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<p>1 LIST OF UNDERTAKINGS</p> <p>2 1. Undertaking Pg. 17</p> <p>3 2. Undertaking Pg. 18</p>	<p>1 (9:05 a.m.)</p> <p>2 CHAIRMAN:</p> <p>3 Q. Thank you. Good morning. Trust our friends</p> <p>4 from away had an enjoyable weekend. Not</p> <p>5 Myrtle Beach, but anyway, we have some nice</p> <p>6 scenery around here. Good morning, Ms.</p> <p>7 Newman. Any items before we begin?</p> <p>8 MS. NEWMAN:</p> <p>9 Q. No, Chair.</p> <p>10 CHAIRMAN:</p> <p>11 Q. Good morning, Mr. Greneman. How are you?</p> <p>12 A. Good morning.</p> <p>13 Q. Good morning, Mr. Kennedy.</p> <p>14 MR. KENNEDY:</p> <p>15 Q. Good morning, Chair.</p> <p>16 CHAIRMAN:</p> <p>17 Q. Had all weekend now to either have expanded or</p> <p>18 contracted.</p> <p>19 MR. KENNEDY:</p> <p>20 Q. Counter intuitive, the longer you look at it,</p> <p>21 the less questions you want to ask anyway.</p> <p>22 CHAIRMAN:</p> <p>23 Q. Anyway, when you're ready you could proceed,</p> <p>24 please.</p> <p>25 MR. KENNEDY:</p>
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<p>1 Q. Thank you, Chair, I won't be long. Good</p> <p>2 morning, Mr. Greneman.</p> <p>3 A. Good morning.</p> <p>4 Q. Mr. Greneman, I just wanted to start with a</p> <p>5 discussion, if you will, concerning the policy</p> <p>6 behind the assignment of plant and I want to</p> <p>7 start first by just looking at the number of</p> <p>8 customer classes that Hydro currently has. As</p> <p>9 I understand it, there's at present, a total</p> <p>10 of five different customer groups that Hydro</p> <p>11 sets rates for? Is that correct?</p> <p>12 A. Yes.</p> <p>13 Q. There would be, for instance, the Hydro</p> <p>14 Interconnected, there's the Hydro Rural, Hydro</p> <p>15 Diesel rate, and so on, Labrador</p> <p>16 Interconnected, and that these are, in effect,</p> <p>17 five different COSS, would you agree with</p> <p>18 that?</p> <p>19 A. I do agree, yes.</p> <p>20 Q. And so what we have is, if you would agree,</p> <p>21 sort of a zonal system. We have five</p> <p>22 different pricing zones that Hydro uses to</p> <p>23 assign its cost through the system?</p> <p>24 A. I'm not sure I would characterize them as</p> <p>25 zones, in view of the fact that they're not</p>	<p>1 interconnected with each other. So where</p> <p>2 zones generally could be interconnected, these</p> <p>3 are not interconnected.</p> <p>4 Q. Okay. Well, in the case of--well, we'll get</p> <p>5 to that. I also understand that there's</p> <p>6 basically two different systems of assigning</p> <p>7 costs, one which is sometimes described as a</p> <p>8 postage stamp method of cost allocation and</p> <p>9 the other one being a direct assignment system</p> <p>10 for cost allocation. Would you agree with</p> <p>11 those, as the two main ways of assigning costs</p> <p>12 in the system?</p> <p>13 A. Direct assignment can be a component of other</p> <p>14 of the first perhaps.</p> <p>15 Q. Okay. Could you just give us your definition</p> <p>16 or description of what a postage stamp cost</p> <p>17 allocation is?</p> <p>18 A. I think postage stamp generally refers to the</p> <p>19 rate rather than cost.</p> <p>20 Q. Okay.</p> <p>21 A. So I'm not familiar with it in terms of costs,</p> <p>22 but rather in terms -</p> <p>23 Q. A postage stamp rate, sorry, yes. How is a</p> <p>24 postage stamp--what is a postage stamp rate</p> <p>25 first, and then how is it determined?</p>

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<p>1 MR. GRENEMAN:</p> <p>2 A. I would think a--I haven't used the term</p> <p>3 myself, but I know it's used. I would think</p> <p>4 that it's the same rate regardless of</p> <p>5 distance. If you have an alternate</p> <p>6 definition, please tell me.</p> <p>7 MR. KENNEDY:</p> <p>8 Q. So for instance, within Hydro's system, we</p> <p>9 know that for instance, customers of Hydro,</p> <p>10 for instance Newfoundland Power, being located</p> <p>11 in St. John's, are charged the same as</p> <p>12 Newfoundland Power's customers in Burin, for</p> <p>13 instance.</p> <p>14 A. Yes.</p> <p>15 Q. They have the same--they see the same end</p> <p>16 rate, the same energy rate?</p> <p>17 A. I agree.</p> <p>18 Q. And Hydro sells to Newfoundland Power the</p> <p>19 energy at the same rate regardless of where it</p> <p>20 ends up being used?</p> <p>21 A. Hydro sells to Newfoundland Power at one rate.</p> <p>22 Q. And that's not--so there's nothing factored in</p> <p>23 there to take into account that some of the</p> <p>24 supply points between Hydro and Newfoundland</p> <p>25 Power allow Hydro to provide the energy at a</p>	<p>1 lower rate than another supply point, correct?</p> <p>2 A. That is correct.</p> <p>3 Q. And so we, under that system, for instance,</p> <p>4 the Island Interconnected system, average all</p> <p>5 the costs for the Island Interconnected system</p> <p>6 to arrive at one rate to be supplied for all</p> <p>7 the supply points in that Island</p> <p>8 Interconnected system?</p> <p>9 A. Yes.</p> <p>10 Q. And so in that sense, there is, within the</p> <p>11 Island Interconnected system, a certain amount</p> <p>12 of cross-subsidization, if you will, between</p> <p>13 the end customer and Hydro?</p> <p>14 A. Pertaining to the supply component?</p> <p>15 Q. Well, the supply points itself, just sort of</p> <p>16 deal with it at the wholesale level, just to</p> <p>17 keep it--so for instance, Hydro is able to</p> <p>18 supply power to Newfoundland Power presumably</p> <p>19 at a lower cost at some supply points than</p> <p>20 others, but they don't. They average that</p> <p>21 cost and supply them at one price, correct?</p> <p>22 A. Yes, they do, but there are several supply</p> <p>23 sources and several load geographic locations,</p> <p>24 if you will, and in my view, to the extent,</p> <p>25 sure, you can follow electrons from where they</p>
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<p>1 are metered at the interface to Newfoundland</p> <p>2 Power and measure the distance to this load</p> <p>3 centre or that load centre, but within the</p> <p>4 realm of cost of service, I do not see</p> <p>5 anything at all unusual or outstanding about</p> <p>6 the way this is being done on the Island</p> <p>7 Interconnected system. I don't personally see</p> <p>8 it as an issue.</p> <p>9 Q. It's, from your perspective, an acceptable</p> <p>10 method to use in calculating what that</p> <p>11 wholesale rate should be as charged to</p> <p>12 Newfoundland Power?</p> <p>13 A. Yes, I do.</p> <p>14 Q. Okay. And now within that, there are,</p> <p>15 however, some instances where some plant is</p> <p>16 directly assigned to a particular customer, as</p> <p>17 opposed to just being all lumped in?</p> <p>18 A. That is correct.</p> <p>19 Q. So for instance, if we look at the GNP, the</p> <p>20 GNP transmission, as was approved by the Board</p> <p>21 in the decision coming out of 2001, is</p> <p>22 assigned directly to the rural customers of</p> <p>23 Newfoundland Power or to Newfoundland Hydro,</p> <p>24 correct?</p> <p>25 A. The transmission component is.</p>	<p>1 Q. Right. And the generation credit -</p> <p>2 A. Sorry, credit.</p> <p>3 Q. - the GNP generation, the generation on the</p> <p>4 GNP, what is that currently assigned?</p> <p>5 A. My understanding is it's currently common,</p> <p>6 subject to check.</p> <p>7 Q. Now, and the current proposal that's put</p> <p>8 forward under the COSS filed is to have the</p> <p>9 generation on the GNP assigned common again,</p> <p>10 correct?</p> <p>11 A. That's correct.</p> <p>12 Q. But that the transmission is to be directly</p> <p>13 assigned to the Hydro Rural Interconnected?</p> <p>14 A. Yes, that's correct, Rural transmission.</p> <p>15 Q. And so in the case of the transmission of the</p> <p>16 GNP, that cost being assigned common gets</p> <p>17 added into the total cost and then just -</p> <p>18 A. I'm sorry, can you -</p> <p>19 Q. I'm sorry, the GNP assigned directly rural,</p> <p>20 that cost is associated directly with the</p> <p>21 Hydro Rural customers on the Great Northern</p> <p>22 Peninsula?</p> <p>23 A. The transmission piece.</p> <p>24 Q. The transmission?</p> <p>25 A. Yes.</p>

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<p>1 MR. KENNEDY:</p> <p>2 Q. The generation on the Great Northern Peninsula</p> <p>3 being assigned common, it's costs get added in</p> <p>4 to the total system cost for Hydro and are</p> <p>5 averaged out among the customer groups that</p> <p>6 comprise the common?</p> <p>7 A. That's correct.</p> <p>8 (9:15 a.m.)</p> <p>9 Q. And in making that decision and recommendation</p> <p>10 to assign the generation on the GNP as being</p> <p>11 common, was Hydro following the Board's</p> <p>12 instructions, I guess, and direction pursuant</p> <p>13 to the decision of the 2001 hearing that where</p> <p>14 plant as a substantial benefit to two or more</p> <p>15 customers, it should be assigned common?</p> <p>16 A. Yes. I would need to review--the way its been</p> <p>17 portrayed in the cost of service study, as</p> <p>18 presented, is in accordance with the way this</p> <p>19 Board has ruled in P.U. 7.</p> <p>20 Q. So in some cases, Mr. Greneman, a plant is</p> <p>21 assigned common and the cost is averaged in to</p> <p>22 all customers. In some cases, plant is</p> <p>23 assigned specific and only that particular</p> <p>24 customer class incurs the cost, correct?</p> <p>25 A. Right. It can be that particular customer</p>	<p>1 class or a group of two customer classes</p> <p>2 excluding one. Yes, but there are situations</p> <p>3 where there are specific assignments in that</p> <p>4 fashion.</p> <p>5 Q. When or where, in your opinion and expertise,</p> <p>6 do we set from one to the other? Where do we--</p> <p>7 where should the Board depart from the</p> <p>8 postage stamp style rate making and instead</p> <p>9 start assigning specific costs for specific</p> <p>10 plant to specific customer groups?</p> <p>11 A. Right, there is not any absolute test to</p> <p>12 determine, if I will, a 100 percent</p> <p>13 objectively whether or not something is</p> <p>14 specific--should be specifically assigned or</p> <p>15 whether it should be common. In cost</p> <p>16 allocation, this is a situation that's</p> <p>17 actually been wrestled with for many, many</p> <p>18 years, and if I may suggest that in the United</p> <p>19 States, there is currently unbundling at the</p> <p>20 transmission level and the Federal Energy</p> <p>21 Regulatory Commission has come out with what</p> <p>22 they call a FERC 7-factor test to effectively</p> <p>23 discern what is common versus what is</p> <p>24 specific. And they have merely a set of seven</p> <p>25 guidelines and those guidelines can be</p>
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<p>1 interpreted differently by different utilities</p> <p>2 and different people within utilities. I can</p> <p>3 say, from my point of view and from my</p> <p>4 experience, if, for example, there is an</p> <p>5 industrial customer and they asked the utility</p> <p>6 for lines or substations beyond what's</p> <p>7 normally provided, to ensure an extra level of</p> <p>8 reliability, I think, in my view, something</p> <p>9 above and beyond the normal such as that</p> <p>10 should be directly assigned. That would be a</p> <p>11 pretty clear cut example in my mind. So below</p> <p>12 that, there is some ambiguity and there is</p> <p>13 always judgment involved.</p> <p>14 Q. Okay. So for instance, the Burin Peninsula,</p> <p>15 we've seen evidence about the fact that there</p> <p>16 are two transmission lines that service the</p> <p>17 Burin Peninsula, correct?</p> <p>18 A. Yes.</p> <p>19 Q. I believe they're T212 and T219, I think.</p> <p>20 A. Okay.</p> <p>21 Q. And those transmission lines are bringing</p> <p>22 energy down to the Burin Peninsula in most</p> <p>23 occasions, but also service the system by</p> <p>24 allowing energy from the Burin Peninsula to</p> <p>25 get up to the rest of the main grid?</p>	<p>1 A. At this point, if I may, I'd like to say that</p> <p>2 the planning department as prepared that</p> <p>3 specific assignment study and that would be</p> <p>4 supported by Mr. Jim Haynes, and my</p> <p>5 involvement was simply to review the study and</p> <p>6 note that their decision making process was in</p> <p>7 accordance with the general principles that</p> <p>8 are used in the industry, but I don't think</p> <p>9 I'm prepared to sit here and support that</p> <p>10 particular study one way or the other.</p> <p>11 Q. In your experience, Mr. Greneman, is there a</p> <p>12 trend generally in other jurisdictions towards</p> <p>13 moving towards more of a postage stamp style</p> <p>14 cost allocation or is the move more towards</p> <p>15 doing direct assignment of plant under cost of</p> <p>16 service allocation?</p> <p>17 A. I could think of situations where it's going</p> <p>18 both ways, and I'm not sure which way the</p> <p>19 trend is going. In one jurisdiction I'm</p> <p>20 somewhat familiar with, there were very</p> <p>21 extensive direct assignments for industrial</p> <p>22 customers, but as the system evolved, the</p> <p>23 transmission enhancements became pretty much</p> <p>24 plant that enhanced the reliability of the</p> <p>25 entire system and was just, you know,</p>

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<p>1 MR. GRENEMAN:</p> <p>2 functionalized--allocated rather to everyone.</p> <p>3 I'm aware of that situation going both ways.</p> <p>4 Zonal rates are, as I can recall, have become</p> <p>5 out of favour, to use that term that you used</p> <p>6 earlier.</p> <p>7 MR. KENNEDY:</p> <p>8 Q. And so the zonal rates, you're describing them</p> <p>9 as akin to the postage stamp or the direct</p> <p>10 assignment? I just wanted to make sure which</p> <p>11 you're indicating.</p> <p>12 A. What I was referring to is just simply not</p> <p>13 discerning differences so much based upon</p> <p>14 distance per se.</p> <p>15 Q. Generally, as between the two methodologies,</p> <p>16 which is easier to administer?</p> <p>17 A. By far, the averaging, the non-direct</p> <p>18 assignment is by far the easier to administer,</p> <p>19 I mean, from a costing point of view that is.</p> <p>20 That's strictly simplicity from a costing</p> <p>21 point of view.</p> <p>22 Q. I understand. Okay. I'd just like to turn to</p> <p>23 the wholesale rate issue, if I could, Mr.</p> <p>24 Greneman.</p> <p>25 A. Yes.</p>	<p>1 Q. And first I wanted to look at PUB-150. If you</p> <p>2 could just scroll down there? Give you a</p> <p>3 moment to read that, Mr. Greneman.</p> <p>4 A. Yes, I can't see all the -</p> <p>5 Q. Look familiar?</p> <p>6 A. Yes.</p> <p>7 Q. Okay. This is, as I understand it, the</p> <p>8 proposed new wholesale demand rate as being</p> <p>9 put forward by Hydro. Is that correct?</p> <p>10 A. Except that it's been adjusted to conform to a</p> <p>11 later revenue requirement, yes.</p> <p>12 Q. Right. And the difference there is the</p> <p>13 energy, in that first block, the 420 gigawatt</p> <p>14 hour block change?</p> <p>15 A. Yes, sir.</p> <p>16 Q. Okay. The tail block, if you will, amount</p> <p>17 didn't change nor did your demand factor,</p> <p>18 correct?</p> <p>19 A. That's correct.</p> <p>20 Q. Okay. And just so we're clear, the 420</p> <p>21 gigawatt hours, that reflection point, what's</p> <p>22 the basis for the 420?</p> <p>23 A. Yes, the basis for 420 was to place--that was</p> <p>24 the general concept was to determine for a</p> <p>25 typical winter month a midpoint or an</p>
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<p>1 approximate midpoint such that roughly one</p> <p>2 half of NP's consumption would fall in the</p> <p>3 first block and approximately one half would</p> <p>4 fall in the second block, and that, when I say</p> <p>5 winter consumption, it is generally November</p> <p>6 through March. So in November through March,</p> <p>7 it was targeted such that one half would fall</p> <p>8 in block one and one half of their consumption</p> <p>9 would fall in block two, from Holyrood, not</p> <p>10 their total consumption from Holyrood.</p> <p>11 Q. Okay. The \$7.00 a kilowatt, could you tell us</p> <p>12 what that represents?</p> <p>13 A. Yes, I can. Hydro's fully allocated cost of</p> <p>14 service has intrinsic in it a demand cost of</p> <p>15 \$84.00 per kilowatt per year and the \$7.00 is</p> <p>16 simply one-twelfth of that. That is to say,</p> <p>17 it's an amount, an equal amount in each of</p> <p>18 twelve months such that over twelve months it</p> <p>19 will equal twelve times seven or \$84.00, which</p> <p>20 is Hydro's fully allocated demand cost of</p> <p>21 service.</p> <p>22 Q. Now -</p> <p>23 A. In -</p> <p>24 Q. Yes, sorry, go ahead.</p> <p>25 A. I'm sorry. And when I say fully allocated</p>	<p>1 demand cost of service, that's not to say that</p> <p>2 all of Holyrood, for example, and it's not to</p> <p>3 say that all of Hydro's hydraulic plants are</p> <p>4 in that \$84.00. It's the demand portion of</p> <p>5 Holyrood and the demand portion of their</p> <p>6 hydraulic plants.</p> <p>7 Q. And would the demand portion of Holyrood or</p> <p>8 demand portion of their hydraulic plants,</p> <p>9 either way, be comprised of both generation</p> <p>10 and transmission related demand costs?</p> <p>11 A. Yes, that is correct.</p> <p>12 Q. And so the \$7.00 would be made up of both of</p> <p>13 those components? In other words, a portion</p> <p>14 of that \$7.00 is for generation demand related</p> <p>15 costs and the remaining portion of the \$7.00</p> <p>16 would be for transmission demand related</p> <p>17 costs?</p> <p>18 A. Right, and the transmission in most or all</p> <p>19 cases are considered generate leads.</p> <p>20 Q. Sorry, are considered?</p> <p>21 A. Generate leads, if you will, to integrate--</p> <p>22 that's my understanding, to integrate the</p> <p>23 generation into the system.</p> <p>24 Q. Okay. Do you have or would you be able to</p> <p>25 provide, even at this point, a ballpark of the</p>

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<p>1 MR. KENNEDY: 2 breakdown between the generation demand 3 related costs and the transmission demand 4 related costs to arrive at that \$7.00 figure? 5 A. I cannot do it here on the stand, but I can 6 get that for you. (UNDERTAKING) 7 Q. Okay. Could we have--counsel, could we have 8 an undertaking to provide that? 9 MR. YOUNG: 10 Q. Could you just repeat that exactly? 11 MR. KENNEDY: 12 Q. A breakdown of the \$7.00 kilowatt demand 13 charge as proposed. 14 MR. YOUNG: 15 Q. Between transmission and generation? 16 MR. KENNEDY: 17 Q. Between generation and transmission, correct. 18 A. You mean the \$84.00? 19 Q. Well, \$84.00 is fine. It's the 7.00, as I 20 understood, is just 84 divided by 12. 21 A. Yes. 22 Q. Yes, so either way is fine. The other thing, 23 I guess, while we're on it is, if I could, 24 would it be possible, Mr. Greneman, for you to 25 calculate what the energy rate would be,</p>	<p>1 keeping a \$7.00 kilowatt demand charge if 2 there was only one block? 3 A. I think that has--under column A, that's 4 before the adjustment. 5 Q. Yes. 6 A. My recollection, and subject to checking, is 7 3.55 cents per kilowatt hour. If it's any 8 different I will provide it. 9 Q. Yes, okay. In light of the revised figures, I 10 wonder if we could just confirm whether the 11 3.55 still applies or whether it's changed? 12 (UNDERTAKING) 13 A. It'll change very subtly. 14 Q. Yes, okay. Thank you. Mr. Greneman, Friday 15 just passed, although it seems like a week 16 ago, there was a lot of discussion concerning 17 marginal costs. 18 A. Yes. 19 Q. And I just wanted to, if we could, just 20 clarify the record. First, what we're 21 discussing when we're discussing marginal 22 costs, and as I understand it, there is 23 principally two different types of marginal 24 costs. There's long-run marginal costs and 25 short-run marginal costs, correct?</p>
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<p>1 A. Correct. 2 Q. Could you provide a definition of what you 3 consider to be the long-run marginal costs and 4 then a definition of the short-run marginal 5 costs? 6 A. Yes. The long-run marginal cost, capital is 7 allowed to change, and in short-run marginal 8 cost, capital does not change. 9 Q. So I suppose - 10 A. And it's - 11 Q. - philosophically, what are the difference 12 between the two? What's one intending to 13 account for versus the other? 14 A. My understanding is that long-run marginal 15 cost is more a reflection of the cost to 16 society and short run is--it encompasses 17 Hydro's expansion plan and technology of the 18 time, perhaps. 19 (9:30 a.m.) 20 Q. Okay. Maybe we can just turn first to IC-146. 21 Just give Mr. Greneman a moment to read the 22 question. 23 A. Okay, I see the question. 24 Q. Okay. Could we turn to page two, please? Now 25 as I understand it from the question, this</p>	<p>1 would be, in effect, for in the Granite Canal 2 where we have the full information there, 3 these are as stated the levelized costs in 4 cents per kilowatt hour for the power that's 5 being produced out of Granite Canal, correct? 6 A. I'll accept that. 7 Q. And fuel doesn't apply to Granite Canal, being 8 a hydro plant? 9 A. Correct. 10 Q. And so we have an O&M of .33 cents per 11 kilowatt hour and a capital cost of 5.14 cents 12 per kilowatt hour? 13 A. I see that. 14 Q. So just applying simple mathematics, would 15 that mean that the levelized cost of the power 16 being produced by Granite Canal is 5.47 cents 17 a kilowatt hour? 18 A. Yes, I would say that. 19 Q. Okay. Now let's just go back to 1996 or 199-- 20 well, when was Granite--I think it was in 1999 21 when Granite was first on the horizon as a 22 possible plant to be constructed by Hydro. 23 A. Okay. 24 Q. If Hydro was expected to produce a long-run 25 marginal cost in 1999, that long-run marginal</p>

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<p>1 MR. KENNEDY:</p> <p>2 cost would try to determine, would it not,</p> <p>3 what the levelized cost of energy would be in</p> <p>4 a plant like Granite Canal?</p> <p>5 A. Yes.</p> <p>6 Q. And so if everything was perfect in 1999,</p> <p>7 Granite Canal had yet to be built, but Hydro</p> <p>8 was doing the long-run marginal cost</p> <p>9 calculation, it would have calculated, in</p> <p>10 1999, that the levelized cost of energy to be</p> <p>11 produced by Granite Canal once built would be</p> <p>12 5.4 cents per kilowatt hour?</p> <p>13 A. Subject to the present worth from 2003 to</p> <p>14 1999, right.</p> <p>15 Q. That's right, okay. And so, in the case of</p> <p>16 long-run marginal costs, that's what we're</p> <p>17 talking about is the cost to produce energy</p> <p>18 from a new plant, and that necessarily means</p> <p>19 that you have to take into account the capital</p> <p>20 costs that you're incurring to produce that</p> <p>21 new energy?</p> <p>22 A. Yes.</p> <p>23 Q. Okay. Now, there's also been reference to the</p> <p>24 fact that -</p> <p>25 A. May I?</p>	<p>1 Q. Yes, sorry.</p> <p>2 A. A little bit cautious. These are levelized</p> <p>3 costs for Granite Canal. The marginal cost</p> <p>4 study, and I'm just a little bit cautious,</p> <p>5 states it's a levelized cost of the change in</p> <p>6 capital on an annualized basis, if you will,</p> <p>7 revenue requirement corresponding with the</p> <p>8 aggregate change of load on the system rather</p> <p>9 than load specifically at Granite Canal.</p> <p>10 Q. Yes, okay.</p> <p>11 A. So it's within that context.</p> <p>12 Q. Yes, I understand.</p> <p>13 A. Yes.</p> <p>14 Q. In effect I am simplifying the long-run</p> <p>15 marginal cost calculation that would actually</p> <p>16 have to occur.</p> <p>17 A. Okay.</p> <p>18 Q. So I'm isolating it to just one plant, if we</p> <p>19 were to do a long-run calculation just for</p> <p>20 that one plant.</p> <p>21 A. Right.</p> <p>22 Q. And we were to do that in 1999 and everything</p> <p>23 was perfectly done, it should have shown that</p> <p>24 that levelized cost in 2004 is going to come</p> <p>25 out to 5.47 cents a kilowatt hour?</p>
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<p>1 A. That it would be--it wouldn't necessarily be</p> <p>2 stated with respect to Granite Canal. It</p> <p>3 might be stated with the numerator, if you</p> <p>4 will, combined with other sources and the</p> <p>5 denominator, the system load growth rather</p> <p>6 than delta load for the specific plant.</p> <p>7 Q. Yes, okay.</p> <p>8 A. Okay.</p> <p>9 Q. Reference has been made to the fact that we</p> <p>10 often look to the short-run marginal cost of</p> <p>11 Holyrood to produce energy as the short-run</p> <p>12 marginal cost for the hydro system, correct?</p> <p>13 A. That is correct.</p> <p>14 Q. Now, I wonder if we could just turn to IC-150?</p> <p>15 Now, this is a fairly lengthy document but we</p> <p>16 can scroll through it fairly quickly, Mr.</p> <p>17 Greneman. These are the, as indicated, it's</p> <p>18 actually times and dates for the use of</p> <p>19 Holyrood?</p> <p>20 A. Yes.</p> <p>21 Q. Could we just go through, and it's a bit</p> <p>22 small, yeah, we can just pick one column</p> <p>23 first, it's fine. And the table is set up so</p> <p>24 that it just brings us through from January 1</p> <p>25 through to the end of each year. The first</p>	<p>1 year we're looking at is 1996. And it's the</p> <p>2 number of units on and unit 3 in sync</p> <p>3 condense, I won't even pretend to know what</p> <p>4 that is. But the number of units on, so, for</p> <p>5 instance, in January 1 of 1996 there were</p> <p>6 three units on at Holyrood. And we know that</p> <p>7 Holyrood has three units, so in other words,</p> <p>8 all three of the units in Holyrood were</p> <p>9 operating, correct?</p> <p>10 A. Yes.</p> <p>11 Q. Okay. And if you just scroll down a little</p> <p>12 bit, you can see there's a couple of spots</p> <p>13 where it's only two units on in the 1,18 of</p> <p>14 '96, so the 18th of January, 1996 there were</p> <p>15 two units on in Holyrood, correct?</p> <p>16 A. Yes.</p> <p>17 Q. Okay. And if you just scroll, look over, sort</p> <p>18 of pan to your right, you'll see in 2001 and</p> <p>19 2002 the number of units on at Holyrood was</p> <p>20 pretty steady at 3 right down in the case of</p> <p>21 2001. It's not until you get to the 5th of</p> <p>22 February before it drops a unit down to just</p> <p>23 two units, correct?</p> <p>24 A. Yes.</p> <p>25 Q. Okay. Now, so in all those cases whether</p>

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<p>1 MR. KENNEDY: 2 there's one unit, two units or three units 3 running at Holyrood, all else being equal, the 4 short-run marginal cost of Hydro being able to 5 produce power would be matched to the short- 6 run marginal cost of Holyrood, correct? 7 A. That's right. 8 Q. All right. I wonder if we could just go to 9 the next page? Yeah, I'm interested in the 10 2002 column, actually, Mr.--or 2003. And if 11 we could just scroll down again? Go to your 12 next page. So we see in 2003 we go from two 13 units and then it starts to drop down to one 14 unit? 15 A. I see that. 16 Q. Okay. Could we scroll again to the next page, 17 Mr. O'Reilly? All right. Now, this was as of 18 the time that this data was done, it cuts off 19 at June the 30th, 2003, correct? 20 A. Yes. 21 Q. Okay. And that in those--that last period, 22 the 29th of June and the 30th of June, 2003, 23 the number of units on at Holyrood was zero? 24 A. Yes. 25 Q. And I understand from another RFI that</p>	<p>1 Holyrood was also non-operational in effect 2 for the July month, I believe, of 2003 as 3 well? 4 A. I'll accept that. 5 Q. So in a time frame where Holyrood is actually 6 not being used, for instance, that there were, 7 as in the case here, zero units on, what would 8 be the marginal cost of the system at that 9 point, the short-run marginal costs? 10 A. It would still be Holyrood. 11 Q. And why would that be? 12 A. Because, well, you'd have to take water out of 13 storage to serve it, and by taking water out 14 of storage when Holyrood is out, it's actually 15 deferring that kilowatt hour to Holyrood 16 during a peak month. 17 Q. Okay. So I wonder if we can go to IC-158, 18 please? Okay. So this is a document that is 19 doing the most recent LOLH study, and it's a 20 copy of the study that was submitted to the 21 Board in 2001. I wonder if we can go straight 22 to table 1? It's at the back of the document 23 after the text. Here we go. So, Mr. 24 Greneman, this table, as it indicates, it's 25 the LOLH analysis to determine the appropriate</p>
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<p>1 number of CP demand allocators, load factor 2 and LOLH contributions in each month. And you 3 can see it uses a standard annual peak of 1700 4 megawatts. And then there's different load 5 factors applied, 50, 55, 60 and so on. And 6 then it shows what the change in the LOLH 7 would be as a result of that load factor in 8 annual peak, is that correct? 9 A. Yes. I'm reviewing it, if I may? 10 Q. Okay. 11 A. Okay. 12 Q. All right. So, would you agree with me that, 13 and I think you've sort of indicated this by 14 virtue of your answer in regards to the 420 15 gigawatt hours, but the coincident peak or 16 demand allocators are driven principally by 17 the months of December, January and February, 18 correct? 19 A. That's correct. 20 Q. So that - 21 A. Oh, sorry. Bear with me. 22 Q. Yes. 23 A. Yes. And that self-evidently then the month 24 of December, January and February are the 25 months in which the greatest demands are</p>	<p>1 placed on the hydro system, correct? 2 A. Yes. But my understanding is peaks have 3 occurred in November through March. 4 Q. Um-hm. Yes, March is not insignificant, for 5 instance, in the first column at 8.2 percent? 6 A. Right. 7 Q. Right. 8 A. Whether--if I - 9 Q. Yes. 10 A. If I may add, whether it's three months or 11 five months, that doesn't negate the validity 12 of the gigawatt hours between the first and 13 second blocks. 14 Q. Okay. Could we go to IC-152? So this is, as 15 I understand it, it shows the Holyrood 16 capacity factor. If we could just go to the 17 next page, Mr.--oh, if Mr. Greneman is 18 finished reading. 19 A. Okay. 20 Q. Okay. We can go to the next page, 2003, just 21 to get the most recent--sorry, the 2001. 22 That's the 2001 forecast. I just want to make 23 sure I understand. In this case here we've 24 got 1997 to 2001 for the Holyrood capacity 25 factor and it averages over that five years at</p>

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<p>1 MR. KENNEDY: 2 32.59 percent, is that correct? 3 A. I see that. 4 Q. And in effect then am I correct in 5 paraphrasing that that number represents, in a 6 way, how much Holyrood was used during that 7 five-year period versus how much energy it 8 could, in actual fact, produce on a firm 9 basis? 10 A. That's my understanding. 11 Q. All right. 12 A. On a theoretical--theoretically. 13 (9:45 a.m.) 14 Q. I wonder if we could turn now to IC-169? 15 Okay? 16 A. Yes. 17 Q. All right. If we could just go to the next 18 page? There we go. So this is the, as is 19 stated at the top of the table, the Island 20 Interconnected System load factor, correct? 21 A. Yes. 22 Q. And it shows that for 1997 the system load 23 factor was 63 percent? 24 A. Yeah, 63.09. 25 Q. Sorry. 63.09 percent?</p>	<p>1 A. Right. 2 Q. And again, that would represent the amount 3 that the overall system capacity was used as 4 opposed to what it could produce, again, on a 5 theoretical basis, correct? 6 A. Yes. 7 Q. Okay. And so, clearly in my--is my 8 understanding correct then that if the system 9 load factor for 1997 is 63.09 percent and we 10 know that the system load factor for Holyrood 11 for 1997 was below that number, that then the 12 system load factor for the energy and power 13 producing plants excluding Holyrood would have 14 been higher than 63 percent? In other words, 15 the hydro plants have a greater system load 16 factor than would Holyrood itself? 17 A. Agreed. 18 Q. Now, I wonder if we could turn to NP-41? Now, 19 this is to another area in the sense that it 20 deals with the rural systems, the Isolated 21 Rural Systems, Mr. Greneman, but the 22 definition is what interested me, that Hydro's 23 generation--that's at line 7. Hydro's 24 generation reliability criterion for the 25 isolated rural systems is stated as follows,</p>
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<p>1 "Hydro shall maintain firm generation capacity 2 to meet the system peak load. Firm generation 3 capacity is defined as the total installed 4 capacity in the system minus the largest 5 single unit." Now, that's how Hydro builds or 6 does its system planning for the, as is 7 stated, the Isolated Rural System. That's not 8 the same mechanism, though, that's used by 9 Hydro for the Island Interconnected System, 10 for instance, is it? 11 A. I'm not the proper witness to ask that. 12 Q. Maybe if we could just go to NLH-210 then? 13 Mr. Greneman, on Friday Mr. Kelly, counsel for 14 Newfoundland Power, was asking you some 15 questions concerning the incentive to be 16 provided to Newfoundland Power to limit peak 17 that is provided by virtue of a wholesale 18 demand rate. Do you remember that line of 19 questioning? 20 A. Yes. 21 Q. And I'm wondering--you've had an opportunity 22 to read the reply to NLH-210 which was 23 directed to the consultants for EES. And 24 there they provided an explanation of how 25 shifting load could potentially reduce cost in</p>	<p>1 two different ways: one, by allowing Hydro to 2 defer capital infrastructure projects that are 3 intended to increase peak capacity; and 4 second, to allowing Hydro to invest more 5 towards base load generation technologies that 6 can take advantage of greater economies of 7 scale for reduced per kilowatt hour operating 8 costs. And as I understand it, there's two 9 things that Hydro has to take care of, really, 10 when its doing its system planning, and one is 11 to make sure that it has adequate amount of 12 capacity at the ready to address the 13 coincident peak, correct? 14 A. Yes. 15 Q. And the other part of the system planning is 16 making sure that it has the capacity to handle 17 the base load requirement on a month-by-month 18 basis, correct? 19 A. Yes. 20 Q. But that if we shift load to a significant 21 enough amount, all else being equal, we may 22 end up decreasing the amount of coincident 23 peak that we'd otherwise be faced with that 24 we'd have to address, correct? 25 A. Can -</p>

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1 MR. KENNEDY:

2 Q. If I give you a concrete example. If
3 Newfoundland Power's base load was time
4 shifted so that 100 megawatts of power came on
5 at a different time than it has traditionally
6 been coming on the system, from a time of day
7 use, that that potentially could decrease the
8 coincident peak that's experienced by the
9 system?

10 A. Shifting of the base load?

11 Q. Shifting of Newfoundland Power's load profile.

12 A. Are you saying that the peak--are you
13 suggesting that the peak moves from one place
14 to another?

15 Q. And that it would be -

16 A. Is that what you're suggesting, that the peak
17 -

18 Q. That's correct. And that it would be a
19 different peak in amount. Do you agree with
20 that?

21 A. I'm sorry. There's two answers. Can you
22 repeat that once again?

23 Q. Sure. Let's just look at the first one first,
24 the coincident peak, and Hydro's requirement
25 to make sure that it has available capacity to

1 meet system peak, the coincident peak. From a
2 system planning perspective, addressing
3 coincident peak, depending on the
4 characteristics of the coincident peak may be
5 met by ensuring that at the ready are gas
6 turbines and diesel fire generators that will
7 give just that incremental extra amount of
8 capacity to prevent brown outs and blackouts,
9 correct?

10 A. Yes.

11 Q. And that that's very expensive energy to
12 produce normally, energy coming out of a gas
13 turbine?

14 A. The energy component, yes, is more expensive
15 typically.

16 Q. But that we're not, we're not overly concerned
17 about that in light of the fact that they
18 usually only have to operate for quite a short
19 period of time?

20 A. Correct.

21 Q. And that's because we just need to be able to
22 peak shave?

23 A. Yes.

24 Q. All right. But that in the meantime on a
25 longer time frame over the winter months of,

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1 let's say November to March as you've
2 described it, the base load for November to
3 March is higher than the base load for the
4 remaining months of the year, correct? And
5 I'm -

6 A. It depends. I'm trying to--there is--it
7 depends with you and I talking about base load
8 being the same, I'm not sure.

9 Q. Yeah. And I just realized that we might be
10 using two different definitions. Well, let's
11 just deal with the first of the EES points in
12 NLH-210, the R-5 that's on the screen there.
13 When they say "First Hydro would be able to
14 defer capital infrastructure projects that are
15 intended to increase peak capacity", would
16 you agree with that position that as stated by
17 EES in that R-5?

18 A. Yes.

19 Q. Okay.

20 A. Is the thrust of your question that you going
21 to chase a peak and it's going to be the same
22 peak or ultimately the peak will be reduced?

23 Q. Ultimately the peak will be reduced.

24 A. Yes.

25 Q. And so the second point that EES makes then

1 that Hydro may be able to invest more towards
2 base load generating technologies that can
3 take advantage of greater economies of scale
4 for reduced per kilowatt operating cost, you
5 would agree with that as well?

6 A. I think I could.

7 Q. That's all the questions I have, Chair. Thank
8 you, Mr. Greneman.

9 CHAIRMAN:

10 Q. Thank you, Mr. Kennedy. Thank you, Mr.
11 Greneman. Good morning, Ms. Greene.

12 GREENE. Q.C.:

13 Q. Good morning. It's Mr. Young, Mr. Chair.

14 MR. YOUNG:

15 Q. Mr. Chair, there's just one pretty restricted
16 area of redirect. As Mr. Kennedy mentioned,
17 the weekend and the transcripts sometimes
18 help, and if I'd done redirect Friday
19 afternoon, I think it would have been much
20 longer. When you read the transcript,
21 sometimes it boils it down a fair bit. Mr.
22 Greneman, there was an area of questioning on
23 Friday in relation to the amount of time that
24 might be required between a Board order which
25 may come from this proceeding in relation to a

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<p>1 MR. YOUNG:</p> <p>2 demand and rate--demand energy rate structure.</p> <p>3 And a question arose, I think, as to how much</p> <p>4 time would be required in order to implement</p> <p>5 that rate after the order was issued. Could</p> <p>6 you give us some indication of how long a</p> <p>7 period of time you think that might be?</p> <p>8 A. Yes. As I had suggested on Friday, I thought</p> <p>9 one month would be a reasonable period of</p> <p>10 time. And on reflection I still believe that</p> <p>11 to be reasonable.</p> <p>12 Q. The month I assume is required for some</p> <p>13 reason. Is there a number of activities that</p> <p>14 have to be done during that period of time?</p> <p>15 A. Yes. There are basically two things that do</p> <p>16 need to be done. One is to ensure that there</p> <p>17 is adequate metering or proper metering in</p> <p>18 place. And the second is for the parties to</p> <p>19 agree on a use of a weather normalization</p> <p>20 mechanism. I might also ask (sic.) that there</p> <p>21 are things that don't need to be done that</p> <p>22 were discussed on Friday. One of them is to</p> <p>23 conduct a marginal cost study, and the other</p> <p>24 thing that does not need to be done is to</p> <p>25 conduct a retail, full retail rate study.</p>	<p>1 Q. I wonder might there be another thing that was</p> <p>2 suggested on Friday, whether it would be</p> <p>3 required and that is, analysis to the effect</p> <p>4 on Newfoundland Power and their earnings</p> <p>5 volatility, or those sorts of issues, do they</p> <p>6 need to be considered during that month</p> <p>7 period?</p> <p>8 A. No, not in my view, that's something that</p> <p>9 Newfoundland Power could do afterwards, on</p> <p>10 their own.</p> <p>11 Q. Thank you, Mr. Greneman, those are all our</p> <p>12 questions on re-direct, thank you.</p> <p>13 CHAIRMAN:</p> <p>14 Q. Thank you, Mr. Young. We can have Board</p> <p>15 questions now, Commissioner Saunders?</p> <p>16 COMMISSIONER SAUNDERS:</p> <p>17 Q. No, questions.</p> <p>18 CHAIRMAN:</p> <p>19 Q. Commissioner Whalen?</p> <p>20 COMMISSIONER WHALEN:</p> <p>21 Q. Good morning, Mr. Greneman.</p> <p>22 A. Good morning.</p> <p>23 Q. Most of my initial questions have actually</p> <p>24 been canvassed, but I think you may have</p> <p>25 answered this question in your--in the cross-</p>
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<p>1 examination by Mr. Kelly, but is there--I'm</p> <p>2 just wondering, is there a link between a</p> <p>3 demand energy rate for Newfoundland Power and</p> <p>4 other rate design options that Newfoundland</p> <p>5 Power might be able to consider from the point</p> <p>6 of view of the end-user? Does Newfoundland</p> <p>7 Power have to have a demand energy rate to be</p> <p>8 able to do other things with their rate</p> <p>9 design?</p> <p>10 A. Sorry, I think you asked two different</p> <p>11 questions.</p> <p>12 Q. Well you can rephrase them back to me, if you</p> <p>13 heard two. I thought I only asked one, but</p> <p>14 that's fine.</p> <p>15 (10:00 a.m.)</p> <p>16 A. Okay, well the first one does NP have to have</p> <p>17 a demand energy rate, as I heard it; and I</p> <p>18 think the second--well, let me answer the</p> <p>19 first. In my view, by virtue of the size of</p> <p>20 NP and its relationship with Hydro, it is the</p> <p>21 standard way in the industry for the supplier</p> <p>22 to sell to a utility, such as NP. I think any</p> <p>23 other rate form does not get the signal</p> <p>24 across, is not appropriate for this type of</p> <p>25 relationship that exists between such large</p>	<p>1 entities. The standard way of doing it is</p> <p>2 indeed a demand energy rate and in my view,</p> <p>3 nothing else is quite correct. If there's</p> <p>4 another part of your question that I missed -</p> <p>5 Q. Well I guess the question, the gist of the</p> <p>6 question was more towards whether or not</p> <p>7 Newfoundland Power itself had to have--it goes</p> <p>8 back to the price signal question and the</p> <p>9 issue initially when this was raised, in terms</p> <p>10 of reading the history of this and certainly</p> <p>11 it's been reiterated here, the history of this</p> <p>12 is such that Newfoundland Power initially</p> <p>13 raised this in early 90s because they need a</p> <p>14 demand energy rate to be able to design rates,</p> <p>15 to be able to send the right price signals to</p> <p>16 their customers.</p> <p>17 A. Yes.</p> <p>18 Q. Is that the case that they need a demand</p> <p>19 energy rate to be able to proceed with any</p> <p>20 other innovative type of rate design options</p> <p>21 or can they do it independent of a demand</p> <p>22 energy rate?</p> <p>23 A. If they wanted to do it independently, they</p> <p>24 probably can. But aside from price signal and</p> <p>25 aside from reducing the peak on the Island, a</p>

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<p>1 MR. GRENEMAN:</p> <p>2 demand energy rate has many more virtues</p> <p>3 standing on its own, so I think that--I</p> <p>4 personally think they need a price signal to</p> <p>5 be able to react, and I think it's Hydro's</p> <p>6 responsibility to pass on its costs in the</p> <p>7 same fashion to its customers as it incurs its</p> <p>8 costs. And the sample demand energy rate, if</p> <p>9 you will, does that uniquely, it reflects one</p> <p>10 hundred percent of Hydro's demand cost and it</p> <p>11 states, it reflects its cost incurrence as a</p> <p>12 fixed demand cost. It has to pay its bankers</p> <p>13 based upon that cost and I think it's only</p> <p>14 proper that it pass that signal on to its</p> <p>15 customers.</p> <p>16 Q. And it would be your position then that how</p> <p>17 Newfoundland Power responds to that is up to</p> <p>18 Newfoundland Power?</p> <p>19 A. Yes, as in any utility--different utilities</p> <p>20 respond in different ways and I don't see it</p> <p>21 as being Hydro's responsibility to figure out</p> <p>22 what NP needs to do to respond to it.</p> <p>23 Q. Okay. Yes, thank you, that's all the</p> <p>24 questions I have. Thank you very much, Mr.</p> <p>25 Greneman.</p>	<p>1 CHAIRMAN:</p> <p>2 Q. Thank you, Commissioner Whalen. I have no</p> <p>3 questions. Thank you, Mr. Greneman, for your</p> <p>4 testimony. Are there any questions arising</p> <p>5 from - Okay, thank you very much, Mr.</p> <p>6 Greneman.</p> <p>7 HUTCHINGS, Q.C.:</p> <p>8 Q. Mr. Chair, I'm sorry, I don't have a question</p> <p>9 arising, but I just wanted to note that Mr.</p> <p>10 Greneman and I had a discussion at pages 208</p> <p>11 and 209 of the transcript on Friday and while</p> <p>12 the word "undertaking" wasn't used, there was</p> <p>13 another answer to come in relation to the</p> <p>14 question that I raised there. I don't know</p> <p>15 what the status of that is right now.</p> <p>16 MR. YOUNG:</p> <p>17 Q. Excuse me, Mr. Chair, I think we're aware of</p> <p>18 that generally, it was a request for a</p> <p>19 reconciliation, I think, is that correct?</p> <p>20 HUTCHINGS, Q.C.:</p> <p>21 Q. Yes.</p> <p>22 MR. YOUNG:</p> <p>23 Q. As I understand it, that's being worked on and</p> <p>24 provided in due course.</p> <p>25 HUTCHINGS, Q.C.:</p>
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<p>1 Q. I just raise it because it wasn't noted as an</p> <p>2 undertaking in the transcript and perhaps it</p> <p>3 was my failure to use the word "undertaking"</p> <p>4 at the time that gave rise to that.</p> <p>5 MR. YOUNG:</p> <p>6 Q. Yes, but we saw it as such.</p> <p>7 HUTCHINGS, Q.C.:</p> <p>8 Q. That's fine, Mr. Chair.</p> <p>9 CHAIRMAN:</p> <p>10 Q. Thank you once again, Mr. Greneman.</p> <p>11 A. Thank you.</p> <p>12 Q. Mr. Bowman, would you like five minutes to</p> <p>13 prepare?</p> <p>14 A. I beg your pardon?</p> <p>15 Q. Would you like five minutes to prepare and</p> <p>16 take the witness stand or -</p> <p>17 A. I'm ready whenever you are.</p> <p>18 Q. Okay, well if that's the case, we'll proceed</p> <p>19 right now. Mr. Browne, would you like to</p> <p>20 introduce your witness.</p> <p>21 BROWNE, Q.C.:</p> <p>22 Q. The witness is Mr. Douglas Bowman from KEMA</p> <p>23 Consulting in Virginia.</p> <p>24 CHAIRMAN:</p> <p>25 Q. Thank you.</p>	<p>1 MR. DOUGLAS BOWMAN (SWORN)</p> <p>2 BROWNE, Q.C.:</p> <p>3 Q. Mr. Bowman, do you adopt your pre-filed</p> <p>4 evidence dated September 4, 2003 as your</p> <p>5 evidence in this proceeding?</p> <p>6 A. I think it's dated September 5th.</p> <p>7 Q. September 5th, 2003, yes, I'm sorry.</p> <p>8 A. I do.</p> <p>9 Q. Just checking. On page 8 of that evidence,</p> <p>10 you address rate design and the issue of a</p> <p>11 Marginal Cost Study. Can you summarize for</p> <p>12 the Board your evidence on the issue of the</p> <p>13 marginal cost study?</p> <p>14 A. Yes, it's been quite some time since</p> <p>15 Newfoundland Hydro has undertaken a Marginal</p> <p>16 Cost Study. There's a great deal of confusion</p> <p>17 in this hearing just with the value, for</p> <p>18 example, of the Interruptible B contract might</p> <p>19 be. I feel it's time that Hydro undertook a</p> <p>20 Marginal Cost Study and time that they took a</p> <p>21 look at some innovative rate options at the</p> <p>22 same time. Their Industrial Customers have</p> <p>23 indicated they'd like to see some innovative</p> <p>24 rates and a Marginal Cost Study would give,</p> <p>25 provide the opportunity to look at some</p>

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<p>1 MR. BOWMAN:</p> <p>2 additional rates that might be based on</p> <p>3 marginal cost principles. In that regard, I</p> <p>4 recommended that Hydro undertake a study or at</p> <p>5 least direct a study of marginal cost and how</p> <p>6 those marginal costs might be reflected in</p> <p>7 rate options for its customers. And that they</p> <p>8 file that report with the Board in 2004 and</p> <p>9 Board should hold a hearing on the report with</p> <p>10 customer participation. I'd like to see a</p> <p>11 time bound plan for implementation included in</p> <p>12 that report.</p> <p>13 BROWNE, Q.C.:</p> <p>14 Q. On page 10 of your evidence you deal with the</p> <p>15 wholesale rate for Newfoundland Power, can you</p> <p>16 summarize your evidence on this issue for the</p> <p>17 Board?</p> <p>18 A. Yes, the demand energy rate, the wholesale</p> <p>19 rate discussion goes back many years, back at</p> <p>20 least to 1990, I think the Stone & Webster</p> <p>21 Report showed it going back to 1989 even. The</p> <p>22 benefits of a demand energy rate have been</p> <p>23 well documented. Newfoundland Power itself</p> <p>24 was proposing a demand energy rate back in</p> <p>25 1990. They gave a number of reasons for that.</p>	<p>1 One was linked to demand side management</p> <p>2 efforts, but also, as Mr. Brockman stated,</p> <p>3 it's widely accepted practice, it's consistent</p> <p>4 with the principle of ensuring rates reflect</p> <p>5 costs and a signal cost separately and</p> <p>6 customer energy demand charges, you should be</p> <p>7 doing that where it's practical to do so.</p> <p>8 Now, in that regard, Hydro has proposed a</p> <p>9 demand energy rate. All the expert witnesses</p> <p>10 have reviewed it, I think all of the witnesses</p> <p>11 are more or less in favour with it, in favour</p> <p>12 of the rate proposed with some minor</p> <p>13 modifications with the exception--that is with</p> <p>14 the exception of Newfoundland Power.</p> <p>15 Newfoundland Power has primarily the same</p> <p>16 objective it had during the last hearing that</p> <p>17 related to the revenue stability issue, but I</p> <p>18 believe there's strong--it meets the primary</p> <p>19 criterion and that is that it recovers the</p> <p>20 revenue requirement. It is fair in the sense</p> <p>21 that it reflects both the services provided by</p> <p>22 Hydro to Newfoundland Power, that is capacity</p> <p>23 and energy. And it sends an efficient price</p> <p>24 signal in the sense that an attempt has been</p> <p>25 made to reflect the fact that demands are</p>
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<p>1 higher in winter and that it's priced close to</p> <p>2 marginal energy cost on the energy charge.</p> <p>3 And the overriding reason is that certainly</p> <p>4 Newfoundland appears to be the outlier and not</p> <p>5 having a demand energy rate for a customer of</p> <p>6 this size, so there's strong regulatory</p> <p>7 precedence to have such a rate. So in that</p> <p>8 regard, I recommended that the--it would</p> <p>9 appear that these issues that Newfoundland</p> <p>10 Power--sorry, that Newfoundland Hydro</p> <p>11 identified have not been resolved. I would</p> <p>12 urge the two parties to get together and</p> <p>13 resolve those issues, but in the event they</p> <p>14 are unable to resolve those issues, I would</p> <p>15 recommend that the Board direct implementation</p> <p>16 of that rate, similar to the same rate</p> <p>17 proposed by the Stone & Webster Report.</p> <p>18 Q. Mr. Bowman, on page 22 of your evidence, you</p> <p>19 deal with distribution service and on page 23,</p> <p>20 in reference to that, you recommend a separate</p> <p>21 department. Can you summarize your evidence</p> <p>22 in reference to that, please?</p> <p>23 A. I recommend that consideration be given to the</p> <p>24 merits of forming a separate department. As</p> <p>25 we saw in cross-examination of Mr. Martin, I</p>	<p>1 believe, there's--while there's incentives for</p> <p>2 reducing costs associated with the supply of</p> <p>3 the Isolated systems, certainly the expertise</p> <p>4 necessary for those systems is different than</p> <p>5 it is in an Integrated system, so I'm not sure</p> <p>6 just how Hydro is organized to handle this.</p> <p>7 It looks like there's certainly not a great</p> <p>8 deal of transparency, like if you ask me or</p> <p>9 any of the other experts to try and follow</p> <p>10 through on the determination of the rural</p> <p>11 deficit, it would be difficult for all of us</p> <p>12 to do that. So a formation of a separate</p> <p>13 department would increase the transparency and</p> <p>14 would provide direct management incentives to</p> <p>15 manage that part of the deficit which is</p> <p>16 quite, very large at \$4,700 per customer. So</p> <p>17 I'm recommending that the Board hire--</p> <p>18 commission an independent study to consider</p> <p>19 the merits of creating an organizational</p> <p>20 structure or the separate department. Now,</p> <p>21 that might be handled simply by the Board's</p> <p>22 financial consultant, he might simply conduct</p> <p>23 an audit, for example, of the Isolated systems</p> <p>24 and make recommendations in that regard.</p> <p>25 Q. Thank you, Mr. Bowman, these are our</p>

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<p>1 BROWNE, Q.C.:</p> <p>2 questions.</p> <p>3 CHAIRMAN:</p> <p>4 Q. Thank you, Mr. Browne, Good morning, Mr.</p> <p>5 Young, once again.</p> <p>6 MR. YOUNG:</p> <p>7 Q. Good morning, Mr. Bowman. Mr. Bowman, you've</p> <p>8 just mentioned a moment ago, and I guess a</p> <p>9 reconfirmation of what's in your evidence as</p> <p>10 to your position on the demand energy rate</p> <p>11 structure, and as I understand your position,</p> <p>12 you believe one should be imposed by the Board</p> <p>13 or implemented by the Board in the near term,</p> <p>14 is that correct?</p> <p>15 A. That's correct.</p> <p>16 Q. I just have a question as to the timing, in</p> <p>17 your pre-filed evidence and this was in days</p> <p>18 when we thought things might happen on a</p> <p>19 different schedule, I think you said January</p> <p>20 1. I assume you would agree with me that</p> <p>21 that's not the date now you're looking for,</p> <p>22 but I assume you're talking about when the</p> <p>23 Board makes an order, is that correct?</p> <p>24 A. Yes, I think--I agree with what Mr. Greneman</p> <p>25 said that it should--it's implementable within</p>	<p>1 a month of the Board's decision to go ahead.</p> <p>2 Q. Okay, so you were talking in your pre-filed</p> <p>3 evidence and you mentioned a moment ago that</p> <p>4 the parties should get together and I think</p> <p>5 you referred to a technical (phonetic) session</p> <p>6 or something of that nature, is that the sort</p> <p>7 of thing that you think would take place</p> <p>8 during that month?</p> <p>9 A. I'd like to think that Newfoundland Power and</p> <p>10 Hydro are still trying to work out these</p> <p>11 issues. I don't profess to know what has been</p> <p>12 going on. For all I know, maybe you've</p> <p>13 already resolved these issues, but I had</p> <p>14 understood in responses to information</p> <p>15 requests that these discussions were going to</p> <p>16 be ongoing and actually, I think they've been,</p> <p>17 supposedly have been ongoing since about 1992.</p> <p>18 So I'd like to think that we'll continue to</p> <p>19 get together and try and resolve these</p> <p>20 outstanding issues, primarily related to the</p> <p>21 use of the weather normalization.</p> <p>22 Q. You also recommended in your evidence and</p> <p>23 mentioned it again this morning about the</p> <p>24 Marginal Cost Study that you believe ought to</p> <p>25 be done and, of course, you're aware that the</p>
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<p>1 parties have made certain agreements as to</p> <p>2 that. You also related a date in your</p> <p>3 evidence as to that, is it your understanding</p> <p>4 that that study should be filed in this</p> <p>5 calendar year, is that correct?</p> <p>6 A. Marginal Cost Study?</p> <p>7 Q. Not this calendar year, the following calendar</p> <p>8 year, 2004?</p> <p>9 A. Yes.</p> <p>10 Q. And I guess it sort of jumps out at me that</p> <p>11 the Marginal Cost Study would not be done in</p> <p>12 that case prior to the implementation of the</p> <p>13 Demand Energy Rate Structure?</p> <p>14 A. No, the two aren't connected. There's no need</p> <p>15 to connect those two, you can implement the</p> <p>16 demand energy rate immediately if you have</p> <p>17 that desire that--the Marginal Cost Study is</p> <p>18 to identify rate options for Newfoundland</p> <p>19 Hydro's customers and potential for rate</p> <p>20 options, but it also has a system need just</p> <p>21 for you to, in order for you to make day-to-</p> <p>22 day type decisions, like if you're evaluating</p> <p>23 transformer replacement, for example, and you</p> <p>24 have an option of installing a high efficiency</p> <p>25 transformer versus a standard transformer,</p>	<p>1 that the difference in those two transformers</p> <p>2 has a value in terms of energy use or there</p> <p>3 will be fewer energy losses with the</p> <p>4 efficiency transformer, that will help you</p> <p>5 identify what those benefits are, both for</p> <p>6 capacity and energy. So Marginal Cost Study</p> <p>7 is independent of the need to implement a</p> <p>8 demand energy rate.</p> <p>9 Q. So can I assume from what you just said that</p> <p>10 you believe a demand energy rate can be</p> <p>11 properly gleaned from the Embedded Cost Study</p> <p>12 that's been filed, is that right?</p> <p>13 A. Yes.</p> <p>14 Q. And Mr. Greneman said, when he was on the</p> <p>15 stand, that one of the things a Marginal Cost</p> <p>16 Study could be used for is tweaking those</p> <p>17 rates that either the end-users get or occurs,</p> <p>18 I guess, from Newfoundland Power is from the</p> <p>19 Marginal Cost Study, is that your</p> <p>20 understanding? Is that what you were</p> <p>21 referring to a moment ago?</p> <p>22 A. Yes, it could do that, it can also give</p> <p>23 Newfoundland Power the opportunity to look at</p> <p>24 other things as well, just on its own rate</p> <p>25 side.</p>

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<p>1 MR. YOUNG:</p> <p>2 Q. I wonder, Mr. Bowman, if I could refer you to</p> <p>3 NP-167, please? And this question relates to</p> <p>4 marginal cost studies and I think you will--</p> <p>5 it's a very straightforward answer, I'll just</p> <p>6 read it, "DSM should be evaluated on a</p> <p>7 marginal cost basis with the constraint being</p> <p>8 revenue lost", that is the rate impact measure</p> <p>9 test. Is this one of the purposes for a</p> <p>10 Marginal Cost Study for the end-user or the</p> <p>11 retail utility to design these kinds of</p> <p>12 programs and rates?</p> <p>13 A. A Marginal Cost Study would certainly provide</p> <p>14 useful input to evaluating DSM programs, yes.</p> <p>15 Q. So is that sort of the down the road thing you</p> <p>16 were referring to a moment ago, I suppose, to</p> <p>17 something that would have to be done up front</p> <p>18 before a Demand Energy Rate Structure was</p> <p>19 done, these are, I think you mentioned these</p> <p>20 are not linked, I just want to make sure that</p> <p>21 -</p> <p>22 A. That's correct.</p> <p>23 Q. You don't need to do the Marginal Cost Study</p> <p>24 for that reason, okay.</p> <p>25 A. Right.</p>	<p>1 Q. I wonder if I can refer you to page 13 of Mr.</p> <p>2 Brockman's evidence, please, and that's his</p> <p>3 first evidence and not his Supplemental and</p> <p>4 this would be at lines 18 to 20. Yes, I'm</p> <p>5 just going to read a sentence here. It says,</p> <p>6 "in the report, Stone and Webster suggested</p> <p>7 one of the principle reasons for proposing</p> <p>8 that Newfoundland Power be served under a</p> <p>9 demand energy rate, is to give Newfoundland</p> <p>10 Power an incentive to engage in more demand</p> <p>11 management". Do you agree with the Stone and</p> <p>12 Webster report that this could be a reason to</p> <p>13 favour demand and energy rate structure?</p> <p>14 A. It's one of the potential benefits of having</p> <p>15 demand energy rate.</p> <p>16 Q. As we just considered though, it's something</p> <p>17 that could be done independent of that. For</p> <p>18 example, I just want to explore this, and this</p> <p>19 is a point sort of raised by Board Member</p> <p>20 Whalen just a few moments ago, Newfoundland</p> <p>21 Power has certain information already from the</p> <p>22 Embedded Cost Study and it could use a</p> <p>23 Marginal Cost Study and carry on its own rate</p> <p>24 design from those things. So, it's not a</p> <p>25 necessary requirement, but it's just an</p>
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<p>1 improvement, is that right, for rate design?</p> <p>2 A. That's right. It's a benefit, it's not a</p> <p>3 requirement at all. And, in fact, I think</p> <p>4 most Canadian utilities actually use embedded</p> <p>5 cost for their standard rates. The</p> <p>6 Newfoundland Power study done in 1997</p> <p>7 surveyed, I think it was 23 Canadian utilities</p> <p>8 and found that 88 percent of them actually use</p> <p>9 embedded cost for their primary rate</p> <p>10 structures.</p> <p>11 Q. The next sentence reads there, "Stone and</p> <p>12 Webster presented no evidence that such demand</p> <p>13 management potential exists beyond a vague</p> <p>14 statement in the report about 150 megawatts of</p> <p>15 potential water heater controls". I wonder</p> <p>16 what you view is of this. Would you expect</p> <p>17 the wholesaler to provide this kind of data</p> <p>18 and information to the retailer prior to a</p> <p>19 load management program being in place, or is</p> <p>20 that something that's the responsibility of</p> <p>21 the retailer?</p> <p>22 A. I expect that the--well, Hydro in this case</p> <p>23 will provide the price signal, Newfoundland</p> <p>24 Power will take that price signal and decide</p> <p>25 whether or not DSM programs are effective and</p>	<p>1 worth pursuing as a result of that. It won't,</p> <p>2 of course, be based just on the wholesale</p> <p>3 power rate. There's number of societal type</p> <p>4 tests that would be applied, but certainly</p> <p>5 Newfoundland Power's primary retailer in the</p> <p>6 province would be--they'd be responsible for</p> <p>7 taking the lead on that type of thing, unless</p> <p>8 there's some specific government policy that</p> <p>9 Newfoundland Hydro do that.</p> <p>10 Q. I wonder if I could refer you to page 17 of</p> <p>11 Mr. Brockman's evidence for a moment, this is</p> <p>12 lines 21, 22, right at the bottom there. And</p> <p>13 there's a discussion there about the arguments</p> <p>14 back and forth for the sample rate which</p> <p>15 precedes this, but at the bottom of the page,</p> <p>16 it says, "in conclusion, there's no evidence</p> <p>17 that Newfoundland Power would or should change</p> <p>18 its retail rate design in response to the</p> <p>19 sample rate from Hydro". I'm just wondering</p> <p>20 if you draw the same connection between the</p> <p>21 sample rate from Hydro and Newfoundland Power</p> <p>22 having impetuous to change its retail rate</p> <p>23 design. Could you make a comment about that,</p> <p>24 please?</p> <p>25 A. First off, there has been evidence submitted</p>

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<p>1 MR. BOWMAN:</p> <p>2 that indicates that Newfoundland Power will</p> <p>3 indeed not respond to the price signal.</p> <p>4 They've submitted evidence themselves both Mr.</p> <p>5 Brockman and Mr. Perry and Mr. Henderson that</p> <p>6 they won't change their retail rates and it's</p> <p>7 entirely up to them to decide whether or not</p> <p>8 they do. But the fact that they will or won't</p> <p>9 is really immaterial and I'll refer to--I</p> <p>10 think it's--to a quote, this is a quote from</p> <p>11 Bonbright, Danielson Kamerschen in the book,</p> <p>12 Principles of Public Utility Rates. This is</p> <p>13 referring to the use of a demand charge. It</p> <p>14 says, "whether it is difficult for large</p> <p>15 customers to react to peak rates by changing</p> <p>16 load patterns is irrelevant. The benefit to</p> <p>17 cost ratio is a criteria for utilization of</p> <p>18 peak tariffs for any class of customers". In</p> <p>19 Newfoundland Power's case, they're a very</p> <p>20 large customer, so the benefit to cost ratio,</p> <p>21 I think everyone agrees, is likely to be</p> <p>22 greater than one. Sorry, the benefit to cost</p> <p>23 ratio, just to explain that, just means that</p> <p>24 you don't implement demand energy rates for</p> <p>25 small customers because the cost associated of</p>	<p>1 putting in place the metering, would be very</p> <p>2 high. The cost of doing so in Newfoundland</p> <p>3 Power's case, it's being a very large customer</p> <p>4 would be justified, at least that's--I'm</p> <p>5 basing that on the fact that previous events</p> <p>6 has not indicated that the cost would be</p> <p>7 exorbitantly high.</p> <p>8 MR. YOUNG:</p> <p>9 Q. So, if Newfoundland Power was to receive a</p> <p>10 demand energy rate structure from Hydro in the</p> <p>11 form of the sample rate and was to study its</p> <p>12 own rates for its own customers, its domestic</p> <p>13 and other customers and determine at the end</p> <p>14 of the day that no rate design changes were</p> <p>15 required. You would not, I assume from what</p> <p>16 you've just said, conclude that the demand</p> <p>17 energy rate was a waste of time or an improper</p> <p>18 pricing mechanism from Hydro to Newfoundland</p> <p>19 Power, is that -</p> <p>20 A. No, there's plenty of other reasons, like I</p> <p>21 say, cost reflection of the two products that</p> <p>22 Newfoundland Power actually purchases from</p> <p>23 Newfoundland Hydro and just fairness issues</p> <p>24 and regulatory precedent, there's a strong</p> <p>25 regulatory precedent for demand energy rates</p>
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<p>1 for large customers.</p> <p>2 Q. You just made reference a moment ago to the</p> <p>3 Bonbright text and I guess the latest edition</p> <p>4 or formula and just generally, when you think</p> <p>5 of the sorts of principles that are in the</p> <p>6 book and in other treatises on this matter,</p> <p>7 you sometimes hear discussion about a number</p> <p>8 of attributes of different kind of rate design</p> <p>9 and some of the things that we hope to see</p> <p>10 coming from a particular rate design. I'm</p> <p>11 just wondering if you can make a comment about</p> <p>12 how rate stability fits in with those and how</p> <p>13 it compares to other attributes of the proper</p> <p>14 rate design, for example, its ability to</p> <p>15 respond to changes in supply and demand costs</p> <p>16 and those sorts of things.</p> <p>17 A. Yes, so I think--there was some discussion on</p> <p>18 Thursday and/or Friday about Bonbright's</p> <p>19 principles as being generally recognized as</p> <p>20 the principles that are adopted in most</p> <p>21 jurisdictions. And I don't believe that--</p> <p>22 well, Newfoundland Power's 1997 Marginal Cost</p> <p>23 Study, I believe was filed, but there was a</p> <p>24 study that was done by the Board's consultant</p> <p>25 commenting on that report and it was done by</p>	<p>1 Doctor Wilson and he actually lists</p> <p>2 Bonbright's principles in there and he</p> <p>3 identifies the number of criteria or the</p> <p>4 principles by Bonbright and let me just see if</p> <p>5 I can read this off here. Okay, like he says,</p> <p>6 it's been widely accepted practice in the</p> <p>7 industry for decades. I think the book was</p> <p>8 published in '61. So, he identifies three</p> <p>9 primary criteria including generating the</p> <p>10 required revenue, fair cost apportionment</p> <p>11 among customers and efficiency. He identifies</p> <p>12 the number of additional criteria that are</p> <p>13 generally assigned less weight. And these</p> <p>14 include simplicity and fairness, simplicity,</p> <p>15 understandability issues and that second list</p> <p>16 includes revenue and rate stability as well.</p> <p>17 So, generally, stability issues are given a</p> <p>18 second order of priority. And the other issue</p> <p>19 is what, you know, how much stability, you</p> <p>20 know, like, if the stability fell well outside</p> <p>21 the norms of other typical or similar type</p> <p>22 jurisdictions, then I would say yes, it's</p> <p>23 something that you need to take a close look</p> <p>24 at, but if anything, with the introduction of</p> <p>25 competitive markets, we're finding that things</p>

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<p>1 MR. BOWMAN:</p> <p>2 are getting more unstable, both on the</p> <p>3 customers side and on the suppliers side. So,</p> <p>4 I believe those two components are losing</p> <p>5 weight relative to going the other way.</p> <p>6 MR. YOUNG:</p> <p>7 Q. The point you just raised suggests to that</p> <p>8 some of the criteria of good rate design in</p> <p>9 Bonbright, they're not easily implemented</p> <p>10 without some sacrifice of another one, is</p> <p>11 that correct? So, is the economic efficiency</p> <p>12 consideration sometimes at odds with rate</p> <p>13 stability? Are these sometimes things you</p> <p>14 have to give up a little bit on one side to</p> <p>15 get a bit more on the other side?</p> <p>16 A. Yes, that's true. It's a balancing act and I</p> <p>17 think if you--actually, maybe a good way to</p> <p>18 show that is--if we go to NLH-216, NP. And if</p> <p>19 you go to page 2 of 5? Now, this is</p> <p>20 Newfoundland Power's rate for general service</p> <p>21 zero to ten kilowatts, so these are the small</p> <p>22 general service customers. If you look at</p> <p>23 this rate here, they're got the basic customer</p> <p>24 charge at \$18.10 per month. The energy</p> <p>25 charge, all kilowatt hours at 9.389 cents per</p>	<p>1 kilowatt hour. Okay. Now, this doesn't have</p> <p>2 demand charge. Normally, you'd like to see a</p> <p>3 demand charge on the rate. It doesn't have a</p> <p>4 demand charge because these customers are too</p> <p>5 small. It wouldn't be cost effective and they</p> <p>6 wouldn't understand it probably. Now, if you</p> <p>7 look at that energy charge, it's 9.389 cents</p> <p>8 per kilowatt hour. Ideally, you'd like to</p> <p>9 have that set at your marginal cost of energy.</p> <p>10 Now, I didn't say as a minimum to marginal</p> <p>11 cost of energy, it should be at the marginal</p> <p>12 cost of energy if you're going to send an</p> <p>13 efficient price signal. Now, the marginal</p> <p>14 cost of energy is roughly estimated at about 5</p> <p>15 cents per kilowatt hour, a cost of energy from</p> <p>16 Holyrood. Now, 9.389 is considerably higher</p> <p>17 than 5 cents. So, that's sending a very</p> <p>18 inefficient price signal to that customer</p> <p>19 class. But in fairness to Newfoundland Power,</p> <p>20 they really have little choice on this because</p> <p>21 its the--they have to collect all the costs in</p> <p>22 there. So, they got the demand and the energy</p> <p>23 costs and that causes it to rise considerably</p> <p>24 above marginal costs. Now, you might also</p> <p>25 want to look at a two-block rate structure, so</p>
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<p>1 that the second block is priced at marginal</p> <p>2 cost, but this class is probably got a wide</p> <p>3 range of different energy levels. So, they</p> <p>4 aren't able to do that, come up with a block</p> <p>5 that's fair to all customers there. So, in</p> <p>6 this case, they've balanced the objectives</p> <p>7 here and they've been forced to come up with a</p> <p>8 rate that doesn't even come close to meeting</p> <p>9 the efficiency principle.</p> <p>10 Q. But as you say, that's a requirement because</p> <p>11 of the other attributes of a rate for a group</p> <p>12 of customers such as this which is</p> <p>13 understandability and ability to collect</p> <p>14 revenue without incurring extraordinary costs,</p> <p>15 I suppose to determine what the demands, all</p> <p>16 those sorts of other issues, is that correct?</p> <p>17 A. That's correct, it's a balancing act.</p> <p>18 Q. Mr. Greneman said on Friday that, at least</p> <p>19 some measure of volatility goes hand in hand</p> <p>20 with the demand energy rate structure. Would</p> <p>21 you agree with that?</p> <p>22 A. Yes.</p> <p>23 Q. Mr. Chair, I don't have a lot further</p> <p>24 questions. I do have a few minutes though.</p> <p>25 I'm not sure what the schedule is for today.</p>	<p>1 I'd be happy to break or to carry on, it's up</p> <p>2 to the board.</p> <p>3 CHAIRMAN:</p> <p>4 Q. Would you be concluded than five minutes?</p> <p>5 BROWNE, Q.C.:</p> <p>6 Q. Probably not five minutes, no.</p> <p>7 CHAIRMAN:</p> <p>8 Q. Probably not five minutes.</p> <p>9 BROWNE, Q.C.:</p> <p>10 Q. And Ms. Greene has a couple of questions also.</p> <p>11 It may be a good time to break because I don't</p> <p>12 think I'll be finished in 10 minutes or so.</p> <p>13 CHAIRMAN:</p> <p>14 Q. I think it will be, yes, that's our schedule,</p> <p>15 10:30. So, we'll reconvene at 10:45 a.m..</p> <p>16 Thank you.</p> <p>17 (BREAK AT 10:30 A.M.)</p> <p>18 (RECONVENE AT 10:49 a.m.)</p> <p>19 GREENE, Q.C.:</p> <p>20 Q. I should advise the Panel that I will not be</p> <p>21 able to be here tomorrow morning, but Mr.</p> <p>22 Young will be carrying on with the examination</p> <p>23 on behalf of Hydro.</p> <p>24 CHAIRMAN:</p> <p>25 Q. Thank you.</p>

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1 GREENE. Q.C.:

2 Q. Again, for work commitments.

3 MR. KENNEDY:

4 Q. Chair--oh, sorry. Chair, just in the absence
5 of Ms. Newman, if I could just speak to the
6 scheduling there this morning. It looks like
7 we actually might complete Mr. Bowman at
8 either before or near the lunch break as
9 scheduled. So, it's suggested that if that
10 appears to be the case and we only have a few
11 minutes left, that we would just plough ahead
12 to actually finish Mr. Bowman instead of
13 taking the lunch break, if that's acceptable
14 to the Panel? Thank you, Chair.

15 CHAIRMAN:

16 Q. No, that's fine. When you're ready, Mr.
17 Young?

18 MR. YOUNG:

19 Q. Thank you, Chair. Mr. Bowman, you mentioned
20 earlier this morning that, I think it's fair
21 for me to paraphrase you and correct me if I
22 do so incorrectly, but demand energy rate
23 entities such as this is generally preferable.
24 I'm wondering if you have any experience or
25 knowledge of a situation where a wholesaler

1 utility in a place as Hydro is dealing with a
2 retailer utility such as Newfoundland Power,
3 if it was ever determined in a situation like
4 this where a demand and energy rate was
5 proposed that, in fact, the regulator chose
6 not to accept it and opted instead for an
7 energy only rate? You mentioned I think it
8 was an outlier, I think might have been your
9 word?

10 A. Actually, the only two situations I'm aware of
11 are the two that the Industrial Customer
12 experts raised on Thursday. I'm not--and I
13 don't know that they said that those two
14 situations there a demand energy rate was
15 proposed and turned down by the regulator. I
16 think they just said that those were two
17 situations where there's an energy only rate.
18 And as I recall, they said in one of those
19 situations that has since been changed to a
20 demand energy rate. So I'm not aware of any
21 situations where a demand energy rate has been
22 proposed to the Board for a large customer
23 like Newfoundland Power and turned down.

24 Q. I see. Mr. Bowman, have you had a chance to
25 read the evidence of Mr. Perry and Mr.

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1 Henderson that's been filed in this matter?

2 A. I have.

3 Q. And I'm wondering, do you share their concerns
4 about the volatility of Newfoundland Power's
5 earnings that might arise from the sample
6 rate?

7 A. I don't share the concerns. Of course, I
8 don't work for Newfoundland Power. I do
9 believe that revenue volatility, the potential
10 for revenue volatility is increased. I don't
11 know if the potential for revenue volatility
12 is increased beyond what other utilities
13 experience, other like utilities experience.
14 I do know that they have, of course, there's
15 the Rate Stabilization Plan, I'm not sure how
16 that impacts. They have their own weather
17 normalization plan as well. There's a number
18 of competing things here and I'm not sure just
19 where that comes out. But I do believe that
20 if, certainly if revenue volatility is
21 excessive and Newfoundland Power makes a case
22 that it falls outside the norms, then there's
23 not much doubt in my mind they'll come in to
24 this Board and make a case for it.

25 Q. The circumstance you just mentioned about the

1 RSP, etcetera, with the energy only rate,
2 would you characterize their earnings, as
3 you've seen them over the last few years, as
4 being a stable situation, more stable than
5 most utilities you experience or is it, you
6 know, a similar volatility, more volatility,
7 can you give me an indication of where you see
8 them comparing to others?

9 A. Yeah. I don't really know how it compares to
10 others. I would have liked to have seen
11 evidence filed on that. I do know that the
12 trend toward performance or incentive based
13 regulatory mechanisms certainly leads to
14 higher revenue volatility on the side of
15 utilities. The potential is there for that.
16 And in that sense I'm a little surprised that
17 Newfoundland Power has come out, according to
18 the Energy Policy Review, strongly--well, at
19 least in favour of performance based
20 regulation. On the other hand, with
21 performance based regulation there's also a
22 potential to increase revenues, so perhaps--
23 you know, it becomes a matter of risk, is the
24 risk adjusted return appropriate in this
25 situation. And like I said, if it is changed

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<p>1 MR. BOWMAN:</p> <p>2 substantially as a result, then Newfoundland</p> <p>3 Power will come in with a rate case, I'm sure.</p> <p>4 MR. YOUNG:</p> <p>5 Q. Aside from--and I accept what you're saying,</p> <p>6 that they'd come to the Board to get that sort</p> <p>7 of relief. But aside from that, are there any</p> <p>8 retail rate design options that they might</p> <p>9 have or non-rate design options they might</p> <p>10 have like, for example, load management, that</p> <p>11 they may look to address what otherwise may be</p> <p>12 a volatile earning situation?</p> <p>13 A. Well, there are things that the may decide to</p> <p>14 do within their own operations. For example,</p> <p>15 they might implement seasonal rates and the</p> <p>16 seasonal rates might send a direct price</p> <p>17 signal to slow down the advance of electric</p> <p>18 heat in the province, for example. So there's</p> <p>19 risk management things that are, you know,</p> <p>20 opportunities available to them as really it</p> <p>21 comes down to a business decision for</p> <p>22 Newfoundland Power and just how they decide to</p> <p>23 approach that. I said they have evidence here</p> <p>24 that suggests that they won't change their</p> <p>25 retail rates. You know, I guess we'll never</p>	<p>1 know until we actually implement a demand</p> <p>2 energy rate and see how they actually respond</p> <p>3 to it.</p> <p>4 Q. Thank you, Mr. Bowman. Those are my</p> <p>5 questions, Chair.</p> <p>6 CHAIRMAN:</p> <p>7 Q. Thank you, Mr. Young.</p> <p>8 MR. YOUNG:</p> <p>9 Q. But Ms. Greene has an area that she's like to</p> <p>10 -</p> <p>11 GREENE. Q.C.:</p> <p>12 Q. Good morning, Mr. Bowman.</p> <p>13 A. Good morning.</p> <p>14 Q. The area that I would like to explore with you</p> <p>15 is your recommendation with respect to a</p> <p>16 separate department for certain parts of</p> <p>17 Hydro's rural operations.</p> <p>18 A. I just want to clarify, I didn't recommend</p> <p>19 there be a separate department. I recommend</p> <p>20 that consideration be given and a study be</p> <p>21 conducted to see if there is some value in</p> <p>22 having a separate department.</p> <p>23 Q. And what are the parts of the operation that</p> <p>24 you would like the study done of?</p> <p>25 A. I would like, I would like a study done to</p>
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<p>1 look at the benefits that might be associated</p> <p>2 with forming a separate department to manage</p> <p>3 the Isolated Systems. In other words, a</p> <p>4 direct management responsibility with a goal</p> <p>5 of supplying reliable power to the those</p> <p>6 isolated communities while making the rural</p> <p>7 deficit, or at least that part of the rural</p> <p>8 deficit transparent.</p> <p>9 Q. So your recommended concerns the Isolated</p> <p>10 Systems only and not the interconnected part</p> <p>11 of the rural operations, is that correct?</p> <p>12 A. My recommendation is related to the Isolated</p> <p>13 Systems and it's principally for two or three</p> <p>14 reasons. One is just that it is a different</p> <p>15 type of business.</p> <p>16 Q. I'm going to come to that.</p> <p>17 A. Yes. It's fair to say that that business will</p> <p>18 never make money, it's really more of a</p> <p>19 government social initiative. On the other</p> <p>20 hand, there's a lot--I have no concerns about</p> <p>21 specific subsidies, if it's the government</p> <p>22 decides there should be a subsidy, then a</p> <p>23 subsidy is fine. But if you're going to have</p> <p>24 a subsidy, that subsidy should be made</p> <p>25 perfectly transparent, or at least as</p>	<p>1 transparent as possible. And a separate</p> <p>2 department I think would improve the</p> <p>3 transparency.</p> <p>4 Q. How many customers are served in the Isolated</p> <p>5 Systems?</p> <p>6 A. I think that question would be better directed</p> <p>7 to Hydro. I seem to remember something like</p> <p>8 1300. Is that -</p> <p>9 Q. There's 4,400 customers. If you like, we can</p> <p>10 look at Mr. Wells' pre-filed evidence, page</p> <p>11 25, or do you accept the number as 4000?</p> <p>12 A. I accept the numbers, yeah.</p> <p>13 Q. And do you know how many customers are on the</p> <p>14 Island Interconnected System that are served</p> <p>15 by Hydro? Again, would you accept the number</p> <p>16 is 21,800?</p> <p>17 A. Yes. I recognize there's a big difference.</p> <p>18 Q. And of the Labrador Interconnected System</p> <p>19 there are 8,800 customers. Do you accept that</p> <p>20 number?</p> <p>21 A. Yes.</p> <p>22 Q. So your recommendation concerns the operations</p> <p>23 that Hydro uses to supply the 4,400 customers</p> <p>24 in the Isolated Systems, is that correct?</p> <p>25 A. My recommendation is that a study be done to</p>

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<p>1 MR. BOWMAN: 2 determine if it's appropriate to have a 3 separate department that looks after that part 4 of the system. 5 GREENE, Q.C.: 6 Q. For those number of customers? 7 A. Yes. 8 Q. Now, the deficit, the deficit, would you 9 agree, and again, I can take you to it if you 10 wish, because it is reproduced in Mr. Wells' 11 evidence, that the deficit for the isolated 12 customers is approximately 22 million while 13 for the Island Interconnected is 19 and a half 14 million. Is that correct? 15 A. I understand that to be the figures, yes. I'm 16 talking about the size of the deficit per 17 customer is what's a concern to me. 18 Q. And it's not the size of the deficit per 19 system, because they are--between 22 and 19 20 and a half million, that's not that much 21 difference between them, is there? 22 A. I'm concerned about the deficit, the rural 23 deficit, period. I understand the Isolated 24 Systems to be a different type of skill set. 25 Q. And the different type of skill sets, what do</p>	<p>1 you mean by that? 2 A. Well, for example, your diesel system 3 representative, they have much broader skill 4 sets. I believe Mr. Martin testified when he 5 was asked that question, he says, yes, they 6 have a much different skill set, much broader 7 and they tend to live in the communities where 8 they're working. 9 Q. So those are the operations personnel that 10 actually operate the diesel plants, is that 11 correct? 12 A. That's what I understand. 13 Q. What about for distribution line work, would 14 there be a different expertise between a line 15 worker working on a distribution system in an 16 isolated community as opposed to in another 17 distribution centre? 18 (11:00 a.m.) 19 A. I'm not aware of any real distribution lines 20 in any of the isolated systems. I'd say it's 21 mostly a distribution system. 22 Q. But again, there would be no difference, would 23 there, if you're working on a distribution 24 system in Ramea versus somewhere else? 25 A. I think there is a difference.</p>
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<p>1 Q. In Fogo, Fogo is interconnected? 2 A. Yes, I'd say there is a difference, yes. 3 Q. For the line worker? 4 A. Well, I would say that the diesel system 5 representative probably, my understanding, 6 probably handles those functions, so it's - 7 Q. Again, I guess we can go to Mr. Martin's 8 evidence, but I believe he testified that the 9 DSR does very limited line duty work and if 10 there's any type of problem, that a line crew 11 goes into the community. Is that your 12 recollection of his evidence? 13 A. No. 14 Q. And again, we can look to Mr. Martin's 15 evidence, pre-filed evidence for a description 16 of the DSR if you like, if you would rather 17 refresh your memory? 18 A. I don't think there's--I'll accept what you're 19 saying. 20 Q. The other type of expertise, for example, 21 rates expertise in designing the rates, where 22 would that reside, would there be a difference 23 in the skill set required for the rates? 24 A. I don't know that you need a great deal of 25 rate design expertise in the isolated system</p>	<p>1 since they're based on Newfoundland Power's 2 rates. 3 Q. In the - 4 A. I would see that as falling under the customer 5 service role that the diesel system 6 representative carries out. 7 Q. In terms of the actual calculation, a 8 determination of the revenue and deficit 9 associated with the Isolated Systems, your 10 view is the DSR would do that? 11 A. No. In terms of answering rate design type 12 questions I would say. No, I would say they 13 would need, certainly they would need an 14 accounting department, yes. 15 Q. Do you foresee it being a separate accounting 16 department for the Isolated Systems? 17 A. No. I would see where they purchase, or at 18 least those costs are tracked. 19 Q. And would that be your approach with respect 20 to engineering services or legal services or 21 human resource services as well? 22 A. It might be. Like I say, I'm advocating a 23 study to determine how those things should be 24 handled. 25 Q. How do you foresee that they would obtain the</p>

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<p>1 GREENE, Q.C.: 2 type of expertise if it's not done internally? 3 A. They would contract out for those services, 4 possibly Newfoundland Hydro, possibly 5 Newfoundland Power, possibly someone else. 6 Q. You mentioned in your evidence the experience 7 of B.C. Hydro. Are you familiar with the 8 organizational structure of B.C. Hydro? 9 A. Just what I submitted in my evidence. 10 Q. And in fact, in B.C. Hydro the services that 11 we just talked about, whether it's financial 12 rates, engineering services, legal and human 13 resources, they're all provided by the broader 14 B.C. Hydro, aren't they, similar to what 15 Newfoundland Hydro now does with respect to 16 rural operations? 17 A. I have no idea. 18 Q. You haven't had any discussions with any of 19 those people, have you? 20 A. I don't know how they purchase their services, 21 no. 22 Q. So you're not sure if they're different or not 23 from how this current situation is with Hydro? 24 A. No. If I knew how the isolated system should 25 be organized, I would have made</p>	<p>1 recommendations on that. That's why I'm 2 advocating a study to look at that rather than 3 making specific recommendations. 4 Q. I think you mentioned one of the reasons for 5 your recommendation was to make the rural 6 deficit more transparent? 7 A. Yes. 8 Q. Your concern is only with a portion of the 9 rural deficit, is it, the rural deficit for 10 the Isolated Systems? 11 A. I'm concerned what all of the rural deficit 12 and its size. In this case I see the Isolated 13 Systems as being a separate type of business 14 so I was focusing specifically on that. 15 Q. How is the rural deficit determined? 16 A. Like I said at the beginning, I couldn't 17 possibly trace back how the--I couldn't 18 possibly look at the numbers that we have here 19 and determine just how the rural deficit is 20 determined. 21 Q. Well, let's stay at the principal level. 22 First, I guess one important factor is the 23 revenue that's received to supply customers. 24 Would you agree with that? 25 A. Sorry, could you repeat that?</p>
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<p>1 Q. One of the factors that must go into 2 determining the deficit is how much revenue 3 you get for supplying the service. Would you 4 agree with that statement? 5 A. Yes. 6 Q. And offset against the revenue would be the 7 cost of operations. Would you agree with 8 that? 9 A. Yes. 10 Q. And where your revenue does not cover your 11 cost, you have a deficit. Would you agree 12 with that? 13 A. Yes. 14 Q. So the cost that Hydro incurs in providing the 15 service in the rural communities, what type of 16 costs are they? First, would you agree that 17 there are certain direct costs such as the 18 salaries of the DSR's that we've just talked 19 about? 20 A. Yes. 21 Q. So those are direct operating costs. The 22 next, would you agree that there are certain 23 also allocated costs and the first type of 24 allocated cost would be costs of other 25 services provided, for example, what we just</p>	<p>1 talked about the financial or the legal or the 2 human resources, whatever they are, is that-- 3 would you agree with that? 4 A. Well, I believe that's how Hydro is currently 5 doing it. 6 Q. And another element of the allocated cost 7 arises from how the plant is assigned, would 8 you agree with that? 9 A. Yes. 10 Q. Would you also agree that both the direct and 11 the allocated costs are determined through the 12 Cost of Service Study that Hydro provides to 13 the Board and to the parties in this rate 14 Application? 15 A. Certainly the figures that go into the Cost of 16 Service do the allocation. I'm not sure how 17 the figures get into the Cost of Service 18 Study. 19 Q. And would you agree that the rural deficit 20 therefore is before the Board and the parties 21 do have available to them the opportunity to 22 ask any questions with respect to all of the 23 inputs into the rural deficit? 24 A. Yes, I agree with that. 25 Q. Okay. Okay. Thank you. That concludes my</p>

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<p>1 GREENE, Q.C.: 2 questions. 3 CHAIRMAN: 4 Q. Thank you, Ms. Greene. 5 KELLY, Q.C.: 6 Q. Thank you, Chair. 7 CHAIRMAN: 8 Q. Good morning, Mr. Kelly. 9 KELLY, Q.C.: 10 Q. Mr. Bowman, while we're on the topic of the 11 rural deficit, you talked about having Grant 12 Thornton participate in that or do that study 13 that you talked about. And do you think it 14 would be useful for them to look at the rural 15 deficit as a whole including the Island 16 Interconnected System? 17 A. Yes. 18 Q. Hydro comes before the Board from time to 19 time, for example, for capital projects. Do 20 you think it would be useful for Hydro to have 21 to advise the Board of the impact of a 22 particular capital expenditure on the rural 23 deficit so that the Board can then assess that 24 impact as one of the factors? 25 A. I think that would be useful information to</p>	<p>1 the Board. 2 Q. Now, I want to turn and have a look at your 3 recommendation about the Marginal Cost Study. 4 And if I take you to your evidence at page 3, 5 at the--it's at part D. And you talk about 6 the--make a recommendation for a Marginal Cost 7 Study to promote efficient consumption 8 decisions. What role do marginal costs play 9 in promoting efficient consumption decisions 10 by consumers? 11 A. To the extent that you can reflect marginal 12 costs in your rate designs, economic theory 13 is, is that promotes economic consumption 14 decisions on the part of consumers. 15 Q. And what is the marginal costs that we're 16 talking about, like, what is--what do we mean 17 by marginal cost in that context? 18 A. Marginal cost generally relate to the marginal 19 costs of energy and the marginal costs of 20 capacity. 21 Q. And do we look at that both on a short-run and 22 long-run perspective? 23 A. I would suggest looking at both, yes. 24 Q. Okay. Why are both important? 25 A. Well, I feel it's important to look at both so</p>
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<p>1 that you can send a forward price signal. 2 Like, in the case of long-run marginal costs, 3 it allows you to send a forward price signal 4 to consumers so consumers make a number of 5 long-term decisions. For example, if you're 6 going to install electric heat, you're 7 probably going to have that electric heating 8 system in there for a long period of time. So 9 I think it's good to recognize long-run 10 marginal costs in your rate structure. 11 Q. And to determine long-run marginal costs do we 12 have to look at the expansion plan for the 13 system when those costs would be incurred and 14 then work them back to a kind of a net present 15 value, is that the basic process? 16 A. It's helpful to do that, but there are other 17 ways of doing it. Like, the marginal cost of 18 capital, marginal cost of capacity is normally 19 capped at the price of the peaking, favoured 20 peaking option in the jurisdiction, for 21 example, a combustion turbine. So there's-- 22 actually, the process followed in Newfoundland 23 Power's 1997 study follows the National 24 Association of Regulatory Utility 25 Commissioners format and it actually prices</p>	<p>1 capacity at a combustion turbine. 2 Q. Should those marginal cost principals also be 3 reflected in the retail rate design? 4 A. I think it's good to do so, but I would also 5 say that it's important to take into 6 consideration how long you expect that rate to 7 be effective. If your rate was only going to 8 be effective for the next two years and in a 9 case like Newfoundland and Labrador where you 10 don't expect new capacity to be coming on 11 stream for another six years, then you might 12 not want to place much emphasis on the longer 13 term, as much emphasis on the longer term. 14 Q. Okay. The customers that you refer to in, at 15 line 19 and 20 would be which customers? 16 A. I'm specifically referring to the end use 17 customers there. 18 Q. Okay. So that would be--would that include 19 Hydro's Rural Interconnected customers, those 20 on the same rates as Newfoundland Power's 21 rates? 22 A. I would like consideration given to that. 23 Q. Okay. And so it would include Newfoundland 24 Power's customers as well, then, because we're 25 talking end use customers?</p>

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1 MR. BOWMAN:

2 A. Well, I would expect Newfoundland Power to
3 look at its own customers.

4 KELLY, Q.C.:

5 Q. Okay.

6 A. And Newfoundland Power has, in fact, done
7 that.

8 Q. Okay. Now, the--how do you see, first of all,
9 the time frame for a Marginal Cost Study, how
10 long do you think it would take, could it be
11 done fairly quickly?

12 A. I think if you follow the format used by
13 Newfoundland Power back in '97, I think you
14 could do that fairly quickly over a couple of
15 months. But you could refer--you could ask
16 your own people how long it took them to do
17 that study.

18 Q. And what role do you see for the various
19 parties and the Board in setting the terms of
20 reference for that study and how it should
21 proceed?

22 A. I would like to see the principal stakeholders
23 at least have the opportunity to review the
24 terms of reference of that study. And I
25 include there Newfoundland Power, the

1 Industrial Customers and I guess the Consumer
2 Advocate.

3 Q. And would those terms of reference be set by
4 the Board?

5 A. I would like the Board to approve those terms
6 of reference, yes.

7 Q. Okay. Do you think it would be useful for
8 Newfoundland Power to update the marginal
9 costs of its transmission and distribution so
10 that we have an integrated marginal cost for
11 the entire Interconnected System?

12 A. Well, I'd like to see them determine the
13 marginal costs on their system and I would
14 leave it up to Newfoundland Power to determine
15 their own marginal costs. I don't--like,
16 Newfoundland Power has already done their own
17 Marginal Cost Study. They probably have a
18 pretty fair idea of what their marginal costs
19 are, at least they know how to update that
20 study.

21 Q. And that was done in 1997. And my question is
22 would you think it useful as part of the
23 process of getting the marginal costs for the
24 whole Island Interconnected System that
25 Newfoundland Power update its costs for

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1 transmission and distribution?

2 A. I would like to see Newfoundland Power submit
3 input necessary for Newfoundland Hydro to
4 carry out its Marginal Cost Study, the same as
5 I would expect the Industrial Customers to do
6 so.

7 Q. Now, if I take you to Mr. Brockman's
8 supplementary evidence at page 1, and his
9 recommendation 1, is that the Marginal Cost
10 Study be completed and that there also be a
11 Retail Rate Design Study. And the purpose of
12 that, so that we can look at also making the
13 retail rate designs as efficient as possible.
14 Would you support that in principal, that the
15 retail rate design should be as efficient as
16 possible?

17 A. I believe that you should incorporate
18 efficient price signals in the retail rate
19 design to the extent possible.

20 Q. So would you support a Retail Rate Design
21 Study?

22 A. I have supported a Retail Rate Design--
23 actually, I can read back my recommendation
24 here to you, but basically my recommendation
25 on the Marginal Cost Study, Retail Rate Design

1 Study is included in my evidence. That's what
2 I'm recommending.

3 Q. Okay. So you would support the concept of
4 doing a Retail Rate Design Study?

5 A. I support that concept. I actually
6 recommended that back in '95 for Newfoundland
7 Power and they actually did carry out that
8 study.

9 Q. Okay. Now, the demand energy, the wholesale
10 rate, whether it's energy only or demand
11 energy, the wholesale rate issue, Mr.
12 Greneman's proposals are based on imbedded or
13 historical costs, aren't they?

14 (11:15 a.m.)

15 A. I think it's a mix. It's the demand charge
16 comes out of the Cost of Service Study, and I
17 think an attempt was made to reflect marginal
18 energy costs in the energy charge, the fact
19 that he's got a two block rate structure.

20 Q. Certainly the demand charge, you'd agree with
21 me, is purely an embedded cost, historical
22 cost?

23 A. Yes. And I guess there's a number of ways to
24 look at that. Like, if you go back to 1992
25 when the province was looking at a demand

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<p>1 MR. BOWMAN:</p> <p>2 energy rate, at that time a question was posed</p> <p>3 to Mr. Brockman if he would accept a demand</p> <p>4 energy rate where the energy rate was set at</p> <p>5 marginal cost and the demand charge was set at</p> <p>6 a residual, in other words, to collect the</p> <p>7 remainder of the revenue requirement, and he</p> <p>8 was agreeable to that type of thing. So</p> <p>9 there's not as much emphasis generally placed</p> <p>10 in the demand component in terms of marginal</p> <p>11 cost as there is in the energy component.</p> <p>12 KELLY, Q.C.:</p> <p>13 Q. In the--in Mr. Greneman's proposal the price,</p> <p>14 whether we look at it in the two block</p> <p>15 structure or the question that Mr. Kennedy</p> <p>16 posed this morning, if you have it in one</p> <p>17 block, the energy price is below the short-run</p> <p>18 marginal cost of Holyrood?</p> <p>19 A. Sorry, if you look at the energy charge that</p> <p>20 comes out of the Cost of Service Study?</p> <p>21 Q. The energy charge in Mr. Greneman's proposal</p> <p>22 is below the short-run marginal cost at</p> <p>23 Holyrood?</p> <p>24 A. Yes. It's below--well, it's below the</p> <p>25 standard type figure given in one of the</p>	<p>1 information requests. And I should clarify</p> <p>2 that. The 5.13 cents per kilowatt hour figure</p> <p>3 is just a number. Now, I think Mr. Haynes</p> <p>4 explained that that was set on the basis of an</p> <p>5 oil price of \$29.20, I think. And just, you</p> <p>6 know, just to show with marginal costs you're</p> <p>7 looking at a lot of potential volatility,</p> <p>8 okay. Now, that figure is based on a specific</p> <p>9 cost of oil, it's based on a specific output</p> <p>10 level at Holyrood and it's based on a specific</p> <p>11 point, off take point on the system. In other</p> <p>12 words, if you take the power off the system at</p> <p>13 the transmission level, it's going to be one</p> <p>14 charge; if you take it off the distribution</p> <p>15 system, you're going to add a loss component</p> <p>16 in there that might increase it by another ten</p> <p>17 percent. And just to give you, you know,</p> <p>18 further clarification on the volatility of</p> <p>19 these numbers, we're doing the market rules</p> <p>20 for a new market in western Australia right</p> <p>21 now, and it's not a large system, it's about a</p> <p>22 2700 megawatt system, not that much larger</p> <p>23 than Newfoundland. The generators will be</p> <p>24 submitting offers to sell their power for</p> <p>25 every half hour. So by noon today they'll</p>
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<p>1 submit 48 offers for the next day to sell</p> <p>2 their power. Okay, within each of those</p> <p>3 offers they're allowed to submit up to 10</p> <p>4 price quantity pairs. Now, those price</p> <p>5 quantity pairs recognize the fact that every</p> <p>6 generating unit has different costs for</p> <p>7 different places on its load curve, okay. So</p> <p>8 if a 100 megawatt generator is dispatched at</p> <p>9 10 megawatts, it's going to have much higher</p> <p>10 cost than if it's dispatched at 100 megawatts.</p> <p>11 So potentially you could have for each</p> <p>12 generating unit in that system, you could have</p> <p>13 48--480 prices for the next day. So I'm just</p> <p>14 clarifying that marginal costs can be very</p> <p>15 volatile, they're dependent on a number of</p> <p>16 factors and those things change. And just</p> <p>17 another example of that, we have 5.13 cents</p> <p>18 per kilowatt hour today, in the hearing two</p> <p>19 years ago we had 4.6 cents per kilowatt hour</p> <p>20 and back in '97, that Newfoundland Power</p> <p>21 study, we had 4.0 cents per kilowatt hour. So</p> <p>22 that number is going to move around some.</p> <p>23 Q. And do we need to update a Marginal Cost Study</p> <p>24 from time to time?</p> <p>25 A. Well, you need to update it from time to time.</p>	<p>1 But the point I'm making here is to think that</p> <p>2 you're going to have a perfect price signal</p> <p>3 out of this is incorrect. The point I'm</p> <p>4 making is these costs change, in western</p> <p>5 Australia's case, every half hour, potentially</p> <p>6 every half hour. So while marginal costs are</p> <p>7 a good way--I think they should be embedded in</p> <p>8 your rates or included in your rates, you have</p> <p>9 to understand the shortcomings of them. They</p> <p>10 are not, by no means, a perfect price signal.</p> <p>11 And in fact, that volatility is why a lot of</p> <p>12 utilities still just use embedded cost</p> <p>13 principals.</p> <p>14 Q. Would you agree that in principal it would be</p> <p>15 preferable for the Board to look at the</p> <p>16 wholesale rate issue as the retail rate issues</p> <p>17 at the same time?</p> <p>18 A. I don't see any need to do that. This</p> <p>19 wholesale rate issue has been going on for,</p> <p>20 what, 14 or 15 years.</p> <p>21 Q. At page 4 of your evidence as you talk about</p> <p>22 the wholesale rate issue at line 5, you talk</p> <p>23 about force a resolution of the issue. Why do</p> <p>24 you think it is important to force a</p> <p>25 resolution of the issue rather than have these</p>

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<p>1 KELLY, Q.C.:</p> <p>2 two matters dealt with together?</p> <p>3 A. Well, I would have liked to have seen</p> <p>4 Newfoundland Power and Newfoundland Hydro get</p> <p>5 together on demand energy rate and resolve the</p> <p>6 issue. But the fact is, it hasn't been</p> <p>7 resolved in 15 years. In this--I mean, Hydro</p> <p>8 made it very clear that what they were</p> <p>9 proposing in this rate hearing, like they were</p> <p>10 proposing a demand energy rate. They made it</p> <p>11 very clear that they wanted to resolve these</p> <p>12 three or four issues with Newfoundland Power</p> <p>13 over the course of the mediation sessions or</p> <p>14 over the course of the hearing, and in the</p> <p>15 mediation session, earlier this year, if you</p> <p>16 look at the report, it says that, like both</p> <p>17 Power and Consumer Advocate signed off on, it</p> <p>18 was quite clear that this rate was coming.</p> <p>19 Yet, Newfoundland Power is still not agreeable</p> <p>20 to any demand energy rate. Like they've</p> <p>21 proposed still just the energy only rate, even</p> <p>22 though it's been quite clear the Board has</p> <p>23 been wanting Newfoundland Power to get</p> <p>24 together with Hydro. It's quite clear that</p> <p>25 Power is not going to just accept this rate.</p>	<p>1 Q. Now in the 2001 Hydro GRA, did you propose a</p> <p>2 demand energy rate?</p> <p>3 A. You'd have to show me my testimony.</p> <p>4 Q. Sure.</p> <p>5 A. I believe I was in favour of demand energy</p> <p>6 rate at that time. I don't remember if I</p> <p>7 proposed it.</p> <p>8 Q. Okay. But did you propose a rate?</p> <p>9 A. A specific rate?</p> <p>10 Q. Yes.</p> <p>11 A. No.</p> <p>12 Q. No, and why not? Perhaps I'd take you to your</p> <p>13 testimony. Let's go to December 6th, 2001,</p> <p>14 and can I take you to page five of that</p> <p>15 hearing? And at the bottom of the first</p> <p>16 column at line 49, Ms. Butler asked you this</p> <p>17 question "and what does a cost of service</p> <p>18 expert, such as yourself, need to design or</p> <p>19 recommend rates to a Board like this?" Answer:</p> <p>20 "I would have preferred to see some marginal</p> <p>21 costs." Ms. Butler: "Well, I know that's what</p> <p>22 you would have preferred, but what do you need</p> <p>23 to design or recommend rates to a Board?"</p> <p>24 Answer: "For me to design rates, I would need</p> <p>25 to see marginal costs." Would that still</p>
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<p>1 reflect your view, Mr. Bowman?</p> <p>2 A. I would still--for me to design a rate, I</p> <p>3 would like to know what the marginal costs</p> <p>4 are. Now on the other hand, I do know what</p> <p>5 the marginal costs of energy are, so I have</p> <p>6 enough information to design a rate here. I</p> <p>7 didn't design a rate in the specific</p> <p>8 application because one had already been</p> <p>9 submitted.</p> <p>10 Q. Could you make an appropriate recommendation</p> <p>11 without having marginal costs?</p> <p>12 A. I could. I could make an appropriate</p> <p>13 recommendation on the basis of embedded costs.</p> <p>14 I prefer to incorporate marginal cost price</p> <p>15 signals in my rates, but certainly the norm is</p> <p>16 to use embedded costs.</p> <p>17 Q. Let me take -</p> <p>18 A. Like Mr. Brockman testified back in '90 or</p> <p>19 '92, the cost of service study provides enough</p> <p>20 information to design a wholesale demand</p> <p>21 energy rate.</p> <p>22 Q. - let me take you back to the next page of the</p> <p>23 transcript at page six to line 25. You had</p> <p>24 this exchange with Ms. Butler. You said "let</p> <p>25 me go back here for a minute. I haven't</p>	<p>1 recommended that a demand energy charge rate,</p> <p>2 wholesale rate, be adopted. That's not one of</p> <p>3 my recommendations." Ms. Butler says "okay"</p> <p>4 and you say "I say I'm the only rate design</p> <p>5 expert in this hearing who hasn't recommended</p> <p>6 that before the Board at some point in time"</p> <p>7 and I won't read through the next bit, because</p> <p>8 it's fairly lengthy, but you can take a moment</p> <p>9 to read it through. And then I'd pick you up</p> <p>10 at line 45 when you're ready. Ms. Butler says</p> <p>11 "but Mr. Bowman, you are independent, are you</p> <p>12 not?" Answer: "Yes." Question: "You are an</p> <p>13 expert?" We go back to the top of the page,</p> <p>14 "yes." "So you could have taken the</p> <p>15 opportunity on this occasion to make a</p> <p>16 recommendation on a rate design instead of</p> <p>17 recommending that an independent consultant</p> <p>18 come back next year and do it, couldn't you?"</p> <p>19 Answer: "I could have, but I don't have</p> <p>20 marginal cost information to make an</p> <p>21 appropriate recommendation." Does that answer</p> <p>22 still reflect your view?</p> <p>23 A. Back at that time, I did not have--like on the</p> <p>24 basis of the type of rates I like to design,</p> <p>25 at that time I did not have enough</p>

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1 MR. BOWMAN:
 2 information, I felt, to design an appropriate
 3 demand energy rate.
 4 KELLY, Q.C.:
 5 Q. Do you have any more information on long-run
 6 marginal costs today?
 7 A. I think we're talking about marginal costs
 8 here.
 9 Q. Or on marginal costs?
 10 A. Yes, marginal costs, and I do have marginal
 11 costs. I do have that 5.13.
 12 Q. But you have the short-run marginal cost, you
 13 told me a few moments ago, there was a
 14 different short-run marginal cost in 2001. So
 15 you had a short-run number then. What has
 16 changed, if anything? You had a short-run
 17 marginal cost number then. You have one now.
 18 You didn't have long-run marginal cost then
 19 and you don't have them now.
 20 A. Yes.
 21 Q. Isn't that the case?
 22 A. Yes, and I'm not recommending a specific rate
 23 design structure here either. I've had one
 24 proposed. I've reviewed it and I think it's
 25 appropriate. That's not how I would have

1 designed the rate, no.
 2 Q. It's not how you would have designed it. How
 3 would you have designed it?
 4 A. Well, I would have liked to have known what
 5 the marginal costs were so I would have
 6 probably loaded more of the demand cost into
 7 the winter peak period.
 8 Q. And if you were designing it, would it be fair
 9 to say that what you would be trying to
 10 achieve is efficiency?
 11 A. I would have been trying to achieve further
 12 efficiency.
 13 Q. Further, okay, that's fine, I'll accept that.
 14 In other words, you want to make the rates as
 15 efficient as possible, and would -
 16 A. Well, no, I wouldn't say that. I wouldn't say
 17 as efficient as possible because if you're
 18 going to make it as efficient as possible,
 19 then you'd need to change it every half hour.
 20 Q. And in fact, I'll accept that qualification
 21 because you'd also have to balance certain
 22 other issues of fairness and historical
 23 context, et cetera. There is a balancing
 24 role?
 25 A. That's right.

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1 Q. Right. But within that balancing role, you
 2 want to have your rates as efficient as
 3 possible, and would you also--would you agree
 4 with me that that's you want to have your
 5 retail rates as efficient as possible?
 6 A. I'll accept having two sets of retail rates,
 7 one based on embedded costs and then an
 8 optional rate based on marginal cost
 9 principles.
 10 Q. Well, would you not want to have, consistent
 11 with what you said earlier, your energy costs
 12 in your retail rates at least at the marginal
 13 cost of production?
 14 A. No, I wouldn't say that at all. They should
 15 be at marginal costs, not at least at marginal
 16 cost.
 17 Q. Okay. Well, they should be at marginal cost.
 18 I'll accept your language. Let me just take
 19 you to CA-236 for a moment. Mr. Young asked
 20 you a few questions about Newfoundland Power's
 21 rate and he took you to category 2.1. If you
 22 have a look at this table, if we scroll it up
 23 a little bit, Mr. O'Reilly, if you could?
 24 Thank you. It compares the current retail
 25 block rates against the system short-run

1 marginal costs, and you'll note that in the
 2 2.2, 2.3 and 2.4 rates, the current retail
 3 tail block is below short-run marginal costs?
 4 A. Below the current figure that's being accepted
 5 as the short-run marginal cost.
 6 Q. Yes.
 7 A. Yes.
 8 Q. What would you say to that?
 9 A. I wouldn't worry too much about that.
 10 Q. Okay. Why?
 11 A. Because, like I said, marginal costs move
 12 around substantially.
 13 Q. Would you like to see them move up to the
 14 marginal cost, the short-run marginal cost?
 15 A. Well, I'd like to know a little more
 16 information about marginal costs going
 17 forward. Like I'm not sure if 29.20 per
 18 barrel of oil is a high number or what we
 19 expect, so I'm not sure there's enough
 20 variation there that I would change these.
 21 Q. So you'd like some more information on
 22 marginal cost. If you did change that energy
 23 component, where would that--where would it
 24 come from to increase the energy component?
 25 A. I'd just look at oil prices, what they're

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<p>1 MR. BOWMAN: 2 expected to be in the future. 3 KELLY, Q.C: 4 Q. No, but if you adjusted the rates in 5 categories 2.2 to 2.4 and you did increase the 6 cost for the energy, where would you take that 7 from? Because you'd still have to end up with 8 the same revenue at the end of the day from 9 those classes, do you not? 10 A. Yes. 11 Q. So where would you take it from, if you 12 increased the energy component - 13 A. Oh, I see. 14 Q. - to bring it to marginal cost? 15 A. I would probably take it out of the demand 16 component. 17 Q. So you'd have to - 18 A. Or I might look at a block energy rate. 19 Q. So you might have to take it out of demand or 20 you might have to do something else? 21 A. Yes. 22 Q. Now, okay, well, if we--does that not help-- 23 first of all, in this case, we have a demand 24 energy rate at the consumer level already for 25 these large users, do we not?</p>	<p>1 A. Yes. 2 Q. That was achieved and put in place without 3 having a demand energy wholesale rate? 4 A. That's correct. 5 (11:30 a.m.) 6 Q. Okay. And so one of the things that you think 7 might have to be done here is we might 8 actually have to reduce the demand charge to 9 those consumers to increase the energy tail 10 block rate to get it to the short-run marginal 11 costs. Is that essentially - 12 A. Well, you may or may not have to. 13 Q. You may or may not have to. How would you 14 know whether you need to or not? Would you do 15 a retail rate design study? 16 A. In this case, well, I had my opportunity 17 earlier this year and I didn't recommend any 18 changes to these rates. 19 Q. Okay. Now - 20 A. Now it might be--before we leave this, I think 21 it's worth, like let's just discuss that GS 22 1000 kVA and over. Like you said, that is a 23 demand energy rate. 24 Q. Yes. 25 A. Now if we go to Exhibit LCH-1, page five of</p>
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<p>1 six, that's under Perry and Henderson 2 prefled. LCH-1, page five. Yes, right 3 there, General Service 1000. So this is a 4 discussion by, I assume, Mr. Henderson talking 5 about the General Service 1000 kVA and over. 6 So the rate we were just talking about has a 7 demand charge and an energy charge, and if you 8 look at the bottom there, it says "rate 2.4 9 was created to ensure that larger general 10 service customers paid a rate that better 11 reflected the cost of service. This structure 12 is commonly used by utilities in Canada in 13 billing large customers." So in other words, 14 it doesn't say that we did that to better 15 reflect marginal costs or anything. It says 16 that we did that because it better reflects 17 the cost of service and because it's commonly 18 used by other utilities in Canada. So there's 19 a regulatory precedent. It's fair. It's a 20 better reflection of costs. 21 Q. Now that was done without having it at the 22 wholesale rate level though, wasn't it? 23 A. This is a retail rate. 24 Q. Yes, and that was done without having a demand 25 energy rate at the wholesale level?</p>	<p>1 A. That's correct. 2 Q. Right, okay. And one could adjust that rate 3 as we just talked about without having to have 4 a change in the wholesale rate structure, 5 couldn't one? 6 A. It could be adjusted, yes. 7 Q. It could be adjusted. Now the question of the 8 wholesale rate and the retail rate design 9 issues were originally together, weren't they, 10 back in 1998? Do you recall that? Were you 11 involved for the consumer advocate in 1998? 12 A. I was not involved in the hearing in '98. 13 Q. You were not involved in 1998? 14 A. I don't think so. 15 Q. Okay. 16 A. Do you have something suggesting I was? 17 Q. I thought you were, which is why I thought I'd 18 explore this with you, but if you weren't, I 19 won't go down this road with you. 20 A. I don't believe I was, subject to - 21 Q. No, that's fine. Then I'll leave that as 22 being corrected. I got one other issue I just 23 wanted to touch on, and that's the issue of 24 the revenue volatility and rate stability 25 issues. In other words, would you agree with</p>

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<p>1 KELLY, Q.C.:</p> <p>2 me that issues of revenue volatility also have</p> <p>3 an effect on rate stability?</p> <p>4 A. Yes.</p> <p>5 Q. Why is that the case?</p> <p>6 A. Newfoundland Power is going to pass through--</p> <p>7 well, Newfoundland Power is going to adjust</p> <p>8 its rates to reflect any over collection or</p> <p>9 under collection at some point, once it</p> <p>10 exceeds a certain level.</p> <p>11 Q. Okay. So that an earnings volatility issue</p> <p>12 also affects a question of rate stability.</p> <p>13 Now there have been--there are, in the</p> <p>14 evidence, and in the testimony given, at least</p> <p>15 as I count them, three potential suggestions</p> <p>16 to deal with volatility issues, and I'm</p> <p>17 curious, as an expert, to get your comments on</p> <p>18 those. Mr. Greneman, on the stand, suggested</p> <p>19 that one possibility, admittedly he hadn't</p> <p>20 studied it, was to change the range of the</p> <p>21 rate of return for Newfoundland Power. What</p> <p>22 do you, as an expert, think of that?</p> <p>23 A. Like I said earlier, I don't know how this is</p> <p>24 going to impact on Newfoundland Power's</p> <p>25 revenues. What I suggest is the demand energy</p>	<p>1 rate be implemented. Newfoundland Power will</p> <p>2 look at that, will gauge the impact on its</p> <p>3 revenue volatility and the volatility it might</p> <p>4 have on its customers, and I'm sure won't be</p> <p>5 shy about coming into this Board and asking</p> <p>6 for adjustments if necessary.</p> <p>7 Q. I'm not so much concerned at this stage about,</p> <p>8 in this line of question. What I'm concerned</p> <p>9 about is the customers, the end-use customers</p> <p>10 and what your view is as to how those end-use</p> <p>11 customers, you know, the people of this</p> <p>12 province, should be impacted. And so have you</p> <p>13 looked at any of these issues at all?</p> <p>14 A. Certainly when I saw in the application that</p> <p>15 the application is for a 30 percent rate</p> <p>16 increase for the Industrial Customers,</p> <p>17 certainly revenue stability was an issue for</p> <p>18 me, yes.</p> <p>19 Q. Okay. So revenue stability or rate stability?</p> <p>20 A. Well, rate stability, yes.</p> <p>21 Q. Okay. So is there any comment you would make</p> <p>22 pro or con on the question of expanding the</p> <p>23 range or would you be in--is that something</p> <p>24 you're in favour of or against?</p> <p>25 A. The range of what?</p>
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<p>1 Q. The range of return, because that was a</p> <p>2 proposal put forward or not a proposal, a</p> <p>3 suggestion -</p> <p>4 BROWNE, Q.C.:</p> <p>5 Q. Mr. Chairman, I'm objecting to that. Mr.</p> <p>6 Bowman is not an expert on ranges for rate of</p> <p>7 return and doesn't profess to be. He's a cost</p> <p>8 of service person. That's something they</p> <p>9 might want to pursue with Dr. Kalymon.</p> <p>10 KELLY, Q.C.:</p> <p>11 Q. Would you adopt that answer, Mr. Bowman? Do</p> <p>12 you agree with that? You're not--you'd prefer</p> <p>13 not to comment on it?</p> <p>14 A. I'm not able to comment on it.</p> <p>15 Q. That's fine then, I'll leave it there. But I</p> <p>16 want to take you then to two other</p> <p>17 alternatives of rate design. Can I take you</p> <p>18 to Mr. Brockman at page 21 in his original</p> <p>19 testimony? And he raised, at the top of the</p> <p>20 page, sorry, page 21. Okay, there we go. At</p> <p>21 line 2, one of the options to deal with the</p> <p>22 increased earnings volatility is to create a</p> <p>23 reserve to deal with financial impacts that</p> <p>24 would be viewed as extreme. Another option</p> <p>25 would be for Newfoundland Power to request the</p>	<p>1 regulator to approve a rate increase to pass</p> <p>2 through increased costs. Now, while</p> <p>3 obviously, because in terms of concept, which</p> <p>4 of those two would you view as appropriate?</p> <p>5 A. I don't know. I'd have to see supporting</p> <p>6 information for it.</p> <p>7 Q. Right. And so you can't judge, in the</p> <p>8 abstract, which of any of the mechanisms that</p> <p>9 we talked about would be most appropriate,</p> <p>10 would you agree with that?</p> <p>11 A. That's correct, and I think the important</p> <p>12 consideration here is how does Newfoundland</p> <p>13 Power feel. They're the ones being impacted.</p> <p>14 They'd have to put together a business case</p> <p>15 that would support whatever it is they put</p> <p>16 before the Board.</p> <p>17 Q. Okay. Those are my questions. Thank you very</p> <p>18 much, sir.</p> <p>19 CHAIRMAN:</p> <p>20 Q. Thank you, Mr. Kelly, Mr. Bowman. Good</p> <p>21 morning, Mr. Hutchings.</p> <p>22 HUTCHINGS Q.C.:</p> <p>23 Q. Good morning, Mr. Chair. Good morning, Mr.</p> <p>24 Bowman. I just have one area to deal with in</p> <p>25 connection with your evidence, and I'd like to</p>

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<p>1 HUTCHINGS, Q.C.:</p> <p>2 refer you to page 12 of your pre-filed</p> <p>3 evidence, and specifically at lines 20 to 23.</p> <p>4 You refer there to the issue of the</p> <p>5 Newfoundland Power generation credit and, as I</p> <p>6 understand it, you're expressing a preference</p> <p>7 for Option 3 from the Stone and Webster report</p> <p>8 for the reasons that you state. Is that</p> <p>9 correct?</p> <p>10 A. I don't think I said a preference. I said I'd</p> <p>11 like to see further consideration given to</p> <p>12 that option.</p> <p>13 Q. Okay. And you've identified some benefits</p> <p>14 that you see from that option?</p> <p>15 A. Well, like I said, I'd have to see further</p> <p>16 consideration. I do see some discrepancies in</p> <p>17 the whole issue of the generation credit. I</p> <p>18 certainly am sympathetic to the evidence put</p> <p>19 forward by the Industrial Customers.</p> <p>20 Q. Okay. Just so we're clear, if we go to RDG-2,</p> <p>21 which is the review of rate design for</p> <p>22 Newfoundland Power, Stone and Webster report,</p> <p>23 at page 25, which is the Appendix 3, couple of</p> <p>24 pages from the end. No, that's the Oil Risk</p> <p>25 Management Report you're in there. Page 25 of</p>	<p>1 that report. There we are. Okay. What</p> <p>2 you're referring to as Option 3 in your</p> <p>3 evidence, Mr. Bowman, I believe is referred to</p> <p>4 as Option C in the Stone and Webster report?</p> <p>5 A. I'll have to accept that you tell me that it</p> <p>6 is. I don't know or I can't see a reference</p> <p>7 to Option--maybe if we scroll down the page I</p> <p>8 can see what Option C is.</p> <p>9 Q. It's over at the top of the next page</p> <p>10 actually.</p> <p>11 A. Oh, next page.</p> <p>12 Q. Option C.</p> <p>13 A. Okay. I'll accept that that Option C relates</p> <p>14 to Exhibit RDG-2. I don't see a specific</p> <p>15 reference in there that it's the same option.</p> <p>16 Q. No, I mean, I guess I'm just trying to confirm</p> <p>17 that what you call Option 3 is there what they</p> <p>18 call Option C.</p> <p>19 A. I don't know if it is or not, I'm sorry.</p> <p>20 Q. Okay.</p> <p>21 A. I assume it is, but I don't know that.</p> <p>22 Q. All right. Can you just tell us where you got</p> <p>23 the reference to Option 3?</p> <p>24 A. RDG-2. Well, sorry, is this -</p> <p>25 Q. This is RDG-2.</p>
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<p>1 A. Oh, this is RDG--oh sorry, I thought this was</p> <p>2 the Industrial Customers evidence. Okay,</p> <p>3 Option C. Actually, if you go up, if we look</p> <p>4 at the text, I guess, I would know.</p> <p>5 Q. Okay.</p> <p>6 A. Just where they define Option 3.</p> <p>7 Q. Can we look at starting on page six then and</p> <p>8 over to page seven?</p> <p>9 A. Okay, Option C, okay.</p> <p>10 Q. And that is what -</p> <p>11 A. I guess I said Option 3 rather than Option C.</p> <p>12 Q. Okay. And that is what you intended to refer</p> <p>13 to -</p> <p>14 A. Yes.</p> <p>15 Q. - as Option 3?</p> <p>16 A. Yes.</p> <p>17 Q. Okay. And this is, as you point out,</p> <p>18 consistent with the treatment of Industrial</p> <p>19 Customer generation, essentially allowing</p> <p>20 Newfoundland Power to properly manage that in</p> <p>21 accordance with the power policy of the</p> <p>22 province and have control of their own system</p> <p>23 and get proper credit for it when it is used?</p> <p>24 Is that essentially correct?</p> <p>25 A. That's essentially correct. That's one way to</p>	<p>1 phrase it, I guess. The other, I guess</p> <p>2 ideally, and I think EES recommended this, but</p> <p>3 I would like to see more of an arm's length</p> <p>4 agreement between Newfoundland Power and</p> <p>5 Newfoundland Hydro, and like you have--</p> <p>6 Newfoundland Hydro has contracts with the non-</p> <p>7 utility generators and contracts with its</p> <p>8 Industrial Customers. I agree with EES that I</p> <p>9 think it would be better to have a contract</p> <p>10 with Newfoundland Power with regards to its</p> <p>11 generation and the benefits that it provides.</p> <p>12 But that's not being recommended here. It's</p> <p>13 just here it's an attempt to reflect that type</p> <p>14 of an arrangement.</p> <p>15 Q. Okay. And this Option C, as reflected here,</p> <p>16 does have the benefit of using an actual</p> <p>17 metered number to bill Newfoundland Power?</p> <p>18 A. Yes.</p> <p>19 Q. Yes, okay. Thank you, Mr. Bowman. That's all</p> <p>20 I have, Mr. Chair.</p> <p>21 CHAIRMAN:</p> <p>22 Q. Thank you, Mr. Hutchings. Mr. Kennedy?</p> <p>23 MR. KENNEDY:</p> <p>24 Q. Thank you, Chair. Just a couple of questions,</p> <p>25 Mr. Bowman. You indicated in examination by</p>

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<p>1 MR. KENNEDY: 2 counsel for Newfoundland Power that if you 3 were to design a wholesale rate, a demand 4 wholesale rate yourself, you would design it 5 differently in some aspects than the one 6 that's proposed and as designed by Stone and 7 Webster, correct? 8 A. I think it's fair to say that if you put--gave 9 ten different rate designers the same mandate 10 that you gave Stone and Webster, you'd 11 probably get ten different rates. 12 Q. So - 13 A. I think it's fair to say that I would have 14 probably come up with something different. 15 Q. And you've had an opportunity, I presume, to 16 look at the EES report, including the section 17 dealing with the proposed wholesale rate? 18 A. Yes. 19 (11:45 a.m.) 20 Q. And they make some of their own 21 recommendations concerning variations that 22 could be made to the proposed wholesale demand 23 rate? 24 A. Yes, I think they basically supported the 25 sample rate, but like you say, with some</p>	<p>1 adjustments to a couple of the components. 2 Q. And fair to characterize that then as being 3 variations on the same theme? 4 A. That's how I regard it. 5 Q. And so given the proposal put forward by Stone 6 and Webster, would you consider it to be 7 somehow fatally flawed? 8 A. No. 9 Q. Will it, as proposed, in your view, encourage 10 uneconomic use of public resources? 11 A. I think it will - 12 Q. By encouraging waste? 13 A. No, I think it will encourage more efficient 14 use of resources over the current energy only 15 rate. 16 Q. That's all the questions I have. Thank you, 17 Chair. Thank you, Mr. Bowman. 18 CHAIRMAN: 19 Q. Thank you, Mr. Kennedy. Mr. Browne, do you 20 have any redirect? 21 BROWNE, Q.C.: 22 Q. Yes, a few there. Mr. Bowman, as you are 23 aware, Newfoundland Power has just gone 24 through a lengthy rate hearing this spring 25 following which the Board ordered that</p>
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<p>1 Newfoundland Power's entitled to a specific 2 revenue requirement. Would the implementation 3 of a demand energy charge in any way reduce 4 Newfoundland Power's entitlement to its proven 5 revenue requirement? 6 A. The expectation is that it would recover the 7 revenue requirement that is ultimately 8 approved by this Board. 9 Q. Thank you. That's our question. 10 CHAIRMAN: 11 Q. Thank you very much, Mr. Browne. Commissioner 12 Saunders? 13 COMMISSIONER SAUNDERS: 14 Q. No questions. 15 CHAIRMAN: 16 Q. Commissioner Whalen? 17 COMMISSIONER WHALEN: 18 Q. Good morning, Mr. Bowman. I just have one-- 19 yes, good morning still. I just have one 20 question actually. I think it's only one 21 question. It was in your discussion with Mr. 22 Kelly in reference to the Marginal Cost Study, 23 and just to make sure I understand this, the 24 Marginal Cost Study, in and of itself, doesn't 25 assist us with the question of whether demand</p>	<p>1 energy rate is appropriate. It only assists 2 with perhaps what the rate structure itself 3 might look like. Is that your understanding? 4 A. Yes, that's a fair assessment. It might cause 5 you to--like I think the word somebody else 6 used was "tweak" some of the numbers in the 7 demand energy rate, but it does not affect 8 whether or not you should implement a demand 9 energy rate. You should implement a demand 10 energy rate on the basis of fair costing 11 principles and regulatory precedent. 12 Q. So the question of whether we go with the 13 demand energy rate doesn't depend on having a 14 marginal cost study and the results of such 15 studies completed in advance of? 16 A. Not at all. Those recommendations are 17 completely independent. 18 Q. Okay. And I just have a question on page 13 19 of your evidence and it follows up with 20 something that Mr. Hutchings was reviewing 21 with you on the generation credit, I think. 22 Yes, it's in terms of this Option 3. On page 23 13, lines 5 to 8, you state you "don't view 24 the possibility of Newfoundland Power 25 operating its generation in a manner that</p>

<p style="text-align: right;">Page 117</p> <p>1 COMMISSIONER WHALEN: 2 minimizes its power purchase cost as a 3 negative outcome and in fact, support it, 4 provided the eventuality is properly accounted 5 for in the rate design and cost of service 6 study." Could you just expand on that last 7 part of that sentence in terms of how the 8 eventuality can be properly accounted for in 9 the rate design? That's Newfoundland Power's 10 rate again, the wholesale rate to Newfoundland 11 Power? 12 A. That's correct. 13 Q. Yes. 14 A. Yes, if you charged--if the rates to 15 Newfoundland Power reflected cost on the 16 system and Newfoundland Power responded to 17 that in a manner that changed the way they 18 currently operate their generation, that's not 19 necessarily a negative outcome. That's, in 20 fact, what you would like to see. Now if it 21 causes them to change it in a way that leads 22 to inefficient production overall from 23 society's point of view, then you would want 24 to call them in here, this Board would want to 25 call them in here and make sure they aren't</p>	<p style="text-align: right;">Page 118</p> <p>1 doing that any more. There's always 2 shortcomings in any rate. Like I said, the 3 cost on the power system change every time. 4 So you can't be perfect in your rate signals. 5 So what you want is Newfoundland Power to 6 operate within the spirit and intent of those 7 rate signals. If they don't, then it's up to 8 the Board or other participants in this 9 hearing to bring them in and make sure that 10 they stop doing that and maybe, like in a 11 competitive market, you would fine them some 12 multiple of the profits they've made as a 13 result of doing that. 14 Q. Okay. Thank you, Mr. Bowman. 15 CHAIRMAN: 16 Q. Thank you, Commissioner Whalen. I have no 17 questions, Mr. Bowman. Are there any items 18 relating to that? 19 BROWNE, Q.C.: 20 Q. Nothing arising. 21 CHAIRMAN: 22 Q. Thank you, sir, very much for your testimony. 23 That brings us to a conclusion for today's 24 proceedings, I guess, and we'll reconvene 25 tomorrow at 9:00 with Mr. Brockman. Thank</p>
<p style="text-align: right;">Page 119</p> <p>1 you. 2 UPON CONCLUSION AT 11:50 A.M.</p>	<p style="text-align: right;">Page 120</p> <p>1 CERTIFICATE 2 I, Judy Moss Lauzon, hereby certify that the 3 foregoing is a true and correct transcript in the 4 matter of Newfoundland and Labrador Hydro's 2003 5 General Rate Application for approval of, among 6 other things, its rates commencing January, 2004 7 heard on the 17th day of November, A.D., 2003 8 before the Board of Commissioners of Public 9 Utilities, Prince Charles Building, St. John's, 10 Newfoundland and Labrador and was transcribed by me 11 to the best of my ability by means of a sound 12 apparatus. 13 Dated at St. John's, Newfoundland and Labrador 14 this 17th day of November, A.D., 2003 15 Judy Moss Lauzon</p>