- 1 (9:30 a.m.)
- 2 MR. NOSEWORTHY, CHAIRMAN: Thank you and good
- 3 morning. Before we get started, Mr. Kennedy, are there
- 4 any preliminary matters this morning?
- 5 MR. KENNEDY: I don't believe so, Chair, not this morning.

6 MR. NOSEWORTHY, CHAIRMAN: Thank you very much.7 Good morning, Mr. Brickhill.

- 8 MR. BRICKHILL: Good morning.
- 9 MR. NOSEWORTHY, CHAIRMAN: Good morning, Mr.
- Browne. May I ask you to begin your cross-examination,please?
- 12 MR. BROWNE, Q.C.: Yes, Chairperson. We met during the
- evening and we attempted to avoid any redundancies in
- these questions, given what's been asked before, so I think
- 15 I'll only be able to question Mr. Brickhill for about an hour,
- 16 an hour and a half, and he'll be pleased to hear that.
- 17 MR. NOSEWORTHY, CHAIRMAN: That'd be fine.
- 18 MR. BROWNE, Q.C.: Mr. Brickhill, have you ever been
- obtained, retained by consumer groups to act on theirbehalf in the United States or in Canada?
- 21 MR. BRICKHILL: I have been retained by industrial 22 consumer groups.
- MR. BROWNE, Q.C.: Who would they be, industrial consumer groups?
- 25 MR. BRICKHILL: Large manufacturing companies.
- MR. BROWNE, Q.C.: The companies or the consumers companies sell to?
- 28 MR. BRICKHILL: The companies.
- MR. BROWNE, Q.C.: The companies. So you deal mainly
 with companies as opposed to consumer organizations.
- 31 MR. BRICKHILL: That's correct.
- 32 MR. BROWNE, Q.C.: And in this particular hearing your
- 33 firm, Foster Associate Inc., was retained by Hydro and it's
- only yourself and Ms. McShane who have been retained
- specifically to work on this file by Hydro?
- MR. BRICKHILL: No. There have been several otherpeople working on these matters.
- 38 MR. BROWNE, Q.C.: From Foster and Associates?
- 39 MR. BRICKHILL: Yes.
- 40 MR. BROWNE, Q.C.: But for the most part was the file41 coordinated by yourself and Ms. McShane?
- 42 MR. BRICKHILL: Yes.
- 43 MR. BROWNE, Q.C.: Are you familiar with the work of

- 44 James Bond Bright and his principles of public utilities?
- 45 MR. BRICKHILL: Yes, I am.
- 46 MR. BROWNE, Q.C.: And yesterday we went to the evidence of Mr. Paul Hamilton on page two in which Mr. 47 Hamilton lists some of these principles. Maybe if we can 48 go there again, Mr. O'Rielly, please, to refresh our 49 50 memories. And in this particular excerpt Mr. Hamilton quotes from what he refers to as, in his acclaimed book, 51 The Principles of Public Utility Rates by James Bond 52 Bright, and he makes references to some of the principles 53 there, one of which is stability. Can you go to Stability, 54 please, and can you read that into the record for us? 55
- MR. BRICKHILL: "To the extent possible, rates should be
 stable in two respects. Rates should generate the specific
 amount of the revenue requirement in a stable manner from
 year to year and from month to month. The rates should
 also be relatively stable with a minimum of unexpected
 changes to facilitate both customer and company planning
 for the future."
- 63 MR. BROWNE, Q.C.: And do you agree with that 64 particular principle?
- 65 MR. BRICKHILL: Yes.
- MR. BROWNE, Q.C.: Are you familiar with NARUC, theNational Association of Regulatory Utility Commissions, in
- 68 the United States?
- 69 MR. BRICKHILL: Yes, I am.
- 70 MR. BROWNE, Q.C.: And are you familiar with their 71 manual?
- 72 MR. BRICKHILL: Their manual on cost allocation?
- 73 MR. BROWNE, Q.C.: Yes.
- 74 MR. BRICKHILL: Yes.
- MR. BROWNE, Q.C.: Did you read anything thereconcerning a rate stabilization plan? Did you look for it?
- 77 MR. BRICKHILL: I didn't look for it but I don't think it's78 covered.
- MR. BROWNE, Q.C.: No, it's my understanding you won't
 find it there. Do you find any reference to a rate
 stabilization plan? Does that surprise you?
- 82 MR. BRICKHILL: No.
- 83 MR. BROWNE, Q.C.: Why not?
- 84 MR. BRICKHILL: Because certain components of Hydro's
- 85 Rate Stabilization Plan would be called something else by
- 86 NARUC. The plan in total, the Rate Stabilization Plan,
- 87 employed by Hydro would be relatively rare. I don't think
- 88 it would be something that NARUC would address.

- 1 MR. BROWNE, Q.C.: Did you say that the plan employed
- 2 by Hydro, you referred to it as rare, would you say it would
- 3 be an anomaly?
- 4 MR. BRICKHILL: No. I would say it would be rare.

5 MR. BROWNE, Q.C.: You prefer the word "rare." Can you 6 go to **CA-204**, please, and in CA-204 we posed a question 7 to you, "In Mr. Brickhill's experience, what utilities are 8 using or have used a rate stabilization plan similar to that of 9 Hydro?" Can you read your response for the record, 10 please?

MR. BRICKHILL: "Numerous utilities use fuel adjustment
charges and stabilization accounts for weather and
precipitation. However, Mr. Brickhill is not, is unaware of
any utility with a rate stabilization plan that closely
corresponds with Hydro's."

- 16 MR. BROWNE, Q.C.: Now when you use, you chose the
- phrase "closely corresponds with Hydro's," what do youmean by that?

MR. BRICKHILL: I mean a plan that adjusts for fuel,hydrology, and revenues.

- MR. BROWNE, Q.C.: And you haven't seen any plan out there that deals with that as such?
- 23 MR. BRICKHILL: That's correct. To further explain why I
- said "closely corresponds," Ms. McShane in fact had
- 25 prepared a rate stabilization plan for another utility and
- they called it a rate stabilization plan, but it didn't have the
- 27 revenue stabilization aspect of it that's incorporated in28 Hydro's plan.
- MR. BROWNE, Q.C.: Did she prepare that plan for a private utility?
- 31 MR. BRICKHILL: I don't recall.
- MR. BROWNE, Q.C.: But you do recall her preparing a plan.
- 34 MR. BRICKHILL: Yes.
- 35 MR. BROWNE, Q.C.: But not for whom.
- MR. BRICKHILL: It was for a Canadian company but Idon't recall for whom.
- MR. BROWNE, Q.C.: And the parts of the plan that are
 applied here have deferred charges. Are you aware of that,
 that there's \$100 million projected to be owing in the Rate
- 41 Stabilization Plan in December 2000? Are you aware of that 42 fact?
- MR. BRICKHILL: I'm only aware of the request to go to a
 cap of \$100 million. I didn't know it was forecast to be that.
- 45 MR. BROWNE, Q.C.: Does that concern you?

46 MR. BRICKHILL: No, if it, if the increased cap is approved,
47 it wouldn't concern me. If it's not, Hydro may encounter
48 financial difficulties.

48 financial difficulties.
49 MR. BROWNE, Q.C.: You're saying if it's approved it
50 wouldn't concern you, is that it?

51 MR. BRICKHILL: That's correct.

MR. BROWNE, Q.C.: In your work in the United States before regulatory boards, have you ever encountered a proposal by a utility to come forward to suggest deferred charges of \$100 million to be paid for over time by consumers?

MR. BRICKHILL: Yes. Essentially fuel adjustment clausesdon't even require a request. It's simply automatic.

MR. BROWNE, Q.C.: So they have fuel adjustment
charges, but for over what period of time would the norm
be in the United States for people or for a particular utility
with which you're familiar paying them out, the consumer
paying them?

64 MR. BRICKHILL: In some cases it's months, in some cases 65 one year.

66 MR. BROWNE, Q.C.: You ever seen it go beyond a year?

MR. BRICKHILL: Effectively I've seen it go beyond a year
but the mechanisms usually provide for it to be collected
over a year or less, but if it's not fully collected, for example,
if load was less than incorporated in the forecast, the cost
would be deferred until the next period.

MR. BROWNE, Q.C.: So you'd say six months or twelve
months but for the most part it's addressed during that
period. It's a form of averaging, I guess, isn't it, averaging
the fuel adjustment charges out over that period?

MR. BRICKHILL: I don't know if averaging is quite the
right term. You would take the dollars not collected from
the previous period, divide them by the proposed sales in
the, or the projected sales in the collection period and add
that to the base rate, so I don't know if that's really an
average.

MR. BROWNE, Q.C.: But it would be addressed, the fuel
adjustment charges, within a limited period of time.

84 MR. BRICKHILL: That's correct.

MR. BROWNE, Q.C.: And these companies have stability
in rates, do they, that allows them to have stability in rates,
the fact that there's a fuel adjustment charge that can be
dealt with in a reasonable period of time?

MR. BRICKHILL: Sometimes, yes; sometimes, no. I'd say
they have stable rates as long as fuel prices are stable, and
when there are unexpected large increases in either oil
prices or natural gas prices, the rates often jump in the

- 1 subsequent period, as a result of the undercollection in a
- 2 prior period plus the overall increase even for the current
- 3 period.

4 MR. BROWNE, Q.C.: And consumers deal with that by 5 paying ... they're aware of these fluctuations in rates and 6 aware of the reasons for the rates going up when they have 7 to pay.

8 MR. BRICKHILL: Sometimes I do a lot of explanations to 9 people at cocktail parties on how it works, so I'm not sure 10 they're always aware of it. They certainly don't like those 11 increases.

- 12 (9:45 a.m.)

MR. BROWNE, Q.C.: And you're telling us that you have
seen someone, a company in the United States, and of
course realize we're in a small jurisdiction here and the
United States is a larger jurisdiction, have a rate

stabilization plan in debt to the tune of \$100 million?

18 MR. BRICKHILL: Well, it would be a fuel adjustment plan

rather than a rate stabilization plan. For example, the few

companies who don't have fuel adjustment plans, like thewell-known California electric utilities which are bankrupt,

well-known California electric utilities which are bankrupt,I believe they were under their fuel costs over \$1 billion. If

they had a fuel adjustment clause, there would have been

over \$1 billion in the account.

MR. BROWNE, Q.C.: Can you just expand upon that?What is it you're saying? I'm not getting your words.

27 MR. BRICKHILL: I'm trying to put an order of magnitude

on it. The most recent and well-known example I'm referring

29 to is a company that used to have a fuel adjustment clause,

30 did not have it last year, their primary source of thermal

energy tripled in price and now they're bankrupt and their

undercollections of their energy costs exceeded \$1 billion,so I'm saying that shows the potential for over \$1 billion in

a fuel adjustment account.

MR. BROWNE, Q.C.: And over what period of time would that have been paid in your experience?

37 MR. BRICKHILL: A year.

MR. BROWNE, Q.C.: A year. So it's your evidence that there are fuel adjustment plans in various jurisdictions in

the United States but most of them are dealt with within six

- 41 months to a year.
- 42 MR. BRICKHILL: That's correct.

MR. BROWNE, Q.C.: Do you know of any regulatory
precedent for deferring cost to a future period beyond a
year or beyond two years or three years rather than

46 recovering these costs as they occur?

47 MR. BRICKHILL: Yes. That was done for a number of

48 nuclear power plants. When they came on line, the costs

49 of those plants would have resulted in very large rate

50 increases so that the costs of these new power plants were

51 phased in over a period of years.

52 MR. BROWNE, Q.C.: So that's for a building purpose, 53 construction.

MR. BRICKHILL: Yes, that's correct, the constructioncosts of nuclear power plants.

MR. BROWNE, Q.C.: Well that's not the same as whatwe're dealing with here, is it?

MR. BRICKHILL: It is a little bit. It's the source ... the
source of the generation but it's nuclear and it's much more
capital intensive than oil-based generation.

MR. BROWNE, Q.C.: In your supplementary evidence of
September 12th, 2001, page three at lines one to two, can
you go to that for a moment, please? You have a sentence
there. Can you read the sentence, the first sentence out,
lines one to two?

MR. BRICKHILL: "As well, the Rate Stabilization Plan,
RSP, is antithetical to the transmission of proper price
signals."

69 MR. BROWNE, Q.C.: What do you mean by that, sir?

70 MR. BRICKHILL: It is the exact opposite of transmission71 of proper price signals.

72 MR. BROWNE, Q.C.: Because it doesn't give proper price 73 signals, are you recommending that the RSP as we know it

- 74 be eliminated?
- 75 MR. BRICKHILL: No.

76 MR. BROWNE, Q.C.: Are you recommending that it be 77 revised?

78 MR. BRICKHILL: I think the revisions proposed to the79 RSP by Hydro are appropriate and they simplify it.

MR. BROWNE, Q.C.: How can you say that, sir? They're
going from a \$50 million cap to \$100 million cap with no end
in sight. How could you say that would be appropriate?

MR. BRICKHILL: They are going to \$100 million cap
because they forecast oil prices to be substantially higher
and they want to phase the increase in over a longer period
of time, and I don't think that's unreasonable per se.

MR. BROWNE, Q.C.: But yet you stand by your statement
that the Rate Stabilization Plan is antithetical to the
transmission of proper price signals.

90 MR. BRICKHILL: That's correct.

91 MR. BROWNE, Q.C.: On **page nine**, lines 28 to 30, can 92 you go to that for a moment, sir, please?

- 1 MR. BRICKHILL: "For these reasons I have no issue with
- 2 the use of an energy-only rate in conjunction with the RSP
- 3 for billing Newfoundland Power for wholesale service."
- 4 MR. BROWNE, Q.C.: Can you continue?
- 5 MR. BRICKHILL: "Were the RSP eliminated, however, it
- 6 would be appropriate for Hydro to seek an alternative rate
- 7 form in order to maintain the stability of its revenues."
- 8 MR. BROWNE, Q.C.: If the Board were to order that the
- 9 RSP be eliminated, what alternative rate form would you10 recommend?
- MR. BRICKHILL: I would recommend a demand charge, at
 least a two-part rate or a three-part rate for Newfoundland
 Power.
- 14 MR. BROWNE, Q.C.: Why a demand charge?
- 15 MR. BRICKHILL: To stabilize a portion of the revenues.
- 16 MR. BROWNE, Q.C.: If the Rate Stabilization Plan was
- dealt with by the Board and it was revised or revamped to
- 18 have some kind of a fuel adjustment plan, could you see
- 19 that as a possibility?
- 20 MR. BRICKHILL: I see that as a possibility as long as the
- 21 fuel adjustment contains a hydrology provision which it
- could easily do. In other words, adjust not only for theprice of oil but the volume of oil during periods of low
- 24 hydrology.
- MR. BROWNE, Q.C.: Did you read Mr. Osler'ssupplementary evidence that was filed here yesterday?
- 27 MR. BRICKHILL: Yesterday, no.
- MR. BROWNE, Q.C.: You haven't taken a look at that.
- 29 MR. BRICKHILL: No.
- MR. BROWNE, Q.C.: I don't think I would be 30 mischaracterizing that evidence if I were to say Mr. Osler is 31 suggesting that there were miscalculations in the Rate 32 Stabilization Plan, that's what he is alleging, over time, and 33 that the industrials have been, as a result, owed money. If 34 there were confusion within the Rate Stabilization Plan as 35 to who is owed what, would that cause you concern about 36 the plan? 37
- MR. BRICKHILL: Yes, and what I mean to say is the old
 plan is not readily understandable in terms of impact. The
 new plan as proposed by Hydro I think is much simpler and
 much easier to understand.
- MR. BROWNE, Q.C.: You're saying that the old plan was
 not readily understandable but the new plan is readily
 understandable. Is that your evidence now?
- 45 MR. BRICKHILL: Yes.

- 46 MR. BROWNE, Q.C.: And what's the difference ...
- 47 MR. BRICKHILL: And by plan, its methodology.
- 48 MR. BROWNE, Q.C.: If the industrial customers are having
- 49 problems with the plan and the way amounts are calculated,
- 50 how would you feel for the ordinary consumer out there?
- 51 Would it be understandable that they might have ...
- MR. BRICKHILL: I don't think the ordinary consumer
 would have very much grasp of what's going on even if it
 were explained under the old methodology.
- MR. BROWNE, Q.C.: But they would because the price
 cap is being increased from \$50 million to \$100 million,
 they'd understand it a lot better?
- MR. BRICKHILL: I think the mechanics of the allocation
 would be much more understandable in the future under
 Hydro's proposal.
- 61 MR. BROWNE, Q.C.: How are these mechanics changing, 62 sir?
- 63 MR. BRICKHILL: Hydro proposes to allocate based on a
- 64 12-month moving average of energy consumption by the
- customers rather than re-running the cost of service under
- 66 the average and excess demand method.
- MR. BROWNE, Q.C.: So you think that that would be morereadily understandable by consumers generally?
- MR. BRICKHILL: For sure it'll be more understandable for
 the industrials. For the ordinary consumer, I think it could
 be explained. They might not be able to understand it on
- their own but it could be explained to them.
- MR. BROWNE, Q.C.: Do you think it's fair and gives a
 correct price signal to consumers to, for this Board, if this
 Board were to grant Newfoundland Hydro an extension of
 the plan to \$100 million? Is that really fair to consumers,
 knowing that ultimately consumers are on the hook for that
 amount?
- MR. BRICKHILL: Yes, I think that's fair, particularly in light 79 of the low weighted average cost of capital of the Company 80 at the present time. Certainly the industrial customers 81 would expect a higher return on their investments than 82 Hydro's current weighted average cost of capital, and by, 83 through this deferral and applying weighted average cost 84 of capital, you're essentially loaning the consumers money 85 by not charging them now and deferring these costs, but 86 you're loaning them money at a low rate, so ... 87
- MR. BROWNE, Q.C.: Are you aware, sir, that there'll be \$23
 million of interest charges in the Rate Stabilization Plan in
 a fairly short period of time, according to the evidence of
 Mr. Osmond?
- 92 MR. BRICKHILL: I'm aware that there's a substantial

amount for interest, but you have to look at that in a 1 context of other people's expected returns on investment

2 and that interest is calculated basically at a low rate, and in 3

- 4 ...
- 5 MR. BROWNE, Q.C.: I put it to you, sir ...

MR. BRICKHILL: ... the future some of it's going to be at 6 three percent. 7

MR. BROWNE, Q.C.: I put it to you, sir, you'd be hard-8

pressed to find a company in any jurisdiction in the United 9

States or indeed the rest of Canada that would have a plan 10

comparable to what is being proposed here by 11

Newfoundland Hydro. 12

MR. BRICKHILL: Yes, I would agree with that. 13

MR. BROWNE, Q.C.: Have you looked at plans 14

throughout Canadian jurisdictions, have you looked at, to 15 see if there's anything comparable there to the Rate 16

- Stabilization Plan? 17
- MR. BRICKHILL: I believe Hydro answered a question 18 related to that. 19
- MR. BROWNE, Q.C.: It's question 218, CA-218. 20
- MR. BRICKHILL: And I believe the answer is no. 21
- (10:00 a.m.) 22
- MR. BROWNE, O.C.: Yeah, and the answer is no. We'll 23

move from the Rate Stabilization Plan for the time being, sir. 24

Can you go to page two, lines 13 to 14 of your evidence, 25

your supplementary evidence of September 12th, please? 26

And beginning at line 11, can you read that into the record 27 for a moment? 28

MR. BRICKHILL: "Further, the Board stated the cost of 29 service methodology recommended herein be adopted by 30 Hydro for the purpose of its next rate referral. Nowhere in 31

its recommendation did the Board mention marginal cost 32

base rates or time of use rates or seasonal rates." 33

MR. BROWNE, Q.C.: Now, you're referring to a 1993 Board 34 35 report. The report is on Hydro's cost of service methodology, is that correct? 36

MR. BRICKHILL: That's correct. 37

MR. BROWNE, Q.C.: And it's not a study of rate design, 38 is it? 39

MR. BRICKHILL: No, it's not a study of rate design. 40

MR. BROWNE, Q.C.: So therefore would it really surprise 41

you, given the fact that it's not a study of rate design, that 42

- there is no mention of time of use rates or seasonal rates? 43
- MR. BRICKHILL: No, but the Board specifically discussed 44 marginal cost base rates and ... 45

MR. BROWNE, Q.C.: But your answer is, no ... 46

MR. BRICKHILL: ... in its report. 47

MR. BROWNE, Q.C.: ... it doesn't surprise you. If the 48

Board had ordered a study of rate design and not 49

mentioned time of use rates or seasonal rates, maybe that 50

would surprise you. MR. BRICKHILL: Yes. 52

51

MR. BROWNE, Q.C.: That's fair. On page two, lines 19 to 53 30 of your evidence, and the question you pose there, 54 "Why do you say marginal cost based rates for regulated 55 56 customers have no meaningful relevance to Hydro generally unless there are significant changes in 57 Government and Board policy?" Can you just read your 58 response there, please? 59

MR. BRICKHILL: "The emphasis on sending the right 60 price signals to consumers appears inconsistent with the 61 environment in which Hydro operates. By Government 62 63 policy, Hydro's rural customers are heavily subsidized by other retail customers and until recently Hydro's industrial 64 customers, thus to begin with price signals are distorted. 65 One class of customers is subsidized by Government 66 67 policy, two other customers, two other categories of customers pay the subsidy, and one class of customers is 68 neither subsidized nor subject to paying a subsidy." 69

MR. BROWNE, Q.C.: Now, are you suggesting here that 70 rate design issues are really a waste of time in this 71 environment? Is that what you're telling us all, we're 72 wasting our time discussing any rate design because of 73 74 what you've referred to in that response?

MR. BRICKHILL: No, I'm not saying rate design in general 75 but marginal cost base rates or rates designed to transmit 76 77 the right price signals are putting a round peg in a square hole. 78

MR. BROWNE, Q.C.: So therefore you're saying we are 79 wasting our time. 80

81 MR. BRICKHILL: Not on rate design in general of the embedded cost type and nor are discussions of these 82 issues a waste of our time. 83

MR. BROWNE, Q.C.: Because I put it to you, sir, couldn't 84 rates have seasonal differences reflecting the different 85 86 supply costs in the seasons that would better reflect cost causation? Couldn't they ... couldn't we have seasonal 87 differences here? 88

MR. BRICKHILL: We could. 89

MR. BROWNE, Q.C.: And couldn't fairness principles still 90 be applied in designing rates? 91

MR. BRICKHILL: Yes. 92

- 1 MR. BROWNE, Q.C.: And would that be more consistent
- 2 with Hydro moving to more, to act more like an investor-
- 3 owned utility if they got out there in the market a bit more
- 4 and marketed these different designs?
- 5 MR. BRICKHILL: I don't know if, that Hydro's marketing is
- 6 not consistent with investor-owned utilities in like 7 circumstances.
- MR. BROWNE, Q.C.: You wouldn't want to comment onthat.
- 10 MR. BRICKHILL: Pardon?
- 11 MR. BROWNE, Q.C.: You wouldn't want to comment on 12 that.
- MR. BRICKHILL: No, I would ... well, what I'm saying is 13 Hydro has one great big wholesale customer and some 14 fairly big industrial customers, and I think their marketing 15 to those customers appears rather normal or consistent 16 with those of investor-owned utilities. I don't think Hydro 17 wants to market to the subsidized customers and that 18 would be different than other utilities who make money on 19 retail customers when Hydro doesn't make money on these 20 retail customers. 21
- MR. BROWNE, Q.C.: You mentioned Newfoundland Power. Can you go to **page five of your evidence**, lines 8 to **30**? And the question posed, "Do you think it very important for Hydro to transmit correct price signals to Newfoundland Power?" And your first sentence catches me, "No, not under the rather unique circumstances that
- exist between the two." What unique circumstances are
- 29 you ... to what unique circumstances are you referring?
- 30 MR. BRICKHILL: The first circumstance is that unlike the
- 31 hypothetical circumstances you would expect on an island,
- 32 you'd have probably one electric utility, on this island.
- 33 MR. BROWNE, Q.C.: You'd have vertical integration.
- 34 MR. BRICKHILL: Yes.
- 35 MR. BROWNE, Q.C.: Generally on an island such as this.
- MR. BRICKHILL: That's what you would expect in most circumstances. Instead, there are two companies here, one that does most of the retail business and the other does most of the wholesale business.
- 40 MR. BROWNE, Q.C.: And is that the uniqueness that you 41 find here?
- 42 MR. BRICKHILL: Yes, coupled with the operational 43 coordination between the two companies.
- 44 MR. BROWNE, Q.C.: Is it fair to say it's not the typical
- business relationship that you would see where a generatorsells to a distributor?

47 MR. BRICKHILL: In total, no, it's not the typical business
48 arrangement between a generator and a wires (phonetic)
49 company.

MR. BROWNE, Q.C.: Has it ever crossed your mind as to
why we don't collapse the distributing company and have
one vertical-integrated company here? Have you ever
thought of that?

MR. BRICKHILL: I have thought of it. I haven't raised the
issue. I didn't want to offend anybody. (*laughter*)

56 MR. BROWNE, Q.C.: You haven't approached it with 57 Hydro as a possibility?

58 MR. BRICKHILL: No.

MR. BROWNE, Q.C.: Can you go to page 10, lines 24 to 59 **25 of your evidence**? The first supplemental evidence, page 60 10, lines 24 to 25, you state, "2 CP or 1 CP link investment 61 cost with what drives the investment cost far better than 4 62 CP." I guess Mr. Budgell testified that Hydro designs 63 generation capacity on the basis of system peak plus 18.5 64 percent reserve margin. Do you recall seeing that in Mr. 65 Budgell's evidence? 66

67 MR. BRICKHILL: Yes.

MR. BROWNE, Q.C.: And does that imply 1 CP as thebetter link?

- 70 MR. BRICKHILL: Yes.
- 71 MR. BROWNE, Q.C.: On page 13, lines 22 to 24 of the
- 72 **first supplemental evidence**, you have a sentence there at
- 73 the end. "There are no distinct local loads 'within the
- 74 typical rural community' that determine distribution plant
- 75 requirements." What do you mean by that, sir?
- 76 MR. BRICKHILL: What I mean by that is within the typical
- small rural community served by Hydro there are no sub-
- 78 parts of the distribution systems for certain customers that
- 79 are different than the rest.
- MR. BROWNE, Q.C.: Well on what basis does Hydro size
 distribution system in these instances, on what basis?
- 82 MR. BRICKHILL: For anticipated peak.
- MR. BROWNE, Q.C.: Wouldn't there be distinct local loads
 that would require a particular transformer in a particular
 locality?

MR. BRICKHILL: They would require a particular
transformer, yes, but that's not a local, a bunch of local
loads. The loads in these rural communities are mostly
houses, house-size facilities.

MR. BROWNE, Q.C.: When you say local peak, do youmean non-coincident peak?

92 MR. BRICKHILL: I mean coincident peak which is

1 generally the same as non-coincident peak in these 2 circumstances.

3 MR. BROWNE, Q.C.: On page 14, lines 28 to 30, you make

a statement and then you say, "For that reason the noncoincident peak demand will only be suitable if separate
distribution substations are installed to serve each rate
class." Has it been your experience that utilities install
separate distribution substations to serve each rate class?

9 MR. BRICKHILL: It's my experience in the more usual 10 circumstances of large cities that there are substations but 11 in, but Hydro's rural communities are generally only served 12 by one, the whole community is served by one substation 13 so that there isn't the diversity that, for example, you'd have 14 in St. John's with large commercial areas that might be 15 downtown St. John's, might be served by a substation.

MR. BROWNE, Q.C.: But not to serve each particular rate class.

18 MR. BRICKHILL: There'd be a low of commercial load 19 within that area and the facilities would be different than 20 you'd have in a little residential neighbourhood so that 21 there would be local load and those would be 22 circumstances that I think NCP would be appropriate for, 23 but for Hydro's rural communities you don't have that 24 diversity of load.

MR. BROWNE, Q.C.: Can you go to page 15, lines 15 to
16? Can you read that sentence, "The single coincident
peak," sir?

MR. BRICKHILL: "The single coincident peak demand applicable to the individual distribution functions I have enumerated and used for allocation purposes is not the coincident peak of the total system."

MR. BROWNE, Q.C.: Can you clarify exactly what you mean by that?

MR. BRICKHILL: For purposes of allocation of the rural
load, it is the peak of the rural systems that has been used,
not the system peak of Hydro, which would include
Newfoundland Power and the industrials.

38 (10:15 a.m.)

MR. BROWNE, Q.C.: Mr. Brickhill, I reviewed your resume
as filed in Schedule 1, page one of two. You're currently
President of the Company.

42 MR. BRICKHILL: That's correct.

43 MR. BROWNE, Q.C.: And you've testified in other44 proceedings of a regulatory nature.

45 MR. BRICKHILL: Yes.

46 MR. BROWNE, Q.C.: And as I review your resume, the 47 words "gas, propane, oil," show up a lot more than the 48 word "electricity." Are you more comfortable dealing with

49 gas, oil, propane, in a regulatory environment than you are

50 in dealing with electricity?

51 MR. BRICKHILL: No.

52 MR. BROWNE, Q.C.: Is it fair to say that your experience

53 for the most part in the regulatory environment deals with

54 gas, propane, oil, as opposed to electricity?

55 MR. BRICKHILL: Yes.

56 MR. BROWNE, Q.C.: Thank you very much, Mr. Brickhill.

57 MR. BRICKHILL: Thank you.

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

59 Browne. Thank you, Mr. Brickhill. We move now to cross

60 by Mr. Kennedy, please.

MR. KENNEDY: Thank you, Chair. Mr. Brickhill, I just 61 wanted to bring you first to your supplementary, your first 62 supplementary pre-filed evidence, and specifically page one 63 64 of that evidence at, picking it up at line 12, I guess, and line 9. Just generally the set-up question, if you will, is that, 65 asking what recommendations relative to marginal costs are 66 you addressing, and you cover the position as you see it 67 68 of Dr. Wilson and Mr. Bowman in that regard and then at line 23 you're asked to comment on these 69 recommendations, and you state at line 25, "I agree that 70 marginal cost rates generally convey better price signals 71 and achieve greater allocative efficiencies than embedded 72 cost rates." You then continue on, "However, marginal 73 cost base rates for regulated customers and the likely 74 controversy related thereto have no meaningful relevance 75 to Hydro generally unless there are significant changes in 76 Government and Board policy pertaining to Hydro." Now 77 the Consumer Advocate was just asking you a question 78 regarding that and I just wanted to get my sense of it, if 79 you could, and is it my understanding then that if there was 80 a clean slate here and we were dealing with virgin territory 81 insofar as what methodology to employ in setting rates that 82 you would be predisposed to set rates based on a marginal 83 cost basis rather than the embedded cost basis that's 84 currently being proposed by Hydro? 85

MR. BRICKHILL: Certainly heavy weight or consideration
would be given to marginal costs. The total rate couldn't
be marginal cost based without exceeding the revenue
requirement but if this were a clean slate we'd be looking at
where do we want to put the emphasis, demand or energy.

MR. KENNEDY: Just back up one sentence from your last
one. You indicated that, as I understand it, it's your
position then if you set the rates based entirely on marginal
costs that the amount of revenue received would exceed
the requirement, is that right?

96 MR. BRICKHILL: Yes.

- 1 MR. KENNEDY: You could nonetheless though, if in fact
- 2 that was the case, and I guess I should ask first on what do
- 3 you base that statement. Have you done a mirror
- 4 calculation of what revenue would be received under a5 marginal cost based rate?
- 6 MR. BRICKHILL: It is generally the case that long-run 7 marginal costs exceed embedded costs.
- 8 MR. KENNEDY: What about short-run marginal costs?
- 9 MR. BRICKHILL: In this case we have looked at, and other
- 10 people have looked at the short-run marginal cost as being
- Holyrood production which is higher than the average costof energy production.
- 13 MR. KENNEDY: You could in effect though once you've,
- 14 if you use the Holyrood marginal rate for the production of
- 15 energy as the basis for your marginal cost design, and it
- 16 had the effect of generating more revenue than the actual
- 17 revenue requirement, you could nonetheless make an
- adjustment to that rate design so that the revenue received
- 19 then met the revenue requirement, couldn't you?
- 20 MR. BRICKHILL: That's correct.
- MR. KENNEDY: So it's not fatal that the, that using just a marginal cost for, of Holyrood to design your rates, that that's not in itself fatal that it actually on first blush may appear to achieve more than your actual revenue requirement.
- 26 MR. BRICKHILL: That's correct, it's not fatal.
- MR. KENNEDY: And is it fair to say that in your statement there that marginal cost rates achieve greater allocative efficiency, that is that the same as saying that they provide fairer rates, if you will, that that's a fairness element?
- MR. BRICKHILL: No. It's my belief that embedded cost rates are probably considered fairer than marginal cost rates, although there's not universal agreement on that.
- MR. KENNEDY: Why would you make that statement? In
 what manner, what way, are embedded cost rates fairer than
 marginal cost rates?
- MR. BRICKHILL: I have found my, in my experience, that
 most customers, be they wholesale or retail, find embedded
 cost rates based on original cost less depreciation to be
 fairer, and in my experience these customers are all often
 fearful of any marginal cost concepts because of concerns
 over their being applied in a discriminatory manner,
 marginal cost rates for some and not for others.
- MR. KENNEDY: In embedded cost system that we've
 heard you testify on there's been a significant amount of
 pre-filed evidence filed. There is nonetheless, in a similar
 fashion to what you just described, a process internal to
 the determination of what rates should be in an embedded

- 49 cost system that affects the allocation of costs between the50 different parties as well, is there not?
- 51 MR. BRICKHILL: Yes.
- MR. KENNEDY: We've seen a series of questions from the industrial customers and from Newfoundland Power, for instance, concerning whether the allocation of costs should be determined on the basis of 1 CP or 2 CP or 3 CP or even more multiple CPs, and that has everything to do with the apportionment of cost between the respective parties, doesn't it?
- 59 MR. BRICKHILL: Yes.

60 MR. KENNEDY: And that at its simplest measure, the 61 industrial customers from a cost perspective would prefer 62 to see a single coincident peak being employed as opposed 63 to multiple coincident peaks, is that correct?

64 MR. BRICKHILL: That's my interpretation of their position.

MR. KENNEDY: And conversely Newfoundland Power
would prefer to see multiple coincident peaks as opposed
to a single coincident peak being used to allocate costs,
correct?

69 MR. BRICKHILL: That's correct.

MR. KENNEDY: And that's because there are cost
advantages obtained by those parties in which of those
coincident peaks to use, that there's a cost advantage
obtained by Newfoundland Power if a multiple coincident
peak is employed rather than a single coincident peak.

- 75 MR. BRICKHILL: That's correct.
- MR. KENNEDY: And that within that paradigm of 76 embedded cost and then the allocation of cost using a 77 coincident peak method there seems to be a fair amount of 78 judgement then as to whether to use a single coincident 79 peak or a multiple coincident peak, correct? For instance, 80 your evidence is that Hydro is proposing a two coincident 81 peak but a one coincident peak is not so far away from a 82 two coincident peak that it also isn't reasonable. 83
- 84 MR. BRICKHILL: That's correct.
- 85 MR. KENNEDY: I believe that's what your evidence was.
- 86 MR. BRICKHILL: That's what I'm saying.
- MR. KENNEDY: And I guess it could also be argued,
 couldn't it, that since, for instance, the peak that does occur
 in a given year can't be really determined whether it's going
 to happen in December or January or February or March in
 any given year, but that could at least give credence to the
 theory that, well, we should use a 4 CP or a four coincident
 peak method.

94 MR. BRICKHILL: Well, I don't agree with that.

- 1 MR. KENNEDY: Yes, I know you don't agree with that and
- 2 I believe if I'm capturing you correctly, you don't believe
- 3 that because the coincident peak usually happens in at
- 4 least one of two months in a given year, is that right?

5 MR. BRICKHILL: No. The same costs are incurred for the 6 peak regardless of when it occurs so it's simply there will be

a peak, the costs are related to that peak, and therefore peak
should be the factor.

9 MR. KENNEDY: Okay. So nonetheless though, that there

10 is at least some credible, if you will, opinion put forward by,

I believe it was the expert for Newfoundland Power, that

there should be 4 CP used as opposed to a 2 CP for the

13 purposes of cost allocation.

14 MR. BRICKHILL: Correct.

MR. KENNEDY: And so being respectful of other experts

that testify in the same area, you'd agree with me that at

17 least there's some credible argument in evidence regarding

- the use of a 4 CP.
- 19 MR. BRICKHILL: Yes.

MR. KENNEDY: So we've got Hydro proposing a 2 CP and the industrial customers leaning towards a 1 CP and Newfoundland Power leaning towards a 4 CP, and I guess there's a sense that there is some movement within that

range of CPs that could be chosen, and whatever is chosen

is going to have an impact on the cost allocation between

- the parties.
- 27 MR. BRICKHILL: That's correct.

MR. KENNEDY: And I guess that in turn then is a function
of the whole process of using embedded cost to derive
your rates, correct?

31 MR. BRICKHILL: Correct.

MR. KENNEDY: If we used a short-run marginal cost determination to derive our rates, it would be a much simpler process than that, wouldn't it?

MR. BRICKHILL: We still would have the issue in design
of demand rates or the demand component. Again, I can't
agree with you that it's going to be easier and less
controversial to do marginal cost rates but I'll concede you
it's probably no more difficult.

40 (*10:30 a.m.*)

MR. KENNEDY: So it's an issue of which paradigm do you
use and it's your respectful opinion that there's nothing
tremendous to be gained in the form of at least simplicity to
move towards a marginal cost base rate making process as

45 opposed to the embedded cost base rate making.

46 MR. BRICKHILL: That's correct.

MR. KENNEDY: Okay. I'm just wondering if we could just 47 quickly, if I could, from a layperson's perspective, capture 48 the basis of marginal cost theory? If I go horribly wrong on 49 50 this, please correct me, but is it fair to say that at its essence, marginal cost theory is an attempt to say that a 51 consumer will consume as long as what they give up in 52 order to acquire a good or service is less than the perceived 53 value of what they actually acquire? 54

55 MR. BRICKHILL: That's correct.

56 MR. KENNEDY: And that conversely marginal cost theory

57 dictates that a producer of that good or service must secure

58 in return for giving up that good or service acquire more

59 than the cost to produce the good or service.

60 MR. BRICKHILL: That's correct.

61 MR. KENNEDY: And so there's always an attempt to, from 62 a producer's perspective, gain more than the actual cost of 63 production of the good or service, correct?

64 MR. BRICKHILL: Correct.

MR. KENNEDY: And that marginal cost theory attempts to
match the cost of production with the selling price, if you
will, provides a rational basis for the connection between
the two.

69 MR. BRICKHILL: That's correct.

MR. KENNEDY: Now, in really simplistic terms, and you
already alluded to it here, Hydro produces over the run of
a year some 85 percent of its total generation, as I
understand it, and you can correct me here if I'm wrong, but
85 percent of its generation from hydraulic production, and
the remaining portion of it is produced from thermal
production.

77 MR. BRICKHILL: That's correct.

78 MR. KENNEDY: And the vast majority of that thermal79 production is generated by Holyrood.

80 MR. BRICKHILL: Right.

MR. KENNEDY: There's some small amount of thermal
generation potentially that needs to be produced by some
gas turbines and the like to handle the peaking days. Is
that correct?

85 MR. BRICKHILL: That's correct.

MR. KENNEDY: Okay. Leaving that aside for a moment,
those peaking units, and just dealing with the supply of
energy from the hydrology and from hydrological
production and the thermal production, it's clear as well
that there's a fairly significant difference in the cost of
production of those two sources of energy, correct?

92 MR. BRICKHILL: That's correct.

1 MR. KENNEDY: And that, as you alluded to, Holyrood is

2 the marginal, considered to be the marginal cost of energy

3 that Holyrood, that Hydro produces because it's clearly

4 more expensive to produce energy from Holyrood than it is

5 for it to be produced from hydrological sources.

6 MR. BRICKHILL: Yes.

7 MR. KENNEDY: And I'm wondering if I could just use an example, just for simplicity sake, and we'll just assume that 8 the marginal cost of production of energy from Holyrood is 9 three cents a kilowatt hour and the marginal rate of 10 production of energy from Hydro's hydrological plants, in 11 total just say, is a cent a kilowatt hour. Using that 12 assumption, as I understand it, and if we say it's 85/15, or 13 let's make it easy, let's say it's 50/50, that the embedded cost 14 would determine that, well, everyone should be charged 15 two cents a kilowatt hour. Is that fair to say? 16

17 MR. BRICKHILL: That's the result, yes.

MR. KENNEDY: Okay. So it takes an average of the total
production of energy and that's what it apportions it out in
the cost for the rate making, that's the rate making process,

following an embedded cost methodology.

22 MR. BRICKHILL: That's correct.

MR. KENNEDY: Now, if I was a person who only used energy during the summer months and didn't use energy during the winter months, I would still pay two cents a kilowatt hour for my energy even though it's being produced at that time of the year predominantly by hydrological sources and therefore is only costing Holyrood a cent a kilowatt hour to produce, correct?

30 MR. BRICKHILL: I'll accept that hypothetically.

MR. KENNEDY: Okay, yeah. These are all very broad 31 brush strokes I'm dealing with, so if you want to haul out a 32 fine brush let me know and I'll attempt to follow along, but 33 just from a pure simplistic basis. Conversely if I'm an 34 operator of some business or what have you that 35 consumes significant amount of energy in the winter 36 37 months and under the embedded cost methodology I'm being charged two cents a kilowatt hour, I'm actually 38 buying my energy for less than what it costs for Hydro to 39 produce it, correct? 40

41 MR. BRICKHILL: On a marginal basis, yes.

MR. KENNEDY: Okay. And so that's where the embedded 42 ... is that the main difference between the embedded cost 43 and marginal cost system in the sense that the embedded 44 cost sort of blurs over the differences, if you will, in 45 seasonal variations and time of use variations in energy 46 production and just takes an average of the cost of energy 47 and then coughs that back out through the different 48 customer classes in the rate making process? 49

50 MR. BRICKHILL: That's correct.

51 MR. KENNEDY: So from that perspective, using an 52 average cost as determined by an embedded cost 53 methodology for rate making, is not necessarily the most 54 equitable or fair or efficient manner for rate making 55 purposes, is it?

56 MR. BRICKHILL: It's certainly not the most efficient.

MR. KENNEDY: And it makes more sense from an efficient
allocation of resources to charge rates based on how much
it cost to actually produce the energy that's being sold at
any given point in time.

61 MR. BRICKHILL: At the margin, yes.

62 MR. KENNEDY: And one of the easiest ways, if you will, 63 to achieve that would be to set some sort of seasonal 64 variation in the rates that are charged to a customer based 65 on Holyrood's make-up of their production of electrical 66 energy?

67 MR. BRICKHILL: That could be done.

MR. KENNEDY: And if I understand your evidence 68 correctly, you were indicating that the most appropriate 69 70 mechanism to achieve that of course is by Newfoundland Power selling its energy at some time of use rate because 71 Hydro sells its energy to Newfoundland Power and the 72 industrial customers but that it's really the best, if you're 73 going to send that price signal, the best place to send the 74 75 price signal to is to Newfoundland Power's customers, is that a fair assessment? 76

77 MR. BRICKHILL: I believe that, yes.

MR. KENNEDY: So time of use rates or seasonal rates are
most appropriate for the rate making process employed
when Newfoundland Power sets its rates.

81 MR. BRICKHILL: In my opinion, yes.

MR. KENNEDY: Now, in order for Newfoundland Power to
set those rates based on seasonal variations, they would in
turn, would they not, need to know what those seasonal
variations are from a cost perspective from Hydro, the
person that they're buying the energy from, wouldn't they?

87 MR. BRICKHILL: Yes.

MR. KENNEDY: That if you're going to give the right price
signal all the way down through the system, it doesn't make
any sense for Newfoundland Power to just make up
seasonal rates. They need to reflect the actual seasonal
variation in the production of energy at the Hydro end of
the business.

94 MR. BRICKHILL: That's correct.

95 MR. KENNEDY: And so if you're going to have a rational

1 time of use or seasonal rate making rate process or rate

2 design for Newfoundland Power, doesn't it make sense
3 then that you would also want to have a seasonal or at

then that you would also want to have a seasonal or atleast time of use rate design from Hydro given to

5 Newfoundland Power, that if you're going to have a rational

6 customer end, you also need a rational wholesale end?

MR. BRICKHILL: One doesn't necessarily follow the other, 7 that is Newfoundland Power knows the marginal source of 8 production at different times of the year so that the rate to 9 them wouldn't necessarily have to reflect that, but 10 depending on the mechanics of it, I could see some 11 advantages to that concept being applicable to both. It 12 would depend on how Newfoundland Power implemented 13 14 it on their side.

MR. KENNEDY: Sure. So if, for instance, if Newfoundland 15 Power were to set or were to employ seasonal rates in its 16 rate design, unless that was achieved or unless that was 17 implemented in a manner that achieved revenue neutrality 18 for Newfoundland Power, there would be without anything 19 more being done the potential that Newfoundland Power 20 could sustain revenue shortfalls or, conversely, increases 21 in the revenue earned by the Company, correct? 22

23 MR. BRICKHILL: Yes.

MR. KENNEDY: And that that's why you need some sort of rational wholesale rate employed by Hydro to Newfoundland Power so that Newfoundland Power can send back to Hydro the effects of those price signals that it's sending to its customers.

MR. BRICKHILL: Not to overly complicate it but it would 29 depend on their fuel adjustment mechanism and how this 30 seasonal rate was implemented by them. If they wanted to 31 implement it based upon the rate provided to them by 32 Hydro, then Hydro would need seasonal rates. If they 33 chose a different mechanism, then perhaps it wouldn't 34 matter whether Hydro itself had seasonal rates or not. I 35 haven't thought this entirely through but I know there'd 36 have to be changes in the way they collect their energy 37 costs from their customers. I think they'd have to change 38 the mechanism if they went to seasonal rates, so then we 39 have to look at how best can Hydro facilitate what Power 40 is doing. 41

42 MR. KENNEDY: Sure. So looking ahead, looking ahead to the fact that there will at some point in the future, and 43 potentially next year, be a requirement for the Board to set 44 new rates for Newfoundland Power and that if at that point 45 in time the Board was to determine that they would like to 46 see Newfoundland Power move towards seasonal rates and 47 time of use rates, they, that that process at that point in 48 time would be aided and abetted by implementing at this 49 point in time a change in the wholesale by Hydro to 50 Newfoundland Power, would it not? 51

MR. BRICKHILL: No. I think it would be best to have both companies involved at the same time so that what one does doesn't forestall the other. I think the Board would, to ease the pain for everybody, have them simultaneously implement plans that didn't produce freakish results because one was on a different schedule than the other.

MR. KENNEDY: And so that would be a joint participation
by Hydro and Newfoundland Power in a time of use study,
correct, or a marginal cost study, sorry?

61 MR. BRICKHILL: That's correct.

MR. KENNEDY: Mr. Brickhill, could you tell me what your
view is on the difference between an energy cost and a
demand cost?

65 (10:45 a.m.)

MR. BRICKHILL: A demand cost is a cost for capacity, ifyou will, and energy cost would be for annual usage.

68 MR. KENNEDY: As I understand it, one of the positions taken by the industrial customers in this hearing was that 69 since they have an interruptible power contract with Hydro 70 that they should, from that perspective, avoid, be able to 71 avoid some of the demand-related costs and that in that 72 respect benefit from the running costs or the running time 73 costs of the system. Is that a fair assessment from your 74 75 understanding as well?

MR. BRICKHILL: I'm not sure what position the industrials
take on the interruptible rates which are not regulated. I
don't think they're subject to this hearing.

MR. KENNEDY: I wonder if I could use an example with
you? This is an example that was given to me, so it's
double hearsay. We'll go back to the 1980s and we'll go
back to the United States of America, an arena that you're
probably more comfortable in, and we're all familiar with
what took place back in the '80s insofar as the price of oil
had spiked, back in the early '80s.

86 MR. BRICKHILL: That's correct.

87 MR. KENNEDY: And I understand that one of the 88 responses to this dramatic increase in oil by electrical 89 generators in the United States was to make capital 90 investments, to switch over their plans to burn more coal 91 and less fossil fuel. Is that your understanding as well, that 92 was at least one of the responses?

93 MR. BRICKHILL: That was one of the responses.

94 MR. KENNEDY: And that, as I understand it, from an 95 operating perspective, from just a running perspective, that 96 that decreased the cost of the energy being produced, that 97 the energy being produced by these coal-generated now 98 electrical-generating stations was less than it would have 99 been if they had to stick with fossil fuel. 1 MR. BRICKHILL: Stick with oil.

2 MR. KENNEDY: Stick with oil.

3 MR. BRICKHILL: Coal is ...

4 MR. KENNEDY: I think they're both fossil fuels, yes ...

- 5 MR. BRICKHILL: ... fossil fuel.
- 6 MR. KENNEDY: ... but stick with oil as a fossil fuel.
- 7 MR. BRICKHILL: That's correct.

8 MR. KENNEDY: Okay. So that there was a high capital 9 investment made by some of these electrical generators in 10 response to the increase in oil which had the effect of 11 lowering the operating costs on a day-by-day basis for the 12 generation of electricity.

13 MR. BRICKHILL: That's correct.

MR. KENNEDY: Okay. Now, if I was a customer of that electrical generator and I was a high load factor customer, should I only be able to benefit from the lower running time cost of that plant or should I also have to contribute at least to some of the capital investment that was made in that plant that allowed the plant to run at that lower operating cost?

MR. BRICKHILL: Consistent with a no free ride principle,
it's believed that those customers should pay something
towards those costs.

MR. KENNEDY: And that's because some of the investment made by those electrical generators was not cost related to capacity, if you will, but it was cost related to just the generation of energy. Is that correct?

MR. BRICKHILL: No, it's again the no free ride principle
that they may not have caused those costs but it is
generally accepted that they should make a contribution to
those costs.

- 32 MR. KENNEDY: Because they're benefiting from them.
- 33 MR. BRICKHILL: Yes.
- MR. KENNEDY: Right, okay. Chair, that's a good place tobreak.
- MR. NOSEWORTHY, CHAIRMAN: Yes, thank you, Mr.Kennedy. We'll break till ten after.
 - Ronnedy. Wen break in ten a

(break)

39 (11:15 a.m.)

38

- 40 MR. NOSEWORTHY, CHAIRMAN: Mr. Young?
- 41 MR. YOUNG: Yes, I am, thanks, Mr. Chair. I'd ask Mr.
- 42 O'Rielly if he could bring up Schedule 8, revised to Mr.
- 43 Budgell's evidence, please? Mr. Brickhill, yesterday, in a
- 44 question asked by Ms. Henley Andrews, I think the point

45 might have been made, and I think this was in a question as 46 opposed to your answer, that there was a 20 percent 47 increase in load going forward in ten years. I wonder if you 48 could respond to that in light of the table that's on the 49 screen?

MR. BRICKHILL: Well, if you will recall, I was asked was 50 I aware of a 20 percent forecast increase in load over the 51 next ten years and I said no, and I was a little bit surprised. 52 53 In looking at it, I see where she derived her 20 percent, but it's not a true reflection of Hydro's load forecast. She 54 compared the 20 actual MW with the 2010 MW and that's 55 about a 20 percent increase, but that's not normalized for 56 weather. At the peak it was warmer in the year 2000, and to 57 make a proper comparison you would have to normalize for 58 weather so that the proper comparison would be the 59 forecast which has the same weather in 2001 as 2010, and if 60 you compare 2010 with 2001 the load growth over the nine 61 year period is ten percent or half of the 20 percent to which 62 63 she referred yesterday.

64 MR. YOUNG: Thank you. The next question also deals, at 65 least indirectly, with load forecasts, and this related to 66 questions that arose concerning the `92 report that we went 67 into in some depth yesterday. Were you aware that the 88 load forecasts in `92 were tending upwards or downwards 69 or what was your understanding?

70 MR. BRICKHILL: The load forecast would have been 71 relied upon in `92 would have been from 1990 and 1991, and 72 at that time very substantial growth in load was projected.

73 In actuality that hasn't occurred.

74 MR. YOUNG: Given that that was the load forecast at the
75 time, could that have been an influence in Dr. Surekais'
76 proposal or his response to the demand in energy rate
77 proposal and the option he gave?

78 MR. BRICKHILL: I'm sure it was.

MR. YOUNG: One matter arose this morning as a matter of
clarification. You were asked a question as to the
interruptible rate for industrials, and I believe your
response was you said it was unregulated. I just wanted to
make sure that the record is clear on this. The proposed
interruptible rate for industrials, do you understand that to
be a regulated or a non-regulated rate?

MR. BRICKHILL: The proposed is a regulated rate. I wassort of speaking to the current rate.

MR. YOUNG: Okay. Thank you. Those are all myquestions. Thank you, Mr. Brickhill.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr.Young. We move now to Board questions. Could I ask

- 92 Commissioner Powell to begin, please?
- 93 COMMISSIONER POWELL: Thank you, Chair. Mr.

1 Brickhill, how are you, sir?

2 MR. BRICKHILL: I'm fine, thank you.

3 COMMISSIONER POWELL: That's good. I found your

testimony quite interesting. It clarified some items, but one
of the things that I'm not 100 percent clear on is how you fit
into the scheme of things when it comes to the actual
allocation in the cost of service. Could you sort of give me
an over review where you enter the picture and all this

9 lovely data and figures we got and where you fit in?

MR. BRICKHILL: Where my firm fits in and where I fit in 10 need to be described, but perhaps generally this was a 11 coordinated effort between myself, people that work with 12 13 me, and Hydro's personnel. We work very closely on much of this. Most of the inputs, the actual dollar values that we 14 started with, in fact, all of those inputs came from Hydro. 15 My people did the programming for the cost of service 16 model. Then when the application was being prepared 17 Hydro's people actually ran the model to produce the 18 exhibits that you've seen. My role was supervision and 19 advisory for both the people I work with and the Hydro 20 people. My personal main responsibility was in the area of 21 the allocation factors, the techniques being employed 22 23 rather than hands on production of the documents that

24 appear as my exhibits.

COMMISSIONER POWELL: The program that runs the
 cost of service that you see, your ... Foster and Associates
 actually prepared that?

28 MR. BRICKHILL: That's correct.

29 COMMISSIONER POWELL: So that was a different30 program than what they had when they did the 1992?

MR. BRICKHILL: That's correct. There have been many advances and changes in software. They couldn't have used what we had from 1992 today.

- COMMISSIONER POWELL: Is this common to all regulated utilities, that the software to do the modelling for the cost of service is separate from the financial model which is where they accumulate their costs?
- 38 MR. BRICKHILL: It is common, yes.

COMMISSIONER POWELL: Okay. Because financial data
means that that is your cost and your cost of services is
just reassigning them in the different sort of methodology
than what they do for normal financial reporting?

43 MR. BRICKHILL: On that subject, Hydro uses business 44 unit accounting, so there was a considerable amount of 45 work separating out for these business units into the 46 regulatory accounts that we use for the cost of service 47 model.

48 COMMISSIONER POWELL: So these business units, is

that something unique to Hydro or would that be a methodthat's used in other utilities?

MR. BRICKHILL: I would say it's more ... it's less common
to have business unit accounting but it's not unique to
Hydro.

54 COMMISSIONER POWELL: Would you make any 55 recommendation to them how to simplify the process to 56 make things come together better and make it less ... more 57 efficient or more cost efficient, or should Foster be 58 encouraging more cost efficient measures in terms of ...

MR. BRICKHILL: While it would be much easier for us if
they didn't have business unit accounting, I don't think
what is convenient for Foster Associates drives Hydro's
accounting system decisions.

63 COMMISSIONER POWELL: Okay, but there has ...

64 MR. BRICKHILL: They'd consider it, but I don't think 65 they'd give it much weight.

66 COMMISSIONER POWELL: Yeah, so you have no 67 discussions in terms of just sort of bringing two of it 68 together and satisfying their objective, managing their 69 system from a financial point of view and also facilitating 70 and expediting the preparation of cost of service?

MR. BRICKHILL: I complain to them but very softly. It's
just we were actually, at the same time we were working
with another utility for a rate case where they also departed
from the uniform system of accounts, and it was just a pain
doing a cost of service for two such entities at the same
time.

COMMISSIONER POWELL: So how do you map this out 77 in terms of the system now? I mean, because from what I 78 gather the evidence is allocation of different plants and 79 different stations in terms of a things being specific and 80 things being common. When you're doing your computer 81 model do they actually give you a map, a design of the 82 whole system and then you start putting that in or how 83 does this ... how do you get the actual program to mirror 84 85 the system that Hydro has?

MR. BRICKHILL: There is a plan. In some cases it's 86 iterative (phonetic). We followed the Board's order in 87 terms of the separate systems and separate cost allocation 88 for different systems, so we had that starting point. There 89 were times, I'm sure, when we didn't grasp that we had 90 costs in the wrong system, but I think we caught every 91 error that was made, so fortunately we had the Board's 92 decision to pattern our model after, and then we made 93 decisions in areas that the Board didn't cover in their 1993 94 report. I would make recommendations, then my people 95 would actually implement the recommendations in the 96 model. Then, as we got closer to the filing, Hydro finalized 97

1 its forecasts and then we put the forecasts in the model and

2 then the Hydro personnel produced the product that you

3 have before you.

4 (11:30 a.m.)

5 COMMISSIONER POWELL: So who does the sort of the 6 audit to make sure that all the various components is in the 7 system to properly assign the costs?

8 MR. BRICKHILL: Hydro took that responsibility.

COMMISSIONER POWELL: So they take the 9 responsibility to see that you put the proper model 10 together. There was a question the industrial ... the lawyer 11 from Industrial Customers asked you about assigning a 12 cost like the converters and there's apparently been a 13 change from what was there before, and you had 14 mentioned that you didn't have any knowledge about that. 15 I mean, it seems to be a fairly significant item, we've heard 16 it mentioned before. I mean, based on what you tell me that 17 you must have had something when you we changing 18 computer models, say, okay, this is not going to be 19 common, it's going to be specific. I mean, how deep down 20 is that with Foster, be the Hydro people saying, okay, that's 21 covered off, we're just going to change a tick and therefore 22 it goes this way as opposed to that way? 23

- MR. BRICKHILL: The specifically assigned plan or common plant decision was made by Hydro. Yesterday I (inaudible) on the frequency converter issue because, while I was briefed on it, it's in the model, I wasn't sure who had what done to whom and where, and I just didn't want to get into it and I would have confused the record on locations
- 30 and names of customers.

COMMISSIONER POWELL: Okay, but, I'm sort of trying 31 to figure out who keeps the bell on the cat in terms of you 32 got the model, it's all done up and data is put into it, and so 33 Hydro is sitting down and they run things out and they 34 say, well, gosh, you know, this is not fair. We want to go 35 change, we're going to assign this to this and that to that. 36 Do you ... they go out and do that and it's done or do they 37 come back to you and say, no, look, we want to do this, 38 justify that for us? 39

- 40 MR. BRICKHILL: In some instances they ask me. In other 41 instances, such as the frequency converters, I was simply
- briefed as to what they were doing and why and then theappropriate adjustments were made to the model.

44 COMMISSIONER POWELL: So they went and did it, and 45 so it really didn't matter whether you agreed with it or not?

- 46 MR. BRICKHILL: I think if I had raised objections we
- 47 would have talked about it. The frequency converter issue

didn't seem all that important to me when I was briefed. I

49 may not have paid as close attention to that as some other

50 things.

51 COMMISSIONER POWELL: So you don't follow the whole 52 exercise down to the completion in saying, they say here's 53 the rates and this is the increase and look at that and say, 54 gee, you know, one class is going to have a substantial 55 increase and you say, gee, that's not fair, we should go 56 back and change the model to make it one of the principles 57 of fairness?

MR. BRICKHILL: No. I think we all evaluated the 58 outcomes, but, there are man years invested in this cost of 59 service filing in terms of preparation by Hydro people and 60 by my people with more of the time being the Hydro 61 people, but there is enormous expertise from different 62 places in Hydro that has to be relied upon. No outsider 63 could duplicate Rob Henderson's or Hubert Budgell's 64 intimate first-hand knowledge of certain aspects of this 65 system. 66

COMMISSIONER POWELL: But they also ... does Foster,
the numbers here now, does anybody do the check to see
that these numbers in this cost of service actually balance
out and agree with the numbers in the financial accounting
records? It's just they're taken out of the financial records
and transported, so there's always the element of the
human error and things.

74 MR. BRICKHILL: No, we did not do that.

- 75 COMMISSIONER POWELL: So basically this is Hydro and
- ⁷⁶ there's somebody else in the system. You don't certify that
- 77 these numbers are the same numbers that are in their
- 78 financial system? You have no reason to think they're not,
- 79 but you don't check them to make sure?

80 MR. BRICKHILL: No, we did not.

COMMISSIONER POWELL: Okay. One of the comments 81 that the Consumer Advocate was talking to you about, the 82 Rate Stabilization Plan, and you talked about that they're 83 plans that closely resemble Hydro, and I never really got 84 clear understanding of what plans around that would 85 closely resemble Hydro's Rate Stabilization Plan. Can you 86 give me an example of what would be a plan that would 87 88 closely ...

MR. BRICKHILL: There are plans that closely resemble 89 parts of Hydro's Rate Stabilization Plan. First and foremost, 90 91 most utilities have a fuel adjustment clause where they capture increases in price of oil that were not ... or energy 92 that were not in the base rates, and a lot of the RSP dollars 93 are related to the price of oil. Secondly, companies in 94 Hydro's circumstances who have substantial hydro electric 95 production but use oil on the margin normally have a 96 hydrology adjustment or can be called a water adjustment 97 to reflect dry or wet years when they used more or less oil 98 because of the availability or unavailability of hydraulic. 99

- 1 Thirdly, it's not uncommon for utilities to have weather 2 normalization provisions where they get a chance to
- 3 recover from their customers revenues they didn't get
- 4 because of warm weather. Normally it's cold weather driven
- 5 utility, you would have a weather normalization provision,
- so the combination of those three, I don't think would be
- 7 much different than Hydro's, except as I agreed with the
- 8 consumer counsel that most other utilities recover those
- 9 costs over a faster period of time, six months to a year,10 rather than three years.
- 11 COMMISSIONER POWELL: So the timing is probably the 12 bigger difference with Hydro and some of these other 13 timing and recovery?
- 14 MR. BRICKHILL: Yes, that's correct.
- 15 COMMISSIONER POWELL: Any of these other utilities,
- 16 when it comes to fuel prices involved in hedging?
- 17 MR. BRICKHILL: Yes.
- 18 COMMISSIONER POWELL: They do. Has this been a
- fairly established practice with these utilities of hedgingtheir price of oil?
- MR. BRICKHILL: No. It's still developing. Opportunities 21 for hedging probably first arose in the mid 1980s, and most 22 utilities and their regulators are very sceptical of the use of 23 24 hedging. With the benefit over time of experience and also a development of some improved devices, greater liquidity 25 in the market, I think people, in looking at it now, some do 26 have hedging programs, albeit limited hedging. It might 27 only be for a portion of their fuel requirements, and it's 28 done as an insurance policy, partial protection against 29 unforseen events, but as with an insurance policy, on 30 average people who buy insurance don't make money out 31 of it. It's the people who sell the insurance who make the 32 money out of it, so that hedging, hedging has a cost, and 33 another factor, I think very important from the standpoint 34 of Hydro, which Mr. Osmond commented on also 35 yesterday, is they use 2.2 percent sulphur residual fuel oil, 36 and they pay in US dollars, so that the hedging, hedging is 37 38 more complicated by the fact that you might also have to hedge the dollars, plus, the market for 2.2 percent residual 39 fuel oil is not as liquid as some other products. 2.2 percent 40 residual fuel oil is not that common, so if you hedge, you 41 may have to hedge something else and hope it moves in 42 the same direction, so you're getting kind of ... you have all 43 sorts of dangers here and problems in the hedging. As I 44 understand it, Hydro is doing it on a theoretical basis now 45 in order to decide whether to implement it in the future, and 46
- 47 many others are doing the same thing now.
- 48 COMMISSIONER POWELL: This 2.5 percent (sic) fuel
 49 sulphur content, is that efficient, is the fact that Hydro is
 50 using that, is that a plus, minus or, I mean, is that efficient

- 51 fuel or you say it's not ...
- 52 MR. BRICKHILL: It's cheaper than lower sulphur fuel.

53 COMMISSIONER POWELL: Cheaper to buy or cheaper to54 use?

55 MR. BRICKHILL: It's cheaper to buy.

COMMISSIONER POWELL: Cheaper to use though? I
mean, sometimes the cheaper item is not the less expensive
item or vice versa.

MR. BRICKHILL: I think it's generally consistent in terms
of cheaper to ... as cheap to use as any other heavy fuel oil.
In the U.S. lower sulphur fuel oil is common because of air
pollution problems, one percent, and in some cases less, so
the market for one percent residual fuel oil is more liquid
than 2.2 percent sulphur fuel oil, but it's also more
expensive to begin with.

- 66 COMMISSIONER POWELL: Uh hum. This is probably
 67 outside your expertise, but that brings up another question
 68 that came up. In the capital budget there's a requirement
 69 for some emission controls at Holyrood with the use of the
 70 different fuel oils having an effect on the emissions?
- 71 MR. BRICKHILL: Yes.
- 72 COMMISSIONER POWELL: 2.5 would be more emissions?
- 73 MR. BRICKHILL: Yes.

COMMISSIONER POWELL: Okay, so you got to factor
into your cost of service whether it's more efficient to be
using that in terms of true costs, which is not within ... is
that something you considered when you were doing your
cost of service study in terms of what you were asked to
comment on?

80 MR. BRICKHILL: No.

COMMISSIONER POWELL: Okay. Have Fosters and
Associates been retained to give any advice or
consultation on the hedging, on a hedging program?

MR. BRICKHILL: I have discussed it with Hydro stressing
the insurance aspect of it and they said, well, that's what
we think too, we're glad to hear you say that.

COMMISSIONER POWELL: Okay. I wasn't expecting to 87 be talking until this afternoon so I wasn't as prepared as I 88 89 normally try to be. In your pre-filed evidence you were talking about ... you talked about the study, and you talked 90 about, on page 4, in answer to a question at line 10, you 91 said the data currently available are inadequate to form a 92 reliable minimum system study. Why would the ... why is 93 the data not available? I mean, we have a fairly 94 sophisticated expensive financial capital asset management 95 96 system.

- 1 MR. BRICKHILL: The sum data were unavailable because
- 2 Hydro has taken over the acquired systems where the
- assets were not independently valued, so we have no cost
- 4 data for the individual components of the system, we just
- 5 know what they paid in total, if anything, for the system.
- 6 The significance from that arises from the fact that a
- 7 minimum system study looks at the cost of certain things
- 8 without any demand element in them, and, as a practical
 9 matter, Hydro doesn't buy such, so we looked at the plant
- records and we were unable to obtain everything we
- thought we would need to do a minimum system study. I
- bet if you order Hydro to provide that data it can be done.
- 13 (*11:45 a.m.*)
- 14 COMMISSIONER POWELL: Thank you, very much, sir.15 That's all.
- MR. NOSEWORTHY, CHAIRMAN: Thank you,Commissioner Powell. Commissioner Saunders, please?
- 18 COMMISSIONER SAUNDERS: No, no questions, Mr.19 Chair.
- 20 MR. NOSEWORTHY, CHAIRMAN: Thank you.21 Commissioner Whalen?
- 22 COMMISSIONER WHALEN: Good morning, Mr. Brickhill.
- 23 MR. BRICKHILL: Good morning.

COMMISSIONER WHALEN: Still good morning. I only 24 have one question. I think it follows up from your 25 discussion with counsel for Newfoundland Power, and I 26 think also counsel for industrial customers concerning the 27 energy only rate for Newfoundland Power versus a demand 28 only or a sum energy and demand blended rate. I'm just 29 wondering, in your experience with other utilities in the U.S. 30 or in Canada, and I guess also keeping in mind that you've 31 already said that there is a unique relationship between 32 Newfoundland Hydro and Newfoundland Power, what 33 would be the practice with other similar arrangements 34 between a wholesaler of power to a company like 35 Newfoundland Power, are they normally energy only rates? 36 MR. BRICKHILL: No. Normally they would be a two or a 37

- MR. BRICKHILL: No. Normally they would be a two or athree part rate.
- COMMISSIONER WHALEN: So the fact that
 Newfoundland Power has an energy only rate is a unique
 situation in your view?
- 42 MR. BRICKHILL: Yes.

43 COMMISSIONER WHALEN: Okay. Just following up on
44 that in terms of your experience as well, did I also
45 understand you to say, I think yesterday, that in terms of
46 the allocation that the use of a 1-CP allocator was also the
47 most common practice with most utilities?

48 MR. BRICKHILL: The use of 1-CP for transmission, I think,
49 is the most common practices very widely with respect to
50 generation.

COMMISSIONER WHALEN: And I guess, also in terms of
using an embedded cost of service versus a marginal ...
embedded cost rates versus marginal cost rates, do you
have any comment on whether one method is preferred
over another or used more than another in utilities in
Canada or the U.S.?

MR. BRICKHILL: The vast majority of existing rates areembedded cost rates.

COMMISSIONER WHALEN: And also in terms of
seasonal or time of use rates at the end user, do most
utilities have those kinds of rate structures in place?

MR. BRICKHILL: Seasonal rates would not be common. 62 Time of use rates are commonly, not universally, but 63 commonly offered, very few people ever take advantage of 64 65 them. For example, a number of utilities offer time of use rates for residentials, but you have to pay for a demand 66 meter so that you can determine when the use is, and it's, 67 let's say \$150, \$200 charge, and most people don't want to 68 lay out that kind of money just for the option of washing 69 and drying their clothes at 3:00 in the morning. 70

COMMISSIONER WHALEN: Yeah, I think I can appreciate
that aspect of it. That's all I had, Chair. Thank you, Mr.
Brickhill.

MR. NOSEWORTHY, CHAIRMAN: 74 Thank you, Commissioner Whalen. Good morning, once again, Mr. 75 76 Brickhill. Thank you for your testimony. I guess, unlike the cost of capital, being my first time through this, the cost 77 of capital has principles which are contained in many 78 business aspects and entities, regardless of where they are 79 derived, but I think the cost of service, being my first 80 exposure, has some unique characteristics. I haven't heard 81 1- or 2-or 3-CPs before, and certainly I look forward to the 82 next few days, I guess, in terms of other expert witnesses 83 coming forward on the cost of service. I certainly 84 85 appreciate ... it seems to be a fairly specialized area. I don't have a lot of questions. Indeed, I probably have 1000 but 86 I'm going to limit them until I think I get a little bit more up 87 on the learning curve throughout the week. Just a couple 88 though that I do have, and these are fairly general, actually. 89 When Mr. Kennedy was talking and asking you on cross 90 this morning, and I think his comment was that the whole 91 notion of embedded costs, I think he used the words blurs 92 time of use and seasonal rates and uses average, and I 93 think he then went on to ask you the question that 94 embedded costs would certainly not appear to be the most 95 efficient and fair, and I believe your response was that it is 96 certainly not the most efficient, and you avoided 97 commenting on the fairness aspect of it. Could you just, 98

- 1 perhaps, comment pro or con on that for me?
- 2 MR. BRICKHILL: In my experience and in my opinion,
- 3 embedded cost rates are viewed as more fair by the
- 4 customers. They're paying the actual cost, the original cost
- 5 less depreciation, and I think this pertains to sophisticated
- 6 and unsophisticated customers alike.
- 7 MR. NOSEWORTHY, CHAIRMAN: Whereas you would
 8 think, from what you said, or I would understand that you
 9 would view the marginal cost approach as being more
 10 efficient?
- 11 MR. BRICKHILL: That's correct.
- 12 MR. NOSEWORTHY, CHAIRMAN: Is that correct? Okay.
- 13 In terms of utilities throughout the U.S. and Canada, what
- 14 would be the most common practice in embedded versus
- 15 marginal costs, for example?
- 16 MR. BRICKHILL: Embedded would be far more common.

MR. NOSEWORTHY, CHAIRMAN: Embedded would be, 17 I see. I think, as well, Mr. Kennedy lead you to the point 18 where I believe my note, and the transcript is certainly not 19 available, you had indicated ... he was talking about 20 marginal costs and the Board would be best advised, in 21 viewing any consideration of marginal cost, to look at 22 implementation simultaneously between Newfoundland 23 24 Power and Hydro and that should only be done through a joint time of use study. Is that a fair comment to begin 25 with? 26

- MR. BRICKHILL: I don't recall the time of use aspect of it,
 but in terms of ...
- MR. NOSEWORTHY, CHAIRMAN: I think it wasseasonal, actually.

MR. BRICKHILL: But in terms of the mechanics, I think you'd have to have both Hydro and Newfoundland Power in the same hearing, under the same schedule, to ensure consistency between the parties.

MR. NOSEWORTHY, CHAIRMAN: If that were to be done what are the pros and cons of one versus ... of doing that versus leaving the embedded cost approach in place, from your perspective?

MR. BRICKHILL: From my perspective, it would make
more sense to leave the embedded costs in place.

- 41 MR. NOSEWORTHY, CHAIRMAN: I see. That's your 42 evidence?
- 43 MR. BRICKHILL: Yes.
- 44 MR. NOSEWORTHY, CHAIRMAN: Just one other item.
- 45 Again, Mr. Kennedy talked about the demand cost as
- being ... or maybe this was yourself in defining it, a cost of
- 47 capacity? Did I interpret that correctly, that the demand ...

- I have energy costs here as the annual usage, demandcosts as the cost of capacity?
- 50 MR. BRICKHILL: Yes, that's what I said.
- 51 MR. NOSEWORTHY, CHAIRMAN: Is that correct? How
- do you ... in terms of calculating the demand costs, how do
 you then calculate that cost of capacity, on what basis do
 you do that?

55 MR. BRICKHILL: The demand cost elements fall out from what we call the classification step. In the case of 56 generation costs, which include dams, Holyrood and the 57 like, we followed the recommendations of the Board. With 58 respect to hydraulic, we used the system load factor, 59 roughly 60 percent, and we used the system load factor 60 method. The system load factor, the average usage by the 61 peak usage is around 60 percent, so we said 60 percent of 62 these hydraulic plant costs should be classified as energy, 63 the remaining 40 percent should be classified as demand, 64 so we would apply 40 percent to the total plant costs of 65 hydraulic and that gives us a number, many millions of 66 dollars. Then for transmission, the second largest single 67 item, the Board and conventional practice would be to treat 68 it entirely as demand related, so all those transmission 69 70 costs get added to 40 percent of the ...

71 MR. NOSEWORTHY, CHAIRMAN: Simply, is capacity72 more associated with capital costs of generation, primarily?

- 73 MR. BRICKHILL: For hydraulic, no. For thermal, generally,
- 74 yes. That's why we did this 60/40 split of the hydraulic,
- rightfully so, and I don't think any party in this proceeding
- ⁷⁶ has objected to it. In 1993 the Board said use the system
- ⁷⁷ load factor method, and they heard a lot of other methods.
- 78 MR. NOSEWORTHY, CHAIRMAN: Uh hum.

MR. BRICKHILL: And there's a great deal of intuitive 79 appeal to the system load factor method for generation, so 80 that ... and it applies ... and the reason for differences 81 between thermal and hydraulic treatment often is you built 82 the hydraulic and your costs were expended for both 83 energy and demand. If you wouldn't have built hydraulic 84 usually for peaking, you would build hydraulic for base 85 load, so an allocation method that gives a lot of recognition 86 to the energy component is appropriate. 87

MR. NOSEWORTHY, CHAIRMAN: Okay. I think I have
most of that but I will have to read the transcript quite likely
again as well. That's all the questions I have, Mr. Brickhill.
Thank you, very much. We'll move now to questions on
matters arising. Newfoundland Power, please?

MS. BUTLER, Q.C.: We have no questions arising. Thankyou, Mr. Chair.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Ms.Butler. The Industrial Customers?

1 (*12:00 noon*)

- MR. HUTCHINGS: Yes, I have a number of questions. 2 Thank you, Mr. Chair. Just going back initially, Mr. 3 Brickhill, to questions from Commissioner Powell that 4 related to the accounting side. Did I understand it correctly 5 that your organization was required to do quite a bit of 6 additional work in order to change the accounts from the 7 business unit accounts that Hydro maintains normally to 8 the so called utility accounts that were required for the cost 9 of service study? 10
- MR. BRICKHILL: If I said that I mis-spoke. The Hydro
 personnel did extra work in that regard.
- MR. HUTCHINGS: Okay, but there was a great deal ofadditional work to be done on that account?
- 15 MR. BRICKHILL: Yes.
- 16 MR. HUTCHINGS: Okay. If I understood your answers to
- 17 Commissioner Powell correctly, there are utilities, and
- 18 perhaps the majority of utilities that simply would maintain
- 19 the utility accounts and thereby eliminate this step?
- 20 MR. BRICKHILL: That's correct.
- 21 MR. HUTCHINGS: Okay. Are there any advantages that
- you're aware of, of maintaining the two systems of accounts that Hydro is now forced to maintain?
- 24 MR. BRICKHILL: They don't maintain two systems of 25 accounts, they just maintain one.
- 26 MR. HUTCHINGS: But the ...
- MR. BRICKHILL: It's just in the event of a rate case there'smore work.
- MR. HUTCHINGS: So they have to create a new set of accounts for each cost of service, is that correct?
- 31 MR. BRICKHILL: In essence, yes.
- MR. HUTCHINGS: And is there an advantage to doing it that way? I mean, on the face of it it seems simpler to maintain a single set of accounts which would be consistent with the cost of service study.
- MR. BRICKHILL: In my experience companies look at a 36 system of accounts as to what is best for them on a day-to-37 day basis rather than what's best for them on an infrequent 38 rate case basis. If Hydro has one rate case every five or ten 39 years and they find their existing accounting system 40 otherwise adequate, I think it would be alright to do that 41 extra work when the rate case requires it and otherwise stay 42 with their accounting system. 43
- 44 MR. HUTCHINGS: Do you know if your group was45 consulted at the time Hydro decided to move to the46 business unit method of accounting?

47 MR. BRICKHILL: I don't believe so.

- 48 MR. HUTCHINGS: Okay. When you were speaking with
- 49 Commissioner Powell you described the system in terms of
- 50 his question about who is auditing this and trying to keep
- 51 it in line, you described the system as an iterative plan?

52 MR. BRICKHILL: Iterative process.

MR. HUTCHINGS: Iterative process. What exactly didyou mean by that?

MR. BRICKHILL: We're going back and forth, making a
preliminary run, examining the results, finding possible
errors, rerunning it again.

MR. HUTCHINGS: Okay, and you said, I believe, that you
thought that you had caught every error, is that what your
evidence was?

- 61 MR. BRICKHILL: Yes.
- MR. HUTCHINGS: Okay. I guess ... and this may be the
 substance of Mr. Powell's question as well, is how can we
 be sure that the errors have been caught, is there a way?
- 65 MR. BRICKHILL: I don't think we can ever be sure to the 66 last penny.

MR. HUTCHINGS: Is it, in fact, the case that some of these
errors can actually arise at a very low level in the
accounting system, if you will, in terms of how individual
business units may report specific information for the
purpose of the cost of service study?

- 72 MR. BRICKHILL: That's correct.
- MR. HUTCHINGS: And you were aware, obviously, of the
 error that was corrected after the beginning of this hearing
 which resulted in a quite considerable reallocation of costs
 among the customers. Were you aware of the source of
 that particular error?
- 78 MR. BRICKHILL: Yes.
- MR. HUTCHINGS: Okay, and that was of the nature which
 I've described, it happened, essentially, at a rather low level
- and worked its way up through the system?
- 82 MR. BRICKHILL: That's correct.
- MR. HUTCHINGS: Okay, so effectively, one needs to have
 a quite intimate knowledge of the actual, on the ground
 operations of Hydro and know what specific assets are
 used for in order to be able to bring accurate information
 into the cost of service, is that fair?
- 88 MR. BRICKHILL: Yes.

89 MR. HUTCHINGS: Okay, and I take it that from the point

- 90 of view of an organization such as Foster and Associates,
- 91 you would not be in a position to audit that, as Mr. Powell

- 1 would say?
- 2 MR. BRICKHILL: That would normally not be our 3 function, that's right.
- MR. HUTCHINGS: Okay. Typically, in your experience,
 does anyone other than the utility itself get involved in that
 level of detail?
- 7 MR. BRICKHILL: No.

8 MR. HUTCHINGS: Okay. Commissioner Whalen was 9 asking you some questions about marginal and embedded 10 costs and the Chair followed up on some of those points as 11 well. Were you familiar with the proceeding in the late 12 1970s before the Ontario Energy Board, which was known 13 as ECAPS (phonetic), are you familiar with that?

14 MR. BRICKHILL: No.

MR. HUTCHINGS: No, okay. Are you familiar with any
major regulatory proceeding in Canada that dealt with the

- issue of marginal cost pricing?
- 18 MR. BRICKHILL: Not offhand, no.

MR. HUTCHINGS: Okay. Alright. I wasn't clear on your 19 answer. I understood the Chair to be asking you a 20 question as to the pros and cons of the embedded versus 21 marginal cost approach and it was arising out of a 22 23 discussion relative to the integrated hearing, so called, and I was neither entirely clear on the question or the answer, 24 but I wanted you to address, from your point of view, the 25 relative advantages to the utilities of pursuing either an 26 embedded or a marginal cost pricing system? 27

MR. BRICKHILL: At the present time I don't think there is 28 any advantage for the utilities to modify their pricing 29 systems. It's been my experience that when utilities 30 advocate, let's say marginal principles, it's usually because 31 there's a problem out there they're trying to fix. I don't 32 think the utilities here have a problem they need to fix with 33 marginal cost rates, and I think the same is true when the 34 government pushes for such things. Marginal cost rates 35 got a lot of attention during the energy crisis when we were 36 concerned about the price of oil going to \$100 a barrel and 37 we were trying to implement conservation. They still didn't 38 actually get implemented in most cases, but they got a lot 39 of attention and there were a lot of hearings, a lot of debate, 40 but, normally those are the circumstances under which 41 marginal cost rates may have perceived advantages to 42 utilities when they're trying to stop people from using 43 energy so that they don't have to lay out lots of money to 44 serve these needs. 45

MR. HUTCHINGS: And, I take it, that relates back to the
ability of the marginal cost rate to send some sort of price
signal?

49 MR. BRICKHILL: That's correct.

50 MR. HUTCHINGS: Okay. Those questions, I guess, arose

- 51 out of your discussions with Mr. Kennedy relative to the
- 52 marginal rates and the seasonal rates and so on. Is the
- ⁵³ utility of the seasonal rate affected by the manner in which
- 54 a utility which has both hydraulic and thermal generation
- 55 manages its mix of hydraulic and thermal production?

56 MR. BRICKHILL: It certainly could be, yes.

57 MR. HUTCHINGS: And how would that come about?

MR. BRICKHILL: It could come about, for example, by a
utility conserving hydraulic resources and using oil when
it could have, theoretically, in the short-term, used the
hydraulic instead.

62 MR. HUTCHINGS: Uh hum. In Mr. Kennedy's simple 63 example from this morning, presumably one could, in the 64 wintertime, use entirely hydraulic production, if your 65 system allows you to do that, and then burn oil in the 66 summertime and thereby change the marginal costing 67 characteristics, if you will, of the system?

68 MR. BRICKHILL: That's correct.

MR. HUTCHINGS: Yeah, okay, but from you
understanding, Hydro's system is simply not managed in
that way, it's simply managed to maximize the hydraulic
production?

73 MR. BRICKHILL: That's my understanding.

MR. HUTCHINGS: Okay. I think the Chair was able to 74 follow some of your final answers there as they related to 75 capacity costs and capital costs, but I'm not sure I was 76 completely behind him in his following of that. You 77 indicated, as it appears from the cost of service study, that 78 system load factor was used to assign the hydraulic costs 79 and the transmission was entirely assigned to demand. 80 There was a discussion then about how capacity costs 81 related to capital costs, and could I ask you to just take me 82 through that again? And I think the discussion went one 83 way with respect to hydraulic costs and another way with 84 respect to thermal generation costs. 85

MR. BRICKHILL: Hydraulic plant is normally built for both 86 energy and capacity use or peak use so that normally the 87 capital cost of hydraulic, which is pretty much all the cost 88 89 of hydraulic, are assigned by a method between energy and demand. If the base load were oil, typically the plant costs 90 would be assigned entirely to demand, and of course, the 91 fuel costs assigned to energy. I think that's what I was 92 driving at this morning. 93

MR. HUTCHINGS: Okay, so in your cost of service study,
I think as you've told us already, the system load factor is
used to assign the hydraulic costs between energy and

- 1 capacity. How are the thermal costs dealt with in your cost
- 2 of service study?
- 3 MR. BRICKHILL: The cost of Holyrood is classified
- between energy and demand based on the capacity factor
 for Holyrood and the costs of gas turbines are assigned
- 6 entirely to demand.
- 7 MR. HUTCHINGS: Those are the capital costs?
- 8 MR. BRICKHILL: Yes.
- 9 MR. HUTCHINGS: Yes, and the fuel costs are assigned 10 entirely to energy?
- 11 MR. BRICKHILL: No. The fuel costs for the turbines is 12 assigned demand too.
- 13 MR. HUTCHINGS: Yes, yes, okay, but for Holyrood ...
- 14 MR. BRICKHILL: Oh, Holyrood, the ...
- MR. HUTCHINGS: ... the fuel is entirely assigned to
- 16 energy, okay, and what's the rationale then for assigning17 the fuel costs for the turbines to demand?
- 18 *(12:15 p.m.)*
- MR. BRICKHILL: The fuel costs which occur in the peak
 are assigned on the basis of peak. There is also some
 additional fuel costs for testing over the course of the year,
- but the purpose of the testing is to make sure it works on
- the peak so that's why the gas turbine fuel costs areallocated, assigned to demand.
- MR. HUTCHINGS: Just to return very briefly to questions from the panel in respect of marginal and embedded costs, would you agree with me that it is possible to design time of use or time of day rates from either the basis of a
- of use or time of day rates from either themarginal or an embedded cost scenario?
- 30 MR. BRICKHILL: Yes.
- MR. HUTCHINGS: Okay, and if I understand your answer to Commissioner Whalen correctly, time of use rates are
- commonly offered but not often utilized?
- 34 MR. BRICKHILL: That's correct.
- 35 MR. HUTCHINGS: Okay. I presume that the reference you
- 36 made to the demand meter for residential customers would
- not be a deterrent in respect of larger customers who have
- a demand charge, in any event?
- 39 MR. BRICKHILL: That's correct.
- 40 MR. HUTCHINGS: Okay. Is there a distinction, generally,
- 41 in the use of time of ... or seasonal as opposed to time of
- 42 day rates offered by utilities generally?
- 43 MR. BRICKHILL: Could you repeat the question?
- 44 MR. HUTCHINGS: I'm trying to determine whether or not

- 45 your experience shows that there is greater or lesser use of
- time of day as opposed to season rates or greater offerings
- 47 of one or the other?
- 48 MR. BRICKHILL: I don't think I can really answer that. I'd49 have to do a survey.
- 50 MR. HUTCHINGS: Okay, so you have no basis of 51 knowledge for time of use rates in Canada, at all, do you?
- 52 MR. BRICKHILL: Well, not the relative implementation of 53 time of use versus seasonal.
- 54 MR. HUTCHINGS: Okay, sorry, I'm taking a little longer,
- 55 Mr. Brickhill, because as you're aware, of course, it would
- 56 do with your initial examination.
- 57 MR. YOUNG: It's only on matters arising, Mr. Hutchings.
- 58 MR. HUTCHINGS: I understand that. You have a better
- ⁵⁹ grasp of evidence of witnesses for whom you've prepared.
- 60 I think that's all I have at this point, Chair.
- MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr.Hutchings. Mr. Browne, please?
- MR. BROWNE, Q.C.: Just three areas. In questioning you
 said that time of day rates are available but not used.
 Would that be because time of day rates are not promoted
- 66 by utilities generally?

67 MR. BRICKHILL: I don't think so.

MR. BROWNE, Q.C.: Are they advertised, to yourknowledge, on a regular basis within Americanjurisdictions?

- 71 MR. BRICKHILL: No.
- MR. BROWNE, Q.C.: You were asked some questions
 about the fuel adjustment charges. Is it true that
 companies that have had fuel adjustment charge plans in
 the United States in the 1980s when fuel was expensive,
 abandoned those plans when fuel got cheaper in the early
 '90s and down to where we are around 1996, do you have
 any knowledge of that?
- 79 MR. BRICKHILL: I would say no. Wouldn't they remain,80 the fuel adjustment plans remain?

MR. BROWNE, Q.C.: You have no knowledge of anycompanies abandoning these plans?

- MR. BRICKHILL: No, I don't have any knowledge of any
 companies abandoning these plans except in restructuring
 cases where they got other things they wanted, like
 stranded cost recovery in exchange for elimination of the
 fuel adjustment plans.
- MR. BROWNE, Q.C.: So some companies that had them inthe 1980s don't have them now?

- MR. BRICKHILL: That's correct. The bankrupt California
 companies and (inaudible) Power and Light.
- MR. BROWNE, Q.C.: California is a case onto itself, isn'tit?
- 5 MR. BRICKHILL: Yes.
- 6 MR. BROWNE, Q.C.: Yes. Commissioner Powell asked 7 you questions re oil hedging, and you stated that there is
- 8 an insurance cost to oil hedging, right?
- 9 MR. BRICKHILL: Yes.
- 10 MR. BROWNE, Q.C.: Yes, and did you state that people
- don't buy insurance to make money, rather the people who make money are the people that sell the insurance, I think
- make money are the people that sell the insurance, I thinkthat's what you said?
- 14 MR. BRICKHILL: That's good.
- MR. BROWNE, Q.C.: But isn't it true that insurance is notpurchased to make money, but to avoid losing money?
- 17 MR. BRICKHILL: That's correct.
- 18 MR. BROWNE, Q.C.: So wouldn't it be prudent for Hydro
- 19 to consider oil hedging or insurance to avoid the chance of
- consumers losing money as a result of a dramatic increasein oil prices?
- 22 MR. BRICKHILL: Yes.
- 23 MR. BROWNE, Q.C.: Thank you, very much.
- MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr.Browne. Mr. Kennedy?
- 26 MR. KENNEDY: Nothing arising, Chair.
- MR. NOSEWORTHY, CHAIRMAN: Thank you. Mr.Young, redirect?
- 29 MR. YOUNG: No, thank you, Chair.
- 30 MR. NOSEWORTHY, CHAIRMAN: Okay. That's it, that
- 31 concludes Mr. Brickhill's testimony. Thank you, sir, once
- again, very much, and we will break now, and I understand,
- 33 Mr. Young, will you be introducing Mr. Hamilton when we
- come back and reconvene at 2:00?MR. YOUNG: That's correct.
- MR. YOUNG: That's correct.
 MR. NOSEWORTHY, CHAIRMAN: Thank you, very
- 37 much.

38

- 39 (2:00 p.m.)
- 40 MR. NOSEWORTHY, CHAIRMAN: Thank you and good

(break)

- 41 afternoon. Good afternoon, Mr. Hamilton. Before I swear
- 42 you in I'll just check with Mr. Kennedy to see if there are
- 43 any preliminary matters from counsel?

- 44 MR. KENNEDY: I believe Hydro has an announcement to45 make.
- 46 MR. BROWNE, Q.C.: A Christmas party?
- MS. GREENE, Q.C.: The announcement is that there were
 no undertakings provided yesterday so I have no list to
 circulate.
- 50 MR. KENNEDY: Chair, there is one letter that's been filed
- 51 with the Board from the Town of Conception Bay South,
- from Mr. Ron Smith, the Mayor of the Town of Conception
- 53 Bay South, would be entered as the appropriate form of
- 54 letters of comment pursuant to the previous orders.
- 55 MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr. 56 Kennedy. Can I ask you to take the Bible in your right
- 57 hand, Mr. Hamilton, please? Do you swear on this Bible
- that the evidence to be given by you shall be the truth, the
- ⁵⁹ whole truth, and nothing but the truth, so help you God?
- 60 MR. HAMILTON: I do.
- MR. NOSEWORTHY, CHAIRMAN: Thank you very much.
 Will you begin your direct evidence then, Mr. Young,
- 62 will you begin your direct evidence then, Mr. Young,63 please?
- 64 MR. YOUNG: Thank you, Chair. Good afternoon, Mr.65 Hamilton.
- 66 MR. HAMILTON: Good afternoon.
- 67 MR. YOUNG: Mr. Hamilton, evidence, pre-filed evidence
- 68 was filed in your name. Do you adopt that evidence as
- ⁶⁹ being your testimony for the purposes of this application?
- 70 MR. HAMILTON: Yes, I do.
- 71 MR. YOUNG: And also there was supplementary evidence,
- 72 the first filed on October 1st, and the second on October
- the 31st, in relation to changes flowing from changes in Mr.
- 74 Brickhill's evidence also. Do you adopt the first and the 75 second supplementary evidence to be your testimony for
- 76 this application?
- 77 MR. HAMILTON: Yes, I do.
- 78 MR. YOUNG: Those are all my questions on direct, thank79 you.
- MR. NOSEWORTHY, CHAIRMAN: Thank you very much,
 Mr. Young. We'll move now to Newfoundland Power's
 cross-examination. Ms. Butler, please?
- MS. BUTLER, Q.C.: Thank you, Mr. Noseworthy, and hi,
 Mr. Hamilton. Can I start first with some rate design
 guideline questions, and perhaps we could get on the
 screen page 5 of your **pre-filed testimony**. What's being
 addressed here are the long-term cost recovery levels for
 the isolated rural systems at line 4 to 10 and similarly for the
 Labrador interconnected system at lines 12 to 18, so for the

- 1 first section, lines 4 to 11 first. In terms of the cost
- 2 recovery level for domestic customers in the isolated rural
- 3 systems, can you provide us with the justification for the
- 4 level of only 20 percent?

MR. HAMILTON: The 20 percent target was identified on
the grounds that given the constraints such as the lifeline
block, it would be difficult, if not impossible, to get above
20 percent, so it's sort of there to put it in the context of ...
right now the existing rate is approximately 16 percent cost
recovery in isolated areas from domestic customers, and
that even moving to greater cost recovery and the run out

rates, that it's unlikely that you'd ever get above 20 percent,even in the longer term.

MS. BUTLER, Q.C.: Newfoundland Power, of course, is interested in this because the shortfall is covered principally by Newfoundland Power's customers, correct?

- 17 MR. HAMILTON: That's correct.
- MS. BUTLER, Q.C.: And 20 percent does seem low, would you agree with that?
- 20 MR. HAMILTON: It's low, yes.

MS. BUTLER, Q.C.: Now general service is 45 percent. Can you give us the justification for that level chosen for cost recovery?

MR. HAMILTON: Again, given the, I guess, policies of 24 the lifeline block rate there, it would be difficult to ever 25 achieve anything approaching 100 percent, and even 26 without the lifeline block, the costs would make it very 27 uneconomic to run businesses at that level, so we felt that 28 45 percent is a target. At such time in the future if we get 29 the 45 percent, then that can be re-evaluated, of course. It's 30 a long-term target right now, but diesel rates for general 31 service are recovering approximately 28 percent, so that will 32 require substantial movement to get 45 percent. 33

MS. BUTLER, Q.C.: These cost recovery objectives that are on the screen for the isolated systems do assume that the lifeline block will continue to exist over the same period.

MR. HAMILTON: Certainly for domestic. For general service, not necessarily. It's, those numbers are there mainly to provide an indication of some possible levels, and if those levels are indeed adopted, then when we come out with the five year plan in the 2003 application, then the five year plan would attempt to move it in the direction of those targets.

44 MS. BUTLER, Q.C.: Okay, so when you use the term long-45 term then in line 5, are you suggesting five years?

46 MR. HAMILTON: For the foreseeable term until, I guess,

to see the impact of, can you get there at all, what theimpact on customers would be as we move closer to those

49 targets, to then see if it's feasible to accomplish more.

MS. BUTLER, Q.C.: Okay, in an earlier section of this 50 hearing, and in fact while Mr. Wells was on the stand, and 51 perhaps we might look at the transcript but I will be 52 returning back to that page, Mr. O'Rielly, September 27th, 53 please? There's an indication given on the record that ... 54 the page is 5, lines 26 to 28 on the hard copy ... indication 55 was given by your counsel of Hydro's position on the 56 record with respect to whether or not it was bound by 57 previous Orders in Council that applied to the rural rates, 58 and just to perhaps go back and look at what was said here 59 ... can we scroll, let's see ... if we could just go up a little bit 60 to give some history here so that we can see what we're 61 62 talking about. Okay, look at line 9. Mr. Kennedy was asking Mr. Wells, "When I see that Hydro concurs with 63 this recommendation", and that was the recommendation to 64 eliminate the preferential rate, and that sort of puts it in 65 context for us, and then at line 26 you'll see, Mr. Kennedy 66 67 says, "To actually eliminate that special rate would require another Order in Council", and this is where Ms. Greene 68 appropriately intervened to state Hydro's position at lines 69 30 to 48. Perhaps for the benefit of refreshing our memories 70 on this, you could read that section into the record, Mr. 71 72 Hamilton, please?

73 MR. HAMILTON: Beginning at line 30?

74 MS. BUTLER, Q.C.: Yeah, thanks.

MR. HAMILTON: I don't know if it would be helpful 75 76 because really the line of questioning seems to suggest that Hydro has taken a position that government may, by 77 Order in Council, direct Hydro to do a certain rate design. 78 That is not the legal position of Hydro. Our position is that 79 Hydro is a fully regulated utility under the Public Utilities 80 Act. If direction is to be given by government on such 81 issues, it will be given to the Board under Section 5.1 of the 82 Electric Power Control Act. Part of the historical problem 83 is that in approaching this hearing, we had historic rates 84 which may have been based on previous Orders in Council, 85 86 and the issue for the Board is how to deal with our 87 historical context. Originally it was set by Order in Council, which would be viewed by this Board and accepted by this 88 Board as a means of how rates were designed for rural 89 customers, but on a go-forward basis, if government were 90 91 to issue direction it would have to be to the Board under Section 5.1 of the Electric Power Control Act, and that's 92 Hydro's position for this hearing. 93

MS. BUTLER, Q.C.: Okay, then Mr. Kennedy suggests at
lines 49 to 55 actually, "So if I can gather Counsel's
position correctly, that Hydro is indicating that the Board
is not by that Order in Council", I'm sorry, "Bound by that
Order in Council, but if the Board chose it could eliminate
the 700 kilowatt hour lifeline block rate". And perhaps you

- 1 could just read in your counsel's response at 56 to 64?
- 2 MR. HAMILTON: That's correct, and similarly with respect

to the preferential rates or primarily for customers in 3 isolated areas such as the fish plants, it is not Hydro's 4 position that the Board is bound by those previous Orders 5 in Council which were passed before Hydro became fully 6 regulated. It is Hydro's position it is fully within the 7 authority of the Board to make recommendations with 8 respect to the preferential rates and with respect to the 9 10 lifeline block.

MS. BUTLER, Q.C.: Okay, so with that little bit of history then, Mr. Hamilton, do you accept, that is does Hydro accept, that this Board can, if it chooses, eliminate the link which currently exists between the rates charged by Hydro on the isolated rural, in the isolated rural area, and the rates charged by Newfoundland Power to its customers?

17 MR. HAMILTON: Yes.

MS. BUTLER, Q.C.: Okay, and back to page 5 of your testimony then, your long-term goal for cost recovery for

the domestic customers on the isolated rural system is 20

percent. Are we to assume that it is the long-term goal of
 Hydro, subject to the Board's order, to continue to charge

Hydro, subject to the Board's order, to continue to charge that same rate to its isolated rural customers as the rate that

24 Newfoundland Power charges to its customers?

25 MR. HAMILTON: That's what we're proposing right now.

MS. BUTLER, Q.C.: And does Hydro currently have any other long-term rate design plans for domestic energy usage on the isolated systems, that is other than beyond

usage on the isolated systems, that is other thanthe 700 kilowatt hour lifeline block rate?

MR. HAMILTON: In the short-term we're just going with the average increase as in the past. In the longer term, unless something to the contrary comes up, we expect to increase the subsequent blocks to more appropriately reflect the cost of fuel at the diesel plants, and that would increase the cost recovery from those places.

- MS. BUTLER, Q.C.: Now Hydro has indicated through Mr.
 Osmond primarily that a plan outlining the schedule for
 elimination of preferential rates will basically be made at the
 next hearing.
- 40 MR. HAMILTON: Yes.

MS. BUTLER, Q.C.: But your long-term goal for cost
recovery for street and area lighting in isolated rural areas
here is 50 percent.

- 44 MR. HAMILTON: Yes.
- 45 MS. BUTLER, Q.C.: Okay, I'm sorry, I skipped a question,
- 46 Mr. Hamilton, can I just go back. In relation to what Mr.
- 47 Osmond had told us about the elimination, or coming in
- 48 with the long-term plan at the next rate hearing, will that

49 rate plan also outline Hydro's long-term plan with respect

- 50 to the current linkage between Hydro rural isolated rates to
- 51 the rates of Newfoundland Power? Is it the intention to do

52 that on the next application?

MR. HAMILTON: To link any portions that seem
appropriate to link, that will be identified as part of that plan
and parts that seem appropriate to, or don't need to be
linked, those will be addressed at that time, yes.

57 (2:15 p.m.)

MS. BUTLER, Q.C.: Now looking at the street lighting cost
recovery level here on the screen, 50 percent, which we can
compare to line 18 which is street lighting, 100 percent cost
recovery for the Labrador interconnected system. Can you
tell us Hydro's justification for only a 50 percent cost
recovery level for street lighting on the isolated rural
system?

MR. HAMILTON: The problem with street lighting is the 65 66 high cost of the energy there. The fixture (phonetic) cost would be probably fully recovered. The trade off on the 67 street lighting is, it might be known by the social aspects, 68 but if the street light rates get priced at full cost recovery in 69 all likelihood no one will afford the street lighting and that 70 71 will raise other potential problems but right now the cost recovery for street lighting in the latest cost of service is at 72 73 36 percent so again, that would ... the 50 percent is about a 50 percent increase. 74

MS. BUTLER, Q.C.: And that is the complete rationale forwhy street and area lighting in isolated rural systems issubsidized?

78 MR. HAMILTON: Right now it's the same rates as79 Newfoundland Power charges.

MS. BUTLER, Q.C.: Okay, now looking at lines 12 to 18 we
have the long-term cost recovery targets for the Labrador
interconnected system, domestic 95 percent, general
service 105 to 115 percent, and street lighting 100 percent,
right?

85 MR. HAMILTON: Yes.

MS. BUTLER, Q.C.: There was an information request 86 about this in terms of the general service percentages in 87 any event, because it extends past 110 percent. I wonder if 88 we might look at NP-211, line 5 first. In relation to the 89 question that was asked, Hydro's response, I'm sorry ... in 90 relation to the question that was asked, we quote in the 91 question the Public Utilities Board Order 7, 1996/97, which 92 is an order that applies, of course, to Newfoundland Power. 93 Could you just read in lines 5 to 8 please? 94

MR. HAMILTON: The Board agrees with the philosophy
that it's not necessary to achieve a 100 percent revenue to
cost ratio for all classes and takes no exception to a

- 1 variance of up to 10 percent, i.e., to achieve between 90
- 2 percent to 100 (sic) percent the cost of service in revenue.
- MS. BUTLER, Q.C.: To achieve between 90 percent to 110
 percent of the cost of service in revenue, right?
- 5 MR. HAMILTON: Correct.
- 6 MS. BUTLER, Q.C.: Okay, now in terms of the answer that
- 7 was given to why you were proposing, and you'll see this
- 8 at line one, cost recovery targets for general service of 105
- 9 to 115 percent, can you just read in your answer please,
- 10 lines 15 to 19.
- MR. HAMILTON: As stated in NP-137, the general service 11 classes will average approximately 108 percent cost 12 recovery based on 95 percent cost recovery for the 13 domestic class. Therefore, 105 percent to 115 percent 14 allowed more flexibility to achieve the 95 percent target for 15 domestic. If the domestic target is deemed inappropriate, 16 the general service range can be modified to the 100 percent 17 to the 110 percent range noted above. 18
- 19 MS. BUTLER, Q.C.: So Hydro's position is that if an order
- 20 by this Board is given similar to the order which currently
- 21 applies to Newfoundland Power on the same point, the
- 22 general service range can be modified.
- 23 MR. HAMILTON: Yes.
- MS. BUTLER, Q.C.: Okay, I'm going to turn now if I can to another topic. Clearly we know from several other witnesses here that Hydro's proposing to move towards full cost recovery on government rates in the diesel areas by a 20 percent increase for 2002?
- 29 MR. HAMILTON: That's ... yes.
- MS. BUTLER, Q.C.: But Hydro is not proposing any additional increases until the next rate hearing.
- 32 MR. HAMILTON: That's correct.
- MS. BUTLER, Q.C.: Now, Mr. Osmond's pre-filed, if we 33 might look at that at page 12, line 7, okay. Here Mr. 34 Osmond is addressing the recommendation in the 1996 35 report that a new rate be designed for federal and provincial 36 departments and agencies, of course, with recovery over 37 five years, and in the answer to the question starting at line 38 7, he says Hydro accepts this recommendation to move to 39 full cost recovery. 40
- 41 MR. HAMILTON: Uh hum.
- 42 MS. BUTLER, Q.C.: In the section that follows from lines
- 43 10 to 18 however, he suggests that on average rates for
- 44 government agencies and departments would increase by
- 45 approximately 280 percent in order to achieve that full cost
- 46 recovery, correct?
- 47 MR. HAMILTON: Yes.

- 48 MS. BUTLER, Q.C.: Now if we have to wait for a general 49 rate hearing in order to take the next step towards full cost
- 50 recovery, we might be waiting several years, right?
- 51 MR. HAMILTON: I believe it's been put on the record that 52 Hydro intends to be back in 2003 for rates for 2004.
- 53 MS. BUTLER, Q.C.: Right, so at the very least it will be a
- two year span between the 20 percent you're going to seekin 2002 and your next test year of 2004.
- 56 MR. HAMILTON: Approximately, yes.
- 57 MS. BUTLER, Q.C.: And that assumes that everything 58 goes as planned with the next application?
- 59 MR. HAMILTON: Yes.
- MS. BUTLER, Q.C.: But do you agree, Mr. Hamilton, that
 the other option available to the Board to expedite cost
 recovery from those government agencies and departments
 would be to approve an annual adjustment to the
 government rates now?
- 65 MR. HAMILTON: They could do that, yes.

MS. BUTLER, Q.C.: Okay, and you also agree that if that
was done any cost savings or revenue increase could be
applied to reduce the rural deficit.

- MR. HAMILTON: That could be done, yes. That could betreated in the same way as the rural rate alteration is now.
- MS. BUTLER, Q.C.: That's right. Thank you. I want to
 turn now to general service customers in diesel areas
 specifically. When we talk about the isolated systems
 we're talking about the Labrador rural isolated as well as the
 island rural isolated?
- 76 MR. HAMILTON: Yes.

MS. BUTLER, Q.C.: And without exception, all are servedby diesel?

79 MR. HAMILTON: Yes.

MS. BUTLER, Q.C.: Okay, because I must say, as a
newcomer, I found that the terms were sometimes being
used interchangeably without me understanding that they
were, in fact, the same systems they were talking about.

MR. HAMILTON: The only two, I guess, confusing ones
are L'anse au Loup which actually is being supplied, it's an
isolated system being fed secondary power from Hydro
Quebec, and Mary's Harbour has a mini-hydro plant up
there that we buy power from, but the predominant source
of energy there is also a diesel.

90 MS. BUTLER, Q.C.: Okay, when we say general service 91 customers, can you describe for us what's meant by that

92 term in relation to Hydro's customers in any event?

- MR. HAMILTON: A general service customer would be a non-residential customer.
- 3 MS. BUTLER, Q.C.: Okay, now in terms of your rate 2.5 for
- 4 general service diesel, I couldn't find actually a page of the
- 5 formal application that outlined the rate, so I took it from
- 6 your website. Perhaps we can just pass this out as an
- 7 exhibit? Mr. Hamilton, are you familiar enough with this to
- 8 be able to acknowledge that it is from your website and that
- 9 it does accurately set out the rate 2.5 as it currently exists?
- 10 MR. HAMILTON: Yes.

13

- 11 MS. BUTLER, Q.C.: Okay.
- 12 MR. KENNEDY: Counsel, that would be NP No. 9.

EXHIBIT NP-9 ENTERED

- 14 MS. BUTLER, Q.C.: Thank you, now let's see. The rate for,
- 15 rate 2.5 for general service diesel customers is the basic
- 16 customer charge of \$18.56 per month, plus as an energy
- charge for the first 700 kilowatt hours per month, 8.676
- 18 cents per kilowatt hour, is that right?
- 19 MR. HAMILTON: Yes.
- MS. BUTLER, Q.C.: And is that what they call the lifeline block rate?
- 22 MR. HAMILTON: The first 700 kilowatt hours is.
- MS. BUTLER, Q.C.: Right, now at the rural rate inquiry the
- Board as it was comprised at that time, ordered that Hydro
- 25 evaluate implementing demand energy rates for these
- customers, is that correct?
- 27 MR. HAMILTON: Yes.
- MS. BUTLER, Q.C.: And can we look, Mr. O'Rielly please,
 at NP-184. Okay, page 1 is fine, lines 10 to 13. Could you
 just read in Roman numerals, paragraph two please?
- MR. HAMILTON: That Hydro be directed to provide a cost benefit analysis of a rate structure for general service customers which provides for a demand charge. The energy and demand charge in such a rate structure should recover long-run marginal costs.
- MS. BUTLER, Q.C.: Okay, now while that paragraph doesn't specifically refer to the isolated systems, I presume you accept that that whole section comes from the section of the report dealing with the isolated systems.
- 40 MR. HAMILTON: Yes.
- MS. BUTLER, Q.C.: Okay, alright, now this was actually
 worded in the form of a question, so let's just look at the
 answer. Sorry, first of all, page two, yeah, lines 5 to 7. This
 question, which is sub-paragraph (b) asked, provide the
 cost benefit analysis of a demand energy rate structure for
 general service rates in isolated areas as recommended by

- the Board. If the analysis was not completed, please
 explain why not. And could you just read the answer that
 was given to (b) please? Yeah, lines 24 to 26.
- MR. HAMILTON: Please see attached report entitled
 "Cost Benefit Analysis of Implementing Demand Charges
 in the General Service Rate Structure in Isolated Areas".
- MS. BUTLER, Q.C.: And I think that report is attached
 electronically. No? It's only one page, or two pages.
 There you go. Is this the report, Mr. Hamilton?
- 56 MR. HAMILTON: Yes, it is.
- 57 MS. BUTLER, Q.C.: And obviously this was prepared 58 inhouse, was it?
- 59 MR. HAMILTON: Yes, it was.
- 60 MS. BUTLER, Q.C.: Is this the complete report or just a 61 summary of it, because it's only a page and a half, I think?
- 62 MR. HAMILTON: No, that's the full report.
- MS. BUTLER, Q.C.: Yeah, okay, can you read the
 conclusion from the analysis which is on page two? It's the
 last two paragraphs in full?
- 66 MR. HAMILTON: The cost of implementing demand charges in general service rates in isolated areas is not 67 significant. Such a change in rate structure will have 68 varying effects on customers' individual bills. Generally 69 lower load factor customers tend to receive increases while 70 higher load factor customers will receive decreases, 71 assuming the rate is designed to recover the same revenue. 72 Customers that will receive higher bills are likely to 73 complain about such a change. Customers' bills will, 74 however, better reflect the respective costs and provide 75 them with an opportunity to reduce their bills through 76 77 managing the level of demand they place on the system. Therefore, Hydro should implement demand charges in the 78 general service rates charged in isolated areas. The timing 79 of the implementation should reflect the other rates issues 80 to be addressed in the isolated areas. However, in 81 preparation for the eventual implementation, demand 82 meters should be installed on all appropriate customers in 83 the near future. 84
- MS. BUTLER, Q.C.: Okay, thank you. Now the report
 doesn't have a date, can you tell me of what date it speaks,
 or from what date it speaks?
- MR. HAMILTON: It was prepared in the spring of this
 year, or the fall of last year. Probably safe to say the
 winter. The difference between, probably between the first
 draft and the last draft.
- MS. BUTLER, Q.C.: Okay, so in draft to final form itspanned the fall of 2000 to the spring of 2001?

- 1 MR. HAMILTON: Yes.
- 2 MS. BUTLER, Q.C.: Okay, and the last paragraph again, if
- 3 we can just look at that please, Mr. O'Rielly, thank you. It
- 4 said demand meters should be installed on all appropriate
- 5 customers in the near future.
- 6 MR. HAMILTON: Yes.
- 7 MS. BUTLER, Q.C.: Okay, so was that done?

8 MR. HAMILTON: I understand that checks have been 9 used to determine appropriate customers to have demand 10 meters installed on them. Some have been installed but I'm 11 not aware of whether all have been installed yet. Assuming 12 a ten kilowatt limit, I believe most of the customers with ten 13 kilowatts or higher demand have now got demand meters 14 on them.

15 (2:30 p.m.)

MS. BUTLER, Q.C.: Can you tell me what is the target date for all installations to be complete?

- MR. HAMILTON: I'm not sure if there is a target date to behonest with you.
- MS. BUTLER, Q.C.: Well, in light of the conclusion, the 20 inhouse conclusion that the timing of this implementation 21 should reflect the other rate issues to be addressed in 22 isolated areas which are, of course, a portion of this 23 application, I guess I'm curious why the meters have not 24 been installed and there has not been proposed by Hydro 25 the creation of a demand energy rate in this application for 26 the general service diesel customers. 27
- MR. HAMILTON: In regards to the timing of getting the 28 demand meters installed, some installations might require 29 some modifications to the metering arrangement and you 30 have to send in special technicians and whatever to do 31 that, so it's felt to minimize the cost that (inaudible) that the 32 technicians would deal with it as they're there rather than 33 to make special trips, because again, you've got to fly a 34 person into these areas and incur additional costs, so 35 depending on when they've been to some communities, 36 they might not have them all done yet, and depending on 37 when a scheduled trip might be, sometime ... so ... and 38 given that there's no particular proposal at this point in time 39 to implement a demand energy rate, at this point in time 40 there's no sense of urgency to have it done this year. 41

MS. BUTLER, Q.C.: Okay, I accept that you're not able to
give me a target date for the installation of all meters, but
can you tell me whether Hydro proposes to address this
rate structure option, that is the demand energy rate
structure for the general service diesel customers at the
next rate hearing in 2003 for the test year 2004?

48 MR. HAMILTON: Yes, they will.

MS. BUTLER, Q.C.: Okay, thank you, Mr. Hamilton. Thank
you, Mr. O'Rielly, I'm finished with that screen. The only
other question I wanted to ask you about now relates to
Hydro's regulations which are attached to your application
at Schedule B. Can we scroll down until we find Section 10
please, or Regulation 10. It should be page 12, yeah, okay.

- 55 Mr. Hamilton, would you be kind enough to read in
- 56 Regulation 10(c) please?

MR. HAMILTON: Bills are due and payable when issued.
Payment shall be made at such places as Hydro may
designate from time to time. Where a bill is not paid in full
by a date that a subsequent bill is issued and the amount
outstanding is \$50 or more, Hydro may charge interest at a
rate equal to the prime rate charged by chartered banks on
the last day of the previous month, plus five percent.

MS. BUTLER, Q.C.: Okay, now I accept from earlier
evidence, and I think principally Mr. Osmond, that Hydro
is currently not charging interest.

67 MR. HAMILTON: That's correct.

68 MS. BUTLER, Q.C.: But if I understood his evidence 69 correctly the plan is that interest will be charged as of

- 70 January 1st, 2002?
- 71 MR. HAMILTON: Yes.

MS. BUTLER, Q.C.: So although you haven't specificallyasked for a change to this regulation, that is the firm planfor Hydro?

75 MR. HAMILTON: Yes.

MS. BUTLER, Q.C.: Because Mr. Bowman, on behalf of the
Consumer Advocate, is actually, or has actually advocated
a change in the wording to this regulation 10(c) to change
the word "may", from "may" to "shall", so would that be
necessary if it is, in fact, Hydro's intention to collect
interest in any event?

MR. HAMILTON: I guess the use of the term "may" still
allows some flexibility for extenuating circumstances, but I
would think that the norm will be that interest will be
charged.

MS. BUTLER, Q.C.: Mr. Chairman, those are my questions
for Mr. Hamilton. Thank you very much, Mr. Hamilton.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Ms.
Butler. Thank you, Mr. Hamilton. We'll move now to the
Industrial Customers, Mr. Hutchings please?

MR. HUTCHINGS: Thank you, Mr. Chair. Good afternoon,Mr. Hamilton.

93 MR. HAMILTON: Mr. Hutchings.

- 94 MR. HUTCHINGS: I just want to get a little bit of
- background with respect to yourself and your position in

- 1 Hydro. You've told us in your evidence that you've been,
- 2 you've got 18 years of experience in electric utility rates and
- regulatory activity areas. How long have you actually beenwith Hydro?
- 5 MR. HAMILTON: Since May 1998.
- 6 MR. HUTCHINGS: May 1998, and where were you 7 employed prior to that?
- 8 MR. HAMILTON: Newfoundland Power.
- 9 MR. HUTCHINGS: Okay, and how long were you with10 Newfoundland Power?
- 11 MR. HAMILTON: Approximately 21 or 22 years.
- MR. HUTCHINGS: Okay, and what was your position when you left there?
- MR. HAMILTON: When I left there I was the Manager ofEnergy Supply.
- 16 MR. HUTCHINGS: Manager of Energy Supply?
- 17 MR. HAMILTON: Uh hum.
- MR. HUTCHINGS: Okay, did you have any rateresponsibilities at Newfoundland Power?
- 20 MR. HAMILTON: When I left, no.
- 21 MR. HUTCHINGS: Okay, at an earlier time?
- 22 MR. HAMILTON: Yes.
- 23 MR. HUTCHINGS: Okay.
- 24 MR. HAMILTON: My immediately prior position to that 25 was Manager of Rates and Regulatory Affairs.
- MR. HUTCHINGS: Okay, and through what time did you hold that position?
- 28 MR. HAMILTON: I guess, through various restructurings
- and subtle title changes, I was in that area from the fall of
 '79, I was in the rates area from then until February '95.
- MR. HUTCHINGS: Okay, and you now fall within the Customer Services Department of Newfoundland and Labrador Hydro?
- 34 MR. HAMILTON: Yes, I do.
- MR. HUTCHINGS: And to whom do you report in that department?
- 37 MR. HAMILTON: Sam Banfield.
- 38 MR. HUTCHINGS: Okay.
- 39 MR. HAMILTON: He's the Manager (*sic*), Director, sorry.
- 40 MR. HUTCHINGS: The Director, okay, and Mr. Banfield
- 41 would report then to whom?

42 MR. HAMILTON: Derek Osmond, Vice-President of 43 Finance.

MR. HUTCHINGS: Okay, alright, your evidence makes
numerous references as necessarily it must, I think, to the
cost of service study itself. Can you tell us what sort of
involvement you have with that study, what input you may
make or how do you actually use or manipulate the study
itself?

- 50 MR. HAMILTON: To rate design you mean?
- 51 MR. HUTCHINGS: Yes.
- MR. HAMILTON: For rate design purposes, certain of 52 Hydro's rates flow directly from the cost of service, 53 particularly the wholesale rate to Newfoundland Power, and 54 the firm rate for the Industrial Customers. For rural areas, it 55 gives an indication of the level of cost recovery to the 56 extent that we have flexibility in the rate design for the rates 57 for those rural areas, it gives a guide as to how to apply 58 rate increases and to improve equity between rate classes. 59
- 60 MR. HUTCHINGS: So is the cost of service study itself a 61 tool that you use on a regular basis?
- 62 MR. HAMILTON: Yes.
- MR. HUTCHINGS: Okay, so it's not just a rate hearingevent for you.
- 65 MR. HAMILTON: Well, to the extent that you only design
- rates at rate hearings, it's primarily used at a rate hearing, but to the extent that it gives you a flag for issues to
- address down the road, you refer to it regularly, yes.
- 69 MR. HUTCHINGS: Okay, do you have any connection in 70 your position with the Rate Stabilization Plan?
- 71 MR. HAMILTON: Yes, I do.
- 72 MR. HUTCHINGS: And what involvement do you have73 with that plan?
- 74 MR. HAMILTON: It's hard to say what my involvement is.
 75 I don't have a direct involvement in the operation of it, but
 76 yet I monitor the results of it and when we were revamping
 77 the cost of service modelling and things, it was tied in with
 78 that, so ...

79 MR. HUTCHINGS: When you say when you were80 revamping the cost of service model, or the methodology,81 you mean?

MR. HAMILTON: Yes, all the programming had to be
rerun as Mr. Brickhill referred to before, that (inaudible) the
old models had to be replaced, and ...

85 MR. HUTCHINGS: And that was done within your group?

MR. HAMILTON: It was done in the customer servicegroup with assistance through Foster.

- 1 MR. HUTCHINGS: Okay, but in terms of the monthly
- administration of the RSP, does your group have input inthat?
- 4 MR. HAMILTON: Yes.
- 5 MR. HUTCHINGS: And what input is that?
- 6 MR. HAMILTON: The monthly RSP runs are done by a 7 member of the department and in connection with the 8 accounting department.
- 9 MR. HUTCHINGS: Okay, I understood from Mr. Roberts 10 that the, I guess, purely financial side of things was 11 handled in his job, and then he would basically send some 12 inputs to your department to run them through the cost of 13 service and send them back, send him back a different set
- 14 of numbers. Is that a fair, if rough, description?
- 15 MR. HAMILTON: Yes, yeah, okay.
- 16 MR. HUTCHINGS: So essentially then, the cost of service
- study is something that your group uses every month in order to have input into the actual rate that the customers
- 19 are going to pay, correct?
- 20 MR. HAMILTON: The test year cost of service, yes.
- 21 MR. HUTCHINGS: Yes.
- MR. HAMILTON: Because it was 1992 the last approvedone, yes.
- 24 MR. HUTCHINGS: Right, okay, and in the context of this
- 25 hearing and the manner in which Hydro has managed the
- RSP, that's a significant part of the rate that the customers
- 27 pay, is it not?
- MR. HAMILTON: Given the current balances, there's a(inaudible) energy charged to the RSP, yes.
- 30 MR. HUTCHINGS: Yes, okay, so it's fair for us, I think, to
- look at the RSP charge as a part of the rate and to evaluateit against the principles that normally apply to rate design,
- 33 would you agree?
- MR. HAMILTON: It's a mechanical calculation, yes, it is
 part of the rates.
- 36 MR. HUTCHINGS: Yes.
- MR. HAMILTON: I guess in rate design there are more
 subjective items, but in the RSP it's purely a mechanical
 application of a formula.
- 40 MR. HUTCHINGS: Uh hum, but the RSP itself obviously 41 should be designed since it is effectively a rate in a manner
- 42 that's consistent with the principles for rate design that
- 43 you've outlined in your evidence, would you agree with44 that?
- 45 MR. HAMILTON: It should be consistent with rate design

- 46 concepts and principles, yes.
- 47 MR. HUTCHINGS: Yes, okay, yeah. In terms of the design
- 48 principles that are outlined on page two of your evidence,
- 49 looking at the issue of market efficiency, how would you
- 50 evaluate the RSP as it presently stands in terms of its
- 51 ability to give appropriate pricing signals?
- MR. HAMILTON: The RSP was designed to remove
 volatility in rates as impacted by fuel costs and so therefore
 in that context it's somewhat contrary to a market efficiency
 pricing at the cost currently incurred.
- 56 MR. HUTCHINGS: Okay, so on that particular measure it 57 doesn't in its current form at least tend to meet that 58 principle, is that fair?
- 59 MR. HAMILTON: It doesn't meet it as well as some other60 elements might.
- MR. HUTCHINGS: Uh hum, okay, in terms of the principleof stability, how would you rate the performance of theRSP?
- 64 MR. HAMILTON: Well, given that the RSP was set up to 65 reduce volatility in consumers' bills, inherently it therefore 66 increases stability of rates from month to month. There will 67 be, once a year, a change in the rate so (inaudible) a change 68 on an annual basis is not considered to be too disruptive, 69 then it's certainly an improvement over monthly changes,
- so in that context it improves the stability of the rates.
- MR. HUTCHINGS: Would you agree with me that the RSP
 itself needs a certain degree of management by Hydro in
 order to ensure that it is assisting in maintaining the
 stability of rates?
- 75 MR. HAMILTON: I'm not sure of the question when you76 said management.
- MR. HUTCHINGS: Okay, I mean we all know at this pointthat there have been very large balances that have beenallowed to accumulate in the RSP, correct?
- 80 MR. HAMILTON: They have accumulated, yes, in the 81 normal workings, yes.
- 82 (2:45 p.m.)
- MR. HUTCHINGS: I mean just by way of example, what
 was the RSP adjustment for the industrial customers in the
 year 2000? I can suggest to you 2.8 mils, does that sound
 about right?
- 87 MR. HAMILTON: That sounds about right.
- MR. HUTCHINGS: Okay, or 2001 rather, sorry. And the
 adjustment for the year 2002 is going to be 5.14 correct?
- 90 MR. HAMILTON: Correct.
- 91 MR. HUTCHINGS: I think Mr. Roberts gave us that

- element, so that is a pretty huge increase in that element ofthe rate, isn't it?
- 3 MR. HAMILTON: Yes.
- 4 MR. HUTCHINGS: Year over year.
- 5 MR. HAMILTON: Yes.

6 MR. HUTCHINGS: Yeah, and I simply suggest to you that 7 management of the RSP by Hydro in such a fashion as to 8 have had the fuel element re-based prior to this hearing, 9 would in fact have increased the stability that the RSP 10 could have provided to the rates, would you agree?

MR. HAMILTON: Given the relatively high levels of oil
prices in recent time, that certainly a large portion of the
balance in the RSP is due to the fuel price variance.

14 MR. HUTCHINGS: So ...

MR. HAMILTON: To the extent that a higher reference point was used, the balance would be lower.

MR. HUTCHINGS: Yes, so the object of stability can be
attained by the RSP but at the same time it needs to be
managed in order to ensure that that element comes
through.

MR. HAMILTON: I guess the term management is a term that's causing me some confusion there, but the issue of

how often does one base a fuel price can be an issue ... for

- example, the price for fuel 24 months ago was below the
- \$12.50 a barrel, so if someone had re-based it at \$30.00 a
- 26 barrel three years ago then it would have been exceedingly
- high relative to the subsequent price, so again, it's what'sto be used for a trigger and how often, it's a subjective item,
- to be used for a trigger and how often, it's a subjective itemI guess.

MR. HUTCHINGS: But I mean the balance in the RSP has
been growing since what, 1996?

MR. HAMILTON: Since 1996 it's been relatively, I'll use the word stable, but at a plateau. Over the last couple of years in the, in fact the industrial and Newfoundland Power's came down in, during the 2000 and 2001 time period.

37 MR. HUTCHINGS: Uh hum, yeah.

MR. HAMILTON: Right, the adjustment is lower this yearthan it was last year.

40 MR. HUTCHINGS: Yeah, I mean the word that you used, 41 the plateau, I think, is probably instructive in the sense that

the plateau, I think, is probably instructive in the sense thatthere's a certain base that has been built up there simply

because of the gap between real oil prices and the \$12.50,

- 44 isn't that correct?
- 45 MR. HAMILTON: That's the major driver, yes.
- 46 MR. HUTCHINGS: Yeah, and like I say, what you've done

47 is created a plateau and the RSP is now trying to stabilize48 above the plateau.

MR. HAMILTON: Yes, all I was getting at was the, how
often ... you say manage it, how often do you change the
reference point might result in more instability than moving
to a plateau, that's all.

MR. HUTCHINGS: Yes, no, I understand what you're 53 54 saying, but I mean if we look at the history that we have in this particular case, we have no application by Hydro for a 55 rate increase for a period of nine years, and then from the 56 industrial customers' point of view, with the initial filing 57 there's an application which overall increases rates by 17.8 58 percent, and I would suggest to you that that is not 59 consistent with the notion that rates should be stable. 60 That is an unexpected change of the type referred to in 61 your own testimony that is to be avoided if possible. 62

MR. HAMILTON: I guess in the relative time period there
have been several large changes in rates to the industrial
customers, some positive, some negative, to deal with
circumstances as they arise and they are (inaudible) in
certain, so to speak.

MR. HUTCHINGS: But the principle of stability that you've
espoused here has both elements in it, I think, and that's
clear in your principle as well, that not only should rates be
as stable as possible, but when they do change, change
should be incremental if possible as opposed to large.

MR. HAMILTON: Yes, and I guess that's a lot of the 73 philosophy behind why, as Mr. Wells pointed out, that two 74 elements are indeed being phased in, one being the return 75 on equity is three percent as opposed to a more market 76 based rate which is recommended, the 11 to 11 1/2 percent 77 range, and \$20.00 a barrel is being used for a reference 78 point for fuel instead of maybe \$28.00 a barrel ... I'm not 79 sure what the current forecast would be right now. 80

81 MR. HUTCHINGS: From your point of view as the person 82 who has to design rates, are you concerned that you're 83 getting to the point where you can't come up with a rate 84 that anyone will regard as reasonable that's really going to 85 recover all of the costs that have been allowed to build up 86 in the system?

MR. HAMILTON: You'll have to elaborate on that one, I'mnot sure.

MR. HUTCHINGS: Well, I mean essentially that's where
we've gotten to, is it not, that the price shock at this stage
would be so great, or the rate shock, that the rate that you
would have to produce in order to recover costs on a
current year basis at this stage is not a viable rate.

MR. HAMILTON: Certainly if all the costs are put in right
now in a base rate, that will be a sizable rate shock.

- 1 MR. HUTCHINGS: Yes, I mean has this been a subject of
- 2 debate within the management group of Hydro for any3 number of years?

MR. HAMILTON: Certainly in the last 12 months, the 4 magnitude of the increase, given the large increase in fuel 5 prices, has been such a great concern. When I first came 6 with Hydro in '98 there was some discussion then that 7 given fuel prices we might have to have a rate hearing 8 soon, and then oil prices went down, and then that 9 subsided, and they came back up again, and so if, for 10 example, a hearing was held relatively recently, I'll say two 11 years ago, that the prices and circumstances at that time, a 12 hearing today would still probably result in what would be 13 14 classified as an element of rate shock, so it's not because necessarily just ... all the change wasn't in the first eight 15 years, or most of the change was in recent history, it wasn't 16 sort of an incremental change over time, and therefore at 17 some point in time it would have been logical to have had 18 19 a smaller rate increase. It's sort of almost all in recent time.

MR. HUTCHINGS: Looking then at the final principle that is shown on page two of your evidence, which is administrative practicality, how would you evaluate the performance of the RSP on its ability to be understood by customers with a minimum of controversy?

MR. HAMILTON: I hope the laughter in that instance isn't 25 recorded on the ... I wouldn't want to take a poll on that. I 26 27 think the Rate Stabilization Plan, there are three components, and they're outlined in the application, and 28 the hydraulic component, the fuel component, and the load 29 component. They've been fairly clear, and they are shown 30 in the monthly reports and I think people understood those 31 fairly well. And that's the guts of the RSP and that would 32 continue on, or proposed to continue on into the future. 33 The component that's probably not fully understood, or at 34 least, or maybe the implications of it, and that's the fact that 35 in the past the cost of service study was used as the 36 vehicle to allocate, I use the word "real", it would allocate 37 the change in the fuel related costs to the customer parties, 38 because the problem being, the fuel expense goes up and 39 down, but what causes it to go, and it was concluded back 40 in when the plan was first set up, that the easiest way to 41 track that cost was to rerun the cost of service and put the 42 actual energy results in there. The inherent confusion 43 probably arose that the, because of the nature of the cost 44 of service methodology in the past was an average on 45 excess demand methodology, that once you put in energy 46 into such an allocation methodology, demand costs get 47 reallocated, simply because the load factor changes as you 48 add the energy (phonetic), and because of that the 49 approach was to put actual demand in there also so that the 50 load factors hopefully wouldn't get as distorted. Typically 51 demand and energy bear a relationship, and so it was 52

determined that would be the more equitable way to keep 53 54 things in balance within the cost of service results. Once again, once you put in actual results in there, even though 55 56 the rest of the costs aren't changed, other than fuel costs, that costs get reallocated, and energy takes certain costs 57 with it, like interest and other things. So it's probably fair 58 to say that that was sort of done in a, almost a little black 59 box, that you jump from the second last page to the last 60 61 page of the report, and oh, that was not as transparent as the other portions of the transaction, so in regards to is the 62 RSP clearly understood and is it simple, the concept is very 63 simple, the mechanic of, because you don't actually see the 64 65 two cost of service runs at year end, and this is only done 66 at year end once all the year's results are in, that you run the annual cost of service too which will reallocate the 67 costs, then you see some other things happening that you 68 might think is not what you expected. 69

MR. HUTCHINGS: Okay, we won't discuss transparency
versus opacity here. Did I understand you to say that the
cost of service was only actually run annually as opposed
to monthly for the purpose of the RSP?

MR. HAMILTON: For the purposes of the customer splits,
to re-do those numbers, that's done based on the year end,
once you have all the numbers in for the year. There's a
monthly version of the RSP, a monthly version of the cost
of service that's run and that doesn't reallocate the demand
costs.

80 MR. HUTCHINGS: So the first (inaudible) report for the 81 year then are produced on, I'm sorry, a partial run of the 82 cost of service?

MR. HAMILTON: It's done on the cost of service, but it
doesn't have all of the, I guess ... what's the right word for
it ... because you don't have a full year-end there for the
load factor, that doesn't yield the full result until you get to
the end of the year. You need your twelve months of data
in to get a proper annual load factor in to make the final recalculation.

MR. HUTCHINGS: But do the monthly runs not just
assume that the remaining months of the year are going to
be in accordance with the original cost of service?

93 MR. HAMILTON: Yes.

MR. HUTCHINGS: Okay, so some of those changes arebuilt in month over month.

96 MR. HAMILTON: (inaudible).

MR. HUTCHINGS: But the final ... I mean you don't go
back and reallocate January to November after you do the
December one, do you?

100 MR. HAMILTON: Once you get to the end of the year 101 you're dealing with an annual cost study and, so you've

- 1 got the total cost in there for the year and you reallocate 2 the total year's costs.
- 3 MR. HUTCHINGS: So ...

MR. HAMILTON: So you might, in effect, reallocate 4 January's cost but it's because it's done ... the cost of 5 service is an annual product, so every month when you 6 rerun it, as you put data in, okay ... for example, when you 7 do March, okay, you're not doing March in isolation of the 8 other eleven months, okay, and so, in effect, there's a year 9 to date aspect to it, so that March will also reflect 10 January/February, okay, it's not just pure variance relative 11 to March. 12

13 MR. HUTCHINGS: Yes, okay.

MR. HAMILTON: Okay, so every run is an annual run, it's
just that you don't have a full twelve months of data in the
whole model until you get to the end of the year.

17 *(3:00 p.m.)*

MR. HUTCHINGS: Okay, now I'm intrigued only, or partly
because the adjustment for the industrial customers, of
course, is based on the September run.

21 MR. HAMILTON: That's right.

MR. HUTCHINGS: And is there, I take it there is no retroactive adjustment after December to correct, if you will,

the September result in that instance?

MR. HAMILTON: Well you have the September, you have the actuals up to September and then you have the test year for the next three months.

- 28 MR. HUTCHINGS: Right.
- 29 MR. HAMILTON: Right.

MR. HUTCHINGS: And, but the rate, I mean what we're talking about here is setting a rate.

- 32 MR. HAMILTON: Right.
- MR. HUTCHINGS: We've agreed that the RSP adjust is arate.
- 35 MR. HAMILTON: Right.
- MR. HUTCHINGS: So this rate is being set at the end of
- September, but it's set on the basis of nine months ofactuals and three months of projections.
- 39 MR. HAMILTON: Right.
- 40 MR. HUTCHINGS: Whereas the Newfoundland Power rate,

41 or the utility RSP rate will be set on the actuals at the end

- 42 of December, is that correct?
- 43 MR. HAMILTON: That's correct.
- 44 MR. HUTCHINGS: Do you have any idea what the effect

45 of that is, up or down?

MR. HAMILTON: I would say that some years it goes one 46 way and some years the other. What might tend to happen 47 is you'll end up with a rate that might be a little higher or a 48 little lower for the subsequent period, so on the 49 subsequent period there might be an over-run on the 50 recovery for the actual prior year, but that, I guess, was a 51 trade-off that the industrials desired to ... it's a trade-off to 52 know what the rate was for budgeting purposes in October. 53 54 That's the reason that the September balance was used. The industrials asked to have it done at that point in time, 55 right. 56

MR. HUTCHINGS: No, I understand that, and the
industrial customers obviously needed that for their own
budgeting purposes for next year. Was this effect
explained to the industrial customers at the time?

MR. HAMILTON: I can't say what was talked about. It 61 clears itself up over time, you know, the under or over 62 recovery will just accumulate or reduce the balance in the 63 subsequent period, so then the following year the actual 64 cost for October, November, December, do accumulate in 65 the fund and they're reflected in the following September's 66 67 balance, so the costs do get cleared out, it's just that they do have this offset. 68

MR. HUTCHINGS: Now Mr. Hamilton, you're aware thatthe new cost of service methodology was considered bythis Board in 1993.

- 72 MR. HAMILTON: Yes.
- 73 MR. HUTCHINGS: And adopted for implementation by
- 74 Hydro, and it is a modified version of that methodology
- ⁷⁵ that's before us at the present time, is that correct?

76 MR. HAMILTON: The methodology per se for the island77 interconnected is for the last ... post ...

78 MR. HUTCHINGS: Okay.

79 MR. HAMILTON: Subject to the question of the 1- versus80 2-CP and ...

MR. HUTCHINGS: Yes, we had the old methodology, the
interim methodology, and the proposed methodology,
correct?

- 84 MR. HAMILTON: Yes.
- 85 MR. HUTCHINGS: And the 1993, you refer to as what?
- 86 MR. HAMILTON: I guess you can call it a generic 87 methodology.
- MR. HUTCHINGS: Generic methodology, and the interimmethodology is?
- 90 MR. HAMILTON: The interim methodology, that was the

- methodology used to set the rates for Newfoundland
 Power at the 1992 hearing.
- MR. HUTCHINGS: Okay, and the proposed methodology is the one that's in the present application?
- 5 MR. HAMILTON: That's correct.
- 6 MR. HUTCHINGS: Which is not exactly the same as either7 of the other two?
- MR. HAMILTON: It is more in line with the generic thanthe interim.
- MR. HUTCHINGS: Yes, okay, so the 1993 one you refer toas the generic methodology?
- 12 MR. HAMILTON: Yes.
- 13 MR. HUTCHINGS: Okay, and were you aware generally as
- to what the anticipated impact on cost assignment to the
- industrial customers was to be of the implementation of the
- new methodology, the generic methodology from the 1993hearing?
- MR. HAMILTON: At the '93 hearing you mean? Yes,yeah.
- 20 MR. HUTCHINGS: And what was that impact intended to 21 be?
- MR. HAMILTON: Well, the result of the, relative to the
 interim, it shifted some costs from industrials to
 Newfoundland Power, if my memory serves me.
- MR. HUTCHINGS: And do you know even in order of magnitude what sort of numbers were being considered?
- MR. HAMILTON: Based on the ... have to see I've got the
 right comparison here now ... based on 1992 I believe that
 was the test year used for that hearing. The industrial
 customers would have been assigned a cost of
 approximately \$38.7 million versus the interim methodology
 was about \$40.3 million.
- MR. HUTCHINGS: \$38.7 million and \$40.3 million, were
 those the two numbers you gave?
- 35 MR. HAMILTON: Yes.
- MR. HUTCHINGS: Okay, those are the 1992 numbers, right?
- 38 MR. HAMILTON: Based on 1992 test year, yes.
- 39 MR. HUTCHINGS: Okay, if we can go to IC-90, I don't
- 40 know if the cost of service is available. No, perhaps it may
- 41 be simpler, Mr. Hamilton, if I can ask you to look at Mr.
- 42 Osler's pre-filed supplementary testimony of September
- 43 12, 2001, at page 7, and that's the supplementary
- testimony. That's the original, I think. The paragraph 2(a)there deals with the impact of the 1993 cost of service

46 hearing, and refers to IC-90, which without looking at it is a question where you were asked to reproduce the 2002 47 forecast cost of service using the cost of service 48 49 classifications and allocations approved by the Board in 1992, and Mr. Osler here, with reference to that cost of 50 service, and the 1992 interim cost of service as identified an 51 impact of about \$1.75 million of benefit from the 52 implementation of the new cost of service in 1993. Do you 53 agree with that number? 54

55 MR. HAMILTON: The arithmetic looks about right.

56 MR. HUTCHINGS: Yeah, okay, so from the time of the 57 hearing in 1993 the generic methodology was really the 58 improved methodology by the Board for Hydro, wasn't it?

MR. HAMILTON: It was the approved methodology usedat the next rate application.

61 MR. HUTCHINGS: Uh hum.

62 MR. HAMILTON: The only approved methodology in the 63 sense of what rates were based on in Newfoundland 64 Power's rates was the one approved at the 1992 hearing, the 65 interim methodology, and that was to be used until such 66 time as the methodology was replaced at the next hearing, 67 which would then be something based on the generic 68 methodology.

MR. HUTCHINGS: Yes, so the generic methodology wasthe one that was approved at the cost of service hearing,correct?

72 MR. HAMILTON: For use at the next rate application.

73 MR. HUTCHINGS: Yes.

MR. HAMILTON: But until that time, the one approved at
the '92 hearing was the approved methodology for rate
design purposes.

MR. HUTCHINGS: Okay, we'll return to that in a momentbut this might be a good time to take the break for theafternoon, Mr. Chair.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr.
Hutchings. Thank you, Mr. Hamilton, we'll break until 3:30.

(break)

83 (*3:40 p.m.*)

82

MR. NOSEWORTHY, CHAIRMAN: I ask you to continue,
Mr. Hutchings, please with your cross.

MR. HUTCHINGS: Yes, thank you, Mr. Chairman. Mr.
Hamilton in your use of the cost of service study for rate
design purposes, by the time I get to that we're essentially
past all the revenue requirement issues, is that correct?

MR. HAMILTON: The total revenue requirement's beensettled and it's assigned two different customer classes,

1 yes.

- 2 MR. HUTCHINGS: So whatever happens within the cost 3 of service study is effectively revenue neutral for Hydro?
- 4 MR. HAMILTON: Yes.

5 MR. HUTCHINGS: Okay, so it is at that point that 6 individual customers or classes of customers are affected 7 by the decisions that are effected through the cost of 8 service study?

9 MR. HAMILTON: The cost of service study is sometimes 10 called the cost allocation study, just seeks to apportion the 11 pie amongst the players, the size of the pie has been 12 determined.

MR. HUTCHINGS: Yes, okay. Good way of putting it.
You've told us already that the rate for Newfoundland
Power and the firm rate for the industrial customers falls out

directly from the cost of service study, correct?

17 MR. HAMILTON: Yes.

MR. HUTCHINGS: Can you just show us in the cost of
service study where that is? Perhaps the third
supplemental evidence of Mr. Brickhill is the final version

I think we have of the cost of service study.

22 MR. HAMILTON: On Schedule 1.3, page 1 of 5, which is

page 11 of 94, JAB-1, Revision 2, this shows a unit demand
energy and customer amounts.

MR. HUTCHINGS: And the energy rate for Newfoundland Power, for instance, shows up there under Column 10.

27 MR. HAMILTON: Yes.

MR. HUTCHINGS: And that rate 0.4750 is a result of adding in the deficit allocation and the revenue credit to the rate produced by the cost of service under Column 5, is

- 31 that correct?
- 32 MR. HAMILTON: Yes.

MR. HUTCHINGS: Okay, and is it a straightforward question to ask you where the 0.4, or .04142 is derived in the cost of service study, that is the non-demand demand and energy rate for Newfoundland Power before the deficit allocation.

MR. HAMILTON: The subsequent schedule to 3.1 is 1.3.1
and that shows the total cost of service for Newfoundland
Power in this case broken down into demand and energy
and customer cost.

42 MR. HUTCHINGS: Okay, can you give us the page out of43 94 for that?

- 44 MR. HAMILTON: Page 16.
- 45 MR. HUTCHINGS: 16 of 94?

46 MR. HAMILTON: And the total dollar amounts there are
47 then divided by the total energy sales units as identified on
48 page 21 of 94, to yield the unit costs that were on the
49 previous page.

MR. HUTCHINGS: Okay, and for Newfoundland Power
that's a straightforward application using just the total, you
don't need to break it down into demand energy and
customer for the duration of Newfoundland rate, do you?

54 MR. HAMILTON: Demand and energy are combined to 55 yield the total energy charge for Newfoundland Power.

MR. HUTCHINGS: Right, but I mean looking at this page
16 of 94, before deficit and revenue credit allocation,
Column 2, is simply the total of Columns 3, 4 and 5, is that
correct?

60 MR. HAMILTON: That's correct.

MR. HUTCHINGS: Okay, and you just take this total
amount, the \$187 million odd and divide that by the number
of kilowatt hours and you come up with Newfoundland
Power's rate?

MR. HAMILTON: No. The customer component isseparate. The energy rate is a function of the demand andenergy costs.

MR. HUTCHINGS: So it is just the sum of the demand andenergy divided by the kilowatt hours?

- 70 MR. HAMILTON: That's correct.
- 71 MR. HUTCHINGS: So there's a separate customer charge?
- 72 MR. HAMILTON: Right.
- 73 MR. HUTCHINGS: To Newfoundland Power?
- 74 MR. HAMILTON: Yes.
- 75 MR. HUTCHINGS: Okay. Now in the case of the industrial
- customers, how would you move from this page 16 to the
- rates that show up on page 11?

78 MR. HAMILTON: The total demand cost would be divided
79 by the billing demand units on page 21 to derive the
80 demand unit rate and the energy cost would be divided by
81 the sales units, from page 21 to derive the energy rate.

82 MR. HUTCHINGS: Okay. So in this instance, there are two 83 separate calculations because there's a separate demand 84 charge, correct?

85 MR. HAMILTON: Correct.

MR. HUTCHINGS: Okay, and the billing demands from
page 21 are simply based upon the forecast provided to
you by the industrial customers.

MR. HAMILTON: That's correct.

1 MR. HUTCHINGS: So the combination of the numbers

2 from pages 21 and 16 are carried forward to page 11 and the

3 demand rate of \$6.77 for the firm power for industrial

4 customers and the energy rate of .02329 dollars, which is

- 5 2.3 cents, these two numbers are the result of the division 6 of the other numbers that we referred to?
- 7 MR. HAMILTON: Yes.

MR. HUTCHINGS: Alright. Now if we could move for a
moment then to the non-firm industrial rate. That I think
you'd agree does not fall out of the cost of service study
directly, does it?

12 MR. HAMILTON: No.

MR. HUTCHINGS: I notice on page 11 of 94 there is an entry in Column 4, on line 3, that's page 11 of 94, for the energy charge for non-firm which is again the 2.329 cents per kilowatt hour, but there is no demand charge mentioned on that line. I take it that the demand charge is not actually derived in respect of non-firm energy from the cost of service at all, is it?

20 MR. HAMILTON: No. Neither is energy cost.

MR. HUTCHINGS: No, and the number that's here for the energy cost is not the actual number that's used as the energy portion of the rate for the non-firm, is it?

24 MR. HAMILTON: No.

MR. HUTCHINGS: Okay. Is there a reason why that number is there at all?

- MR. HAMILTON: I'm inclined to say it shouldn't be there.I'm not sure why its there.
- MR. HUTCHINGS: Okay. It doesn't seem to be doinganything so...

MR. HAMILTON: No, it's really different from the number in Column 9, so it should be, yes, it seems kind of strange there.

- MR. HUTCHINGS: Okay. Yeah, just explain for us what the
 number in Column 9 does actually represent.
- 36 MR. HAMILTON: Under non-firm?
- 37 MR. HUTCHINGS: Under non-firm, its line 3, Column 9.

MR. HAMILTON: I'm not sure what that refers to either.
I believe it's the, it reflects the actual fuel from Holyrood
that would be used, but I'm not 100 percent sure.
(inaudible) an allocation there (inaudible).

42 MR. HUTCHINGS: Okay. Now there were a number of 43 requests for information that related to the non-firm rates 44 and I just want to refer to those initially. Perhaps we could 45 go first to **NP-183**. You're asked here to provide the details 46 of the determination of the rate proposed for Interruptible 47 A emergency power and exceptional power, and those are

- the types of power that we are referring to as non-firm, is
- 49 that correct?

50 MR. HAMILTON: Yes, it is.

51 MR. HUTCHINGS: Okay, and the answer indicates that 52 this is not a specifically calculated cost based charge, and 53 it is said that the charge is intended to reflect some value of 54 the generation plant in place to provide the non-firm 55 service. Can you tell me how it was that Hydro came to 56 assign the demand charge of \$1.50 to this particular rate?

MR. HAMILTON: Fundamentally we started from a point 57 that the non-firm service should be, not be subsidized by 58 59 any of the firm load customers, so all the elements of the rate should pay its own way. So working from that starting 60 point the energy was a little more straightforward in that 61 there's a, you can relate to the fuel being provided and 62 that's Holyrood, to the extent they have an accurate 63 64 estimate of that, then add on the other incidental costs, the 10 percent overhead to reflect that incidental sales should 65 have at least as much profit as firm sales and recognize that 66 there's some additional effort on behalf of staff, and then 67 there's the element of the system that provides this actual 68 69 energy, that there's more involved than just the fuel itself, it is also still the plant, and so to contribute towards to 70 some of the plant to an extent then we determine that a, 71 provide against, I guess, the term free rider concept, which 72 73 I know Mr. Brickhill referred to yesterday and today and I believe Mr. Wilson in one of his evidence made the same 74 term, that to recover a portion of the rest of the system cost 75 for the benefit, then we set out to determine what would be 76 a reasonable number and we felt that a full demand charge 77 wasn't appropriate because a full system cost are paid by 78 firm customers, so we looked at various ways to measure, 79 come up with a proxy for the number. There is no, at least 80 that I'm aware of, or neither that Foster is aware of, a 81 standard calculation so we looked at the cost of the plant 82 involved with providing the energy, and so we did this 83 calculation some time ago and it yielded a number that 84 people were fairly comfortable with. We didn't try and 85 make it a rigid formula item. It tied in the elements of plant 86 and it made a (inaudible) adjustment because the hydraulic 87 and thermal in it and so it yielded a number that we were 88 comfortable with of \$1.50 and so that was the basis for it. 89 We also looked at other aspects to try and see if there was 90 any other way to make the calculation, I guess, any more 91 92 objective and as the, overtime I guess we came up with other calculations that gave us numbers in the similar 93 ballpark we made another (inaudible) a little calculation in 94 95 the cost of the service model that more accurately extracted some of the thermal (phonetic) demand cost and return. 96 Those are the calculations as the model got refined, and 97 that yielded similar numbers so we felt that was, 1.50 was a 98

- good starting point. 1
- MR. HUTCHINGS: Okay. All of the sales that we're talking 2
- about here though are interruptible in nature, correct? 3
- MR. HAMILTON: Yes, they are. 4

MR. HUTCHINGS: Okay, so these are only amounts of 5 power that can be accessed when Hydro has it available? 6

7 MR. HAMILTON: That is correct.

MR. HUTCHINGS: Okay, so your system is not built for 8 the purpose of providing this type of interruptible power, 9 is it? 10

MR. HAMILTON: No. 11

MR. HUTCHINGS: No, so your capacity charges are all 12 related to your firm power sales, correct? 13

MR. HAMILTON: That is correct. That's right. 14

15 MR. HUTCHINGS: So the notion of having a demand

charge associated with this type of power sale really 16

assigns a capacity cost that is not, in fact, being caused by 17 the customer to that customer? 18

MR. HAMILTON: The plant wasn't built to provide that 19 service. The customer is deriving a benefit from the use of 20 that plant. 21

MR. HUTCHINGS: Yes, I understand that, but the capacity 22

charge is designed, is it not, to recover over the long term 23 your fixed costs of providing the capacity?

24

MR. HAMILTON: That's right. Plant, your system is built 25 to handle your firm load to the extent that it can provide 26 any other sales along the way as, I'll call them incidental. 27 But any time you make such incidental sales, you have to 28 ensure that the, you're recovering all costs and to the 29 extent that additional contributions can be made from those 30 sales to reduce the firm load customers' rates, then that's 31 fine too. 32

MR. HUTCHINGS: Your firm rates are already designed to 33 recover all of those capacity costs, correct? 34

MR. HAMILTON: They are to the extent that, in this case 35 here we credited back any revenues over cost from like this, 36 wheeling, that type of thing, for ... to reduce the firm load 37 38 customer rates.

MR. HUTCHINGS: Yes. No, I understand that, so in the 39 result you're not over-collecting. 40

MR. HAMILTON: In total we're not over-collecting, no. 41

The free rider concept here is very similar to the free rider 42 concept of wheeling. One can also argue that there should 43

be no charge for wheeling seen as how the plant was put 44

there anyway, so why charge for wheeling. It's the exact 45

same commonalogy. It's there at a point in time you're 46

47 getting some use of it but without it you couldn't avail of

the service, so it's a case of how do you price it and you 48

come up with some mechanism that gets you a reasonable, 49

50 it's obviously not the same as firm service, no it's not that 51

end, it's not zero, how do you come up with a value and so it's ... 52

MR. HUTCHINGS: In terms of the energy costs, those are 53 fully allocated in the non-firm rate, correct? 54

MR. HAMILTON: The energy costs, yes, as incurred, 55 they'll be recovered in the rate. 56

MR. HUTCHINGS: Yeah, and then you have the 10 percent 57 surcharge on top of that to recover even more costs? 58

MR. HAMILTON: Well to ensure that we make as much 59 profit on that as we do on the other elements and to 60 recover the other costs, yes. 61

MR. HUTCHINGS: Is there a calculation behind the 10 62 63 percent?

MR. HAMILTON: Not an explicit calculation. The large 64 portion of that calculation would be the rate of cost of 65 capital which would be 7.3 odd percent right now, so the 66 remaining 2.7 would cover the other incidental costs of 67 (inaudible) and staff time. 68

MR. HUTCHINGS: So for the purpose of the cost of 69 service, you do forecast some non-firm sales, do you? 70

MR. HAMILTON: We include whatever forecasts are 71 72 provided by our customers.

MR. HUTCHINGS: So ultimately I think it's fair to say that 73

on both the demand charge side of the non-firm rate and 74

the ultimate amount of the energy charge with the 10 75

percent in, there's a degree of judgement applied by Hydro 76 in reaching each part of that rate, is that correct? 77

MR. HAMILTON: Yes. 78

MR. HUTCHINGS: The energy portion of the charge, do 79 you know what that would be today? 80

81 MR. HAMILTON: No, I don't. I don't know what the price, the average cost of Holyrood is in the tank right now. 82

MR. HUTCHINGS: Okay. That will, the energy charge 83 though will vary with the efficiency factor of the Holyrood 84 85 units, would it not?

MR. HAMILTON: That would vary with the efficiency, it 86 would vary with the price, or cost I should say in the tank? 87

MR. HUTCHINGS: Yes. If we look for a moment to IC-202, 88 page 7 of 12. You may need to go back a page just to 89 90 identify that table, the bottom of the previous page will tell us the table compares the industrial firm energy charge with 91 the industrial non-firm energy charge by month for the year 92

- 1 2002, using the average cost of fuel used in the cost of
- 2 service for each source. So looking at the table then, I take
- 3 it that the numbers under the heading "Holyrood Non-Firm
- 4 Energy Rate" would relate to the question I was just asking
- ${\scriptstyle 5}$ ${\scriptstyle }$ as to what the charge would be on the energy side of that
- 6 rate as it was projected at that time.
- 7 MR. HAMILTON: Right. It's based on the purchases and
 8 the forecast of fuel for prices that was available at that time.
- 9 MR. HUTCHINGS: Okay, and the next column then is the
- variance from firm which is the amount in addition to the
- 11 firm energy charge that is built into the non-firm energy
- 12 charge, correct?
- 13 MR. HAMILTON: That's correct.
- MR. HUTCHINGS: Okay, and that energy charge of course
 varies with the source from which the interruptible energy
 is provided, is that correct?
- 17 MR. HAMILTON: That's correct.
- 18 MR. HUTCHINGS: Okay, and the gas turbine non-firm
- energy rate and diesel non-firm energy rate which are here
- give us what the numbers would be if it was at a time thatyou had to access those sources for the energy?
- 21 you had to access those sources for
- 22 MR. HAMILTON: Yes.
- MR. HUTCHINGS: And that goes up over ten cents akilowatt?
- 25 MR. HAMILTON: Kilowatt hour.
- MR. HUTCHINGS: Yeah, kilowatt hour. Okay. Looking at 26 your second supplemental evidence, supplementary 27 evidence, Mr. Hamilton, the first page in the table gives us 28 percentage changes for the number, the different rates that 29 are at issue here, and in the non-firm rate under the 30 industrial you show the original submission at an increase 31 of 29.9 percent, September revision is the same, then the 32 October revision is 1.8 percent. Can you explain for us 33 what's happening between September and October? 34
- MR. HAMILTON: There's a reduced forecast of non-firm sales and the, it looks like the energy portion is a smaller portion of the total cost, must be a higher load factor assumed in the non-firm sale purchases.
- 39 MR. HUTCHINGS: And why was there a higher load factor40 assumed in the October?
- 41 MR. HAMILTON: Whatever forecast we were provided 42 with, I guess.
- 43 MR. HUTCHINGS: So you say the higher load factor, there
 44 was implicitly a higher load factor in the forecast for the ...
- 45 MR. HAMILTON: In the forecast that we were provided46 that is based on, yes.

- MR. HUTCHINGS: The forecast for the energy. So the
 percentage that your given there is, in fact, as it says I
 guess, a percentage of change in revenue so that has the
 amount of sales built into it. That's not intended to be a
 percentage increase in the rate.
- 52 MR. HAMILTON: No. No there's no change in the rate. 53 It's a function of applying the rate to the values provided.
- 54 MR. HUTCHINGS: So in the various revisions that we've 55 seen the rate for non-firm power, the demand charge has 56 stayed the same, at the 1.50? Is that correct?
- MR. HAMILTON: The demand charge is the same at the
 \$1.50. The revised fuel forecast, and I guess timing of the
 interruptible sales has affected the actual average cost of
 fuel. Subject to confirmation, I think there's a typo there, I
 think the October revision is an incorrect percentage.
- MR. HUTCHINGS: Okay, is there some other number onthe record that we can use to to check that?at?
- 64 MR. HAMILTON: I have a calculation here that's showing 65 27 percent, but, that would look to be more correct, but I'll
- 66 have to verify it overnight.
- MR. HUTCHINGS: Okay, well perhaps you can check that
 overnight and let us know in the morning. So the energy
 sales are smaller, would that not normally give rise to a
 lower load factor rather than a higher load factor?
- 71 MR. HAMILTON: The demand drops proportionately72 more.
- 73 MR. HUTCHINGS: Okay.
- 74 MR. HAMILTON: It's only a small reduction in energy but75 there's a larger reduction in demand.
- 76 MR. HUTCHINGS: Well if it's in fact only a one or two77 percent decline then it's a different issue than we had78 before.
- MR. HAMILTON: That's right. It's not significant enough
 of a change in the numbers I'm looking at here to cause
 that, so either my table here is incorrect or the percentage
 there is incorrect.
- MR. HUTCHINGS: Okay, well you can let us know what
 your investigation shows up on that. I just want to speak
 briefly, Mr. Hamilton, about the wheeling rate. Can you
 just briefly explain the derivation of the wheeling rate that
 is included in the current proposal?
- MR. HAMILTON: It's the, basically it's calculated the same
 as it has been in the past and it takes total revenue
 requirements of transmission system out of the cost of
 service and divides by a total energy through transmission
 less adjustment for compensation to Grand Falls and it
 yields an average cost of going through that system.
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- 1 MR. HUTCHINGS: Okay, and all the wheeling that we're
- 2 talking about obviously is going back and forth between
- 3 Grand Falls and Stephenville, correct?
- 4 MR. HAMILTON: Currently that's all there is, yes.
- 5 MR. HUTCHINGS: Yes, okay. The rate that's derived, in 6 fact, is based upon all of your transmission costs
- ract, is based upon an or your transmission coststhroughout the entire system, including the Great Northern
- 8 Peninsula?
- 9 MR. HAMILTON: Yes.

MR. HUTCHINGS: Okay, and we heard the debate yesterday with Mr. Brickhill about where the electricity goes, and where it doesn't go, but is it fair to say that this wheeling could occur quite well whether or not the Great Northern Peninsula was connected to the grid.

- 15 MR. HAMILTON: Yes.
- MR. HUTCHINGS: Yes, so that the cost of that line shouldnot necessarily impact what the wheeling rate should be.

MR. HAMILTON: The concept of the wheeling rate, I 18 guess, like any other numbers, it's, because it's an 19 incidental service, it's how you derive a correct value for it, 20 it's not a cost base rate in its narrowest sense because you 21 didn't build any plant to provide this service, it's an 22 incidental so it's a case of trying to come up with a 23 reasonable value, some might say well you can charge 24 whatever the market will bear, but again how do you come 25 up with the value to the customer. The problem one runs 26 into is, as Mr. Brickhill pointed out yesterday, identifying 27 the exact route the energy is going to actually take is 28 number one, and therefore what you're trying to measure in 29 terms of the cost of going over the line. It was decided 30 some years ago, I guess, to come up with an average cost 31 so that whereever it went you do basically the same kind of 32 number to avoid, there's not enough activity to justify 33 doing detailed studies on it. You get into problems of well 34 when is it, the timing of the wheeling, for example, would 35 greatly affect the loss level, assuming the line already has 36 some load on it because either you do it for firm load 37 purposes, then you could argue that the transport over that 38 line is incremental and therefore any increase in losses 39 (inaudible) which is not linear, of course, is a higher rate of 40 losses and therefore by using an average number you're 41 actually getting lower losses than if you used an actual 42 calculation. The line length the route is taking is a good 43 measure of that, so I guess historically the average cost of 44 transmission plant on a per kilowatt hour basis is what's 45 been used. 46

- 47 MR. HUTCHINGS: You use this as an example of the free48 rider principle?
- 49 MR. HAMILTON: You could say that there's no plant put

there to provide wheeling so therefore there's no direct cost incurred in shipping the energy, with the exception of the extent that you could prove where the energy is actually coming from, there might be incremental loss impact that you're trying to identify. It's mainly a case of, it's sort of paying for rent of the medium but we aren't going to change the medium to ship it there.

MR. HUTCHINGS: No, I understand that but if we can
drag the analogy perhaps a little too far, the plant upon
which we're riding here does not include the line up the
Great Northern Peninsula. Correct?

MR. HAMILTON: No, the, it is a very small portion of the 61 62 total transmission plant one would argue, but to come up with (inaudible) to figure out specifically where the energy 63 is coming from, for example, Cat Arm power, or Hines Lake 64 power, or Port aux Basque power, you can pick up from 65 anywhere, depending on way the system is loaded at that 66 point in time, then how do you determine the proportionate 67 68 cost of each of those transmission lines that might be providing that energy flow and it was deemed a long time, 69 70 it's an exercise in, implied great precision with no precision (phonetic), because as I said, I mean, how do you value a 71 plant that's been fully recovered in firm rates, so we're just 72 trying to come with a number to the reflect that there's a 73 benefit derived by the customer and contribution, so this 74 is what's been used for years. 75

76 MR. HUTCHINGS: So you do not recognize the benefit in
77 excluding areas of the plant that are obviously not being
78 used for the purpose?

MR. HAMILTON: Well to do that, then you have to try 79 and come up with a precise calculation of the value or 80 benefit, losses, etcetera, through the line that is actually 81 being used and except depending on actual loading at the 82 point in time, every hour of the day would be coming from 83 a different direction and a different impact on the system 84 and losses, so which line do you actually charge for, and 85 typically I think most utilities tend to come up with a flat 86 rate. Some might have a rate that kind of varies by 87 88 distance, so the per kilowatt hour by 100 miles, 200 miles, whatever, that type of thing, or density. 89

MR. HUTCHINGS: Yeah, okay. I think I know where 90 you're coming from. I want to move on then while we're on 91 the subject of losses to transformer losses. Perhaps we 92 could bring up IC-227. There are a number of questions 93 94 put here in respect of transformer losses, but perhaps, you know, I'll leave it to you, Mr. Hamilton, to refer to these 95 answers to the extent you see fit, but just to try to explain 96 to us how it is that transformer losses are now handled 97 within the cost of service study. Perhaps you could scroll 98 down to the answer (a). 99

100 MR. HAMILTON: As outlined in **IC-227**, right now losses

on common transformers are allocated amongst 1 participating rate classes, so it would be the whole system; 2 the distribution transformers are therefore in the 3 4 distribution level in hydro rural; common transformer losses are allocated amongst all rate classes based on the 5 transmission level usage; losses on transformers 6 specifically assigned to customers are added to the demand 7 and energy of the customer groups for costing purposes, 8 so in the case of the specific, Newfoundland Power would 9 be in the retail, Newfoundland Power portion of the cost 10 study, if it's to be assigned to industrial customers, then 11 the industrial portion of the cost of service and losses on 12 customer owned transformers would be invoiced to 13 customers. The twist there is that right now there is only 14 one customer owned transformer for industrial customers 15 and that's with Abitibi Consolidated in Stephenville and 16 currently they have not been, or historically they have not 17 been billed for those losses. 18

MR. HUTCHINGS: And they have been specificallyassigned to the industrial class?

21 MR. HAMILTON: That's correct.

MR. HUTCHINGS: Okay. So I take it from that description then that there is no prescribed voltage at which Hydro typically will regard itself as delivering power to its customers, it delivers at a number of different voltages.

MR. HAMILTON: It delivers at a number of different voltages, typically classified as transmission supply.

MR. HUTCHINGS: Yes, okay. I mean these go from 230, to
66, and 138. They're different levels for different customers
and even sometimes a single customer will have several
different levels, correct?

32 MR. HAMILTON: Yes.

MR. HUTCHINGS: Okay. Would you agree with me that
the losses to be experienced in transformation from 230 kV
down to 13 or whatever the customer's usage may be at,
will be greater than the losses associated with the
transmission from 66 down to 13?

38 MR. HAMILTON: It can be.

MR. HUTCHINGS: That's seems to imply there'd besituations where it would not be. What do you think thosewould be?

42 MR. HAMILTON: It depends on the nature of the 43 transformers involved, and how many steps are in between.

44 MR. HUTCHINGS: Yes, okay.

MR. HAMILTON: The transformer characteristics
determines the level of losses, not just the voltage from and
to.

48 MR. HUTCHINGS: Yes, okay. There can be different 49 technologies, I guess, or methodology.

50 MR. HAMILTON: There's efficient transformers and 51 inefficient transformers, and that sort of thing and I guess 52 the ...

MR. HUTCHINGS: All other things being equal, mystatement was correct, for the same transformer or sameseries of transformers?

MR. HAMILTON: One would expect the losses to beslightly higher.

MR. HUTCHINGS: Yes, okay, alright. So why was it that
Hydro determined it should change its treatment of
transformer losses?

MR. HAMILTON: On the basic premise that the rates are 61 designed for an average voltage level, a typical voltage 62 level if you would, and to the extent that the metering is not 63 at that voltage level then there's an inherent inaccuracy in 64 65 the number and by recovering losses of the specific transformers involved it was felt to be equitable because of 66 some of the different voltage levels that are involved and 67 for the sake of customers that buy their own transformers, 68 69 the extent that they buy a more efficient transformer versus a less efficient transformer, they would reap the benefit or 70 dis-benefit thereof rather than penalizing other customers. 71 So that element of equity would be there so that, for 72 example, Stephenville where they bought their own 73 transformer, they would only have to pay for their directly 74 controlled losses, so to speak, and that would then reflect 75 their correct share of the losses. The specifically assigned 76 transformers, they would be the transformers directly 77 related to those customers. Again they would pay the 78 losses that are unique to them and not to have to worry 79 about other people's losses. The losses related to common 80 transformers or a common system, they're there for some 81 reason of benefit to more than one customer, so they get 82 lumped into the whole grouping, and that's a function of 83 common versus specifically assigned, but the intent is to 84 try and have an improvement in equity so that customers 85 pay for their respective transformer losses rather than an 86 87 averaging.

MR. HUTCHINGS: Okay. You have customers obviously
who buy power at 230 kV, correct?

90 MR. HAMILTON: Yes.

MR. HUTCHINGS: Okay, and in that instance there is no
transformation, transformer cost imposed on Hydro's
system at all, is there?

MR. HAMILTON: If they're buying at 230, that's fine, but
the problem is that the metering is not at 230, so their

⁹⁶ metering is on the low side of transformer and you're trying

- to determine then how much did they buy at 230, so you're
- 2 trying to get back to the other side of the transformer, and
- 3 so you're adding on the losses to that transformer, being
- 4 specific to the transformer that's involved to come up with
- 5 an accurate measure of what they are buying, as opposed
- 6 to taking an average level of losses and saying well that's
- 7 what you actually bought, because ultimately you're going,
- 8 everyone is going to pay losses.
- 9 MR. HUTCHINGS: Yes, and all the losses have to get paid10 for.
- MR. HAMILTON: Right, so it's a question of I guess, depending on what the numerator is and your denominator is in, you can have losses at a lower percentage (inaudible) and therefore lower losses, higher sales for a lower unit rate and you're applying it to a higher sales level, then you will pay the same amount. The fundamental issue here really is one approach fairer in terms of more accurate cost recovery,
- 18 causality, so to speak.
- MR. HUTCHINGS: Yeah, but I mean compare the situation 19 of your customer who takes delivery at 230 and the one 20 that takes delivery at 66, in your current proposal, as I 21 understand it, the customer who takes delivery at 230 will 22 23 be paying for all of the transformation losses from 230 down to his usage voltage and the transformation from 230 24 to 66 for the other customer will be a common cost, is that 25 correct? 26
- MR. HAMILTON: There would be some difference in thelevel of losses there.
- MR. HUTCHINGS: There would be a difference in the level of losses but there is also be a difference who pays, isn't it?
- 31 MR. HAMILTON: Pardon, I missed something.
- 32 MR. HUTCHINGS: Okay, under your proposed system, for
- a customer who takes delivery at 230 kV, how are the losses
- on that transformer dealt with, who pays?
- MR. HAMILTON: On a specifically assigned or customer owned, that customer pays for it. If it's a common transformer, it's assigned to the system allocated with all the losses.
- MR. HUTCHINGS: Okay. Compare that to a situation of a
 customer who had a specifically assigned transformer but
 received power at 66 kV, and the transformer was used to
 get it down to his usage voltage, what's that customer
 paying?
- 44 MR. HAMILTON: Somewhere along the way though it had
 45 to get down from 230 to 66, so the question is where is that
 46 transformer.
- 47 MR. HUTCHINGS: Yes.
- 48 MR. HAMILTON: And if that transformer is again

- specifically assigned to that customer, that customer ispaying for that transformer and transmission thereafter.
- 51 MR. HUTCHINGS: Yeah, everything is fine, but if the 52 transformation from 230 down to 66 is common, what's the 53 effect then?
- 54 MR. HAMILTON: It would be in the total losses on the 55 transmission system.
- MR. HUTCHINGS: So the customer who's taking at 66 kV
 is better off than the customer who's taking at 230 because
- 58 they don't have to pay for as much losses.
- 59 MR. HAMILTON: Only if the transformer is classified as60 common.
- MR. HUTCHINGS: If, yeah, if the transformer from 230down to 66 kV is common, correct?
- 63 MR. HAMILTON: Correct.
- 64 MR. HUTCHINGS: Yeah, and is that not typically the case
- 65 for your customers that those who take at 66 kV are taking
- 66 power that has been transformed by a common transformer $d_{0} = d_{0} + V_{0}^{2}$
- $67 \quad \text{down to } 66 \text{ kV}?$
- MR. HAMILTON: There are some that are common, somethat are specifically assigned.
- 70 MR. HUTCHINGS: Okay. Looking IC-227, you were asked
- 71 in question (d) to identify the effects for Newfoundland
- 72 Power and industrial customers if transformer losses below
- 66 kV were specifically assigned and transformer lossesfrom generation voltage down to 66 kV were assigned
- rommon. Let me just ask you is that not on its face a more
- ⁷⁶ fair way of dealing with those losses?
- 77 MR. HAMILTON: We didn't think so.
- 78 MR. HUTCHINGS: Why not?
- MR. HAMILTON: Because the extent that transformers 79 can identify that are specific customers, and I guess this 80 goes back to one of the questions Mr. Brickhill had, there's 81 a series of allocations in any cost study, but ideally 82 83 anything that might be specifically assigned can be done with very good precision. So in the case of these 84 transformers they can be done fairly accurately in terms of 85 specifically assigned, customer owned, or common, to the 86 extent that we can identify then the losses associated with 87 those transformers accurately will then (inaudible) to do 88 89 so.
- MR. HUTCHINGS: If I can interrupt you there for a
 moment though, the customer who's taking at 230 kV is
 paying the same price as the customer taking at 66 kV, are
 they not, if they're both industrial customers, shall we say?
- MR. HAMILTON: If they're both industrial customers, if
 one is Hydro rural versus an industrial it's a different rate,

- or Newfoundland Power has a different rate and they're
 allocated different numbers.
- 3 MR. HUTCHINGS: Yeah, I understand that, but for ease of
- 4 comparison if we have two industrial customers, one taking
- 5 66 kV and the other at 230, they're both paying the same
- 6 rates, correct?
- 7 MR. HAMILTON: That's correct.
- 8 MR. HUTCHINGS: But if one is taking at 230, they're going
- 9 to be paying more losses than the one is taking at 66,10 correct?
- 11 MR. HAMILTON: More than likely.
- 12 MR. HUTCHINGS: Yeah, is that not a discriminatory rate?
- MR. HAMILTON: It's more fair than using an average forall.
- MR. HUTCHINGS: What do you mean by using an average for all?
- 17 MR. HAMILTON: Well alternatively you come up with
- 18 one average loss rate for everybody and apply it, and share
- 19 it out in everybody's rates so it's a case of (inaudible)
- 20 precision versus averaging is more fair.
- 21 MR. HUTCHINGS: Have you surveyed the practices of 22 other utilities on the question of transformer losses?
- MR. HAMILTON: I reviewed them yes, and I guess over 23 the years many meetings have been held, I participated in 24 numerous meetings myself. Back in eighties it was a very 25 big issue at several meetings of the section of the Canadian 26 Electrical Association that I was involved in, and there are 27 a lot of different practices around back in the seventies and 28 eighties and there was a particular committee struck to 29 address an area of commonality, I guess, to try to arrive at 30 some common treatment for losses for utilities, trying to 31 come up with some basis for why people do what they do, 32 and is there some logic, is there some standard that can be 33 arrived at, and well I guess the findings of the group was 34 that there's a wide range of justifications and 35 rationalizations, past practice, that sort of thing, that I 36 guess the bottom line was that the extent that a rate is 37 designed for the certain voltage level involved, that the 38 extent that metering isn't at that level that the meter reading 39 40 be adjusted to take it to that voltage level, and I know several utilities did change their practices during that time, 41 and I guess, this is a further reflection of that here too. 42
- MR. HUTCHINGS: There are utilities, are there not, who
 will provide a credit for taking at a relatively higher voltage
 or an extra charge if you require the power at a relatively
 lower voltage, beyond the standard transmission.
- 47 MR. HAMILTON: And that's a function again, as I say, 48 you design the rate for delivery at a particular voltage and

- if your metering is at a different voltage, you adjust for it,
 or if the transformer is owned or not owned, you might
 have a transformer of ownership discount, again you're
 trying to arrive at, you have some basis for your rate to the
 extent that the circumstances of a particular customer is
 different from that average, then you would provide credits
 or extra charges to move it to that average.
- MR. HUTCHINGS: Have you within Hydro explored any
 other rate design element that could take into account the
 problem I've outlined with transformer losses, beyond what
 you proposed here?
- MR. HAMILTON: We looked at discussing the idea of just 60 going, I'll call it the low side of the transformer, and using 61 it as a direct meter reading for the low side. Again, as you 62 pointed that, even a low side, there are again a wide range 63 of voltages and that has other inherent items with it and 64 some might argue that administratively the low side would 65 be easier, you don't have to make those adjustments. The 66 67 end result would be you'd end with slightly higher unit rates because your sales would be at a lower level and as 68 most things, anytime you change that there'd be some 69 group of customers better off than another group of 70 customers. It's a case of where is the more equitable, fairer 71 location to use as your reference point. 72
- 73 MR. HUTCHINGS: So it comes down to a matter of74 judgement as to which of the proposed treatments is more75 fair.
- 76 MR. HAMILTON: That's correct.
- 77 MR. HUTCHINGS: That's probably a good place to break,
- 78 Mr. Chair. I don't expect to be very much longer, but there
- ⁷⁹ is one item that Mr. Hamilton is going to get for me in the
- 80 morning and I may have a few other questions.

MR. NOSEWORTHY, CHAIRMAN: Thank you, Mr.
Hutchings. Thank you, Mr. Hamilton. Given that
everybody boycotted, including myself, my 2:00 o'clock
time, I will revert back to 9:30 tomorrow morning (*laughter*).

85 (hearing adjourned to November 29, 2001)