete, we take 17 out.

MR. KENNEDY: Just again from a layperson's perspective, on the second page there, page 2 of 3 of the PUB-30, there's the transmission inspection results and when I look at 17-L and 24-L for the year 1999, for instance, poles split/cracked, there's one on 17-L and there's 18 on 24-L, woodpecker holes, three in 17-L, five in 24-L and so on. Six crossarm rots in '99 in 24-L and none on 17-L. It's just in every incidence except the crossbrace rot category, it seems like 24-L is in worse shape than 17-L, and so again, there must be another layer of engineering judgement used to determine that 24-L is the one that you actually want to save here, rather than 17-L?

MR. LUDLOW: Well, that depends as well, this inspection results from '96 through '99, the work that would have been completed on 24-L may have been

done ... sorry, on 17-L may have been completed in '93 and '94 and when 124 *(sic)* may not have been. It depends, you're looking at snapshot here. We have looked at 124 *(sic)*, we see it and its routing to be the most advantageous so, yes, when we look at which line, we did a detailed climbing inspection, and by that I mean you literally climb each pole, inspect, tap, and check, and it was based on those, Mr. Kennedy, that we decided to move with 124 *(sic)* ... or sorry, 24, rather than 17. This here is a visual field inspection, as it states. Just while you're thinking ... this device I had here, by the way, was a ball link eye bolt.

MR. KENNEDY: So just going back to the scheduled but unplanned work sort of concept that I was talking about a minute ago, Mr. Ludlow, and we were looking at different categories, and that's how we got to this one on rebuilding transmission. Is it fair to say that in some of these categories, in fact, many of the categories that we're dealing with, whether it's reconstruction, services, extensions, repairing substations, rebuilding substations, major electrical equipment repairs, that in all these budget categories there is an element in them of scheduled but unplanned work as opposed to scheduled and planned work?

MR. LUDLOW: Okay, if you wish to take Schedule B, you just went through a whole grouping and I didn't pick them all up, the accounts, such as extensions, services, reconstruction, meters, and to a large part, transformers, definitely that would be the case. Most of these are driven by the customers, the growth, and in fact, field findings through replacement of transformers, through inspections for leak and deterioration, as would the service conductors.

(12:00 noon)

MR. KENNEDY: For instance, if we could just go to CA-25(h), Mr. Wells, and this was a distribution system feeder remote control, a project cost of $1,200,000 and the question asked for providing of system average interruption frequency index, and the SAIDI for the areas of the new installations in 2002 and 2003, and there was an Attachment A, and the last line though, it goes, second ... the two last lines, well let's read the whole last paragraph. The tables in Attachment A were prepared on the basis of proposed plans for the locations of electronic reclosers and relays in 2003. Detailed engineering and design for this project will be conducted between December 2002 and April 2003, and the final list of locations for the installation of these devices may change as a result. So I guess I'm trying to conceptualize this as a project that is scheduled for 2003, but at this point is unplanned in ...

MR. LUDLOW: Maybe I've been drilling on the wrong point. If we use this as an example, we do know that the reclosers, the project would include the reclosers and relays, let's go there. We do know that we have had concerns and issues with these from environmental, moving parts, and indeed the age of those units. So that's the second point. The detailed engineering of the installation and location will not be completed, nor will the detailed engineering on 24-L, 301-L, until the project, the fundamentals of the projects are approved. The planning, resourcing, and conductor ordering will not be done until I receive capital budget approval, so rather than come in here two years ago saying this is where we're going to go, this year come in with I'm doing pole X, Y, and Z, in location yada, yada, yada, that has not been done on those projects. I cannot give you a detailed engineering design plan on those, if that would address your question.

MR. KENNEDY: Yes, absolutely, and I think we're getting there.

MR. LUDLOW: Good.

MR. KENNEDY: Do you have any idea, Mr. Ludlow, or could you provide an estimate of any sort of what portion of the total budget as proposed by Newfoundland Power is not spoke for already with a specific project for which the detailed engineering planning has already been done? Do you want me to ask that again?

MR. LUDLOW: Yes, please.

MR. KENNEDY: The total budget, I'll split it up, that's usually the solution when you get a perplexed look from a question ... the total budget for Newfoundland Power is $55 million. We've ascertained that a portion of that is relating to projects for which Newfoundland Power is seeking approval, and for which the detailed engineering has been done, and other projects are scheduled for 2003, but the detailed engineering work has not yet been done, that's yet to be done, and I guess what I'm asking is, do you know what portion of your total budget is just money that you've got generally allotted for things like we were just looking at right here now, CA-25(h), but you don't have specific plans of exactly where that asset is going into place?

MR. LUDLOW: I would suggest on the answer I gave to the previous question, that I cannot pull out detailed engineering design on by far a majority of these projects. The engineering design, the concepts, the thinking and the working from a high level has been completed. I can provide details on all reclosers and relays with respect to the wiring diagrams. However, if that's going in Gallants, or if that's going in Stephenville substation, will be determined as we move into the year. It may determine ... that's the answer I'd have to give.

If I were to take Lockston penstock as an example, right now I have no idea of the environmental implications of removal of that penstock from previous wood treatments. It's a task I will have to test, assess and go forward with. Our estimates put before this Board were based on what we've seen in the past, what we've come up against in the past, how we've remediated, so that's been the approach that we have used. Estimates on transmission lines, as Mr. Browne queried yesterday, would be based upon distance and typical construction costs, rather than detailed survey and layout, so that's been the basis of our budgeting in the past, and we see it going that way into the future.

MR. KENNEDY: Sure, okay, so there was a project done in Cape Broyle back in 2001, are you familiar with that?

MR. LUDLOW: Yes, I am.

MR. KENNEDY: And just as a general question, it was referenced in the second quarterly 2001 regulatory report at page 7 that the Cape Broyle project ended up being less expensive than what was originally anticipated because there was a detailed engineering study conducted that resulted in a better design.

MR. LUDLOW: Correct.

MR. KENNEDY: Does that sound familiar?

MR. LUDLOW: Do you have the reference? I don't have that report in front of me, but if you wish I could speak ... if it's the same one I'm thinking of, is it the penstock and the surge tank?

MR. KENNEDY: I've got it written down, just Cape Broyle, so that was the ...

MR. LUDLOW: And the value, what would the value of the project be, please?

MR. KENNEDY: I don't ... all I have written down is Cape Broyle.

MR. LUDLOW: Well let me give you the example, if I may be of some assistance to you in Cape Broyle. We had a problem with the surge tanks that we spoke of yesterday, that in 1998 we hired an external consultant to evaluate our surge tanks. Several were high priority change outs, and they would have been Horse Chops, we go back to Tors Cove, and Cape Broyle was also listed. This is subject to check, this is my recollection, but I'll get to your point. Also the penstock serving the Cape Broyle plant was in need of replacement as we went forward and in the near term. Upon identification of the surge tank replacement, and the subsequent approval and the engineering started, from there it was found that if we could tweak the system with a different gauge or a different design on the penstock, we could, in fact, run the power plant without the surge tank, and if my memory serves right, Mr. Kennedy, this is the process that you're referring to and through that detailed engineering, that project collapsed two into one, and resulted in, I would predict, $1 million reduction in capital investment on that plant.

MR. KENNEDY: So ...

MR. LUDLOW: That's the only project I can remember in Cape Broyle.

MR. KENNEDY: Yeah, okay, so I guess the point I was trying to establish was that in that particular project, as a result of the detailed engineering study or work being done, the nature or the scope of the project changed and it ended up in this case benefiting ratepayers because the project ended up being less expensive than what was budgeted for.

MR. LUDLOW: It ended up being cheaper, yes.

MR. KENNEDY: I wonder if we could just go to CA-99. CA-99 is the rebuilding substations and the question was why there was not a detailed project engineering and design put forward, and the reply says that the projects such as the reconstruction of a 12.5 kilovolt portion of the Gander substation are evaluated and justified in preparation of the company's capital budget application on the basis of preliminary design and engineering. Detailed project engineering design, which forms part of the project cost, typically occurs following Board approval of a project.

MR. LUDLOW: That was the point I was trying to ... that's much clearly articulated than I am, I'm sorry, but that's the way it is.

MR. KENNEDY: Sure, and is there, is there some reason why Newfoundland Power would not be able to put forward a proposal for just doing the design, the detailed design to seek then subsequent approval of the Board once the detailed design work is done and a firm number is provided on the cost of the project?

MR. LUDLOW: First of all, I think the approach I'd have to look at on this would be, I have a staffing issue, and it would be a resource draw, and it would be a major shift. This project, we knew that the 12,500 bus that was in place, and I'll use this as an example since you've raised it, was deteriorated, the poles were rotted. It was replaced with steel. When replaced or when the design was drawn together, the only thing that did change was the total cost of the project. It's not a matter if it gets done or don't get done, it had to be done, otherwise Gander would be without supply. That was the premise. The value of the design and the detailed engineering, to do that in advance, to me would be of little value. We start this, upon approval a person takes it from design engineering, they take it then through to tendering, construction and commissioning, and that would be the process that we would follow it through, so you have a project owner that delivers this piece. That's been the way that we have found to work, and it has been relatively effective as far as we're concerned, and it is efficient in getting the work completed. If I were to span this over two years, we would be running a much higher GEC, general expenses capitalized, and alternatively we would be building up our engineering floor with designers. We can keep our engineers as field engineers and designers, and we try to cause the mix to occur.

MR. KENNEDY: So let's just go to NLH-16 then, please, and I think you might have been asked a question concerning this but I'm just taking a slightly different tact, Mr. Ludlow, and it's the transmission system engineering study for $500,000. And the question was provide an explanation as to why the cost of this project is being capitalized and not treated as an operating expense. Actually, I think it might have been a question to Mr. Perry, come to think of it, and I believe it was Mr. Perry's response that, well, the default is to capitalize. If it's subsequently determined not to proceed with the project, then the money is rebooked as operating expense. But how is this one different than the one that we just looked at, how is ...

MR. LUDLOW: What ...

MR. KENNEDY: Why is it that Newfoundland Power can come forward with a study on this one as a precursor to the work that it potentially may do as opposed to the Cape Broyle project, for instance, or any number of other projects?

MR. LUDLOW: Well, we have identified, I think first of all I should ... your assessment of the transmission studies, if we were to probably rename this, it should be called the reliability assessment of those two areas, rather than transmission, and the studies are to investigate ways and means of buoying up or improving the reliability in those two respective areas; the Conception Bay North and the Port aux Basques, southwest coast. In the event the studies do not materialize in the form of a capital project, my understanding from my accounting folk, or sorry, the accounting personnel at our company, which are greater minds than I, I might add, would be that if nothing materializes, this would go to an operating expense, so I think we're thinking much on the same line, Mr. Kennedy.

MR. KENNEDY: Uh hum.

MR. LUDLOW: The difference, here the solution between, let's take the Port aux Basques area, first of all, any solution will be multiple millions of dollars. It will be either transmission in the 45/50 kilometer range, which can be easily five, six, seven million dollars. If it's generation, likewise you're anywhere from a million dollars a megawatt, to $450,000 a megawatt for diesel. Or alternatively, do nothing is the alternative. This here is a true engineering assessment and study of the alternatives.

Gander, reversely, we had an installed plant that had been aged. I'm using nice words ... it was rotten, that's it. The wood had deteriorated, the poles were ready to fall down. It had to be fixed. The assessment here was do you put it in position A or position B within the substation. That would have been the cause of the variance on this, the movement of the structure, so two totally different orders of magnitude, and two totally different orders of complexity involved in this case. This study that I see here will involve ourselves, it will involve, it will be

discussions with Newfoundland and Labrador Hydro, undoubtedly. Gander ... this is steel within a fenced yard.

MR. KENNEDY: Are you familiar with the proposal under the general rate application to seek approval for a load forecast or a load research?

MR. LUDLOW: Yes, I am.

MR. KENNEDY: It's a $425,000 budget item. Is there a reason why that would have been put in as an operating expense as opposed to a capital expense that you're aware of?

MR. LUDLOW: To quote Mr. Hughes from last week, I'm in over my waders on that one.

(12:15 p.m.)

MR. KENNEDY: Newfoundland Power's proposing in its capital budget to buy some portable diesel generation on which you were questioned on extensively by the Consumer Advocate, and as I understand it, at this point Newfoundland Power doesn't know exactly how much that's going to cost. You haven't received firm price quotes, if you will, on the replacement or the purchases of this diesel generation, is that correct?

MR. LUDLOW: We did some preliminary market searches within the last year or two and the numbers I used a minute ago, in gas turbine technology, this is generic terms, it would be a million dollars a megawatt, and in diesel, low end, you're roughly in the $450 to $500, so that's the basis for the estimate on the 1.5 mobile.

MR. KENNEDY: I understand from reviewing the documentation that there was a recommendation made to Newfoundland Power by an outside consultant that it consider purchasing a refurbished diesel unit as opposed to a new one, is that your understanding?

MR. LUDLOW: I'd be surprised if it wasn't there somewhere, yes.

MR. KENNEDY: Sure, so at this point in time, Newfoundland Power hasn't decided whether to buy new or used or where it's going to get this from exactly, and how much exactly it's going to pay for it, if in the event it was to receive approval to buy it, is that fair?

MR. LUDLOW: That's correct.

MR. KENNEDY: So is there a reason why Newfoundland Power couldn't wait until it had made a truer determination of exactly what it was going to buy, when it was going to buy it, and how much it was going to cost and then come to the Board to seek approval rather than looking for what I would characterize as a ballpark figure for the purchase of the portable diesel generation?

MR. LUDLOW: I think we're into a chicken and egg scenario here just a little bit in that do we now go and invest engineering and time and market search and what have you into the project when our best engineering judgement and market research has shown we're roughly in the 1.5, and that would include transformation. The cost to receive a two and a half, be it refurbed, refurbished, be it new, and the basic reasoning behind each ... personally, by the way, I'm not a fond advocate of buying anything that's not going to start when I push it, or push the button to start it, and that's something I'd want guarantees and I've been drilled on warranties, so that's something that would come along as well in that line. The point will be, is that as we, if we receive, or when we receive approval for this project, the actual costs will be what they are at that point in time. If it is $1 million, they will be the costs, so the fact that we have submitted $1.5 million does not necessarily mean we will spend $1.5 million. If there is a variance we would report that back to the Board, as per the ways and means we have traditionally operated with this Board, in an open and honest environment.

MR. KENNEDY: But there's no safety or pressing reliability issue that would require Newfoundland Power to purchase this diesel generation unit before such and such a date during 2003, or anything of that nature then, is there?

MR. LUDLOW: The basis for this purchase is, and there's a point ... I made a point yesterday and I got caught in the frey a little bit in my cross-examination, that we plan to decommission two of our portable diesels, the 670 and the 700. The urgency would be connected there, although their size does not lend itself to the applicability that we're looking at in the two and a half. There's a point I would like to straighten up here a little bit. I do believe I referenced that we would decommission both in 2003 yesterday. There is one of them in the Schedule B is highlighted to decommission

next year, and the other one will be decommissioned maybe next year or early the following year, so that was a point I wouldn't want to mislead anyone in my conversation from yesterday. And on top of that, the two and a half megawatt in St. John's is also slated because of its current condition.

MR. KENNEDY: Just a moment ago, Mr. Ludlow, we were referring to the transmission study and you indicated that part of that transmission study was relating to the reliability in Conception Bay North, and that's, as I understand it, often referred to as the Old Perlican area, correct?

MR. LUDLOW: That's correct.

MR. KENNEDY: Okay, I have a question concerning that. I wonder if we could go to CA-85(b), and there's an attachment, and I believe I'm looking for Attachment A, I think.

MR. LUDLOW: CA-85(b), is that correct?

MR. KENNEDY: That's correct, yeah, and there's an attachment to that which is the ... that's correct.

MR. LUDLOW: Yes.

MR. KENNEDY: It's a letter of reply from your counsel, Mr. Alteen, and this, as we know, was all triggered off by some customer complaints of, of what they felt to be high incidence of outages in the area and the Board asked Newfoundland Power to have a look at it. I wonder if we could just go to the next page. Just a second now, let me haul out the hard copy of this. It's a really tough one to ... actually, it's the next ... if you just keep scrolling, yeah, keep toggling along. Okay, (inaudible) to the court. That's correct. And the, just page 2 of the report, one more, there you go ... question three, has Newfoundland Power considered the benefits and costs of extending the 66 kV line beyond Old Perlican. There's a discussion there, and then at the bottom of that page it says, it is Newfoundland Power's position that extending the 66 kV system will overall have little or no benefit to the reliability of the customers in the Grate's Cove/Bay de Verde area, and that's repeated again over in page 11, Mr. Wells. Yeah, there you go ... yeah, that's it. It's that middle paragraph, "a recent review". I wonder if you could just read that out for us?

MR. LUDLOW: Certainly, beginning with "a recent review".

MR. KENNEDY: Sorry, yes.

MR. LUDLOW: A recent review of outages on the distribution feeder OPL-01 has indicated that including the, that including the conductor galloping problems, there were no identifiable problems that can be cost effectively improved upon. Galloping of conductors is a phenomena seen in many areas of the world, and research is ongoing into anti-galloping devices. NP is participating in this research effort, and OPL-01 has been used as a test site for this problem. As research continues, it is hoped that a solution can be found that is appropriate for use on OPL-01. Beyond research into conduct galloping, NP will continue to monitor the performance of its equipment. When cost effective means to improve the equipment's performance are identified, the company will implement such improvements.

MR. KENNEDY: So I guess, Mr. Ludlow, the curiosity I have is now Newfoundland Power is proposing to spend a significant amount of money on a study, but this report was done in late 1995, so it's not that long ago it was indicating that there was no solution to the reliability problem and installing more line was just going to add more problems, so has something changed between this and now that would warrant spending a half a million dollars on a study?

MR. LUDLOW: Yes, I think it has actually, because if you go to the date this was written ...

MR. KENNEDY: November '95, I think.

MR. LUDLOW: Yes, just bear with me one second. The report, November '95, and it stemmed from a meeting with the representatives from Grate's Cove area to discuss ... I'm losing it, excuse me ... to discuss power outages in that area. Now, could I just bring up the slide that I used? Would that help to explain here, because what you're dealing with on this report that you're bringing me to, is OPL-01 is a 12.5 distribution feeder that leaves the Old Perlican substation and goes east across the Bay de Verde barrens, servicing Bay de Verde, Redhead Cove, Grate's Cove, okay? That line was constructed in '99/2000. It's referenced actually on Table 1, page 6, of my testimony. Just bear with me ... technology, I'm ahead of technology, and that's not common for me. Okay, now can we enlarge please? If

you look at this screen, the area of Bay de Verde/Grate's Cove, has nothing to do with the 69 kV line which is shown in blue. The line servicing that area leaves the square block in Old Perlican and goes to the east ... east being, I don't know, to your right. Now, extending a transmission line out that way will do nothing for you. That has been resolved. We have now, as proven by the unscheduled distribution statistics, I'm not going to say conquered it, but we have significantly impacted that reliability. This transmission study which consists of two studies of two areas, part of which is here, would be the basis, if you follow with me, 43-L from Heart's Content to New Chelsey, 46 years old ... New Chelsey to Old Perlican, 65-L, 27 years old, and then come down to Victoria back to Carbonear, see 40-L? This study that we are putting forward would deal with the integrity of the backbone, not the distribution. Up through 43 and 65, last year alone there were multiples of outages due to salt and actual faults on that line from a northeasterly ... and they will continue to happen. The line has not performed. The proposal, one of the options that could be brought to bear, and it's purely that, an option, is a connection from Victoria through to Old Perlican, up the opposite side ... and I'm not sure, this is not called a peninsula, but up across the neck, I'd call it, and what you end up with is that in the event 65 is lost, I can feed New Chelsey, Victoria, and Old Perlican from reverse ways, and remove the radial nature of this. In 1995 that solution would not have resolved the problems voiced by the representatives of the council before this Board.

(12:30 p.m.)

MR. KENNEDY: So can I take it from that then, what you're saying is that the problem that you're intending to study is a different problem than the one that occurred back, and that Newfoundland Power looked at back in 1995?

MR. LUDLOW: That is correct.

MR. KENNEDY: And when you say the line has not performed, do you take into account where it's located when you say that?

MR. LUDLOW: Indeed I do, that's the reason that the icing and wind loading would be built to the appropriate standards.

MR. KENNEDY: That's all the questions I have, Chair, thank you.

MR. NOSEWORTHY, CHAIRMAN: Thank you very much, Mr. Kennedy. We'll go to Commissioners' questions now, and we'll begin with Commissioner Finn?

COMMISSIONER FINN: I have no questions, Mr. Chairman.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Commissioner Whalen?

COMMISSIONER WHALEN: (inaudible). I have a mismatch between the mic and my visibility here. Good afternoon, Mr. Ludlow.

MR. LUDLOW: There you go.

COMMISSIONER WHALEN: That's much better. Thank you, Chair. I just, most of my questions have been canvassed, actually, Mr. Ludlow. I just have a couple of follow-ups. In particular on the portable diesel units, I wonder if you could give me a sense of how many portable diesel units Newfoundland Power has and how many Hydro has in terms of the overall availability, because I understand you share those units?

MR. LUDLOW: Yes, we would. It would be ... Commissioner Whalen, they would form part of the equipment sharing agreement which was reached between both utilities. I don't know where the RFIs ... I've got so many of them with me now ... I'll give you a flavour of what we have, what we own, and they would be ... first of all, we have a mobile gas, which is a gas turbine, small jet engine. It's 7.5 megawatts, and that's located, actually under Board order, in Port aux Basques, but it is mobile. There are two small diesel units, similarly under Board order, parked in Port aux Basques, that's the 700 and the 670 which we discussed yesterday. One of them is portable in name only. There is, that's pretty well what we own on that front.

There is, and I'm not sure what would be in the equipment listing for Newfoundland Hydro on that end, but they are available. We have moved that gas turbine for Newfoundland and Labrador Hydro upon their request and there's rental rates and what have you, back and forth. That's roughly where, the ones we would have. I think that's pretty much it.

COMMISSIONER WHALEN: So in terms of portable generation for construction relief, that's what you have

access to, and some of that you don't even have access to?

MR. LUDLOW: Pretty much, there is one that we've leased. There's a one and a half megawatt that we've leased as well, but that's on a month by month basis, if we needed it, that sort of thing, but other ... we do not own any others and from a construction perspective, that's it. There's nothing else that comes to my mind.

COMMISSIONER WHALEN: So with the 2.5 megawatt unit that you're looking at purchasing, and I guess, I guess in terms of locating, you have to locate it somewhere ... you're looking at perhaps locating it in Port aux Basques. I understood you to say yesterday that that will enhance your capability to do the hot line work, or the energized work, that I guess you don't do now because of that lack of availability?

MR. LUDLOW: No, there's actually two things. Hot line work is by its very nature a slow process in that it's requiring all glove work and what we call stick work, hot sticks, in that a ratio, and this is again not based on statistical analysis, two to two and a half times slower in energized line work versus de-energized line work.

COMMISSIONER WHALEN: Okay.

MR. LUDLOW: So if we could work on a section of line between two communities, energize the community with the mobile, then de-energize the piece of line, you can do it that much faster and cause a depression on your cost of capital.

COMMISSIONER WHALEN: In terms of portable generation that's available, we won't talk about catastrophic weather events ...

MR. LUDLOW: No, don't, please.

COMMISSIONER WHALEN: But just in terms of localized weather events, how comfortable are you as, I guess, you're the one who is in the hot seat when this happens in terms of on an operational level, having access to or availability to portable generation units? Is that an issue for the utility?

MR. LUDLOW: I have spent a good many hours in front of various town councils trying to explain why radial transmission lines, and why service to some communities have extended outages. The very one we referenced with Grate's Cove is a key point, and hopefully we've got that cured. The situation, an example would be, I'll go back a few years to the Bonavista Peninsula. We have had more mobile gas set up in the community of Bonavista, actually in the substation. We had it on Bell Island when we lost the submarine cable, and as we all know, that's not a quick repair. So am I comfortable? No, I am not, and I'll tell you, there's a lot of sleepless nights as the ice and wind comes on over the next few months that if we had that and could at least have it dispatchable for the future, we won't have it this winter, but that can provide some basics. I'm talking firefighting, water supply, we still will not be able to supply full load off a unit of a two and a half megawatt. Our typical size, as I said, and I'll try some rough math ... 1,200 megawatts total system load with 300 feeders will come into about four megawatts per feeder, and that would be rough ... some of those as high as 12, some as low as one, so ...

COMMISSIONER WHALEN: How was the capacity of the portable generator that you're looking to purchase determined? Why a 2.5 megawatt and not a 4 megawatt, if you need that for a full load?

MR. LUDLOW: It's basically due to restrictions from getting a unit to fit on a roadworthy chassis. A diesel, by its very nature, has more ... I don't know what the technical term would be. I'd call it more umph to the machine. It can pick up more load, it's heavier, it has more inertia built into the machine, whereas a gas turbine can be much more finnicky. It has to be much more precise and it's ability to pick up load on cold load is much more unpredictable. On a diesel I can pick up, let's say a megawatt and a half. On an equivalent gas turbine, it will be much, much lower, so it's a balance between our ability to service the unit itself, the portability, the set up time, and once it's in place, any fluctuations on load. At two and a half, and our proposal will be that we have two, two and a halfs because this will be one, and next year our plan would be to get the second, that would then put them in tandem. If we needed two, we could take it ... and plus you have diversity in that way. Like a four would be just too heavy, you can't carry it.

COMMISSIONER WHALEN: When you actually decommission the portables you have now in Port aux Basques, I guess one next year and one the following year, what do you do with those? Do they, are they available for salvage to other utilities, or do you sell them or just trash *(phonetic)* them or ...

MR. LUDLOW: We would attempt to sell, although what we've seen of our past salvage attempts, there's not much life in those units when we're finished with them. If we can get any value back, they would be salvaged, and in turn that money would go back into the accounts.

COMMISSIONER WHALEN: I had some questions on the transmission system study as well. I wonder if, Mr. Wells, could you bring up NLH-15? And I agree with you, Mr. Ludlow, that this should be more aptly titled a reliability assessment because it was confusing until you said that just a few minutes ago. In terms of the, and I just look at the Port aux Basques area, could you just, you've outlined in NLH-15 the components of the study in terms of the, you know, what makes up the $250,000 for each one and I just have a few questions on those later, but could you outline for me, not so much the specific items that you're going to undertake, but just sort of conceptually how you undertake such a study in terms of the steps, you know?

MR. LUDLOW: Okay, the way I would see proceeding, and again, this is myself speaking here, I'll obviously be controlling this as we go forward. We would engage and have discussions with Newfoundland Hydro on this topic. We would look at whether we can handle this internal versus external. From there we would have to address what the potential alternatives would be, if in fact there is a need to do anything. At this point we feel there is a need, and that's because of the generation and this long radial, so that's the first premise, we'll run on that base. And on the premise, as we get in, we would assess, identify the alternatives. Those alternatives that come to mind now, there may be others, may be the Hope Brook connection, it might be the Bottom Brook connection, it might be additional generation, so then to evaluate that back against potential improvements with the costs. So and out of that would have to come a recommendation to either go or no go, and based upon those parameters. If we decided to go, we would come back before the Board and file a project, and I'm sure defend the project as well, based upon the results of the engineering study.

The difficulty in the Port aux Basques area, undoubtedly will be the terrain, particularly along the southwest coast, hence the inclusion of helicopter rental and aerial studies, that kind of work. It is new ground to us, we haven't been in there, we know it's difficult. It may, in fact, be impossible. So laying those things down, I would think by next fall, there's a lot of work in those two, we would have that document ready and complete and will file the studies back with the Board.

COMMISSIONER WHALEN: On the screen we see, there are actually two studies.

MR. LUDLOW: Yes.

COMMISSIONER WHALEN: The first study involves the feasibility of constructing a new transmission line. That's not actually ... that's, based on what you've said here this morning, that's not what the study involves, and ...

MR. LUDLOW: I'd love to use hindsight on that typing. This, we call it a transmission ... maybe it's a system engineering study, strike the first word. It's the reliability in those two areas are the concern, and from there, if it's transmission, that's where we'd run.

COMMISSIONER WHALEN: It seems to me that, I mean the environmental study, for example, there's $200,000 of the $500,000 for, I guess that's the environmental preview *(phonetic)* report, is that what that refers to there on the, in the totals there?

MR. LUDLOW: I can't ... yes.

COMMISSIONER WHALEN: And the property acquisition and Crown land ... the property acquisition in particular, yes, but some of these things seem to be after you have picked your ...

MR. LUDLOW: And that may very ...

COMMISSIONER WHALEN: ... your best option, I mean then you proceed with your EPR reports and do your baseline studies, and you have to file, I guess, with the Department of Environment for certain permits and all those kinds of things. They seem to be after you've identified your options, so I don't know if they're ... mentally for me there seems to be sort of phase one/phase two kind of approach to this, does that ...

MR. LUDLOW: And that's probably a reasonable assessment. What I saw with this at the end of the day, Commissioner Whalen, was that when this study is complete, we wouldn't be waiting for another two to three years to start. We would like to have this ready

to move, hopefully in 2004 if a project materializes from it.

For example, in the Old Perlican, survey line route, that probably would fall in that category of ... it's very difficult in that area, in particular, if it were to go up the southern side of that peninsula, because there's a lot of land ownership issues, land claims and so on, so it might be the best source, it may be technically impossible to get up there, so we saw this moving beyond just a paperback study, to one of actual field investigation and feasibility from that end, and that's the reason that's been put together that way.

On the environmental piece, we have had one enormous series of problems building one of our lines this year in Glovertown, and to the point that we have expended about $70,000 give or ... I don't know the actual number, it's in that range, and we have yet to set a single pole in that area.

COMMISSIONER WHALEN: But in that case, the line was an identified project, you were dealing with a project.

MR. LUDLOW: That's correct.

COMMISSIONER WHALEN: And the environmental stuff. Here you don't even have an idea if you're going to do anything first, and then if you do something, what's it going to be.

MR. LUDLOW: Fair.

COMMISSIONER WHALEN: In terms of the Port aux Basques are in particular, where does Hydro's ... I mean you're a customer of Hydro and we heard yesterday that I think in response to the Consumer Advocate, presented some information from Hydro's capital budget, they're undertaking somewhere in the order of $3 million to improve the transmission line down that side, is that ...

(12:45 p.m.)

MR. LUDLOW: That's correct.

COMMISSIONER WHALEN: TL-214. I guess as a customer of Hydro, where does ... is most of the reliability problems in that area due to loss of supply or is it more focused on your distribution assets down there?

MR. LUDLOW: It's a combination of both in that the line you're referring to would be from Bottom Brook, up near Stephenville, through Doyles. There's a substation in Doyles where we then service out to Point Anguille, Cold Brook, Upper Ferry. These are our customers, and then on to Grand Bay which is right outside of the tourist chalet actually as you go into Port aux Basques, to put it into visual for you, just before that. From there, Newfoundland Hydro's line ends. We take it and transmit from there for 25 kilometers to a place called Long Lake which is on the southwest coast, so all the communities in that area are our customers. We have, and continue to have issues, and that have been identified by Newfoundland Hydro in their filing, with that long radial line, and the $3 million that they're proposing. Our proposal is still that you are still at the end of a long radial transmission line, and the seven that I have identified as I spoke here two days ago and yesterday, in various parts of the province ... that one in particular is passing through some of the worst areas. Our comfort and our ability to supply those customers, I'm not sure what you can put there to keep that intact running through to Wreckhouse, so that's the basis. You still have a single line, and what we're looking to do is to continue to focus and support the end of those long radials, and that's the basis behind the system reliability.

COMMISSIONER WHALEN: Just let me check and see if all these have been covered. I just had one final question on the response to NLH-3, Mr. Wells. It was really, I had a number of questions that Mr. Young actually canvassed on the issue of ... and Mr. Kennedy too in a certain extent, the cost benefit analysis in terms of the hydro, your 23 hydro plants. The total capacity of your hydro plants, Mr. Ludlow?

MR. LUDLOW: 90, bear with me a second. I haven't got that one off the top of my head. 94.5 megawatts.

COMMISSIONER WHALEN: Could you put that in context for me in terms of the overall system? Ten percent?

MR. LUDLOW: Let's see. Well, in terms of system load, it would represent less than ten percent of ours and I think the system load last year was about 1,600 megawatts, 1,700 megawatts. To put that in terms of ... I don't have the total installed capacity on the island, I'm sorry, but whatever it ... I just don't have it, sorry.

COMMISSIONER WHALEN: Could you put it in terms of, just for me, in terms of number of customers that might serve on an annual basis?

MR. LUDLOW: Well, to put that ... the capacity in megawatts, it's almost like the maximum output it can give, the key measure I think would be in ...

COMMISSIONER WHALEN: Production.

MR. LUDLOW: ... energy.

COMMISSIONER WHALEN: Energy.

MR. LUDLOW: Or gigawatt hours, and the gigawatt hours that we ... that's almost like the load factor on the machines, how long those machines can run because of available energy. To put that in flavour, we were using numbers of roughly 150 domestic customers per one MVA of load, or one ... just bear with me now, how am I going to do this. I hate these "I've just got one more question" questions. How am I going to take this back? If I look at the, back to the installed capacity of 94 megawatts, and say 100 MVA, if I were to rough it in, I would be in the vicinity of about 15,000 domestic customers. I may be well off. I don't know if I'm doing that based on the fact that in Port aux Basques, the load at Marine Atlantic is roughly one MVA and that would displace about 150 customers, so that's roughly the range that I would do for the sake of comparison.

COMMISSIONER WHALEN: No, that's helpful, it just gives me sort of sense of the contribution, I guess, to the system.

MR. LUDLOW: Conversely, if I may, if it's ten percent of our load, and we have 210,000 customers, we could go back that way to ... between 15,000 and 20,000.

COMMISSIONER WHALEN: I could have done that calculation *(laughter)*. I just had a question on your response to NLH-3 in terms of the spillages from your sites, and I think, in particular, it's the attachment, it may be attachment ... no, just carry on down through ... because Hydro had asked in this RFI in terms of the dollar value of the spillages. I wasn't so much concerned with that, although I did take note of the actual amount there, but it was more the reason, because there seems to be a fair amount of variability across your plants, number one, and you know, some seem to have high rates of spillage, some seem to have hardly any, and some to have some high rates in some years and not in others, but I wonder if you could just explain in general terms, is it more operational or is it hydrology ... it's probably a combination of both, but in a sense of what does that mean in terms of your day-to-day, you know, and the plants themselves?

MR. LUDLOW: Fair ... if you could just bring up the attachment, Mr. Wells, please? The first point I'd make on this table is if you'd go to Rose Blanche Brook, second from the bottom. Rose Blanche Brook, we're spilling quite substantive amounts of water as is evidenced by here ... 21, 24, 23 ... I'll give you a reason behind that one. Rose Blanche Brook is basically in a valley between, this is a positive comment, please don't take it wrong, it's between bald rock in that there's not much in Rose Blanche Brook to hold up the water, so when the rain comes, the rain comes. The reservoir behind it is as much a run of river as you're going to get. This was built into the analysis when we started actually. What we have been doing is we take down plants such as Seal Cove for the penstock replacement. This year, although it's not showing in this one, we will show substantive spill. The penstock is out of service. Where, as we do these penstocks, you will find that being the case, except where there is large back country water storage such as the areas of Horse Chops and those.

We basically fight to minimize the spill, obviously, because water over the dam is lost water. So that's what you're seeing as we complete our capital program, particular in the hydro plants, penstocks, surge tanks. That will impact. We try and manage the spill, run down first, keep it down, build the storage while the project is under, but if the rain hits, we're going to lose.

2001 at 265, right off the top of my head, I would have to speak to Hurricane Gabriel for the Avalon Peninsula. That was a time when we were spilling, I've got four feet in Petty Harbour over the dam. It's that kind of thing that can cause the various ... that would be the hydrology. In the operations, we run these on efficient load where possible, but we will run max load to minimize spill. I don't know if that answers your question but it's ... it's a round about analysis of where we are, Commissioner Whalen.

COMMISSIONER WHALEN: Is any of the capital work that you're looking at in terms of your energy supply budget targeted at trying to minimize some of these dollars going over the dam, so to speak?

MR. LUDLOW: There is one in particular, actually there's a couple, but one that immediately comes to mind would be Blackwoods Dam, and I could take you to the Schedule B, energy supply, page 9. Many of these projects, either directly or indirectly, Commissioner Whalen, would impact spill. Now if you just take the hydro plant facility rehabilitation, dam rehabilitation, line one, the one here that's key to spill reduction would be Blackwoods. Blackwoods is estimated at $200,000. It's a free board dam, meaning that for a large portion of the year there's no water to it, but as the water rises, then it prevents it from going off into another water system back country. So that's an example. The governors would impact spill as well. Those governors actually control speed and so on. We have been having troubles with them, and that was the mention I made earlier today. If the plant is going down, we have to fight to keep the availability up, particularly in the rainy seasons, and that's all periods except July and August that I can come up with in this province, so ...

COMMISSIONER WHALEN: How do you coordinate with Hydro in terms of the operation of your 23 plants? Does Hydro have control of your plants, or do you have control of your plants in terms of the system?

MR. LUDLOW: We control our own plants, but we dispatch, if required, we're continually running, we work with Hydro ... I wouldn't say on the hour, but for the next best thing to it. Our control centers are in continuous conversations. In the event that we're reaching peak, the gas turbines are available, everything is available, and it's put together as one system.

COMMISSIONER WHALEN: I just had a last question on the transformers for, not to show my bias or anything, but for the Chamberlains area in particular, just because I know that area. The Chamberlains substation, I understood you to say it services back to Paradise and up to Manuels which I do appreciate is a high growth area having just bought a new house right in that area. In terms of the timeframe for the transformer installation, what are you talking about in timeframe from delivery to up and going?

MR. LUDLOW: Upon receipt of approval, we would order, probably early January, that area. Delivery on power transformers right now is running in the 35 to 40 week time range, so you have to actually buy slots in the production. Once it's in place, once it has arrived, well the civil works would occur prior, so I would be looking October/November range of 2003.

COMMISSIONER WHALEN: Are you exceeding the capacity of that substation now, or are you close or ...

MR. LUDLOW: No, the way it would work is that the substation has reached capacity on peak and peak occurs in the winter months, so we exceeded that last year. There is, from ... you don't, we can't continue to run in excess of 100 percent, or even when you're getting around that area, you're getting in ... I wouldn't say to call it a trouble zone, it's time to move, and a rate of growth in that area is indicating we do not have the luxury of waiting, and that's the same with Virginia Waters.

COMMISSIONER WHALEN: And if the growth just stopped today, you'd still need that transformer, is that ...

MR. LUDLOW: That transformer, if we installed it next year and let's say growth went negative, worst case scenario, or even stayed the same ... if it stayed the same, running at 100 percent is not a prudent engineering way to run. However, if it dropped back, which is highly unlikely, and a transformer were to be required elsewhere, we'd move it.

COMMISSIONER WHALEN: So they are ...

MR. LUDLOW: We ...

COMMISSIONER WHALEN: (inaudible) custom order a transformer for a substation, it's ...

MR. LUDLOW: We would then customize the transformer or the substation to the transformer, is what we would end up doing.

COMMISSIONER WHALEN: Are you doing any, who is responsible for the system or the load, the system load planning, I guess, in the Placentia area, just in terms of Voisey's Bay, or the impact of Voisey's Bay activity down that way?

(1:00 p.m.)

MR. LUDLOW: That would be in our service territory in the Dunville area, and if anything develops, that would be not unlike the area in Cow Head with Peter Kewitt *(phonetic)*, so that's being monitored on that

end. We have no indication of an immediate requirement in the next year or so and that's the reason we haven't included anything for this budget, Commissioner.

COMMISSIONER WHALEN: That's all the questions I have, Chair. Thank you very much, Mr. Ludlow.

MR. NOSEWORTHY, CHAIRMAN: Thank you.

MS. BUTLER, Q.C.: Commissioner Whalen, could I just point out, the equipment sharing agreement that the witness was struggling to find is actually CA-17(l), Attachment A.

COMMISSIONER WHALEN: I knew it was there somewhere, thank you, Ms. Butler.

COMMISSIONER FINN: I just have one point I'd like to confirm with the witness.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Commissioner Whalen. Commissioner Finn has a question?

COMMISSIONER FINN: Just something arising out of some of the questioning of Commissioner Whalen, Mr. Ludlow. Referencing NLH-15, and noting that the feasibility study there contains such items as property acquisitions, I just wanted to confirm with you that if a project didn't go ahead, would the entire cost of the study without exception, including such items as property acquisitions be attributed to operating expenses?

MR. LUDLOW: It's my understanding, Commissioner Finn, that anything that's included under this proposal, I mean we're not going to buy land for the sake of having land in Ochre Pit Cove. What we would do is once this moved along and we determined that we could get through, if the project did not receive approval, it would be expensed. That's my understanding.

COMMISSIONER FINN: Without exception?

MR. LUDLOW: Without exception. That's my understanding.

COMMISSIONER FINN: Thank you.

MR. LUDLOW: Mr. Chairman, may I request a five minute break if you wouldn't mind?

MR. NOSEWORTHY, CHAIRMAN: Absolutely, no, not a problem, we'll take a five minute break.

MR. LUDLOW: Thank you.

(break)

(1:15 p.m.)

MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr. Ludlow, for the break and your testimony of the past couple of days. I found it to be quite informative. I'm sure you treat your mother and mother of your children well the other 365 days of the year because it sounds like Mother's Day has been a wipe out for you *(laughter)*.

MR. LUDLOW: It's not a celebrated event in our household, I can tell you, sir.

MR. NOSEWORTHY, CHAIRMAN: I'm sure it's not. I have just a couple of questions, I guess, and I tend to, not ... being here for a relatively short period of time, ask questions that are at the 30,000 foot level and I pitch every now and again, so if you could bear with me and perhaps I think piece together some of these questions that perhaps have been answered in part, in any event, but I'll try and rephrase them, I suppose, to at least get the answers assimilated in my own mind a little bit better.

I did hear you a couple of days ago, and again this morning, talk about the, I guess it refers to sort of the capital budgeting process itself, and the continuous feedback mechanism that you would have in the company, and I believe you referred to, it seems to be a fairly formal process in St. John's, and again, I think I heard you say it twice, once again this morning, that this, you know, information flows from the field technicians to the superintendent, to the manager and eventually you're engaged in the process as well. I didn't hear the same commentary, and indeed with regard to the rural areas of the province, and indeed from what I've heard, I suppose, over the past few days, there are indeed certain rural areas of the province where you only have one person, so I was wondering perhaps if you could expand a little bit, and I'm concerned with the process here, the capital budgeting process, how indeed the rural areas of the province are

taken into account versus what appears to be the cities in terms of the process, a different sort of structure and if there are any particular distinctions that might exist in the process, and of course, my concern with that would be just to give me a better understanding, and I'm sure ensure that the rural areas of the province are, are considered in an equal and reasonable way, if you will, you know.

MR. LUDLOW: Well, for the sake of information, it might be helpful if I could bring back the slide again where we had all the people, and the locations, and I could take an example through, Mr. Chairman, to just show the links, say, between Port Union or Burin, and how they would feed back in. It would be ... no, the other way, Chris, it would be 7 ... right there, there you go. I'll just take a minute, Mr. Chairman, and highlight to you what will be our central depots and then the structure across the island and how it would feed back into the capital budget, would that be helpful?

MR. NOSEWORTHY, CHAIRMAN: Yes, yes, yes.

MR. LUDLOW: As I mentioned today, we have two what we call operating regions.

MR. NOSEWORTHY, CHAIRMAN: Uh hum.

MR. LUDLOW: And that's from the poles and wires and the office structures end. The eastern region, centered in St. John's, actually at 55 Duffy Place, runs out as far as Little Harbour on the Trans Canada Highway, so just let's say east of Clarenville.

MR. NOSEWORTHY, CHAIRMAN: Uh hum.

MR. LUDLOW: It also includes the Burin Peninsula, so it's the Burin and everything east of Little Harbour. The western region is centered in Corner Brook, the regional manager, Phonse Delaney. He, in turn, has responsibility for Clarenville, Bonavista Peninsula, and the rest of the service territory, right around to, well I guess the end of the line is Harbour Le Cou.

MR. NOSEWORTHY, CHAIRMAN: Uh hum.

MR. LUDLOW: Now within each of those, what we call regions, we have areas, and there's a reference here today, it's on one of the RFIs that came up, and the area offices, and I'll dwell on western to bring it down, we would have a centre in Stephenville, again in Corner Brook, the same building, Grand Falls/Windsor, Gander, Clarenville. These would be areas whereby there would be meter readers functioning out of, engineering technicians, line crews, maintenance personnel. These would be fairly, I wouldn't call them large, but larger than the next set down, which would be our district operations. Sorry, the next step down would be the Port aux Basques and the Port Union, which is about a 10/12 person operation, two to three line trucks, one technician, and below that we have the district operations, which is where I was going with the single person. That would be Baie Verte, Springdale ... or two person operations which would include places like New West Valley, Bell Island, Grand Bank, Bay L'Argent, Lewisporte, Twillingate, and I think that's most of them. So these are all different, these are different tiers.

MR. NOSEWORTHY, CHAIRMAN: Uh hum.

MR. LUDLOW: The district level would be line operations. That's two people, a medium duty line truck that responds to the trouble call tonight. They would involve in capital work if there's work going on in that area, but they're the crew. From time to time they would fill in meter reading if there was time available. So that's that piece. If we were to take the Clarenville office as an example, the Port Union office would report through Clarenville, Clarenville being a major centre. In Clarenville you would have engineering technicians, you would have an electrical engineer who is the superintendent there today, Peter Upshall, you would have line crew operations. The day to day inspections and technical requirements of the Bonavista area/Clarenville area, would feed back through the Clarenville piece, so when I referenced the other day about an area technician servicing Stavanger Drive, or servicing the east end, the same methodology would apply in Clarenville, except his geographical area might be broader, but his customer base might be smaller. So it feeds up through Clarenville, Clarenville then will pull together the line inspections, field data, what have you. Western brings that together under the guidance of Mr. Delaney out of Corner Brook, so he'd have, I don't know, six or seven of these, I guess, sir, and then the managers come together, and that's how it all feeds into the, and cares for the rural systems and operations, and that's one example and there are many of them if you follow that map across.

MR. NOSEWORTHY, CHAIRMAN: So there is a consistent process that's applied regardless of whether it's an urban area or essentially a rural area?

MR. LUDLOW: Yes, sir, it is, in that we inspect those feeders once every five years, all our distribution transformers are looked at once every five years. Transmission lines are inspected once every year, and those are the types of things that goes through and feeds into the analysis.

MR. NOSEWORTHY, CHAIRMAN: Okay, thank you. The second thing, and again, this is probably questions that are more focused on the broader picture, and I think from the point of view of this Board certainly in relation to the, you know, capital budget, there are probably among others, four areas, I guess, that would be important to me, in any event. One certainly would be to get a feel for the broader strategy that might be employed by a utility as to where it might be going and I'll speak a little bit in more detail, but it's not necessarily a ten year plan or a five year financial plan, but to get a greater sense and an understanding, I suppose, if there are themes and directions that the utility would be, would be presenting and putting forward in a multi-year environment.

Secondly, indeed, that, how a utility would set its priorities, I suppose, I'm sure that Newfoundland Power would be no different than Hydro, that you wouldn't be flush with all the money that you would wish to have and that there would indeed be a matter of setting priorities among projects.

Thirdly, to ensure that there is, I guess, sufficient justification there and sufficient information on a project by project basis, that there is sufficient rationale there for us to consider these projects.

And I guess, fourthly, to look at the policies that are in place. It's certainly not up to us to micro manage a utility, there's no question about that, and we have no desire or wish to do that. I would suggest, sir, if I got into your head very long I'd have an electric shock quite quickly, to be honest, if I even tried to do that, but certainly to try and understand the policies that are in place to look to the variances that might exist with those policies within the utility and to understand why those variances exist. Those are just, I guess, some of the areas that I see as being important and just to pursue a couple of those if I can.

On the broader strategy, and I guess from a regulatory perspective, stability is certainly important to us as it is to you, and certainly would be important to the electricity consumers in this province. You've indicated that, I think, in '97 or '98 you changed your approach essentially to the way in which your budget ... I think you indicated previously that, you know, it was more of a piecemeal approach to the work that you were undertaking, and that you've changed this to be more holistic, I guess, and broad based in your planning. Certainly, that's an area to me that would be important in terms of the approach that has been taken by the company and why you're doing that. If you look at other things, I think you've indicated that you focused attention on rural feeders, for example, over the last little while ... that you're talking about introducing some considerably different portable generation, I suppose, at least over the next couple of years. I don't know whether that's a longer term exercise or not ... that indeed you've talked about 57 year old hydro plants, and maybe at some point in time there's a, there might be one strategy in place now ... we're on a multi-year basis, based on your engineering studies. It may not be cash flow or anything like that ... that you might be looking to change that. I think you've talked about, as well, the evaluation of surge tanks that you're undertaking. So could you perhaps comment just, I was going to say briefly, I certainly haven't been brief in my introduction, on how you define these broader strategies, and indeed if they are in place, through engineering studies, and how this Board would glean that, quite frankly, from this capital budget, or how we might do it in the future.

MR. LUDLOW: Okay, well I'll give it a try, Mr. Chairman. The strategies that you referred to in 1997 and '98 was indeed a, I would call it a hard right turn in focus. Up to 1997, having worked in different parts of this business, and probably just about all of them by now, I'm not convinced we had a real we-can-do-it attitude, and an outage, was an outage, was an outage. It was something that was going to happen and you couldn't do much about it, and you just lived with it and you worked with it. In '97 and '98, we said, okay, let's look at what we're doing. Let's look at where we're doing it, why we're doing it, and let's start to move this organization ahead, and that's when we really started to refocus on the Dunvilles and the Old Perlicans, and I won't bore you with those examples.

And that became, I think, the genesis of that shift in strategy. That went into areas of I am not going to do a capital project over five years. If we invest capital today, I want returns today. I want to see performance improvements today, or if not today, next year, that sort of short-term, rather than over a ten year

period, and that's been a marked change in approach. Whether that's a tactic or a strategy, I'm not sure. In my view that's a strategy. So that's one.

The other thing we've been doing in this front, sir, is through the implementation and the introduction of technology, and one of the points I'd make here is that, and we've talked about refurbishment, and we've talked about age, and I still think a 40 year old pole is pretty rough going to be quite honest. If you look at some of the equipment, and as a matter of fact, by far the bulk of the equipment was bought in the early seventies and in the sixties. I graduated from Memorial University in 1980, the year the PC was invented. Now I'm really dating myself now, and when I go back to the seventies and the sixties, and if that's the same equipment we're using today, and that stuff is getting towards the end of its useful life, we're at a golden opportunity, and the opportunity is that as the equipment has lived it's useful life, and for the same purchase price today, and some of it cheaper, you have, in fact, leap frogged two and three times technology through that piece, the reclosers is an example, as are the relays.

What does that do? I'll go to customer service. A key driver. Every time in our business that's spoken, there's one focal point, and that's the customer, and the customer ... you talk to the customer, you work with the customer, and then you come back to response time, you talk about cost and productivity, and it will role to that area all the time.

So technology impacts productivity, impacts data. I referenced Deer Lake this week, and that's a case that's proven with the proper technology, we would have not had the failure to start with because we would have been able to predict it before we even got to the stage we're at.

There is one, and I'll tie it back to the capital budget in a second, that's key as well, and that's our employees. This is a strategy. Our key focus in 2001, 2002, and 2003, although not published yet, I'll be surprised if it's not, will be employee development. It's moving our utility from the seventies and eighties, or my vintage, to the nineties and 2000, in training and working together and not, and focusing back on what the customer is, and bringing that to bear on the customer, learning that the fish plants in Bay de Verde are now using microwave technology. They're using, you know, microprocessor technology on their conveyor belts, and their weigh machines and what have you. So that's also a theme.

(1:30 p.m.)

Tying all that back in ... there is one other one I should mention certainly ... safety. That's both public safety and employee safety. We handle, we handle probably one of the worst products. You can't see it, and the only thing it wants to do is get out of the containment system that it's in. The wire, it wants to get to ground, and it will go through you. It's lethal, and failure is something you must try to avoid, not work with failure, and that's a different approach.

Riddled throughout this budget, if you take the projects and the themes that I just went through, they would tie back in. A couple of examples, the relay and recloser project impacts productivity, safety, our ability to control remotely through the SCADA system here. If you go to safety, I got to Lockston, that will also impact on the reliability side, reliability of supply and low cost energy.

Every one of these projects ... and I say every one, that's too absolute ... will have a positive impact on customer service. It's not all, you know, we're not going to jump four or five steps, but there are incremental gains and those are the ones we're trying to achieve, not for today or tomorrow but for the long haul.

I'll use distribution transformers, the environment, typically we bought on price, and price looks good for today, it's a short-term decision, but when you take in the life cycle cost of a transformer, and you deal with mile *(phonetic)* steel as your containment mechanism ... we tried mile steel, we tried mile steel with epoxy, we tried mile steel with BC hydro coat finish, we tried galvanized, we tried low grade stainless. We were losing those units in four to five years. The clean up costs were multiples of the original capital cost of the unit. We now buy 316 grade stainless distribution transformers with a 20 year warranty on the tank, back to the original supplier. That's the type of strategies that we're looking forward with in trying to get this utility to a, how would I say, to where it belongs, and to what we need in this province, sir. I don't know if that gives a flavour.

MR. NOSEWORTHY, CHAIRMAN: Yeah, and I do believe that those themes increase customer service

and increased reliance on technology, improve reliability and all those items come through in the capital budget. I guess one of the issues or concerns that I would have, and clearly in this current year, or 2003, those are reflected in the dollar allocations that are there in relation to energy supply versus transmission versus distribution. I guess because you would know where you're going with those strategies and those directions and those approaches, and how would perhaps I know as a Commissioner, how indeed they would be reflected in terms of future budgets in that there may be, you may see an additional emphasis on energy supply or additional emphasis where a greater percentage by five or ten percent of the budget in future, I think that would be relatively important, notwithstanding the fact that, you know, cash flows, I agree with you, are perhaps guesses after a certain period of time for sure.

MR. LUDLOW: Well one of the mechanisms that I know in testifying before this Board in the past, when we see a shift or a change in direction forthcoming, or at least that we're looking towards, if we can ... I have to be careful how I say this, no disrespect meant, Mr. Chair, but if we could get back to the meetings that were called and the discussions between the corporation and the Board, these were quite helpful.

MR. NOSEWORTHY, CHAIRMAN: A fair point, yes.

MR. LUDLOW: Quite helpful back in the discussion types, where are things going, what's happening, how are things moving, variance reports, environment and what have you, but also back in the last hearing, we distinctly on the transmission side started to work on the need and I know I spoke to it in the rural transmission and radial transmission. Also the need for moving in the direction of how do we support those systems, you know, there's a weak spot out there. I don't have the answers, I'm trying to find them, and I know that's not much of a corporate strategy, but the strategy is through these hearings to work with the Board rather than simply dealing with 2.345 dot 00, is to provide you with some information as to where we see us going, and that was, that was the sort of approach I know that I was trying to use last year and in previous hearings, and also through the organized meetings with the Board.

MR. NOSEWORTHY, CHAIRMAN: Okay, it's 20 to. I have a couple more questions if you could indulge me for a moment.

MS. BUTLER, Q.C.: I think, Mr. Chairman, coming from Newfoundland Power's perspective, we'd prefer to have Mr. Ludlow finish if the Board doesn't mind sitting a little later.

MR. NOSEWORTHY, CHAIRMAN: Yeah, no, I would be fine with that. Do you have much on redirect?

MS. BUTLER, Q.C.: Actually, no, Mr. Chairman. I didn't have any redirect, but I may have questions arising from the Board's questions.

MR. NOSEWORTHY, CHAIRMAN: Okay.

MS. BUTLER, Q.C.: But not significant, I don't think.

MR. NOSEWORTHY, CHAIRMAN: Sorry, Mr. Browne?

MR. BROWNE, Q.C.: Yeah, we may have questions arising as well, we'll see where we're going there. It's 20 to 2:00. I must say, after the 1:30 mark I find it difficult to concentrate too much more. It's been a long haul since 9:00 this morning. Wouldn't it be better if we took him off the stand and put him on in the morning?

MR. NOSEWORTHY, CHAIRMAN: I'm in a bit of a quandary here. Would you prefer to finish this afternoon, or try?

MR. LUDLOW: Yes sir, I would.

MR. NOSEWORTHY, CHAIRMAN: Mr. Browne, could we push on a little bit, please?

MR. BROWNE, Q.C.: Sure.

MR. NOSEWORTHY, CHAIRMAN: I'll hasten my, actually, couple of other questions. I guess the second thing would be, in terms of setting priorities, you did talk about the issue of, of, in terms of the determination of where money is spent, you talked about statistics, you talked about the exercise of experience and judgement, I suppose, and impact on customers, and you had indicated as well that you get out in the field certainly, and you meet with councils and I know from being a former deputy minister with 291 councils, I don't know how many you meet with in a year, but that in itself must be quite an undertaking, but in any event, you talked about meeting with councils and customers, could you just comment on how, indeed, all these things come together, I'm sure, and how you make

those trade-offs in terms of setting priorities? Again, you know, you're looking at a fairly long timeframe, and I think you've indicated that indeed even with 27 year asset life, and the investment that you put in currently, I suppose, in relation to the total investment, it's still a long haul at $50 or $60 million a year, and clearly there must be a setting of priorities and how, indeed, you formally, to the extent that you do that formally, arrive at those trade-offs?

MR. LUDLOW: Well, the first priority will be public safety, employee safety, and property damage. That's one that's front and center, and they can take multiples of, manifest themselves in multiples of ways. That can very much be the, be it wire conductor or indeed penstocks, so there's an overlay of that. The customer, and that's going to be the next one in the reliability side, and very closely associated with that, Mr. Chairman, comes the productivity question. Keep in mind that every time I lose a service at 4:00 in the morning, the approximate cost is about $450 for one service call. So we have to look at how that balances back against productivity and availability of people as well, how you run your business, so it's smart capital investments overlaying the basic principles of running the system, obviously from a safety side, and from the customer service. Those will be the key pieces. Do I have a listing individually, no, I do not, of priorities that are assigned, that are mechanistic, but as we come together, the items that would fall low on the list would be a parking lot paving, it would be those types of things. There will be a time though that we will have to pave a parking lot. We'll mend it and we'll patch it, and we'll keep it going.

Similarly with H-Vac systems, we do have obviously health concerns and everything else with our employees, but if you go to the listing that we referred to yesterday, those were the types of projects that were deferred, and if there's anything in the nice-to-do category, they will not make the list of this budget. That's the approach that we use.

MR. NOSEWORTHY, CHAIRMAN: And those projects will be arrived at through discussion concerning these factors basically.

MR. LUDLOW: In the case of the H-Vac, for example, we would have done air quality testing, we would have had the look at the building from the capacity of the compressors to see whether we can do it and where we can go.

MR. NOSEWORTHY, CHAIRMAN: Okay, just a couple of more specific ones. On page 16 of your evidence, Mr. Ludlow, there's a reference there to 275 ... I'll just get that up, page 16 of your pre-filed, I'm sorry. Yeah, there's a reference there to approximately $275,000 of expenditures in the distribution that's associated with relocation of plant at the request of third parties, and a significant portion of the cost of such relocations is recovered from those parties. What would that, what does that refer to?

MR. LUDLOW: That would be, an example, the City of St. John's road widenings, Conception Bay North bypass road, Department of Works, Services and Transportation for relocations, and in turn, there is a schedule that's in place. The City of St. John's is not because we don't pay for ... there's a law actually in the City of St. John's that's in place on the payment, but we would move them for them. There's no cost recovery on that front. Works, Services and Transportation, there is a system called the P-Rate *(phonetic)* System that's been negotiated and agreed to by both parties. That could be either federal or municipal parties as well, that's the kind of item, usually road widenings would make up the most of that area.

MR. NOSEWORTHY, CHAIRMAN: So the bulk of that would be recovered basically.

MR. LUDLOW: Yes, it would.

MR. NOSEWORTHY, CHAIRMAN: One final question, and it relates to really the cost benefit analysis and we've heard a lot on that and I'm not going to belabour this issue. Are there any guidelines that you would apply, or Newfoundland Power would apply in terms of undertaking a cost benefit analysis, what would trigger one, or is it really done on a project by project basis, and that can be a fairly quick answer actually.

MR. LUDLOW: Well, traditionally we would do cost benefit analysis on things in the energy supply area that are substantive, where there's a benefit that can be seen back. On a distribution pole line and by far the bulk of those other styles of projects, it is our opinion that they don't lend themselves to a cost benefit analysis. So that would be the approach we have used. I mean I don't have a policy per se, no.

MR. NOSEWORTHY, CHAIRMAN: So on the energy side there's no, there's no specific guidelines that you

would use, basically you would assess, look at the particular project and decide whether one is justified or not.

MR. LUDLOW: But if we're in, anything in the couple of hundred thousand dollar range, we would be looking there. Very similar ... unless, Mr. Chairman, as I mentioned Blackwoods this morning. If Blackwoods Dam is estimated to return three gigawatt hours, that's the kind of thing, three gigawatt hours is valued at about $50,000 a gigawatt hour. I need to keep that dam in place for one year to pay it back. That's, and whether that's a cost benefit analysis per se, no, that would not have taken multiple pages, but the assessment would have been done.

MR. NOSEWORTHY, CHAIRMAN: Okay, thank you, Mr. Ludlow, that's all the questions I have. We'll move now to redirect, Ms. Butler, is there any redirect?

MS. BUTLER, Q.C.: Actually, I think Mr. Chairman, I didn't mean to, I didn't want to raise it when it occurred, but the redirect is supposed to occur after Mr. Kennedy's questions, and then the questions arising from Board questions come after, I think, so it was actually skipped but it doesn't matter because I didn't have any arising from the questions of the intervenors.

MR. NOSEWORTHY, CHAIRMAN: Okay, because I'm reading the procedures here, Ms. Butler, and I thought these were the procedures that were agreed upon, after the examination and Board questions are completed, a person calling the witness will have an opportunity to redirect examination. No?

MS. BUTLER, Q.C.: I don't think so, Mr. Chairman, but it doesn't matter.

MR. NOSEWORTHY, CHAIRMAN: Anyway, you have no redirect.

MS. BUTLER, Q.C.: No redirect, but questions arising from the Board I might just have ... I would go last, so ...

MR. NOSEWORTHY, CHAIRMAN: Yes, understood. Mr. Browne? Sorry for the procedural inaccuracies, we'll attempt to correct this. Mr. Browne, sir, on questions arising?

MR. BROWNE, Q.C.: Commissioner Whalen asked you, Mr. Ludlow, concerning NLH-3, I think it was, the hydro plants. You have 23 hydro plants and you are refurbishing some of these within this budget, I think, is that not correct?

MR. LUDLOW: I'm sorry, NLH-3?

MR. BROWNE, Q.C.: I think it's NLH-3, it might be 3 or 3.1, I forget exactly which one. Yeah, I think that was the one, NLH-3.

MR. LUDLOW: No, NLH-3 deals with the spillage.

MR. BROWNE, Q.C.: Yeah, okay, close enough. She asked you concerning the spillage of the hydro plants. I'm just wondering generally concerning the hydro plants, and the refurbishing of the hydro plants, and indeed the ... what coordination does Newfoundland Power have with Newfoundland Hydro in reference to the electrical needs of the province of what's coming on? For instance, Newfoundland Hydro has Granite Canal coming on next year, and according to Mr. Hughes, we have power to look forward to from Krueger and from the Central Newfoundland Project. Is there a coordinating committee with all, within Hydro and Power vis a vis the needs of the province?

MR. LUDLOW: Is there a coordinating ... no, there is no coordinating committee that I am aware of but what are required, and has been filed by this Board, is the minimum filing requirements for additional generation, it must be laid out in a certain series of protocol and must be filed before this Board and the ... I'll find the word in a minute, hydro plant facility rehabilitation that we're referring to here are not upgrades. These aren't capacity additions. These are keeping what we have going and at the current cost of energy, these units, as Mr. Browne stated in ... I'm sorry, Mr. Dan Browne, stated in his 1998 audit by the Board, that it is one of the most cost effective and indeed a very valuable asset on this island to keep going.

MR. BROWNE, Q.C.: Yeah, and that very well may be the case, but I'm just wondering in terms of capacity vis a vis the Granite Canal, Krueger, the Central Newfoundland project, and I think Mr. Hughes mentioned natural gas at the Hydro plant in Holyrood, if all these come to fruition, who keeps track of all that, like is there a need to be replenishing some of these hydro plants if we're going to be in a better situation down the road, you know? I guess it comes to where's the plan here?

MR. LUDLOW: Well, the plan is basically these plants, as we've said, and I'll go back to the calculation that I was trying to rough in my head. It's between 15,000 and 20,000 customers we're able to service ... coming with the old plant comes cheap energy. Coming with cheap energy comes a huge management headache, and basically as we do any major undertaking, as I just spoke with the Chair, we would do a cost evaluation on that plant, similar to what we did at Lockston on the three megawatt plant. We would look at the future capital investment requirements, do the calculation on the projected future price of energy from that plant, and do a comparison back against Hydro's short run marginal costs, and as such, that's the way that the future integrity and the customers are protected in that evaluation. Sorry, am I clear of the mic ... I'm sorry.

MR. BROWNE, Q.C.: Yeah, no, that's okay. It's just a thought. In reference to the question Commissioner Whalen asked concerning the portable diesel units, and you mentioned the sharing of equipment with Hydro, I guess, in an emergency situation and in other situations, and I think that there is a CA asked in reference to the total number of portable generating units on the island. Has any consideration been given of you coordinating that purchase with Hydro, yourself and Hydro sharing in the purchase of that portable generating unit?

MR. LUDLOW: Hydro is aware of our intentions. We informed them in a meeting in the summer of the, two points ... number one was the fact that we were moving ahead with the transmission line studies, and also the portable generation. With respect to cost sharing the purchase, no, there have been no discussions.

MR. BROWNE, Q.C.: I'm just wondering from a ratepayers' perspective, if Hydro presents a budget next year and they're looking for a couple, and then you're looking for another couple, where does it end? Where is the plan here between the two utilities for emergency portable generating?

MR. LUDLOW: Well, if it would be any comfort to the Board, Mr. Browne was asking whether or not we coordinate on the generating plant. We meet every two months, Newfoundland Hydro and ourselves ... Mr. Reeves and Mr. Haynes, myself, and one of my managers, to discuss reliability, where we are, how we're progressing. Also in that end, the equipment sharing, there is a continuous dialogue at that level. While we speak their portable has just moved from one of our substations that we had rented from them. Is that strictly emergency? No, we do share equipment, so on the portable end, that's one more piece of equipment, not unlike the portable mobile transformers which aren't generators, but transformation, and this is a continuous thing that's going on, I wouldn't say daily but weekly.

MR. BROWNE, Q.C.: And in terms of alternatives to purchasing portable generation, particularly for emergency usage, has any consideration been given to looking to alternatives? Has Maritime Electric got portable generation over there? Have you had discussions with Hydro Quebec, or Nova Scotia Power, as to what portable generating they could import into the province in times of dire straights?

MR. LUDLOW: Well, I can speak for Maritime Electric, having worked there for three years, and I will tell you that they do not have mobile generation on that island. They rely on New Brunswick, okay. With respect to New Brunswick and Nova Scotia, to get anything from there to this province, and have it set up in any time under three or four days is at best a stretch. This summer when we were hard pressed to find distribution transformers, it took, it was 48 to 72 hours to get a tractor trailer from Halifax over. However, all that said and done, we do, and are in continuous conversation with (inaudible), that's Nova Scotia Power, NB Power, as to what's available and not unlike us helping them, would they help us, and it's a pretty tight, a pretty tight working relationship between the four to five major utilities in Eastern Canada, and that's not limited to diesels, it would be trucks and people in the case of emergency.

MR. BROWNE, Q.C.: And what about the Canadian Army, they went into Quebec in 1998, have you got any contacts there as to what their capacity and capability would be to provide for the province in exigent circumstances?

MR. LUDLOW: No, I do not.

MR. BROWNE, Q.C.: Okay, those are my questions, thank you.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr. Browne.

MR. YOUNG: I have no questions, thank you, Mr. Chair.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr. Young. Ms. Butler or Ms. Newman?

MS. BUTLER, Q.C.: Mr. Ludlow, I just have one question and it arises in relation to ... I wonder, Mr. Wells, if we might just look at page 48 of 82 again, Schedule B, of course, and this was relative to the Chairman's question in relation to the $275,000 proposal for the relocation of distribution lines arising from requests of third parties. I don't know, Mr. Chairman, if this was marked. I suspect it was information ten, it was the handout from Mr. Kennedy's examination.

MS. NEWMAN: Yes, that was information ten.

MS. BUTLER, Q.C.: Do you still have information ten there, Mr. Ludlow?

MR. LUDLOW: I think so, if I can find it.

MS. BUTLER, Q.C.: I believe it's the one in your hand, the third page of that, it's identified at the top right-hand corner as PUB-28 from the, I think it was the 2000 capital budget application?

MR. LUDLOW: Yes.

MS. BUTLER, Q.C.: Okay, and Mr. Kennedy had in fact asked you about this. The table at the bottom of the third page of the handout has certainly budget items on it, and he had asked you about the relocation of the line 17-L for the purposes of the bypass road at a cost of $15.4 million, or is that thousand?

MR. LUDLOW: No, that's thousands.

MS. BUTLER, Q.C.: And there's a column there for costs to be recovered?

MR. LUDLOW: Yes, that's also 15.4 thousand.

MS. BUTLER, Q.C.: Alright, so there's full recovery on that particular item?

MR. LUDLOW: That's correct.

MS. BUTLER, Q.C.: And is that, is that a direct example of what the Chairman had asked in relation to this page 48 of 82?

MR. LUDLOW: Just bear with me one second. This trunk feeder account under distribution, and this is an example of a cost recovery from a third party, this in fact deals with 17-L, which is a transmission line, but that was the, that is the mechanisms which are, those are representative of the mechanisms which are in place and the, primarily the $275,000 would deal with a lot of the areas within towns and cities from a recovery base as well.

MS. BUTLER, Q.C.: Okay, so a similar type of recovery?

MR. LUDLOW: Very similar recovery basis, yes.

MS. BUTLER, Q.C.: Thank you, Mr. Chairman, that was my only question arising?

MR. NOSEWORTHY, CHAIRMAN: Thank you very much, Ms. Butler. Once again, thank you, Mr. Ludlow, for your testimony.

MR. LUDLOW: Thank you.

MR. NOSEWORTHY, CHAIRMAN: We will conclude now. Thank you very much for your indulgence. It's not, I certainly don't wish to make this a habit. I realize that going beyond 1:30 under the new hours puts a strain on everybody and I would hope that this would be seen as an exception and thank you for your understanding. I would ask counsel as well if indeed the procedures could be clarified so, if for nobody else, my confusion would be eliminated in any event.

MS. NEWMAN: Mr. Chairman, I would suggest that counsel have a brief meeting tomorrow to address that issue in particular as well as the timing of the closing submissions probably sometime next week.

MR. NOSEWORTHY, CHAIRMAN: Okay, thank you very much, we'll see you at 9:00 in the morning.

(hearing adjourned to November 22, 2002)