1	New Brunswick Board of Commissioners of Public Utilities
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3	In the Matter of an application by the NBP Distribution $\&$
4	Customer Service Corporation (DISCO) for changes to its
5	Charges, Rates and Tolls
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7	Fredericton, N.B.
8	November 2nd 2005
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New Brunswick Board of Commissioners of Public Utilities 1 2 3 In the Matter of an application by the NBP Distribution & 4 Customer Service Corporation (DISCO) for changes to its 5 Charges, Rates and Tolls 6 7 Fredericton, N.B. November 2nd 2005 8 9 10 11 12 13 David C. Nicholson, Q.C. CHAIRMAN: 14 15 VICE-CHAIRMAN: David S. Nelson 16 17 COMMISSIONERS: Ken F. Sollows 18 Randy Bell 19 Jacques A. Dumont 20 Patricia LeBlanc-Bird 21 Diana Ferguson Sonier 22 H. Brian Tingley 23 24 BOARD COUNSEL: Peter MacNutt, Q.C. 25 26 BOARD STAFF: Doug Goss 27 John Lawton 28 John Murphy 29 Arthur Adelberg 30 31 BOARD SECRETARY: Lorraine Légère 32 33 34 CHAIRMAN: Good morning, ladies and gentlemen. Any 35 preliminary matters? 36 MR. MORRISON: Yes, Mr. Chairman. Just one. It comes out 37 of questions you put to Mr. Larlee yesterday dealing with 38 the 200 load research meters. And we said it was 39 discussed only on September 28th. And we found that there 40 was also some discussion on the record with Mr. Larlee on 41 October 4 and that is pages 1238 to 2140 of the

1 - 2036 -2 transcript. 3 And there were two undertakings filed as exhibit A-38 and A-41 that also deal with the issue, Mr. Chairman. 4 5 Thank you. If there are no more preliminary CHAIRMAN: matters, why, go ahead -- hang on. I should get the 6 7 appearances. For the Applicant this morning? 8 MR. MORRISON: Good morning, Mr. Chairman. Terry Morrison 9 for the Applicant. And with me are Mac Ketchum, 10 Consultant, and Neil Larlee, our panel. 11 CHAIRMAN: Thanks, Mr. Morrison. Canadian Manufacturers are 12 not here. Nor is Eastern Wind Power. Enbridge Gas New 13 Brunswick? 14 MR. MACDOUGALL: Good morning, Mr. Chair. David MacDougall 15 representing Enbridge Gas New Brunswick and I am joined 16 today by Dr. Alan Rosenberg. 17 CHAIRMAN: Thanks, Mr. MacDougall. Anyone here from the 18 Irving Group of Companies? No. Jolly Farmer isn't here. 19 Rogers Cable isn't here. Self-represented individuals 20 aren't here. Municipal Utilities, Mr. Gorman? 21 MR. GORMAN: Good morning, Mr. Chairman and Commissioners. 22 Raymond Gorman appearing for the Municipal Utilities. 23 This morning I have Eric Marr, Dana Young, and Jeff 24 Garrett with me. Thank you, Mr. Gorman. Public Intervenor? 25 CHAIRMAN:

1	- 2037 -
2	MR. HYSLOP: Good morning, Mr. Chairman. Peter Hyslop.
3	This morning I have Mr. Barnett and Mr. O'Rourke and Ms.
4	Power with me. Thank you.
5	CHAIRMAN: Thank you, Mr. Hyslop. And as I cast my eye over
6	the audience there are no Informal Intervenors. ANd Mr.
7	MacNutt, for the sake of the record, who do you have with
8	you today?
9	MR. MACNUTT: I have with me Doug Goss, Senior Advisor, John
10	Lawton, Advisor, John Murphy, Consultant. Appearing as a
11	witness is Mr. Adelberg and on the telephone Mr. Garwood.
12	CHAIRMAN: Good morning, Mr. Garwood.
13	MR. GARWOOD: Good morning. I was on mute. Sorry.
14	CHAIRMAN: Okay, Mr. MacDougall, go ahead, sir.
15	CROSS EXAMINATION BY MR. MACDOUGALL:
16	MR. MACDOUGALL: Thank you, Mr. Chair. Good morning, panel.
17	Good morning, Mr. Adelberg. Good morning, Mr. Garwood.
18	MR. ADELBERG: Good morning.
19	MR. GARWOOD: Good morning.
20	MR. MACDOUGALL: Mr. Chair, just to start out, I will be
21	primarily referring to three items which I think you
22	should have in front of you for the duration of this cross
23	examination and occasionally referring to other items.
24	The three items will be Messrs. Adelberg and Garwood's
25	evidence which is exhibit PUB-1. The other two items are
26	

1 - 2038 - Cross by Mr. MacDougall -Messrs. Adelberg and Garwood's responses to information 2 3 requests, which are PUB-2 and PUB-3. Now, Mr. Chair, just for clarification, the Board has 4 binders I guess numbered 2 and 3 from the exhibit list it 5 appears for the interrogatories. That is what my exhibit 6 7 list is showing. And I am unsure because we -- I do not 8 have those same binders so I am not sure which of the IRs are in which of the two binders. So I will be 9 10 occasionally referring to IR responses. They will be in 11 either volume 1 or volume 2. 12 And primarily I will be referring to the information 13 request responses to EGNB. We could take a moment, Mr. 14 Chair, if you want to. Perfect. Q.44 - So to start then, most of my questions I think will be 15 16 open, Mr. Adelberg and Mr. Garwood, to either of you who 17 wishes to respond. Some of them are specific to some of 18 your own issues. In those cases I will address them to 19 you specifically and obviously I only have the pleasure of looking at Mr. Adelberg so he can direct us more quickly 20 21 as to whether Mr. Garwood should respond. 22 And as I am the first person doing cross here, I will try 23 and take my time and certainly give time for Mr. Garwood 24 to jump in, if necessary.

I do note, Mr. Garwood, that Mr. Adelberg has another

1	- 2039 - Cross by Mr. MacDougall -
2	chair empty next to him, so you do have a chair here although
3	you are not sitting in it.
4	MR. GARWOOD: I'm not going to make it.
5	Q.45 - Mr. Adelberg and these first few questions are
6	specific to you. If you could go to EGNB your response
7	to EGNB IR-3, which again is in either PUB-2 or 3.
8	MR. ADELBERG: Could you please describe it? These are not
9	very well marked in the
10	Q.46 - Okay. It says at the top EGNB IR-3 to Energy Advisors,
11	question, please provide a list of testimonies that Mr.
12	Adelberg and/or Mr. Garwood have presented.
13	MR. ADELBERG: Okay. I have it. Thank you.
14	Q.47 - Okay. And in that response it's broken up in two
15	parts, one, the testimonies of Arthur Adelberg, the other
16	the testimonies of Steven Garwood.
17	CHAIRMAN: Just wait a second, Mr. MacDougall.
18	MR. MACDOUGALL: Certainly, Mr. Chair.
19	CHAIRMAN: We are having some difficulty locating that.
20	Q.48 - The question IR-1 and IR-3 is very similar. I am at
21	IR-3.
22	MR. ADELBERG: It's at tab 9 of my binder. I don't know if
23	it's the same for yours or not. Do you have a tab 9?
24	Mine is at tab 9 for some reason.
25	MR. MACDOUGALL: Thank you. Mr. Chair, most of my questions

- 2040 - Cross by Mr. MacDougall from the IRs will arise from EGNB one, so tab 9 we will go to
more often than not. Occasionally we will go to other IR
responses. And again I am at question 3. The question
was similar with some nuances from question 1, but it is
question 3 I'm at.
Q.49 - Now, Mr. Adelberg, I just want to -- this is -- you

8 were asked to provide a list of testimonies that you have 9 presented before regulatory boards including the docket 10 number, name of the utility, the subject matter and the 11 party or intervenor who sponsored their testimony. And in 12 going through the testimonies here, my understanding is 13 that you have never given testimony to a regulatory board 14 on cost of service?

15 MR. ADELBERG: That's correct.

16 Q.50 - Thank you. Now, Mr. Adelberg, have you ever personally 17 prepared a fully allocated class cost of service study? 18 MR. ADELBERG: No.

19 Q.51 - Thank you. Now, Mr. Garwood, there is a few questions 20 for you. And if we could turn to the second page of EGNB 21 IR-3.

22 MR. GARWOOD: I will tell you I have been unable to locate 23 the response to that. I don't have all the documents here 24 at my home. But I do have your original request in front 25 of me. So I know the nature of the request.

1	- 2041 - Cross by Mr. MacDougall -
2	Q.52 - Okay. Well let us try to do the questions.
3	MR. GARWOOD: Yes.
4	Q.53 - In going through that list I would just like to ask you
5	how many cases have you testified in from this list and
б	I know you don't have it how many cases have you
7	testified in which dealt with fully allocated class cost
8	of service studies of the sort we are dealing with in this
9	case?
10	MR. GARWOOD: Well just off the top of my head, my
11	experience with Central Maine Power Company when I was
12	manager of rates or before I became manager in the
13	department, I would say two or three.
14	Q.54 - Those aren't listed in the testimonies that you have
15	listed here?
16	MR. GARWOOD: Are they not listed as 89-68? Is 89-68 not a
17	docket that is listed there?
18	Q.55 - No, it is not.
19	MR. ADELBERG: 92-345 is one that is listed. I don't know
20	if that helps, Steve.
21	Q.56 - That says revenue requirement and rate design, retail
22	revenue requirements and rate design. But my
23	understanding that's in '92 and you testified yesterday
24	that Central Maine Power has been using marginal cost.
25	I'm talking about testimonies that you have dealt with
26	

1 - 2042 - Cross by Mr. MacDougall dealing with fully allocated class cost of service studies. 2 3 MR. GARWOOD: Yes. And I would have said 89-68 which was a 4 multi-phased case that went over a number of years was one 5 where I -- we certainly did submit an embedded cost of 6 service study, and at that time in the department I was a staff person assisting the director of that department at 7 8 the time who sponsored the testimony. I did not sponsor the testimony. I was assisting the director who was 9 10 sponsoring the testimony. So that would be why I didn't 11 list it specifically there.

12 Q.57 - Okay. So that's one?

MR. GARWOOD: And again that case was a multi-phased case where a number of versions of fully allocated cost of service studies were prepared and filed over a two or three year period that the case drug on for.

18 assisted in a fully allocated class cost of service study?
19 MR. GARWOOD: That's correct.

Q.58 - Well one proceeding in which you didn't prepare but

20 Q.59 - Thank you.

21 MR. GARWOOD: And thereafter as I said yesterday -- after 22 that docket was concluded, the commission no longer 23 required the company to prepare and file those and instead 24 relied on marginal cost of service studies.

25

1	- 2043 - Cross by Mr. MacDougall -
2	Q.60 - Correct. And since then none of your testimonies
3	reflected in EGNB IR-3 show that you have dealt with that
4	issue in other proceedings, correct?
5	MR. GARWOOD: Right. That is correct.
6	Q.61 - Thank you. Now if we can go to EGNB IR-1. And the
7	question here was please provide the actual testimonies,
8	and as you see in EGNB-3 these were a list of testimonies.
9	But EGNB IR-1 asked, please provide the testimonies of
10	either Mr. Adelberg or Mr. Garwood on the subject of
11	electric cost allocation and rate design presented over
12	the last five years.
13	And in the response it says, neither Mr. Adelberg nor Mr.
14	Garwood has retained copies of its testimonies on that
15	subject. I guess I'm just wondering why neither of you
16	retain any copies of any of your testimonies?
17	MR. ADELBERG: Well in my case some of them were while I was
18	with the company and at that time I didn't expect to leave
19	the company and become a consultant. So I felt they were
20	safe in the company files. Some of them are in
21	confidential dockets and just various reasons, but
22	that's the way it has happened.
23	Q.62 - But you have retained none of them. So the two answers
24	you just gave covers all of your testimonies over the past

25 five years?

1	- 2044 - Cross by Mr. MacDougall -
2	MR. ADELBERG: I'm not sure what you mean by the two answers
3	I just gave, but I will be glad to
4	Q.63 - Well you gave two reasons why you may not have kept
5	them
6	MR. ADELBERG: Yes.
7	Q.64 and but you have retained none of them, and I'm just
8	wondering if those two reasons cover all of those
9	testimonies, they were either for the company or
10	confidential?
11	MR. ADELBERG: The other reason would be that some of those
12	testimonies were given orally. In some proceedings you
13	make a presentation of your testimony on the record. You
14	don't file advance copies. So
15	Q.65 - Okay. So those three reasons cover all of your
16	testimonies and that's why you have no copies of them?
17	MR. ADELBERG: I believe so.
18	Q.66 - And Mr. Garwood?
19	MR. GARWOOD: Well in the last five years, as we just
20	discussed, I didn't present testimony on electric cost
21	allocation and rate design. My work was with marginal
22	cost studies during that time period, with the exception
23	of a transmission rate case at the FERC which uses
24	embedded cost study principles for determining the revenue
25	requirement. And so I had presented testimony in that

- 2045 - Cross by Mr. MacDougall -

2 FERC proceeding.

1

3 But again I didn't -- I haven't retained -- as Mr. Adelberg said, I didn't retain the testimonies, and in 4 fact the testimony I think that I did provide in response 5 to this which was -- or it may have been provided in 6 7 response to another one of your questions about the actual 8 marginal cost study, was the only testimony I was able to 9 locate in my possession. I think that was actually 10 provided in response to another one of your questions 11 Q.67 - Yes, it was, and that one I am aware of, Mr. Garwood. 12 MR. GARWOOD: Okay. Q.68 - And you mentioned that you did file some testimony in 13 front of the FERC and that the FERC uses embedded cost 14 15 studies, correct? 16 MR. GARWOOD: Right. And I'm not sure you -- instead of 17 calling them fully allocated cost studies they simply look 18 at the transmission FERC accounts to determine -- as are 19 reported in the US utilities FERC form 1, and they have, 20 you know, some fairly pre-established principles about 21 what sorts of costs can go into their transmission rates, 22 be they stated rates or formula rates. And that was the 23 nature of a case in which I was a co-witness there on 24 behalf of the New England Power Pool -- New England utilities -- back in '97 I believe, '96 or '97. 25

1	- 2046 - Cross by Mr. MacDougall -
2	Q.69 - '96 or '97, okay. And you didn't retain you don't
3	have a copy of that testimony?
4	MR. GARWOOD: I do not.
5	Q.70 - Thank you.
6	MR. GARWOOD: The law firm representing the New England
7	Power Pool would have retained this.
8	Q.71 - Thank you. Now if we could go on to a separate line of
9	questions, and there were a couple of comments raised
10	yesterday with respect to your views of Dr. Rosenberg's
11	evidence and some of my questions will derive out of some
12	of the comments in your direct or I guess your rebuttal
13	evidence as it was presented yesterday.
14	Now my understanding is that you said that Dr. Rosenberg
15	should have applied a 40/60 split to all generation types
16	rather than carry out the Peaker Credit analysis he did,
17	correct?
18	MR. ADELBERG: I think our testimony was that that was
19	would have been more consistent with the established Board
20	policy.
21	Q.72 - That's your view?
22	MR. ADELBERG: We are providing our view
23	Q.73 - Thank you.
24	MR. ADELBERG: I hope.
25	Q.74 - Now I take it then it's your view that the Board

1 - 2047 - Cross by Mr. MacDougall decision of 1992 did not approve the use of the Peaker Credit 2 3 Method? MR. ADELBERG: Our view of the Board policy was that as we 4 understood it was -- and we perhaps misunderstood it 5 6 originally -- but it was somewhat ambiguous in 1992, but 7 in 1993 they clarified their position on it and said that 8 they were not relying solely on the Peaker Credit Method, and it was for that reason that they had adopted sort of a 9 numerical split rather than a principle. 10 11 Q.75 - Now when you say that they clarified it in 1993, I 12 believe you had passed out some excerpt -- I think you 13 might have given it to Dr. Rosenberg -- it wasn't marked 14 as an exhibit, but it was an excerpt from the April 23, 15 1993, decision, and it was under the heading -- there were 16 only two pages provided and they were under the heading "Classification of Belledune Scrubber", correct? 17 18 MR. ADELBERG: Correct. Q.76 - So the comments that you were referring to were under 19 heading of a decision that was dealing with a 20 21 classification of the Belledune Scrubber? 22 MR. ADELBERG: That's correct. 23 0.77 - Thank you. Now if we can go to the decision of April 24 15, 1992? I believe the parties all have this. It has been mentioned a couple of times on the record. 25 It's not

1 - 2048 - Cross by Mr. MacDougall an exhibit but it has been utilized occasionally. I am sure 2 3 Mr. MacNutt will have a copy of the decision from 1992. 4 And Mr. Garwood, you will have to sort of bear with us. 5 We will try and read out sort of extracts if you do not 6 have a copy of that. MR. GARWOOD: That would be good. 7 Q.78 - And I think Mr. Adelberg may be able to deal with these 8 9 questions in any event. 10 And if we could go to page 11, the last paragraph. And I 11 just want to read into there the statement here is "The 12 Board considers that the classification of generation costs is not possible by use of a single formula." Do you 13 14 see that? 15 MR. ADELBERG: I do. Q.79 - And if we go over to page 12, about halfway down the 16 17 first paragraph on the page, and I just want to read this 18 "However, the Board will accept NB Power's proposed in. 19 classification of generation costs as 40 percent demand and 60 percent energy, but orders NB Power to prepare a 20 21 comprehensive study supporting the 40/60 split, both on a current and future basis." 22 23 Do you see that statement?

24 MR. ADELBERG: I do.

1	- 2049 - Cross by Mr. MacDougall -
2	Q.80 - And then it goes on to say "This study should review
3	the possible use of a load factor split of non-fuel
4	generation costs. This study is to be filed with the
5	Board by the end of 1992." Do you see that statement?
6	MR. ADELBERG: I do.
7	Q.81 - And then do you understand that NB Power filed a report
8	in response to the Board's directive?
9	MR. ADELBERG: Yes.
10	Q.82 - And that report is the June 1993 Reed Report?
11	MR. ADELBERG: That's right.
12	Q.83 - And that report came out after the April 23rd 1993
13	decision?
14	MR. ADELBERG: I believe that is correct.
15	Q.84 - Well June following April?
16	MR. ADELBERG: On that basis, certainly.
17	Q.85 - Certainly. And if we could go to that report, and Mr.
18	Chair, it is in exhibit A-14, appendices volume 2 of 3.
19	And we are looking at appendix 2 in the binder, Mr. Chair.
20	And it is the volume 1 of the 1993 Reed Report. And if
21	we could go to page IV-1. And the heading on that page is
22	"Generation Classification".
23	And now if we could go about half-way down the first
24	paragraph. Page IV-1, Mr. Adelberg.

25 MR. ADELBERG: I am there.

1	- 2050 - Cross by Mr. MacDougall -
2	Q.86 - Okay. And it states there and this is the Reed
3	Consulting Group stating what they have done in this
4	report. "The Board recognized that the decision to invest
5	in and construct capital intensive plant is substantially
б	driven by the energy requirement of the NB Power system
7	and therefore, these costs should not be classified as 100
8	percent demand related. The Board did, however, express
9	reservations concerning the reasoning and methods by which
10	NB Power derived its 40/60 split for these costs and
11	ordered NB Power to research further the proper
12	classification percentages which should be used."
13	And then they quote "The Board orders NB Power to prepare
14	a comprehensive study supporting the $40/60$ split on both a
15	current and future basis."
16	Do you see that statement?
17	MR. ADELBERG: Yes.
18	Q.87 - Now then if we could go to IV-21, in the same
19	subsection of the report, page 21. Now if I can read in
20	starting in the first full paragraph. "Based on RCG's,
21	ie, Reed's analysis of the various methods for classifying
22	fixed production costs, including all of the evidence
23	presented in this chapter, the most appropriate method for
24	NB Power at this time is the Peaker Credit Method.
25	Therefore, this method was used to model the system with

1 - 2051 - Cross by Mr. MacDougall -2 the future configuration including the Belledune unit. This 3 analysis is in response to the Board's directive to 4 provide support for the production cost classification on a future basis as referenced at the outset of this 5 6 chapter." 7 And then it goes on to say the Peaker Credit Method was 8 selected and gives four reasons. Do you see that? MR. ADELBERG: 9 I do. Q.88 - Now the Board decided in their decision of 1992 that 10 they would accept the 40/60 subject to having an economic 11 12 basis on which to support it. The Reed Group filed that 13 economic basis and said that it was the Peaker Credit 14 Method and it came out with a number -- I don't know if it's exactly 40/60 but very similar. 15 16 The Board having received that, what is your understanding 17 that the Board did? 18 MR. ADELBERG: The Board instituted this proceeding. 19 Q.89 - No, no. I mean back in 1993. The received the report 20 _ _ MR. ADELBERG: This is what they did as far as I know. 21 22 Q.90 - So they received that report. They read it and they 23 wanted support for the 40/60. They got it by way of the 24 Peaker Credit. And they did nothing for 13 years. Does that suggest to you that they did not agree that the 25

1 - 2052 - Cross by Mr. MacDougall -Peaker Credit Method as proposed in the Reed Report was the 2 3 economic and underlying basis that supported the 40/60? Ι 4 want a yes or no to that. 5 MR. ADELBERG: No. Q.91 - You don't think that that's what they thought? 6 7 MR. ADELBERG: Well you only gave me the choice of yes or 8 no. Q.92 - Okay, great. 9 10 MR. MACNUTT: I would point out, Mr. CHairman, that he is 11 touching -- asking the witness to deal with essentially a 12 legal matter that dealt with legislation and the Board's 13 jurisdiction over the power generation company during the 14 period of roughly 1992 until 2004. 15 MR. MACDOUGALL: Well I guess -- I am not doing that. I 16 didn't think I was doing that. But my understanding is 17 what we have on the record is the Reed Report that fully 18 supported a 40/60 split. And that was the rationale and 19 the basis for it and I guess it would be surprising to me 20 that the Peaker Credit Method isn't the rationale for 21 supporting the 40/60 split. Maybe Mr. Garwood can speak 22 to that.

23 CHAIRMAN: Mr. MacDougall, I want to say something which 24 might be a bit unorthodox but I was there. And all I will 25 tell you, that to the best of my knowledge and

1 - 2053 - Cross by Mr. MacDougall recollection, when that Reed Report came in, the Board only 2 3 became seized of jurisdiction if there were an application before us from the then NB Power. And that there were no 4 applications subsequent to the filing of that report. 5 Now I stand to be corrected but that is my recollection. 6 That we did not have general supervision powers over the 7 8 utility, we could not call them in and they had to make the choice that they needed a rate increase. And very 9 10 soon thereafter the government of the day changed the 11 legislation to put this 3 percent cap on. 12 Now that is my recollection, sir. So I don't think it was 13 ever given the opportunity to be reviewed in a public 14 forum. 15 MR. MACDOUGALL: I quess I can leave it there, Mr. Chair. Ι 16 guess our concern is that the fundamental basis for 17 supporting the 40/60 split appears to by the Peaker Credit 18 Method. 19 Q.93 - Would you agree with that, Mr. Adelberg, that the Reed Report, when asked by the Board, because Mr. Chair, the 20 21 Board did order the report to occur, when asked to respond 22 to the Board, the basis on which Reed suggested that the 23 40/60 split was appropriate was the use of the Peaker 24 Credit Method?

1 - 2054 - Cross by Mr. MacDougall -2 MR. ADELBERG: I thought we already testified that we 3 entered this proceeding with very much the same view on 4 this issue as you and your witness appear to have and that when we heard the company's -- Disco's testimony caused us 5 to go back and retrace our steps. And we, having done so, 6 found ourselves on less comfortable ground than we thought 7 8 we were to begin with.

9 So I can't dispute that the 40/60 split seems to have 10 roots in the Peaker Credit Method, but if you trace those 11 roots, you find the Board somewhat equivocal on that and 12 never really coming back and resolving it.

And just one other point. I'm not sure I have the confidence that you imply when you refer to the order saying that the company is ordered to file a report supporting the 40/60 split. I didn't view that as the Board saying we have adopted the Peaker Credit Method, show us that we are right.

I view it more as we see what has happened here. We would like to hear more evidence of that. And supporting wasn't a value judgment but I could be wrong. Obviously the Board would be better equipped to make that decision.
Q.94 - Well that is clearly right. But in the supporting evidence that came in was that the Peaker Credit Method supported the 40/60 split?

1	- 2055 - Cross by Mr. MacDougall -
2	MR. ADELBERG: I can't dispute that and as I say, we had
3	apparently followed the same trail that you did.
4	Q.95 - Well that's terrific then now, Mr. Adelberg, now I
5	think we are all on the same page and that is wonderful.
6	Have any witnesses in this case recommended rejection of
7	the Peaker Credit Method? The company or any other
8	witnesses?
9	MR. ADELBERG: I don't think I think the company's
10	position was that they were following Board policy and I
11	don't know if they were asked to support or critique it.
12	But other than that, no, not that I am aware of.
13	Q.96 - No. And Mr. Ketchum hasn't rejected the Peaker Credit
14	Method?
15	MR. ADELBERG: Not that I am aware of.
16	Q.97 - No. And you have supported utilization of the
17	company's choice of the Peaker Credit Method?
18	MR. ADELBERG: Well we again, we came into this
19	proceeding with a belief that that was the existing
20	policy. As for embedded cost methods of classifying
21	generation fixed generation plant, that is one we are
22	very comfortable with. So on that basis, yes.
23	Q.98 - Yes. And you stated that in your testimony?
24	MR. ADELBERG: That's correct.
25	Q.99 - Correct. Thank you, Mr. Adelberg.

1 - 2056 - Cross by Mr. MacDougall -MR. MACDOUGALL: I think, Mr. Chair, legislative 2 3 requirements aside and I really wasn't trying to go there and force Mr. Adelberg to touch on those items, I think we 4 got to where we wanted on on that line. And I appreciate 5 6 Mr. MacNutt's comments on that. I was not trying to get 7 there in that regard. 8 Mr. Chair, if you give me a moment I might be able to get rid of some questions on that topic now. 9 Q.100 - Mr. Adelberg, I think because of what we discussed we 10 11 may end up saying the same thing or you may end up 12 responding to me in the same way on a couple of follow-up 13 questions, but I want to now go to another point that's 14 tied similarly to this. And again the reason I'm raising this is because of some 15 16 of the comments you made yesterday with respect to Dr. 17 Rosenberg's testimony, and I think we are getting a much 18 clearer view of what you were meaning by that yesterday. 19 I certainly am at the moment. If we could go to exhibit A-16 and it's Disco's response 20 21 to EGNB IR-36. 22 MR. ADELBERG: This is your IR-36? 23 0.101 - It's Disco's response to our IR-36 in exhibit A-16. 24 MR. ADELBERG: I have it. Just for Steve's benefit, this is the -- perhaps you want to describe it for Steve. 25

1	- 2057 - Cross by Mr. MacDougall -
2	Q.102 - I can do that. I will certainly do that for him
3	because, Mr. Garwood, you might want to be looking. This
4	is we had asked the Reed analysis showed the
5	derivation of the $40/60$ split. And Enbridge had asked for
6	an update of that information and this was the response
7	that Disco gave updated to 2002 as we discussed a few days
8	ago because of the information they had.
9	MR. GARWOOD: Okay.
10	Q.103 - So the document that is attached is entitled
11	"Generating Plant Cost Allocation Analysis Peaker Credit
12	Method".
13	MR. GARWOOD: All right.
14	Q.104 - And, Mr. Adelberg, I take it then you can confirm that
15	this was the update of the Peaker Credit Analysis in the
16	Reed Report which Reed used to support the 40/60 split?
17	MR. ADELBERG: I believe so.
18	Q.105 - Thank you. Now to get to their numbers, right and
19	you see on exhibit IR-36 at the bottom, 38 98 61 02?
20	MR. ADELBERG: The percentages, yes.
21	Q.106 - The percentages at the very bottom right hand corner.
22	MR. ADELBERG: Yes, I see that.
23	Q.107 - Which is again you know it's 61/39 on the
24	updated one roughly?
25	MR. ADELBERG: That's right.

1	- 2058 - Cross by Mr. MacDougall -
2	Q.108 - Okay. But to get to the $39/61$ they looked at all of
3	the plants on a plant by plant basis, correct?
4	MR. ADELBERG: That's correct.
5	Q.109 - So they didn't apply $40/60$ to the plants. They did
6	the Peaker Credit Method on a plant by plant basis to come
7	up with the 40/60.
8	MR. ADELBERG: That's correct.
9	Q.110 - Thank you. Now could you advise is this how the
10	Peaker Credit Method is generally done?
11	MR. ADELBERG: Yes. And, Steve, I don't know if you want to
12	add anything, but generally from my understanding that's
1 0	correct,
13	correct,
13	MR. GARWOOD: I would have answered the same.
14	MR. GARWOOD: I would have answered the same.
14 15	MR. GARWOOD: I would have answered the same. Q.111 - Yes. Great. Thank you. So yesterday when you were
14 15 16	<pre>MR. GARWOOD: I would have answered the same. Q.111 - Yes. Great. Thank you. So yesterday when you were talking about how Dr. Rosenberg did his analysis which he</pre>
14 15 16 17	<pre>MR. GARWOOD: I would have answered the same. Q.111 - Yes. Great. Thank you. So yesterday when you were talking about how Dr. Rosenberg did his analysis which he based almost fundamentally on IR-36, you weren't saying</pre>
14 15 16 17 18	<pre>MR. GARWOOD: I would have answered the same. Q.111 - Yes. Great. Thank you. So yesterday when you were talking about how Dr. Rosenberg did his analysis which he based almost fundamentally on IR-36, you weren't saying that Dr. Rosenberg purposely deviated from 40/60, are you?</pre>
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14 15 16 17 18 19 20 21 22	MR. GARWOOD: I would have answered the same. Q.111 - Yes. Great. Thank you. So yesterday when you were talking about how Dr. Rosenberg did his analysis which he based almost fundamentally on IR-36, you weren't saying that Dr. Rosenberg purposely deviated from 40/60, are you? He did the Peaker Credit Analysis in the same way as he understood the support for the Peaker Credit Analysis, correct? MR. GARWOOD: I guess I was saying that his application was

1 - 2059 - Cross by Mr. MacDougall -Method or just the 40/60 itself applied across all the 2 3 generation in aggregate. 0.112 - But, Mr. Garwood, I have to come back here now and we 4 5 might have to go slowly here. We just went through this 6 and both you and Mr. Adelberg agreed that this is how the Peaker Credit Method is done, and this is --7 8 MR. GARWOOD: It's done that way in order to come up with 9 the demand and energy split in aggregate across all of the 10 resources. 11 Q.113 - But that's what Dr. Rosenberg did. 12 MR. GARWOOD: Well then I misunderstood Dr. Rosenberg. 13 Q.114 - He did a Peaker Credit Method --14 MR. GARWOOD: My understanding was that he actually applied 15 the individual demand energy splits that are used to come 16 up with the aggregate demand and energy split amongst the 17 generation, and instead of using the aggregate he applied, 18 according to generation technology, a different demand and 19 energy split. And as you can see, using Dr. Rosenberg's method or the 20 21 way in which it was implemented before with 40/60, 22 produced different results. And the results as I see it 23 shifted about 5-point-something million dollars in revenue 24 requirements associated with power supply only to the residential class and away from other classes. 25

- 2060 - Cross by Mr. MacDougall Q.115 - We will get there in a second, Mr. Garwood, and again
it's difficult over the phone here, but -- and without
coming to the breakeven analysis or the capital for fuel
substitution component, Dr. Rosenberg used IR-36 and this
methodology to do his analysis. You are saying you don't

7 agree with that?

MR. GARWOOD: I would have said that to be consistent with 8 9 the way in which as Arthur -- as Mr. Adelberg said earlier 10 -- the way in which we originally viewed the Board's view 11 on the Peaker Credit Method, if the Peaker Credit Method 12 were the approved means of coming up with the demand and 13 energy split, then the proper way would have been to update the analysis exactly as say was done in the Reed 14 15 Consulting report which would have produced some aggregate 16 demand and energy split. I don't have the response in 17 front of me. I'm unable to locate it on my computer to 18 show what new numbers they came up with, but if I remember 19 back to the '93 study they produced a 39/61 split which was their basis for saying, that's pretty close to 40/60, 20 21 so it must support 40/60. And it would have been that 22 39/61, if that's what the new update would have shown for 23 numbers, that would have been applied to all the 24 generation technologies as opposed to running your cost of service study with differing demand and energy split 25

- 2061 - Cross by Mr. MacDougall ratios for the different technologies of generation, as Dr.
 Rosenberg's study did.

4 Q.116 - But in order to --

5 MR. GARWOOD: I think Dr. Rosenberg could have taken his 6 individual demand and energy splits by technology and 7 computed an aggregate number and applied the aggregate 8 number back to all of the generation, and then I would 9 have said it looks like he is consistent with application 10 of the Peaker Credit approach as was done by the Reed 11 Consultant report back in '93.

12 Q.117 - Okay. Mr. Garwood, let's do it this way then. When 13 you talk about aggregate though, all Dr. Rosenberg did for 14 the purposes of aggregation is to look at hydro, coal and 15 orimulsion, nuclear and gas and oil as four discrete 16 categories, correct, rather than directly by plant to 17 plant?

18 MR. GARWOOD: I believe that's true.

Q.118 - Thank you. Now you had asked for an undertaking to be
done and Dr. Rosenberg provided this response to

21 undertaking EGNB-3, and you received that, Mr. Adelberg,

22 yesterday, and I sent it electronically to Mr. Garwood.

23 MR. ADELBERG: We did receive that.

24 Q.119 - Okay. And I take it then this is what you would

25 suggest -- or is it? Is this what you suggest should have

- 2062 - Cross by Mr. MacDougall been done? MR. GARWOOD: This would have applied to the 40/60 consistent with the way it was done in the prior case, in my opinion. So that aspect of Dr. Rosenberg's analysis I think would have brought at least that component of it into compliance or being consistent with the way the demand and energy split on generation was applied in the prior cases. Q.120 - And you see in the final sentence of this response that Dr. Rosenberg did this to be responsive to the undertaking but he states he does not believe that the attached cost study faithfully reflects the Peaker Credit Method, correct? MR. GARWOOD: I did read that. Q.121 - And that's because you just told him to take 40/60, not to figure out on generation technology type or on plant. Just take 40/60 and apply it for all these generation technologies, that's what you asked him to do, correct? MR. ADELBERG: Correct.

MR. GARWOOD: Right. And --

23 0.122 - No. That's good. That's all we need to know. That's 24 what you asked him to do and that's what he did. And that's where you come up with this 5.3 million dollars, 25

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1 - 2063 - Cross by Mr. MacDougall -2 comparing his to this arbitrary application of 40/60, because 3 you used that word yesterday. What is the basis for the 40/60 if you don't do a Peaker 4 Credit Analysis? You just said apply 40/60. He did it. 5 And then you say there is a 5.3 million dollar difference. 6 7 So what? 8 MR. ADELBERG: I think we have already said several times 9 here that what we were trying to do was be faithful to the 10 Board's policy as we now understand it. 11 Q.123 - And your view of the Board's policy as you now 12 understand it is to just take 40/60 and apply that across 13 the Board --14 MR. ADELBERG: Yes. Q.124 - -- without any further consideration of the 15 16 application of an underlining economic basis out of NERUC, 17 the Peaker Allocation or any other methodology. Just use 18 the 40/60. 19 MR. ADELBERG: I'm not sure economics enters into it, but --MR. GARWOOD: Just based on what the record is to date that 20 21 is the way we interpret things. 22 Q.125 - Okay. 23 MR. GARWOOD: Now if the Board is to decide after reviewing 24 all this case that it wants to go and rely on a new Peaker

Credit Analysis the Board can issue a decision that says

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1	- 2064 - Cross by Mr. MacDougall -
2	that. The company can be required to update its study. But
3	as of the record to date the $40/60$ appears to be, as we
4	read the record, the last Board approved basis upon which
5	to classify generation costs.
6	Q.126 - Yes, I know. But unlike Dr. Rosenberg and we will
7	just speak for Dr. Rosenberg and ourselves you don't
8	feel that was based on the Peaker Credit Method. You just
9	say it was $40/60$ and that nothing supports that.
10	MR. ADELBERG: I think we are quite clear that we thought it
11	had some roots in the Peaker Credit Method, but the Board
12	clearly thought it had other roots as well.
13	Q.127 - Okay. And as I said, to date no one has rejected the
14	Peaker Credit Method in this proceeding.
15	MR. ADELBERG: Correct.
16	Q.128 - Thank you. So that's the 5.3 million. Let's now talk
17	about the yesterday you talked about a 2.3 million
18	dollar difference, and you were talking about third party
19	sales. In my understanding we talked about exports but
20	when we are talking about third party sales it's exports,
21	correct? We are both using just a different
22	terminology.
23	MR. GARWOOD: Right.
24	MR. ADELBERG: That's correct. Yes.

25 Q.129 - And you said there is a 2.3 million dollar impact

1 - 2065 - Cross by Mr. MacDougall because of how Dr. Rosenberg treats exports, correct? 2 3 MR. GARWOOD: I thought that was the case, yes. 4 0.130 - But my understanding is -- and we can go to this if 5 you think otherwise -- you treat exports in your study in the exact same manner as Dr. Rosenberg, correct? 6 7 MR. ADELBERG: And that's why --8 MR. GARWOOD: That is correct. We -- Dr. Rosenberg and I --9 Q.131 - Okay. Let's stop there. 10 MR. GARWOOD: -- and us agree on the treatment of the 11 credits. 12 Q.132 - Okay. But let's stop there. I want the Board to be 13 very clear about this. Yesterday you talked about Dr. Rosenberg's testimony making a cost shift of 2.3 million 14 15 dollars to a different class as if this was somehow a bad 16 thing, but you never mentioned that by the way, we totally 17 agree with it and have the exact same cost shift in our 18 study. You never mentioned that yesterday, did you? 19 MR. GARWOOD: I quess I thought I said -- we would have to go back to the transcripts, but I thought I in fact did 20 21 say that we were in agreement with that treatment of 22 credits, and -- so I don't know, maybe I stand corrected, 23 but I think -- I thought we did in fact say that 24 yesterday. Q.133 - Okay. Well, Mr. Garwood, maybe you did and again I 25

1 - 2066 - Cross by Mr. MacDougall -2 didn't have the pleasure of the transcript, so I have to 3 apologize for that. But if you did, what was the point 4 you were making to the Board? You agree with the cost 5 shift? Yes. I think we were just trying to provide 6 MR. ADELBERG: 7 information on what we understood was happening in that 8 I don't think we were trying to be judgmental. report. We were just saying as we understood this methodology had 9 10 an impact and we tried to parse out what were the 11 contributing factors to the overall impact. It was not 12 offered as a judgmental testimony. Q.134 - Well that's very helpful, Mr. Adelberg, and I really 13 14 appreciate that. And I guess some of the tone of our 15 questions to date were it appeared to me yesterday in 16 hearing it that it may have been somewhat judgmental and 17 if it wasn't I greatly appreciate that answer. 18 So to be clear, the 2.3 million dollar shift is on a 19 methodology that Dr. Rosenberg used that you totally agree 20 with. 21 MR. ADELBERG: Yes. 22 Q.135 - Thank you. Now that comes to I think you said 23 altogether there might have been a cost shift of 13.4 24 million and I believe yesterday you said the differential -- now that we have dealt with the 5.3 and 25

1	- 2067 - Cross by Mr. MacDougall -
2	the 2.3 million was and again not having had the benefit
3	of the transcript myself it was a shortened time period
4	over which to recover the fixed costs, is that correct,
5	Mr. Garwood?
6	MR. GARWOOD: That's correct.
7	Q.136 - Okay.
8	MR. GARWOOD: You know, what I will say is that based on the
9	file that was sent to me as the new exhibit, EGNB-3,
10	taking that file and trying to eliminate the you know -
11	- some of the other components such as making the demand
12	credits 100 percent and getting rid of the compression
13	if you look at the company if you look at Dr.
14	Rosenberg's original filing compared to the Disco's
15	original filing and you look at solely the amount of
16	revenue or when the requirement of cost that is allocated
17	to the residential class, there was a 14.4 million dollar
18	difference. And as I attempt to eliminate the differences
19	between the treatment of generation costs between Dr.
20	Rosenberg's and the companies, I end up solving for all
21	but 2.7 million dollars.
22	If I get rid of the if I just simply say make it $40/60$
23	instead of the Peaker Credit Analysis and I put the
24	credits back to 100 percent and I get rid of the
25	compression, in my mind that should have taken care of the

1	- 2068 - Cross by Mr. MacDougall -
2	differences in the treatment of generation costs for that
3	which the company had first put forth, I still end up with
4	a residential revenue requirement difference of 2.7
5	million dollars unexplained.
6	Q.137 - Okay. But you are not being again your comments
7	here you are not being judgmental on this, you are just
8	stating that these are
9	MR. GARWOOD: That's right. I'm trying to respond to your
10	getting me to build up the pie to the total, and I'm going
11	to tell you when I get all done I can't solve 2.7 million
12	dollars solely looking at the differences in generation
13	treatment.
14	Q.138 - Okay. That's fine. So yesterday when you said the
15	residual was based on the shortened time period, it's the
16	residual except for 2.7 million dollars?
17	MR. GARWOOD: Right.
18	Q.139 - Thank you.
19	MR. GARWOOD: That's my belief.
20	Q.140 - Okay. Now in looking at this pile of money, do you
21	understand that Dr. Rosenberg is using a breakeven
22	analysis to determine the appropriate metric by which to
23	allocate the duration related portion of generation fixed
24	costs?
25	MR. GARWOOD: I do. I believe I understand his theory as

1 - 2069 - Cross by Mr. MacDougall -2 that, yes. 3 0.141 - Yes. And the intention is to allocate those duration 4 related fixed costs among the various customer classes, 5 correct? б MR. GARWOOD: Correct. 7 Q.142 - And I think you agreed with this yesterday. We do not 8 have hourly load data for those classes, correct? 9 MR. GARWOOD: That is right. Q.143 - Okay. But we do know the monthly energy usage by 10 11 class, correct? 12 MR. GARWOOD: Correct. 13 Q.144 - And Dr. Rosenberg used a nine month period, October 14 through June, as a proxy for the breakeven point between a combined cycle plant and a coal plant, correct? 15 16 MR. GARWOOD: I believe so. Q.145 - Okay. So there is absolutely -- and I believe 17 18 yesterday the comment was there was some arbitrariness. 19 There is nothing arbitrary about this at all, is there? He didn't have the hourly load data. So in developing his 20 21 cost study, as you would with all cost studies, he made a 22 judgmental but he used a proper approximation as best he 23 could with the data he had to do the allocation he 24 proposed to do, correct? 25 MR. GARWOOD: Well I guess it seems to me that given that

1	- 2070 - Cross by Mr. MacDougall -
2	all of the months of the year have either 28, 30 or 31 days in
3	them, I could have come up with any random number of nine
4	months and
5	Q.146 - He didn't do that, Mr. Garwood.
6	MR. GARWOOD: and come up with the same number of hours
7	with which to spread those costs.
8	Q.147 - He didn't do that though. He picked the highest cost
9	months, October through June, and I recall I think it was
10	two weeks ago, your counsel said, oh, there may be a small
11	differential I think, one of these months wasn't the
12	highest cost, and Dr. Rosenberg acknowledged, sure, you
13	could possibly use that, but this is a very robust
14	methodology.
15	He picked the highest cost months. He did not do anything
16	arbitrary at all, and these would have the least impact on
17	the residential class. Didn't you hear that?
18	MR. GARWOOD: I believe he picked the highest cost months,
19	yes, I agree with that.
20	Q.148 - Okay. So there is nothing whatsoever arbitrary about
21	what he did. He picked the appropriate months to
22	approximate the data he didn't have.
23	MR. ADELBERG: If you accept your premise that his duration
24	his concept of spreading it over duration rather than
25	energy is correct

1 - 2071 - Cross by Mr. MacDougall -2 Q.149 - Yes. 3 MR. ADELBERG: -- then he picked the method that used the evidence he had available to him, but --4 5 Q.150 - If you have an issue with the concept, that's 6 different. I'm just getting back to yesterday the point you are making here. So if you accept -- and I went 7 8 through that clearly in my series of questions, Mr. Adelberg. I said based on what he was doing, this is not 9 10 an inappropriate thing to do based on the data he had, 11 correct? That's what you just said. 12 MR. ADELBERG: Well I'm not sure whether that's meaningful 13 to say it's not inappropriate, but --Q.151 - It's not arbitrary? 14 15 MR. ADELBERG: There is a rationale for it. So in that 16 sense it's not arbitrary. 17 Q.152 - Thank you. Now yesterday again you raised -- again in 18 my mind it was sort of a spectre. You said to the Board, 19 Dr. Rosenberg quoted from Professor Kahn in stating that sometimes entities charge prices on full costs. And you 20 21 said you wanted to make sure the Board wasn't under any 22 misapprehension that this was filly allocated costs. 23 Did Dr. Rosenberg ever, in discussing that quote, say that 24 it was fully allocated costs? No. And I thought I was quite clear on that 25 MR. ADELBERG:

1	- 2072 - Cross by Mr. MacDougall -
2	yesterday. That it was simply a possibility of a
3	misunderstanding given the context in which that comment
4	was made.
5	Q.153 - Okay.
6	MR. ADELBERG: But since he is critical of marginal costs,
7	it was easy to infer from that that he had something more
8	in mind than simply full costs.
9	Q.154 - But no, wasn't he saying these are the marginal costs
10	what the Kahn quote said was that many entities price
11	on the full costs?
12	MR. ADELBERG: Yes.
13	Q.155 - That is what he said. I don't remember him saying
14	anything else.
15	MR. ADELBERG: Things have to be understood in context.
16	Q.156 - Now yesterday you also said something about
17	jurisdictions, and I think Mr. MacNutt took Mr. Garwood
18	through this, to show to the Board that Maine uses
19	marginal cost studies.
20	Again I don't have the transcript reference. But do you
21	remember when Dr. Rosenberg was going through the States
22	in which he said there was marginal costs at the end of
23	his comment and he said, and Maine may use marginal costs.
24	MR. ADELBERG: Yes. And we were just clarifying that it did.
25	

1 - 2073 - Cross by Mr. MacDougall -That was the only point of that. 2 3 Q.157 - Thank you. But Dr. Rosenberg indicated that he wasn't sure but that Maine certainly could have had marginal 4 5 costs? б MR. ADELBERG: Correct. Q.158 - Thank you. If we could maybe -- I am now going to 7 8 move on to a separate set of questions. Have you 9 presented a full marginal cost of service study in your 10 testimony that the Board can use to determine the revenue 11 responsibility of each class for Disco's revenue 12 requirement? 13 MR. ADELBERG: No. 14 Q.159 - Have you prepared any marginal class cost of service 15 studies in preparation for this proceeding that you have 16 not presented to the Board? 17 MR. ADELBERG: No. 18 0.160 - Now Mr. Knecht testified that he did not advocate 19 marginal cost studies for transmission or distribution, but only for generation. Do you remember that? 20 21 MR. ADELBERG: Yes. 22 Q.161 - Okay. Do you advocate marginal cost studies for 23 transmission and distribution costs or do you agree with 24 Mr. Knecht? MR. ADELBERG: I'm not sure it's an either or proposition. 25

1 - 2074 - Cross by Mr. MacDougall -2 It's very much a matter of context. He suggested that the 3 price signals were probably most important for the 4 generation part of the company's cost structure. We 5 certainly agree with him on that. I think it is a judgment call. It depends a little bit on how much --6 7 Q.162 - But I am asking your view. Do you advocate marginal 8 cost studies for transmission and distribution costs? 9 MR. ADELBERG: Depends on the context. 10 Q.163 - So sometimes you wouldn't use marginal costs? 11 MR. ADELBERG: That's not what you just asked me. 12 Q.164 - Well I asked do you advocate marginal cost studies for 13 transmission and distribution costs and you said it 14 depends on the context. So either sometimes you can and 15 sometimes you can't. 16 MR. ADELBERG: You said sometimes we use them which is 17 different --18 Q.165 - I apologize -- I didn't --19 MR. ADELBERG: So can you restate the question? Q.166 - I said -- my first question was do you advocate 20 21 marginal cost studies for transmission and distribution 22 costs to which I believe you answered it's a judgment 23 call. 24 If it's a judgment call then I am saying then in certain instances you would not advocate using marginal 25

1	- 2075 - Cross by Mr. MacDougall -
2	costs for transmission and distribution. Is that what you are
3	saying?
4	MR. ADELBERG: Absolutely.
5	Q.167 - Okay. Now can you identify for the Board which
б	Canadian utility boards use marginal costs analysis as the
7	sole or partial basis for allocating a utility's embedded
8	revenue requirement among the retail service
9	classifications?
10	MR. ADELBERG: No. I think there is a list in the NERA
11	Survey that we have provided that has some limited
12	information about Canadian jurisdiction but I believe they
13	were not able to get full responses from all the Canadian
14	jurisdictions. That's the only information that we have
15	seen of it.
16	Q.168 - So I am going to go there shortly but I don't recall
17	from the NERA that any, under the heading dealing with
18	revenue allocation, that there is any Canadian boards
19	listed.
20	MR. ADELBERG: I think they were used for other purposes,
21	that's right.
22	Q.169 - Okay. So you can't identify any Canadian boards which
23	use marginal cost analysis as the sole or partial basis
24	for allocating a utility's embedded revenue requirement?
25	MR. ADELBERG: Our point was we hadn't looked at it one way
26	

1	- 2076 - Cross by Mr. MacDougall -
2	or the other. It's not that we looked at it and found there
3	weren't any. It's that we hadn't looked at it at all.
4	Q.170 - Okay. You just never considered the issue?
5	MR. ADELBERG: That's not my testimony.
6	Q.171 - Well you just said you never looked at it at all.
7	MR. ADELBERG: Well that's different from whether we
8	considered it.
9	Q.172 - Okay. Did you consider looking at it?
10	MR. ADELBERG: We got your data request. We said what can
11	we do in light of this request and in light of the other
12	requests that we were answering and the amount of time and
13	the priorities of the case, we said we will have to answer
14	it this way for now.
15	Q.173 - And this way was you don't have any?
16	MR. ADELBERG: We don't have them, correct.
17	Q.174 - Thank you. Would you agree that Alberta and Ontario
18	have established electric markets?
19	MR. ADELBERG: I guess I'm not sure what you mean by
20	established.
21	Q.175 - They have open markets for sale of electricity.
22	MR. ADELBERG: My understanding they have some open markets.
23	Again how open they are, I am not an expert. Perhaps
24	Steve knows more than I do. Steve, is that something you
25	

1 - 2077 - Cross by Mr. MacDougall -2 can comment on? 3 MR. GARWOOD: I understand they have developed a market, but not being familiar with their specific market rules, I too 4 couldn't speak to, you know, how open they are say in 5 comparison to say the New England market or the TJM б markets. 7 Q.176 - No. But they are --8 9 MR. GARWOOD: They have taken some steps to move towards a 10 market, yes. 11 Q.177 - Yes. And you are not aware that Alberta is pretty 12 much a fully open market? 13 MR. GARWOOD: Not in comparison to say those markets in the 14 States I have mentioned. I haven't done work in those 15 jurisdictions. Q.178 - Okay. Now I note that both of you gentlemen have 16 17 worked for Central Maine Power? 18 MR. ADELBERG: Correct. 19 Q.179 - Are the retail rates of Central Maine Power more 20 expensive or less expensive than the national average in 21 the Untied States? MR. ADELBERG: More expensive. 22 23 Q.180 - Thank you. Mr. Chair, if you just give me a moment, I 24 can get rid of a few questions. Now I think I know the answer to this but I just want 25

1 - 2078 - Cross by Mr. MacDougall to get a little clarification on it. It's not your position 2 3 in this case that the Board recant its stated objective of 4 moving all revenue cost ratios to within a 95 to 105 5 bandwidth based on an embedded cost of service study, is it? 6 That is correct. I think we tried to make it 7 MR. ADELBERG: 8 clear that we understand the history of the use of those 9 ratios in this jurisdiction and we weren't proposing that 10 they simply walk away from them and jump off into a new 11 world. 12 We were simply offering some hopefully useful information 13 as to what their limitations are and what other 14 information they might want to look at to supplement their reliance on that kind of an approach. 15 16 Q.181 - Great. Do you believe there are practical advantages 17 to basing class revenue requirements on embedded costs? 18 MR. ADELBERG: There can be. 19 Q.182 - Could you please enumerate some of those advantages? 20 MR. ADELBERG: Well in an area -- the classical one is rate 21 stability. Marginal costs are sensitive to changing 22 market conditions over time and because of the need to 23 reconcile the revenues produced by a marginal cost 24 analysis to the company's revenue requirement, you can have some swings in the class allocation. 25

1 - 2079 - Cross by Mr. MacDougall -Having said that, in Maine we looked at the issue and 2 3 concluded that we could go and stay with a marginal cost approach but that's the one that has concern for some 4 people -- has been a concern for some people. 5 6 Q.183 - Great. That was the one we thought about so we are on common ground there. And I think you just mentioned there 7 8 the fact about equalizing to the revenue requirement, so I take it you would agree then if parties could agree on a 9 10 marginal cost of service study, it would only be by the 11 sheerest of coincidence that the total of the marginal 12 costs for each class would sum to equal the utility's 13 embedded revenue requirement. Correct? MR. GARWOOD: That's correct. 14 15 That's correct. MR. ADELBERG: Q.184 - I get to see Mr. Adelberg, Mr. Garwood, so sometimes 16 17 you will jump quickly and answer. If you do, I will let 18 Mr. Adelberg continue to answer if it appears he wanted to 19 jump in. 20 MR. GARWOOD: Okay. Q.185 - So if the total revenue requirement is greater than or 21 22 less than the sum of the marginal costs of each class, we 23 would still need to reconcile the marginal costs with the 24 revenue requirement before we could use the marginal study as the basis for setting rates. Correct? You have to do 25 26

1 - 2080 - Cross by Mr. MacDougall -2 that step first? 3 MR. ADELBERG: As long as the revenue requirements are set on a historical cost accounting basis, that's right. 4 Q.186 - Based on your review of NB Power's embedded costs and 5 6 marginal costs, your preparation for this hearing, do you 7 have any view as to whether the sum of the marginal costs 8 would be greater than the embedded revenue requirement or less than the embedded revenue requirement? 9 10 MR. ADELBERG: I think that's -- the answer may depend on 11 when you asked us. Marginal costs seem to have changed 12 since this proceeding started. But currently it would 13 appear that there is a very good chance that they would be 14 higher than the revenue requirement. 0.187 - Yes. Thank you. 15 16 MR. ADELBERG: At the time, interestingly, they were closer 17 and I think Mr. Knecht identified that point. 18 0.188 - But you mentioned even throughout this proceeding that 19 the marginal costs may be higher now going forward? MR. ADELBERG: 20 Yes. Q.189 - Yes. Now I want to get into a bit of economics here 21 22 and bear with me. We will try and see if we can get 23 through this. I understand that you have put forward a 24 solution for the reconciliation problem. So you mentioned to the Board in your evidence that -- and I don't think we 25

1 - 2081 - Cross by Mr. MacDougall have to go to it. I will just raise the cite. We can go to 2 3 it if you need to. But that economic theory provides one solution to this 4 5 issue known variously as Ramsey Pricing, Baumol-Bradford 6 Pricing or the Inverse Elasticity Rule. Correct? MR. ADELBERG: Correct. 7 8 Q.190 - Now my understanding, and we can go to this, I think 9 it would be useful to go to it, just to make sure that I 10 don't give you an incorrect reference. It is EGNB IR-20D 11 and that would be in PUB-2 or 3. I guess it is tab 9, I 12 think you had said before. 13 MR. MACNUTT: Can I have that reference to that again? MR. MACDOUGALL: It's EGNB IR-20(d). Or Energy Advisors' 14 15 response to EGNB IR-20(d). 16 MR. ADELBERG: Tab 13. 17 MR. MACDOUGALL: 20. 18 MR. ADELBERG: It appears to be under tab 13 for some 19 reason. 20 MR. MACDOUGALL: The tabs are moving within the same 21 proceeding. So I will just wait until it appears everyone 22 has it. That what happens after Hallowe'en, you see all 23 the books are different. 24 CHAIRMAN: No. I probably dropped that volume.

25 Q.191 - Now here EGNB asks you, could you please provide any

1 - 2082 - Cross by Mr. MacDougall economic reasons other than Ramsey Pricing why the revenue to 2 3 incremental cost ratio to class it should differ? And 4 your response was the authors are not aware of any economic reasons other than Ramsey Pricing principles for 5 those ratios to differ. Correct? 6 7 MR. ADELBERG: Let me go back and read this in context. 8 Excuse me, for one second. Q.192 - Sure. It's not paginated, but the information 9 10 request is EGNB IR-20(d) to Energy Advisors. And it's on 11 the second page in my version. Question (d) is at the 12 top. 13 MR. ADELBERG: Okay. I am not with you. 14 Q.193 - And if I could repeat the question. You were asked if 15 you could provide any reasons other than Ramsey Pricing, 16 why the revenue to incremental cost ratios of classes 17 should differ? And your response was the authors are not 18 aware of any economic reasons other than Ramsey Pricing 19 principles. Correct? 20 MR. ADELBERG: That's correct. Q.194 - So the only economic theory solution to the problem of 21 22 reconciling the embedded revenue requirement with marginal 23 costs that's in accord with economic theory is Ramsey 24 Pricing or the Inverse Elasticity Rule, correct? 25 MR. ADELBERG: From a theoretical point of view, that's 26

1 - 2083 - Cross by Mr. MacDougall -2 right. 3 Q.195 - That's right. Now for the benefit of us, including myself whose recall of Economics 101 might be a bit rusty, 4 could you define the concept of elasticity? 5 б Elasticity is simply the tendency of consumption to change Α. 7 with changes in price. It's the most simple statement I 8 can offer. Q.196 - That's exactly what we want I think. Simple is 9 10 That's great. better. 11 MR. ADELBERG: If demand for a product is considered elastic 12 that means that it is likely to -- as price goes up, it's 13 likely -- consumption is likely to go down. If it's 14 inelastic, you expect as price go up, the consumption would go down by a lesser amount than if it was elastic is 15 16 the principle. Q.197 - That's true. And have you done any studies or 17 18 analysis that would measure or indicate the likely price 19 elasticity for each of the various customer classes of 20 Disco? 21 No. There is some data on the record on MR. ADELBERG: No. 22 it, but we didn't do any separate studies. 23 0.198 - No. I think you might have referred to some data that 24 Disco did with respect to the residential class, if my recollection is correct? 25

1 - 2084 - Cross by Mr. MacDougall -2 MR. ADELBERG: It was in -- it might have been relating to 3 load forecast. I don't recall exactly. 0.199 - But you didn't do any studies? 4 5 MR. ADELBERG: No. Q.200 - And you are not aware that in the record there is 6 7 measures or indications of the elasticity of each of the 8 various customer classes? 9 MR. ADELBERG: That's right. Q.201 - So even if we could hypothetically measure the 10 11 marginal cost of each class, how could you apply Ramsey 12 Pricing to establish the revenue requirement of each class 13 if you do not know the price elasticity of the class? MR. ADELBERG: You would want to develop some data on that 14 15 or pick another alternative, that's correct. Q.202 - Perfect. But then the other alternative wouldn't be 16 17 in line with economic theory, because you said there is 18 only one alternative in line with economic theory? 19 MR. ADELBERG: It would be -- you would be compromising the 20 theory, exactly. 21 Q.203 - Thank you. MR. MACDOUGALL: Again, that was a helpful response, Mr. 22 23 Chair. So I will --24 CHAIRMAN: Perhaps it's a good time to take our break. MR. MACDOUGALL: Perfect time. 25

1	- 2085 - Cross by Mr. MacDougall -
2	MR. ADELBERG: Didn't mean to disappoint you.
3	MR. MACDOUGALL: No, no. It's great. Good response. Thank
4	you.
5	(Recess)
6	CHAIRMAN: The Board has a preliminary matter. Commissioner
7	Sollows has reduced his multi-phased question of yesterday
8	to perhaps just a multiple-phased one today. And
9	MR. MORRISON: Do we have more than 45 minutes to answer it
10	or is it
11	CHAIRMAN: Well that's about how long it will take. How
12	long will it take to read? No. It has been reduced to
13	writing and we will mark it as an exhibit for clarity
14	purposes and the Secretary is handing it out now.
15	And my suggestion, and I will give you over the lunch
16	break to come back with any thoughts you might have on it,
17	is to request the parties to have their written responses
18	in by close of the day on Monday, so that all parties can
19	look at it and have comments on it in the summation next
20	week.
21	If you have any other suggestions on how to handle it let
22	me know after lunch.
23	DR. SOLLOWS: Take me out and shoot me?
24	MR. MORRISON: How much is it worth towards our final mark,
25	Mr. Chairman?

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1	- 2086 - Cross by Mr. MacDougall -
2	CHAIRMAN: So this will be <u>PUB-8</u> .
3	DR. SOLLOWS: It's like that little joke. We don't change
4	the questions, we just change the answers.
5	CHAIRMAN: Thank heavens his mike is off. I just want the
6	record to show that the Canadian Manufacturers and
7	Exporters are represented. Mr. Plante came in about two
8	minutes after I called for Intervenors. Go ahead, Mr.
9	MacDougall.
10	Q.204 - Thank you, Mr. Chair. Just to confirm, Mr. Garwood,
11	are you still with us?
12	MR. GARWOOD: I am.
13	Q.205 - Thank you. Now just moving on, the break was useful
14	and I moved away from Ramsey Pricing, which I'm sure will
15	be of interest to most that I moved away from it.
16	Would you agree that a fundamental principle of economics
17	is that customers should receive price signals that
18	indicate the costs that their behaviour impose on the
19	supplier?
20	MR. ADELBERG: Yes.
21	Q.206 - And in this case, the subject of this proceeding, it
22	is the costs that they would impose on Disco, correct?
23	MR. ADELBERG: Correct.
24	Q.207 - And in terms of electric supply, would you agree that
25	Disco's virtually only current source of supply is through

- 2087 - Cross by Mr. MacDougall -

2 the Gencos?

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3 MR. ADELBERG: Yes.

4 Q.208 - Okay. Now based on your review for this hearing, are you aware if Disco is doing any supply planning outside of 5 6 relying solely on Genco for the time being? MR. ADELBERG: I believe that's correct. 7 8 Q.209 - Now to me that sounds a little like what a vertically 9 integrated utility does, would you agree with that? 10 MR. ADELBERG: Assuming -- if you are equating Genco to the 11 vertically integrated component of a utility --12 Q.210 - Yes. 13 MR. ADELBERG: Yes. 14 Q.211 - And is that process that we just discussed or what is occurring currently in New Brunswick, would you consider 15 16 that indicative of a competitive electric supply market? MR. ADELBERG: Not particularly, no. 17 0.212 - Okay. And are you aware that the Board of Directors 18 19 of Disco and Genco is the same? 20 MR. ADELBERG: I know they are -- I was aware they were 21 substantially the same. Whether they were exactly I 22 wasn't sure, but I knew there was overlapping. 23 0.213 - Okay. I heard a comment from behind that I thought I 24 should deal with, but I don't think I have to, Mr. Chair. I don't want to get into too much --25

1 - 2088 - Cross by Mr. MacDougall -2 CHAIRMAN: We are all quite interested in what the comment 3 was. MR. MACDOUGALL: No, but I quess it was okay. I am allowed 4 5 to continue, so -- Mr. Morrison concurred. Q.214 - I don't want to get into a big legal debate, I think 6 7 this is an easy legal question, but I can start by saying, 8 Mr. Adelberg, you are an attorney? 9 MR. ADELBERG: Unfortunately I am under oath, so I will have 10 to admit it, yes. 11 Q.215 - I know you are not qualified as an attorney for the 12 purposes of this, you are testifying in a different 13 manner, but just --14 CHAIRMAN: You have certainly set him up on me again, you 15 know, saying something like that. 16 Q.216 - Could you agree -- and again if you don't want to 17 answer you don't have to but I think it's a question --18 considering your CV you could probably answer. Do you 19 agree that directors of incorporated companies are generally considered the directing mind of those entities? 20 21 MR. ADELBERG: Absolutely. 22 Q.217 - Thank you. So if we could just follow the chain a 23 little bit that we went through. The Disco's customers 24 imposed the need for Disco to get supply and that supply almost comes solely from Genco. So does that not imply 25

1 - 2089 - Cross by Mr. MacDougall that for customers to get the right price signals and for 2 3 economic principles to have a chance to work here in New 4 Brunswick, we must ultimately focus on the costs that the Genco actually incurs? 5 In my mind it's not that simple. And the 6 MR. ADELBERG: 7 reason is that -- just to give an example -- the Genco is 8 a mix -- as we I think said yesterday, the arrangement 9 does look very much like a vertically integrated utility. 10 You have got the same assets they had when they were 11 vertically integrated, and they are paying costs that are 12 substantially the same as it looks like they would have 13 paid. There is some reallocation of risk. 14 But one of the interesting things about the arrangement is 15 that there are provisions particularly in the Genco PPA for sharing of revenue from off system sales. And so the 16 17 fact that they are shared mutes the signal that you get 18 from them, but the fact that they are there means -- and 19 the fact that those sales may be made in a market -- in a wholesale market -- means that there can be an impact from 20 21 changes in Disco load on the costs of Genco that have kind 22 of a market aspect to them. So it's very much a mixed bag 23 and are open questions about what happens with Genco and 24 with Disco load growth, although Genco being long they are not big questions in 25

1	- 2090 - Cross by Mr. MacDougall -
2	terms of adding resources.
3	Q.218 - And then coming back to the I guess off system sales
4	are again I think we are into our third terminology
5	here that again would be primarily exports?
6	MR. ADELBERG: I'm sorry?
7	Q.219 - I always bring it back to exports.
8	MR. ADELBERG: Call them exports. Sorry.
9	Q.220 - In your analysis though, or the discussion you just
10	had, would it be fair to say that that's only the case if
11	you consider exports in doing the analysis, i.e., in
12	determining the cost for the native load you actually
13	consider the exports beforehand?
14	MR. ADELBERG: I'm sorry, I have lost the that's only the
15	case of what? I'm not sure I lost the
16	Q.221 - Well I guess what you said is one of the differences
17	here in the Genco PPAs, okay, is that they recognize some
18	of the off system sales and the sharing mechanism, okay.
19	But the cost price signal for people in New Brunswick for
20	the native load, right, would be the price signal used to
21	serve those customers. And I'm just saying your analysis
22	would only suggest that there is really a differential
23	here if you were assuming that the cost to serve those
24	customers came after the export.
25	MR. ADELBERG: Well

1 - 2091 - Cross by Mr. MacDougall -2 Q.222 - I think Mr. Knecht had broken it down into two pieces. 3 MR. ADELBERG: Yes. It's more direct than that because --4 for example -- and this may be -- I don't know how 5 realistic it is, but the Genco agreement includes a provision that allows Disco to reduce its nominated 6 capacity. Now there is a certain lack of flexibility in 7 8 the exercise of that option because once they reduce it 9 they don't have the right to raise it back to the prior 10 level.

11 Q.223 - Yes.

MR. ADELBERG: But let's suppose that you had -- because of your price signals in New Brunswick -- a significant part of your residential load went out and scrapped their electric heating systems and put in -- you know, signed up with your client, Disco might at some point decide that it was less expensive and reasonably safe to reduce its nomination under the agreement. So --

19 Q.224 - Sure. But that wold be after a price signal is given 20 and someone has reacted to the price signal. You are not 21 saying that you believe Disco is somehow not obligated to 22 continue to serve its native load under standard service 23 with the heritage assets, are you?

24 MR. ADELBERG: My point is that the potential for that to 25 happen would be influenced, among other things, by what

1 - 2092 - Cross by Mr. MacDougall -2 kind of price signal was given, and obviously at issue in this 3 case is whether you give a more marginally oriented price 4 signal or a more embedded cost oriented price signal and what the difference in those might be. So there are --5 that was the point I was trying to get at. 6 Q.225 - Okay. That's fair. Thank you. Okay. If we could go 7 8 now to your response to EGNB IR-23(a). MR. MACNUTT: What exhibit is that? 9 10 MR. MACDOUGALL: Again, Mr. MacNutt, I am assuming it is in 11 PUB-2 or 3. And I am not sure which -- EGNB IR-23. 12 MR. ADELBERG: I have it now, yes. 13 Q.226 - Now in response to IR-23A and in the last sentence 14 there. And I just want to read out the quote here. "To 15 the extent the question is seeking our opinion as to 16 whether the PPA pricing structure reflects the exercise of 17 more judgment than the definition of the underlying cost 18 causation and economic financial and operating realities 19 of the gencos, the authors agree that it does. MR. ADELBERG: Yes, I see that. 20 Q.227 - Okay. So there is a level of arbitrariness in the 21 22 PPAs that is external to the underlying cost causation and 23 economic, financial and operating realities of the gencos? MR. ADELBERG: I wouldn't call it arbitrariness. 24 Q.228 - Okay. Then there is an exercise -- there is a more. 25

1 - 2093 - Cross by Mr. MacDougall -2 Let's use your words. There is a more judgmental component to 3 the PPAs than the underlying cost causation and economic, 4 financial and operating realities of the gencos? 5 MR. ADELBERG: Yes. The PPAs -- the underlying financial and operating realities of the gencos or of Genco is to 6 7 some extent seems to be very much tied to their accounting 8 They are attempting to recover their accounting cost. 9 costs, seems to be what they are doing. 10 The PPAs would include that but would also include risk 11 allocation judgments which are less likely to be -- to be 12 susceptible to the kind of numerical precision that you 13 can get when you look in your cost accounts. That was the 14 point we were making. 0.229 - Okay. Perfect. Great. Thank you very much. 15 If we 16 could now turn -- and I guess it's PUB-1, which is your actual evidence. And if we could go to page 80. 17 18 MR. ADELBERG: Is that 8 or 80? 19 Q.230 - 80, 8 0. My elocution I don't think is perfect today. And if we could go to line 12. 20 21 MR. ADELBERG: I see it. 22 Q.231 - Here essentially what you are saying, as we understand 23 it, is that the company, Disco, has not applied what you 24 refer to as the modified Peaker Method consistently. Is

1	- 2094 - Cross by Mr. MacDougall -
2	that correct?
3	MR. ADELBERG: That is correct.
4	Q.232 - Okay. And we have done this before. I think you
5	might have mentioned this before. But I think there is
6	one primary inconsistency. Could you go over the primary
7	inconsistency?
8	MR. ADELBERG: The inconsistency that we viewed was that the
9	company basically took the Genco PPA allocation of costs
10	as a given, whereas on the Nuclearco PPA, it felt that it
11	could not do so and come up with a reasonable embedded
12	cost classification of generation costs.
13	Q.233 - Okay. Now that specific inconsistency does not exist
14	in Dr. Rosenberg's analysis, does it?
15	MR. ADELBERG: I don't believe so, no.
16	Q.234 - He noted that inconsistency and in his manner
17	corrected for it the same way you did, correct?
18	MR. ADELBERG: That's right.
19	Q.235 - Now coming back to some discussions we had with Mr.
20	Larlee awhile ago, would you agree that in order and
21	particularly I think basing this on your experience at a
22	utility, would you agree that in order to properly analyze
23	cost causation of generation costs, it is necessary for
24	the analyst to have a sound understanding of system
25	planning and generation economics?
0.0	

1 - 2095 - Cross by Mr. MacDougall -2 MR. ADELBERG: Yes. 3 Q.236 - And essentially they have to understand how the 4 utility responds to the loads imposed on the system? 5 MR. ADELBERG: And expectation of future loads, yes. Q.237 - Yes, great. Now if we could go to page 68 of your 6 7 evidence. Lines 6 through 8. There you note that 8 customers with very different demands on the system would 9 cause different costs and thus be deserving of different 10 Is that a correct reading of your evidence? rates. 11 MR. ADELBERG: That's the general thrust of it, yes. Q.238 - Okay. ANd if we could go to your response to EGNB IR-12 13 42. MR. ADELBERG: That seems to be under tab 15 in mine. 14 Q.239 - There you were essentially asked to explain how 15 16 customers with different demands on the system would 17 impose different costs. And would you be kind enough to 18 read your answer into the record? 19 MR. ADELBERG: An example would be that customers whose demands occur during times of system peak demand would 20 21 impose higher costs than those whose demands never occur 22 during times of system peak demand. 23 0.240 - Now when you say times of system peak demand, would it 24 be fair to say that New Brunswick that would generally be the winter and not the summer? 25

1	- 2096 - Cross by Mr. MacDougall -
2	MR. ADELBERG: That's our understanding.
3	Q.241 - And is it fair to say that you would be in favor of
4	reflecting the higher costs imposed by winter use in both
5	the cost of service study as well as rate design?
6	MR. ADELBERG: Yes.
7	Q.242 - Would you agree that generating units are normally
8	dispatched in merit order? Those with the lowest running
9	costs first and then progressively dispatching those units
10	with higher running costs?
11	MR. ADELBERG: You are talking about the New Brunswick
12	system?
13	Q.243 - In general or in New Brunswick?
13 14	Q.243 - In general or in New Brunswick? MR. ADELBERG: In general unfortunately I know
14	MR. ADELBERG: In general unfortunately I know
14 15	MR. ADELBERG: In general unfortunately I know unfortunately is I shouldn't editorialize. In the
14 15 16	<pre>MR. ADELBERG: In general unfortunately I know unfortunately is I shouldn't editorialize. In the United States, the competitive markets have moved to a bid</pre>
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25 the system and tries to dispatch them from lowest costs

1	- 2097 - Cross by Mr. MacDougall -
2	to highest subject to reliability constraints and contractual
3	constraints and a market bid based dispatch where you
4	dispatch based on prices that the bidders offer.
5	New Brunswick
6	Q.244 - Doesn't have a market like that? Doesn't have a bid
7	market?
8	MR. ADELBERG: I actually would defer to Steve on that. He
9	is he worked on that aspect of the market. Steve, do
10	you want to chime in?
11	MR. GARWOOD: I would agree with everything you said. With
12	respect to the state of New Brunswick's market design, I
13	was not involved in that market committee that was formed
14	to make recommendations and construct that market so I
15	couldn't tell today whether they are under some sort of a
16	bid themselves or whether they are under economic merit
17	order.
18	My guess was they were still under the cost based economic
19	merit dispatch.
20	Q.245 - You are not aware there is no pool here, for
21	example? It is on;y Genco's cost to Disco, correct?
22	MR. GARWOOD: That's my understanding.
23	Q.246 - So would you expect that Disco's or Genco's unit fuel
24	costs would tend to be higher at times of peak usage than
25	in off peak times?

- 2098 - Cross by Mr. MacDougall -

2 MR. ADELBERG: Well we --

3 Q.247 - Before exports?

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4 MR. ADELBERG: We have seen some -- we have learned from 5 this case that there are some conditions where that would 6 not be true because they have hydro that is available on 7 peak that is a very low energy cost, zero energy cost 8 resource and also because they have surplus capacity. At 9 least Mr. Knecht's analysis suggested that they -- the 10 plants that run on a margin aren't that different from 11 month to month during the year.

12 That said, I agree with your general proposition that the 13 likelihood of having a higher cost unit on the margin is 14 greater at times of higher demand, which would be the 15 winter, certainly.

16 Q.248 - Okay. Thank you very much. And I believe in your 17 evidence -- I don't know that we have to go to it -- but 18 you make a statement that seasonal differentiation of 19 embedded cost based rates is desirable. Correct? 20 MR. ADELBERG: Where the -- in the circumstance of New 21 Brunswick, yes, I think they are.

And have you recommended changes to the company's class cost allocation study? I think we discussed one earlier. MR. ADELBERG: Yes.

Q.249 - Yes. And that is what I meant, yes, New Brunswick.

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1 - 2099 - Cross by Mr. MacDougall -2 Q.250 - Have you made any changes to Disco's CCAS though that 3 would reflect seasonal differentiation and fuel costs? MR. ADELBERG: I will let Steve answer that. 4 5 MR. GARWOOD: I don't believe we have done anything seasonality to the CCAS, reflect seasonality in rates. 6 7 Q.251 - Okay. Now coming back to something that you touched 8 on yesterday, but it was also I believe in your evidence 9 and some of the evidence of the other experts. You used 10 the terms "common costs" and "joint costs". And again, 11 just to get all of the non-economists on a level playing 12 field, could you please define those terms as you used 13 them? MR. ADELBERG: Basically the two have a similar meaning and 14 they differ in one respect. They basically are generally 15 16 refer to assets that are used in the production of more 17 than one good or service. And although people don't think 18 of it this way very often, actually the generation of 19 electricity is a multi-product endeavor because on-peak kilowatt hours and off-peak kilowatt hours are not 20 21 interchangeable. They are not a commodity that can be 22 interchanged. They have to be used when they are 23 produced. 24 Or looking at it the other way, the customer wants them

when they use their equipment at the time that they

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1 - 2100 - Cross by Mr. MacDougall use whatever service it is they are using. So there is a --2 3 in the case of generating plant and we can talk about 4 transmission and distribution in a very similar way -- you 5 have a plant that is being used for producing essentially more than one product, but it is the same plant. 6 7 And it becomes a common cost because it has that aspect 8 and one of the ramifications of that is that the cost of 9 providing the separate service is independently -- if you 10 add them up -- if you just provided them independently and 11 added up their costs, you often end up with a different 12 value than the single common cost that is used for both of 13 them.

Joint cost is similar to common cost, only the concept is that the proportions of products that can be produced are pretty much fixed. If you can produce 100 megawatt hours per hour on peak, that is all you can produce off-peak with the same equipment. More or less that is the concept.

20 Q.252 - Okay. And I think that is useful and I think you have 21 sort of led in to some of my further questions. But I 22 just want to ask them so that we can get some discrete 23 answers for where I am going here.

24 So I take it you believe then that the fixed costs of 25 Genco or Nuclearco are common or joint costs, correct?

1	- 2101 - Cross by Mr. MacDougall -
2	MR. ADELBERG: To some extent, yes.
3	Q.253 - And I believe you answered that in an interrogatory.
4	MR. ADELBERG: That's right.
5	Q.254 - Are most transmission costs common costs?
6	MR. ADELBERG: Yes. I believe so.
7	Q.255 - Would you agree or disagree that embedded cost of
8	service studies attempt to allocate common or joint costs
9	to individual customer classes?
10	MR. ADELBERG: That is generally what they attempt to do.
11	Q.256 - Do you agree and Mr. Garwood may have to jump in
12	here, I'm not sure that the FERC and the majority of
13	public service commissions and utility and review boards
14	across the US use embedded cost of service studies?
15	MR. ADELBERG: Yes.
16	Q.257 - Now if we could turn to page 11 of your evidence? Now
17	at line 1 it appears that you state there, where costs are
18	common or joint by definition they cannot be fully
19	allocated to classes based on the principle of causation.
20	Is that your evidence?
21	MR. ADELBERG: Yes.
22	Q.258 - So do you believe that most public service commissions
23	and utility review boards in the US are engaged in an
24	exercise in futility if they rely in embedded cost studies
25	to allocate costs among the classes?

1	- 2102 - Cross by Mr. MacDougall -
2	MR. ADELBERG: If they are trying to allocate on the
3	principle of cost causation the answer is yes.
4	Q.259 - So what principle do they try to allocate then on
5	in embedded cost studies in the majority of the
6	jurisdictions where they do this?
7	MR. ADELBERG: I think that they are typically they are
8	looking for something that I would call equity in the rate
9	structure.
10	Q.260 - So you are not saying that they don't do it. You are
11	just saying they do it on the basis of what you consider
12	to be equity rather than cost causation?
13	MR. ADELBERG: That's right.
14	Q.261 - Okay. And you discussed that yesterday.
15	MR. ADELBERG: Yes.
16	Q.262 - So now if we could go to page 80 of your testimony, 8-
17	0
18	MR. ADELBERG: Okay.
19	Q.263 line 15.
20	MR. ADELBERG: Line?
21	Q.264 - 15.
22	MR. ADELBERG: 15. Okay.
23	Q.265 - Here you state and I'm just paraphrasing, we can go
24	through it that the changes you made to the embedded
25	cost of service study in your evidence translates to

1	- 2103 - Cross by Mr. MacDougall -
2	higher RC ratios for the residential class and lower RC ratios
3	for the industrial class. That's what you said there?
4	MR. ADELBERG: Yes.
5	Q.266 - Okay. And my question is why should the Board have
6	confidence in your RC ratios if you believe that embedded
7	cost of service studies aren't based on the principle of
8	cost causation for the allocation of fixed generation
9	costs?
10	MR. ADELBERG: Because as I have said I think the Board is
11	relying on principles that really have their roots in
12	equity, and if they choose to have that be the basis of
13	their cost of service studies in the rate design, then
14	that would be the implications.
15	But I'm obviously just making the point that that's and
16	I have said many times that equity is a reasonable
17	consideration but people need to realize that equity is
18	inherently a more subjective concept than cross-subsidy
19	which has which can be at least defined with some
20	precision.
21	We can get agreement among economists what cross-
22	subsidization and even among lay people what cross-
23	subsidization means. Equity tends to be I think the
24	best definition of equity is a situation of I cut the
25	

1 - 2104 - Cross by Mr. MacDougall -2 cake, you get to pick the piece you want. It sort of reflects 3 the fact that it's very hard to be -- to get agreement a 4 priori on what is equitable. Q.267 - And you would agree that this Board -- and I think we 5 made reference to other Canadian boards just subject to 6 7 check -- those that use the 95 to 105, that is a range 8 around the result that derives out of the embedded or fully allocated cost of service study in those 9 10 jurisdictions that use that, correct? 11 MR. ADELBERG: Yes. And I have seen broader ranges to --12 0.268 - Sure. 13 MR. ADELBERG: -- that really derive from the same concern 14 that fully allocated cost studies have some inherent 15 uncertainty in them. Q.269 - Okay. But the range is around the costs that derive 16 17 out of the embedded cost study? 18 MR. ADELBERG: That's correct. 19 Q.270 - Now if we could go to page 11 of your evidence, and I think I will just start at page 10 -- line 10, I'm sorry -20 21 - page 11, line 10, and I just want to read this in here. 22 "If the revenues of a regulated enterprise just cover 23 total economic costs then all prices are subsidy free if 24 the revenue of each service and each group of services are at least as great as the incremental cost of that service 25

1 - 2105 - Cross by Mr. MacDougall or group of services. Equivalently prices are also subsidy 2 3 free if the revenues of each service and group of services 4 are no greater than the standalone cost of that service or 5 group of services." Correct? б MR. ADELBERG: That's correct. Q.271 - Have you presented any studies or analysis in this 7 8 case on how the revenues of each of Disco's services 9 compare to the incremental cost of those services? 10 MR. ADELBERG: No, we have not. 11 Q.272 - Have you prepared any studies or analysis pertaining 12 to the standalone cost of service or group of services to 13 any customer class of Disco? 14 MR. ADELBERG: No. 15 Q.273 - I'm going to come back to the Peaker Credit Method 16 just for a little bit. We probably don't have to go too 17 deep there. We may have covered all the questions 18 earlier. If you could go to page 5 of your evidence, line 19 15. There you say, "The company supports continued use of the 20 21 Peaker Credit Method. While we agree with that choice we 22 differ as to its application to the specific costs at 23 issue." My understanding is that you agree to the choice 24 but one of the primary concerns you have was the one we discussed earlier with respect to its application to the 25

1 - 2106 - Cross by Mr. MacDougall -2 Genco versus Nuclearco, correct? 3 MR. ADELBERG: No, not correct. 0.274 - No. 4 5 MR. ADELBERG: As I think I have stated now several times, б this was written at a time -- before we heard the Disco's 7 testimony in this case, and we now understand that what 8 they were endorsing was not the continued application of 9 the Peaker Credit Method. Q.275 - Okay. So we are back to that then on these questions. 10 11 Okay. 12 MR. ADELBERG: Right. 13 Q.276 - And I probably won't ask the questions now. Just give 14 me a moment and I will go through them if that's the 15 response. 16 MR. ADELBERG: Okay. 17 Q.277 - Okay. Now just speaking broadly about the Peaker 18 Credit Method --19 MR. ADELBERG: Sure. 20 Q.278 - -- do you believe that the Peaker Credit Method is 21 based on the principle that a utility has the choice to 22 spend more money on capital in order to save fuel? 23 MR. ADELBERG: Yes. 24 Q.279 - And does a utility try to minimize just fuel costs or does it attempt to minimize total costs, capital costs 25

1 - 2107 - Cross by Mr. MacDougall -2 plus fuel costs? 3 MR. ADELBERG: Total costs. Q.280 - And you are familiar with the Coleson Cove 4 5 refurbishment project? 6 MR. ADELBERG: Generally. Q.281 - And did that add to the capital costs of Disco? 7 8 MR. ADELBERG: That's our understanding. 9 Q.282 - Have those capital costs to your understanding 10 resulted in any fuel savings for Disco? 11 MR. ADELBERG: I'm aware that a significant part of the 12 expected fuel savings have not been achieved. Whether 13 they resulted in any at all I don't know. 14 Q.283 - Okay. That's fine. Thank you, Mr. Adelberg. MR. MACDOUGALL: Mr. Chair, I have another group of questions 15 16 here and again some of them derive around this Peaker Credit approach, so I'm just going to -- if I can spend a couple of 17 18 minutes now that I know where it will lead me I probably can 19 get rid of quite a few again. 20 Q.284 - Now again some of my questions are generically on the 21 approach, so I do think I would like to go to page 19 of 22 your evidence. 23 MR. ADELBERG: I am there. 24 Q.285 - And line 1 at the top there is a question that you

posed to yourselves. Apart from the fact that you believe

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1 - 2108 - Cross by Mr. MacDougall -2 the company's approach to classifying PPA fixed costs is 3 internally inconsistent, do you agree with the company's 4 preference for the Peaker Credit Method of classifying 5 fixed power supply costs? And I know we are to stay away 6 from the general proposition we have got into that. But 7 you say, yes -- and again I will stay away from that. 8 What I want to key in on is the next sentence. The Peaker Credit Method allocates fixed production costs between 9 10 demand and energy in a manner consistent with the 11 investment decisions reflected in the portfolio of assets 12 used to supply power under the PPAs. 13 I just want to make sure, despite our discussion earlier 14 today, do you still agree with that statement? 15 MR. ADELBERG: Yes. Yes. Just as long as people understand 16 that there is a time element that is inherent in this 17 methodology in the sense that you're defining demand 18 energy split for classifying fixed generation costs of 19 assets that can be -- vary in age by decades. 20 Q.286 - Sure. 21 MR. ADELBERG: So you -- that -- it's not quite as focused on today as some people might assume. But with that 22 23 understanding, yes. 24 Q.287 - Sure. But it does reflect the portfolio of assets used to supply power under the PPAs. 25

1	- 2109 - Cross by Mr. MacDougall -
2	MR. ADELBERG: That's right.
3	Q.288 - And you have heard the testimony recently that that
4	portfolio of assets isn't expected to change for some
5	considerable time, correct?
б	MR. ADELBERG: Well there will be some significant capital
7	additions to that portfolio, but yes. Other than that,
8	yes.
9	Q.289 - Other than the refurbishment of Point Lepreau, what
10	capital additions? My understanding and we can go back
11	to it, but I have raised it three or four times in this
12	proceeding, is that Mr. Larlee and the Disco business plan
13	says they don't need any new capacity until 2014, 2015.
14	What are you just talking about ongoing capital
15	maintenance?
16	MR. ADELBERG: No. I was referring principally to Point
17	Lepreau and then there may be some purchased power through
18	the renewable energy program that ends up in the
19	portfolio.
20	Q.290 - That's great. And I will get to Point Lepreau shortly
21	then. Perfect.
22	MR. ADELBERG: Okay.
23	Q.291 - Now if we go to page 20 of your testimony and I am
24	just going to sort of paraphrase from lines 5 through 8 or
25	9 here. You can tell me if this is generally what you are

1 - 2110 - Cross by Mr. MacDougall -2 getting at. You indicate that in utilizing the Peaker Credit 3 Method the costs of the Belledune scrubber should be taken 4 into account, you state that in line 5, and you also at 5 line 8 recommend incorporating current generation cost 6 data into the study, correct? 7 MR. ADELBERG: That's right. Q.292 - And then starting at line 8 you state, doing so, i.e., 8 9 the incorporation of these items above, produces a demand 10 energy split of about 39/61, which is virtually identical 11 to the split employed by the company in its direct evidence, correct? 12 13 MR. ADELBERG: Correct. 14 Q.293 - Thank you. Now I asked you earlier, you have indicated you haven't filed a full marginal cost study in 15 16 this proceeding, correct? 17 MR. ADELBERG: Not one relevant to these costs. We filed a 18 full one relevant to a different case, yes. 19 Q.294 - Okay. And I think if we go to page 44 at line 11, if 20 I can paraphrase the answer in A, because you have to read 21 it in relation to the question, the question is at 10, the 22 answer is at A, essentially what you are saying is that 23 without performing a marginal cost study the precise 24 impacts, those impacts being of reflecting marginal cost in Disco's rate design, are difficult to predict. 25

1 - 2111 - Cross by Mr. MacDougall -2 Correct? 3 MR. ADELBERG: That's right. Q.295 - Now if we could go to page 46, line 6 of your 4 5 evidence, you state here, while rate design proceedings have been rare in recent years, a 1990 survey identified 6 7 41 states and other jurisdictions explicitly using 8 marginal costs in setting retail rates. Correct? 9 MR. ADELBERG: Correct. Q.296 - And I think you reference that below. There is a 10 11 footnote reference 68 at the bottom of page 46, correct? 12 MR. ADELBERG: Right. And it was supplied as -- in a data 13 response. 14 Q.297 - Yes. And you were here for Dr. Rosenberg's direct 15 evidence? 16 MR. ADELBERG: I was. 17 Q.298 - Okay. And during his direct examination he stated 18 that in his experience the use of a marginal cost of 19 service study to determine or guide the distribution of 20 the revenue requirement among the service classifications 21 is not to his knowledge done in any Canadian province and 22 in only six states which he listed and probably Maine. Do 23 you recall that? 24 MR. ADELBERG: I do.

25 Q.299 - And do you have any reason to disagree with Dr.

1 - 2112 - Cross by Mr. MacDougall -2 Rosenberg's understanding of the states or Canadian provinces 3 that use a marginal cost of service study to determine or guide the distribution of the revenue requirement among 4 5 the service classifications? MR. ADELBERG: I think if you understand what Dr. Rosenberg 6 7 was saying that his numbers are actually very consistent 8 with the numbers in the NERA study. It's a matter of 9 definition. Q.300 - That's good. And we are going to -- I'm actually 10 11 going to go through some of those definitions. So you do 12 essentially agree with his statement then? 13 MR. ADELBERG: I can't remember the exact number but it was 14 on that order of magnitude. Q.301 - Perfect. And that's what I'm going to do. I am going 15 16 to actually go to the definitions and I think this is -- I 17 think you might know where I am going and this could be 18 quite useful I think, Mr. Adelberg. If we could go to 19 your response to EGNB IR-32. MR. ADELBERG: That appears on my tab 14, I believe. 20 Are 21 you looking for that study? 22 Q.302 - I'm not. I'm sure the Commissioners are. 23 MR. ADELBERG: I'm sorry. IR-32? 24 Q.303 - Your response to EGNB IR-32.

25 MR. ADELBERG: Okay. Well that's also in -- I thought it

1 - 2113 - Cross by Mr. MacDougall -2 was in tab 14. 3 Q.304 - Yes. It says, please provide a complete copy of the 1990 survey which we were just talking. 4 5 MR. ADELBERG: Yes. Okay. 0.305 - Okay. Now --6 7 MR. ADELBERG: Well it's a little confusing because the 8 response -- the question is at tab 13 but the attachment 9 is at tab 14 for some reason. Q.306 - Okay. Now the response says, copy attached, and I 10 11 just want to make sure for everybody here -- again I'm not 12 familiar with the version of the binders. Do the 13 Commissioners all have the actual attachment? Okay. And, 14 Mr. Adelberg, do you have the attachment? 15 MR. ADELBERG: Yes. That's what is at tab 14 in my book. 16 Q.307 - Okay. It's just some of this was provided separately 17 to the Intervenors in a package, and I want to make sure 18 everybody has the attachment. 19 MR. ADELBERG: Yes. 20 Q.308 - Okay. And the attachment that supports the statement in your evidence is a report entitled "The Role and Nature 21 22 of Marginal and Avoided Costs in Ratemaking, A Survey 23 Prepared by Hethie Parmesano and William Bridgman" --24 MR. ADELBERG: Correct. Q.309 - -- correct. Now I don't think we have to turn back to 25

1 - 2114 - Cross by Mr. MacDougall -2 this, but in your evidence where you were talking about the 41 3 states that make some reference to marginal costs, you indicated that the source of the reference to the 41 4 5 states and other jurisdictions could be found on page 1 of 6 the report and Table A of the report --7 MR. ADELBERG: Yes. Q.310 - -- correct? And then maybe we can go to page 1 of the 8 9 report. In the first sentence in the second paragraph --10 this is I assume your citation -- 41 states and other 11 jurisdictions surveyed now use marginal costs explicitly 12 in setting retail electric rates. 13 MR. ADELBERG: Correct. Q.311 - Okay? 14 15 MR. ADELBERG: Yes. Q.312 - And then if we can go to table A, because table A sets 16 17 this all out but then breaks these down into categories. 18 And table A immediately follows -- it's the second page 19 after page 11 of the report. There is a page after page 11 called tables and figures and then there is table A. 20 21 MR. ADELBERG: Correct. 22 Q.313 - And we will see that table A is entitled "Degree of 23 Marginal Cost Use", correct? 24 MR. ADELBERG: Correct.

Q.314 - Now if we could look at the five headings, okay, and

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1 - 2115 - Cross by Mr. MacDougall -2 I'm going to go through these headings, and I think what is 3 important is we should have table A and if you turn back 4 to page 3 of the report, so just sort of have both open, 5 because starting on the bottom of page 3 the report describes what the headings mean, and I think this is very 6 7 important. 8 So you can see at the bottom of page 3, marginal cost

9 information can be used in varying degrees in a retail 10 electric rate design. Okay. And then we are going to go 11 through the items there. And I think I am going to do it 12 by way of the largest to the smallest. If you look at 13 table A you see a column there, column 3, and it says 14 "Used Selectively", correct?

15 MR. ADELBERG: I see that.

16 Q.315 - And that has a large list of states, right?

17 MR. ADELBERG: Yes.

18 Q.316 - The largest list to here is under column 3.

MR. ADELBERG: That's right, plus some other kinds ofentities down at the bottom of the page.

Q.317 - Yes. Sure. But now if we go back to page 3, and I think actually I have to go to page 4, for the definition of column 3 -- actually it starts at the bottom of page 3, it's number 2 --

25 MR. ADELBERG: Okay.

1 - 2116 - Cross by Mr. MacDougall -Q.318 - -- and it says "Selective Use". 2 3 MR. ADELBERG: Right. Q.319 - So that's defining the selective use column, and it 4 5 says, selective use of the marginal cost results for particular rate schedules, economic development rates or 6 7 rate components, e.g., time-of-day differentials, correct? 8 MR. ADELBERG: That's right. Q.320 - So your understanding is that those states under 9 10 column 3 are those that use marginal costs for the 11 purposes set out in that definition --12 MR. ADELBERG: That's right. 13 Q.321 - -- selective use for things such as economic 14 development rates or time-of-day rates --15 MR. ADELBERG: That's right. 16 Q.322 - -- correct? Now if we go to column 4 which is the 17 next biggest column -- ignoring column 1 because that's 18 jurisdictions in which marginal costs are not used at all, 19 so I'm just talking about jurisdictions in which they are 20 used --21 MR. ADELBERG: Right 22 Q.323 - If we go to column 4 this says, "Used in Rate 23 Structure Design Only", correct? 24 MR. ADELBERG: Correct.

25 Q.324 - And then if we can go back to page 3 -- I guess it's

1 - 2117 - Cross by Mr. MacDougall page 4 now -- under item 3, use of marginal costs to design 2 3 rate structures for each customer class once revenue 4 requirements have been allocated to classes using an 5 embedded cost study -б MR. ADELBERG: That's right. 7 Q.325 - -- correct? 8 MR. ADELBERG: Correct. Q.326 - So those entities listed under column 4, "Used in Rate 9 10 Structure Design Only", are jurisdictions where marginal 11 costs are used to design rate structures but only once the 12 revenue requirements have already been allocated to the 13 classes using an embedded cost study, correct? MR. ADELBERG: Yes. Although it's obvious from the face of 14 15 this document that what they were relying on was survey 16 results and the survey results probably need a little 17 explanation because they have Maine listed in three 18 categories. But subject to that minor issue --19 Q.327 - Sure. 20 MR. ADELBERG: -- but generally speaking, yes, I agree with 21 you. 22 Q.328 - And I think we can move it over to the farthest 23 category where they have the ones in the farthest 24 category. That will probably work. MR. ADELBERG: But your general point I agree with. 25

1	- 2118 - Cross by Mr. MacDougall -
2	Q.329 - Yes. Okay. So those jurisdictions you do an embedded
3	class cost of service study and then you might use
4	marginal cost to design rate structures.
5	MR. ADELBERG: That's right.
6	Q.330 - Okay. And then finally and again ignoring column 1
7	because it doesn't use marginal costs at all we have
8	six jurisdictions listed in 1992 but the survey itself is
9	from 1990, correct?
10	MR. ADELBERG: That's right.
11	Q.331 - The report was in '92, the survey is from 1990. Here
12	we have a heading "Used in Rate Structure and Revenue
13	Allocation", correct?
14	MR. ADELBERG: Correct.
15	Q.332 - So those jurisdictions actually use marginal cost in
16	revenue allocation?
17	MR. ADELBERG: That's correct.
18	Q.333 - Now when we were discussing the selective use of
19	marginal costs for particular rate schedules, there was a
20	reference on page 3 and 4 to economic development rates.
21	MR. ADELBERG: Correct.
22	Q.334 - Could you describe to the Board what economic
23	development rates generally are?
24	MR. ADELBERG: Typically there are discounted rates that are
25	designed to as I said to bring to encourage economic

1 - 2119 - Cross by Mr. MacDougall -2 development, to entice new businesses to site plants in a 3 particular jurisdiction or to add onto existing facilities or hire new workers, things of that nature. 4 5 Q.335 - Okay. And economic development rates are in place in various jurisdictions in North America? 6 7 MR. ADELBERG: They were common in the '90s. I think they 8 have been overtaken a little bit by the evolution of the markets in North America. 9 Q.336 - Sure. In jurisdictions where previously there weren't 10 11 markets or now where there aren't markets, economic 12 development rates have been and are still used as a rule? 13 MR. ADELBERG: That's as I understand it. I haven't looked 14 at it recently but I have no reason to believe they have been eliminated. 15 Q.337 - Okay. Thank you. Now if we can go to table A, and 16 17 this is getting back to some earlier questions, but I 18 think this is helpful because there is some data in here. 19 Under column 5, which is the column where marginal costs are used in rate structure design and revenue allocation, 20 21 are there any Canadian jurisdictions listed? 22 MR. ADELBERG: No. 23 0.338 - Okay. 24 MR. ADELBERG: And I'm not disputing your suggestion that

there may not be any in Canada, but I believe that they

26

1	- 2120 - Cross by Mr. MacDougall -
2	did not get much response when they sent the survey out. So I
3	don't this may not be a full reflection of what those
4	Canadian jurisdictions would have answered.
5	Q.339 - But you are using this report for the statements you
б	made in your evidence?
7	MR. ADELBERG: That's correct.
8	Q.340 - Okay. Now as we said, this report is in 1992 based on
9	a survey from 1990?
10	MR. ADELBERG: Right.
11	Q.341 - Right. Since 1990, the date of this survey, how many
12	jurisdictions have moved to the use of marginal costs for
13	the development of revenue allocation?
14	MR. ADELBERG: I'm not aware of any, but I also am aware
15	that since 1990 very few jurisdictions have done anything
16	on rate design. It has been it was overtaken by market
17	developments. There was a period of rate freezes that
18	became very common in the mid 1990s and the regulatory
19	authorities became more focused in my experience on
20	restructuring the utilities or things of that nature.
21	Q.342 - Sure. But
22	MR. ADELBERG: But so
23	Q.343 - Since 1990 there has been no rush to the use of
24	marginal cost studies for revenue allocation. Whether

they didn't have hearings on them or not, they obviously

1 - 2121 - Cross by Mr. MacDougall haven't rushed to do them. 2 3 MR. ADELBERG: They haven't rushed to do anything in rate 4 design, so yes, that's correct. Q.344 - Sure. Great. I think we can -- I hope I can go away 5 from that report. I think so, Mr. Chair. Maybe we can 6 just put that side. I might just come briefly back to it, 7 8 but -- well actually I have it separate. You have it in your binder. So I think we can just -- if you just turn 9 10 that over and I will move on. 11 Q.345 - Going back to your evidence, page 47, line 17. 12 MR. GARWOOD: What number was that? I'm sorry. 13 Q.346 - Sorry. It's page 47, Mr. Garwood, line 17. And here 14 in discussing the Reed Consulting Group report and you referred to them as RCG, you note that Reed proceeded to 15 16 recommend -- and this is referring back to their older 17 report, caution in the application of longrun incremental 18 costs peak load pricing principles and they, Reed, stated 19 that the efficiency benefits of longrun incremental costs could be achieved through seasonal rates developed from 20 21 accounting data without disrupting other important rate 22 design objectives and without referring to LRIC estimates. 23 Correct? 24 MR. ADELBERG: That's correct. Yes.

25 Q.347 - And then you state on page 48 at line 12, that LRIC

1	- 2122 - Cross by Mr. MacDougall -
2	should be applied with caution and that seasonal
3	differentiation of embedded cost based rates is desirable.
4	Correct?
5	A. That's right.
б	Q.348 - Now staying with the issue here of marginal costs and
7	rate design, if we could go to page 54, line 14. And here
8	you raise a question, what is your recommendation to the
9	Board about the use of marginal cost in Disco's rate
10	design. And here, I take it, this question was about rate
11	design, right, not cost allocation?
12	MR. ADELBERG: Oh, I didn't mean it narrowly. I am sorry.
13	That's we use rate design to encompass all of the
14	issues in this case.
15	Q.349 - So I wanted to get that clear.
16	MR. ADELBERG: In this context, we were not did not mean
17	to limit it.
18	Q.350 - But we have already had the discussion about some of
19	the issues about the use of marginal costs and embedded
20	studies. So I am now going to talk about rate design,
21	even though this question may not have specifically
22	referred to that.
23	MR. ADELBERG: Okay.
24	Q.351 - And if you have to go back and forth, just let us
25	know, because often in these hearings we do talk about,

1 - 2123 - Cross by Mr. MacDougall you know, cost of service studies and rate design as separate 2 3 items, so I wanted to make that clarification. 4 And you said we recommend that the Board pursue this issue 5 further. And I guess I was wondering if you could 6 elaborate on what you mean to the Board that they should 7 pursue the issue further? 8 MR. ADELBERG: Yes. I recognize that's a big recommendation 9 and was hoping that we would come to this point where we 10 would have a chance to explain what we meant by it, 11 because we thought as the proceeding evolved that the 12 issue would sharpen. 13 And our feeling is this that the Board, as we stated in 14 our testimony, the Board expressed an interest in this subject in 1992. We felt that the treatment of the issue 15 16 that was given by Reed Consulting Group and the study that 17 followed up in 1992 was not -- was really not a balanced 18 treatment of the subject. It made many valid points. We 19 -- and --

20 Q.352 - Yes, we know Mr. Ketchum is sitting behind us.

21 MR. ADELBERG: I know Mr. Ketchum is squirming in his seat 22 so -- there are many virtues of the study. And I am sure 23 it is much better than I could have done. However that 24 said, that there are still -- not only are there still 25 reasons to be interested in marginal costs, but there may

- 2124 - Cross by Mr. MacDougall 2 be in some ways more reasons to be interested in it now,

3 because of the challenges that this jurisdiction is facing 4 with rising energy costs.

When I said pursue it further, what I meant was we had 5 laid -- we had tried to set out the trade-offs inherent 6 7 and some of the issues inherent in using marginal costs 8 and what some of their value might be. We would hope that that would result in the Board examining that issue in 9 10 making up its own mind whether it agreed that it was 11 information worth having. And if so, the logical thing to 12 do would be for the Board to -- at least in our experience 13 the way that we are familiar with things and I think the 14 way it has worked in this jurisdiction, would be to say to 15 the company either in the next case you come in or within 16 some fixed period of time we would like you to come in 17 with some evidence for us to consider so that we can 18 examine how that information might be useful in setting 19 Because we are in a period where, as we say, rates rates. are -- seem to be heading up and there are potentially 20 21 important cost consequences to the province and to its 22 economy and to ratepayers of not using energy efficiently 23 which is a risk if you aren't looking at rates that are 24 designed with efficiency in mind.

25 So that was a little too cumbersome to put in the

2125 - Cross by Mr. MacDougall testimony and so I appreciate your giving us the opportunity

3 to clarify it.

So again it's just two steps. One is if they -- if they 4 buy the arguments, if listening to the arguments, they may 5 or may not buy them. But at least they know we have heard 6 7 the arguments. We are happy with the way we do things. 8 End of story. If they look at it and they say, we hear the arguments, we think it may be useful. I guess there 9 10 is another sort of sub-step in there which is as a 11 regulator, they always are mindful and have to be mindful 12 of priorities and resources. And doing marginal cost 13 analysis would require some other resources. They may 14 have priorities that are more pressing. That I can't -- I am not really qualified to say. 15

But if in looking at all of those things, they decide it's information worth having, then the way to pursue it is to direct the company -- I would assume to direct the company either alone or in co-operation with other interested parties, to attempt to figure out a rational way of developing some level of information that could be used as an input to this process.

And Mr. Knecht's testimony again was very helpful in
suggesting a direction that this might go that might
enable some of this information to be developed without a

1	- 2126 - Cross by Mr. MacDougall -
2	traditional marginal cost study if on reflecting on it, if
3	the parties agreed that that would produce useful
4	information.
5	Q.353 - I think that's very helpful. I hope that was helpful
6	to the Board. And it certainly helps clarify some of my
7	questions.
8	I guess on that latter piece though, you are not
9	suggesting though that we have little bits of marginal
10	costs though and try and look at in some adhoc sort of
11	way, are you?
12	MR. ADELBERG: No, no, that wasn't the thrust of our
13	suggestion. The company does that to some extent already.
14	They made clear in their presentation that they consider
15	marginal costs and we thought that was positive. We were
16	obviously suggesting that there may be some value in going
17	quite a bit further.
18	Q.354 - But that's what I am coming back to. And I think we
19	are in the same boat here. The company does it in rate
20	design, as I called talked about rate design. Correct?
21	MR. ADELBERG: Yes. Yes.
22	Q.355 - And that's useful?
23	MR. ADELBERG: Yes.
24	Q.356 - And Dr. Rosenberg has seasonality. Dr. Rosenberg does

25 some of this in rate design?

1 - 2127 - Cross by Mr. MacDougall -MR. ADELBERG: And to be fair, this -- New Brunswick does 2 3 embedded cost studies in a way that has a slight element 4 of marginality in them, which is not always the case, because they look at what essentially what we would call a 5 6 future test year --7 Q.357 - Future test --8 MR. ADELBERG: -- or forecasted test year and that is 9 looking to some extent at forward looking running costs. 10 Q.358 - Yes. 11 MR. ADELBERG: So there is some element of marginality in 12 that respect. 13 Q.359 - And the company and Dr. Rosenberg both in their type of studies use a forward looking test year? 14 15 MR. ADELBERG: That's right. 16 Q.360 - Correct. That's very useful, Mr. Adelberg. Attorneys 17 are always very cautious to ask open-ended questions. 18 MR. ADELBERG: Yes. 19 Q.361 - In this case, I think it's been helpful to everybody. I do have a couple of issues still with some of the stuff 20 21 on your marginal costs. So let's go -- even after that, there is a couple of 22 23 things I think would be useful to get some clarity on. 24 At line -- I guess we are still on page 54, at line 20,

25 you make a comment here that you say, whatever the

- 2128 - Cross by Mr. MacDougall -Board may conclude about practical limitations of their use -and I am not going to concentrate on that piece for now -you say the experience of other jurisdictions, as well as the advice of the leading treatises suggests that the analysis will lead to a more rational rate design. And I guess my question is focusing on two aspects of this, the experience in other jurisdictions regarding marginal costs

9 and a more rational rate design. What evidence do you
10 have for the Board that the rate design in jurisdictions
11 using embedded costs is any less rational than that in
12 other jurisdictions?

MR. ADELBERG: Well from our viewpoint, it's less rational, because it sets price signals that affect peoples' consumption decisions based on things that happened in many cases in the distant past. And that's not how markets work and that doesn't lead to economically efficient decision-making. But that's a very theoretical statement.

20 Q.362 - Yes.

21 MR. ADELBERG: Let me bring it down to a more practical 22 reality. As we have said, there is an element of future 23 looking in the test year that is used here, which is 24 beneficial. There is a certain amount of common sense 25 that goes into rate design. You are aware of what the

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1 - 2129 - Cross by Mr. MacDougall challenges faced by your customer classes are. 2 3 In this jurisdiction, for example, we have had widespread agreement without the need to do a marginal cost analysis 4 5 that a declining block doesn't make sense for the residential class. So there are things that I agree that 6 are useful and can be done in the right direction. 7 8 Our point is as a regulator, I would always want the best information that I could get, assuming it can be gotten at 9 10 a reasonable cost, to inform my decision-making. And 11 that's -- from our point of view, you can't ignore the 12 inherent logic that supports looking at marginal costs as good information for decision-making. 13 14 Q.363 - And again as I have said in looking at it from a rate 15 design perspective, we were generally in agreement with 16 you, but I know you are using it in a broader sense. MR. ADELBERG: 17 Okay. 0.364 - But staying on the rationality for those jurisdictions 18 19 who have used it for revenue allocation, would you suggest

-- let's take California as an example, who has had as
part of revenue allocation since 1992, that over the past
three or four years, the market and the pricing in
California is more rational than that in embedded cost
jurisdictions?

1 - 2130 - Cross by Mr. MacDougall -MR. ADELBERG: Well, I haven't looked at it. But I would be 2 3 quite surprised if the cost allocation -- the marginal cost allocation that was done in -- that was in existence 4 in California at that period has much bearing on them --5 6 on the prices that are being -- that have been seen in 7 California, because they went to a market system in the 8 late 1990s and the majority of their costs were set by the market and no longer the reflection of regulatory cost 9 10 allocation decisions. 11 Q.365 - Fair enough. I am going to stick sort of on the same 12 topic. I'm thinking that you may respond very similarly 13 and you can refer us back to your recent comments here. It's just your use of some language that I guess for the 14 15 same reason we talked about full costs earlier, I have a 16 few questions here to make sure what you are saying when 17 you are using some terminology. 18 If we could go to your statement on page 19 of your 19 evidence -- I'm sorry -- it's line 19 on page 54. Page 54, line 19. I guess we are sort of back to where we 20

21 were. I skipped some questions. And here again the 22 statement is that marginal costs offer the only escape 23 from the realm of subjectivity.

And then if we can go from there and we can look at lines 16 through 18 you say, if the Board relies

1 - 2131 - Cross by Mr. MacDougall exclusively on fully allocated embedded cost of service as the 2 3 underpinning for rate design it will lack the tools to 4 discharge its obligations in a wholly objective manner. Now you did mention earlier, right, that the majority of 5 commissions in North America still use embedded cost of 6 service studies, correct? 7 8 MR. ADELBERG: Yes. And I addressed this very language I think in detail yesterday. 9 Q.366 - I apologize. I might have missed some of that. 10 So 11 let me just go through it. I'm not trying to be 12 problematic, and again I did not have a chance to review 13 the transcript in detail. But let me just -- I want to 14 talk a bit about this language and if you have comments on 15 it you can do that. 16 You are not saying though that all those jurisdictions 17 that do not use marginal costs in their class cost 18 allocation studies are failing to discharge their 19 obligations in a wholly objective manner, are you? MR. ADELBERG: In the context of -- and now I understand 20 21 from the cross examination and other comments in this case 22 that this language is misunderstood which is why I 23 attempted to explain it yesterday. I would be glad to 24 briefly reiterate what I said. Q.367 - I think that would be helpful. And I apologize if I 25

2132 - Cross by Mr. MacDougall 2 missed that yesterday.

MR. ADELBERG: What I was focusing on there -- and I can see how easily it could be misunderstood -- was not the application of the method but rather the goal of the method, that -- as I tried to point out yesterday, that an embedded cost study attempts to do something that is theoretically impossible.

9 It attempts to allocate on a cost causation basis costs 10 that cannot be allocated on a cost causation basis. Okay. 11 So you are already -- you can be as precise as you want 12 in doing that but -- and believe that you have achieved 13 100 percent perfect precision in your numbers, but the 14 numbers cannot, except by the sheerest of coincidence, reflect the costs caused by the classes to whom you have 15 16 allocated them.

17 Q.368 - And if I could just stop you there just for a second. 18 And that is in part though our discussion earlier today 19 as to why a Board would use a range around the embedded 20 cost study, sort of for the same reason as Dr. Rosenberg 21 raised it, isn't --

22 MR. ADELBERG: No. No.

Q.369 - That's where I want to go then. So you don't agree with that. You don't agree that the 95 105 helps deal with the cost causation issue because you say that's only

1 - 2133 - Cross by Mr. MacDougall there for the equity issue? 2 3 MR. ADELBERG: Not exactly. What I was saying was that the -- you didn't let me finish the earlier start of my 4 5 statement. Q.370 - I'm sorry. 6 7 MR. ADELBERG: Marginal costs are focusing on something that 8 theoretically has meaning which is marginal costs are focused on something -- on the real principle of cost 9 10 causation. That's what they focus on. And you may have 11 to make short-cuts and compromises in getting there, but 12 at least you are looking at the right place. 13 The analogy that is often used that I find very helpful 14 that was quoted to me when I first got into this area was if you lost your wallet on Fifty-Sixth Street, would you 15 16 look for it there or would you go to Fifty-Seventh Street 17 where the light was brighter. You know, you can see 18 things on Fifty-Seventh Street. You can see things in the 19 fully allocated cost study, but you are never going to find your wallet because it isn't on that street. 20 21 The use of a range perhaps is better because if marginal 22 costs and embedded costs are likely to differ then the 23 extent that you allow yourself to vary from the embedded 24 costs -- if you are lucky enough to go in the

1	- 2134 - Cross by Mr. MacDougall -
2	right direction in the range, you might get closer to them.
3	But you don't know that without doing some analysis of
4	those marginal costs.
5	Q.371 - Okay. Maybe if I could just ask you then to turn up
б	your response to EGNB IR-7.
7	MR. ADELBERG: Sure. It appears under my tab 11.
8	Q.372 - It's under Mr. Adelberg's tab 11. I'm not sure that
9	means it's under everyone's tab 11 but it's a start. IR-
10	7. And here the question was, do the authors believe the
11	Peaker Credit Method, which is a fully allocated
12	methodology, is based on the principle of cost causation.
13	And your response was you agreed with that.
14	MR. ADELBERG: That's right.
15	Q.373 - Thank you.
16	CHAIRMAN: Mr. MacDougall, is this an appropriate time to
17	take our lunch break?
18	MR. MACDOUGALL: Yes it is, Mr. Chair.
19	CHAIRMAN: Okay. We will reconvene at quarter-after-one.
20	MR. MACDOUGALL: Thank you.
21	(Recess - 12:00 p.m 1:15 p.m.)
22	CHAIRMAN: Anything preliminary? Good afternoon, Mr.
23	Garwood.
24	MR. GARWOOD: Good afternoon.
25	CHAIRMAN: He is with us. Mr. MacDougall, go ahead, sir.

1 - 2135 - Cross by Mr. MacDougall -MR. MACDOUGALL: Thank you, Mr. Chair. Mr. Adelberg, Mr. 2 3 Garwood. I think when we broke we were on page 54 of your 4 testimony. And we were going through that paragraph at 5 the bottom of the page and you clarified some of that for I just want to concentrate on the last line --6 us. sentence now starting at line 19, and you state there, 7 8 "Whatever the Board may conclude about the practical 9 limitations of their use, the experience of other 10 jurisdictions as well as the advice of the leading 11 treatises suggests that the analysis will lead to a more rational rate design", and there you are talking about use 12 13 of marginal costs. I guess I just want to concentrate on the portion of that 14 15 where you say, whatever the Board may conclude about the 16 practical limitations of their use. So is your view that 17 if there are practical limitations, the use of marginal 18 costs analysis is helpful no matter what the practical

19 limitations may be?

20 MR. ADELBERG: It's helpful given what the practical

21 limitations are likely to be.

22 Q.374 - Okay. Now if we could go to page 69. And here I'm 23 looking at lines 9 through 11. And again, this was a 24 comment made in the context of your evidence when it was 25 filed. And I guess starting at line 8, "While changes to

1 - 2136 - Cross by Mr. MacDougall the CCAS arising out of this phase of the proceeding may 2 3 result in modifications to these proposals, we share the 4 company's concern over potential bill impacts and believe that 7.7 percent is a reasonable impact ceiling in the 5 context of an overall 4.4 percent increase." 6 7 Now we don't have the 4.4 percent increase. Everyone was 8 using that. It allowed I think everyone to compare apples to apples in their evidence. But considering Disco's 9 10 recent revenue requirement filing which indicates 11 potentially substantially increased bill impacts based on 12 the revenue component alone, what do you believe the 13 reasonable impact ceiling is with respect to rate design 14 proposals now that we have the benefit of the revised 15 revenue evidence? 16 To be honest, we were not asked to really MR. ADELBERG: 17 look at that new filing at all. I'm just sort of 18 generally aware of the overall level of magnitude but 19 don't know enough about it to offer an opinion at this stage what a reasonable impact ceiling would be. 20 21 I can comment generally that customers are seeing dramatic 22 increases in a lot of energy related commodities. So I 23 think the context in which regulatory rate decisions are 24 made is important. In other words, regulators -- the public will accept a greater increase if they see that 25

1	- 2137 - Cross by Mr. MacDougall -
2 that'	s what is happening generally in the market place. So
3 t	hat's why the 7.7 percent was reasonable when you are
4 1	ooking at an overall increase of 4.4 percent.
5 І	he public is aware that general commodity prices have
6 g	one up higher than that. They are expecting somewhat
7 n	ore. No consumer likes an increase but, you know, the
8 c	overall level of other commodity energy commodity
9 i	ncreases is relevant consideration to the Board when it
10 1	ooks at what might be a ceiling.
11 Q.375	- That's fair enough, Mr. Adelberg. So for example, if
12 t	here is rising oil prices and rising gas prices,
13 c	onsumers are seeing that in the market place with respect
14 t	o alternatives, for example?
15 MR.	ADELBERG: That's right.
16 Q.376	- Okay. And just to stay a bit on that theme, I take it
17 f	rom your evidence in general and from the comments we
18 w	ere just talking about, you are saying that rate design
19 p	proposals that send better price signals should be
20 i	nstituted even if there is rising costs on the revenue
21 r	equirement, correct?
22 J	ust because there is rising revenue requirement costs
23 d	oesn't mean you shouldn't be setting creating rate
24 d	esign proposals that send more efficient price signals.

25 MR. ADELBERG: That's correct. That's correct.

1	- 2138 - Cross by Mr. MacDougall -
2	Q.377 - And in fact, if you didn't do this in a rising market,
3	wouldn't that merely exacerbate the current efficiencies
4	and prolong them?
5	MR. ADELBERG: There is a significant risk of that, yes.
б	Q.378 - Yes. Thank you. Now if we could go to page 70, line
7	11 sorry line 12, and here I just want to read a
8	part of this into the record and then discuss it.
9	You state and here you are just discussing your view of
10	voltage differentiation but I want to see if these might
11	be more generic. Your comment here is, "Rather than
12	allowing customer impact concerns to stand in the way of
13	realigning customer classes, the better approach would be
14	to create separate classes and phase any changes and
15	gradually to avoid rate shock. In addition capping
16	techniques can be employed to avoid impacts on customers
17	with very unusual usage characteristics."
18	So if we took that comment in a generic sense, is it
19	generally your view that it's more appropriate for the
20	Board to try and send the right price signal, and then
21	having determined what is appropriate to do that, if they
22	believe the impact is more than it should be, they should
23	then temper that impact through capping or gradualism, but
24	they shouldn't avoid trying to set a rate design that
25	sends the right price signal in the first instance?

1 - 2139 - Cross by Mr. MacDougall -That's correct. 2 MR. ADELBERG: 3 Q.379 - Thank you. And that's the case not just with respect to voltage differentiation. You sort of generally hold 4 5 that with respect to rate design issues? Yes. The goal of the rate design and rate 6 MR. ADELBERG: structure, for example, should be to have classes that 7 8 reflect different characteristics of service to the extent 9 they can be identified and to the extent that it's 10 administratively feasible. And again, if aligning rates 11 with costs as well as you can produces bad impacts that's 12 not an argument to avoid doing it. It's an argument to 13 find a way of doing it at an acceptable pace. 14 Q.380 - Thank you very much, Mr. Adelberg. And staying with 15 the same theme but talking about seasonality, I would like 16 you to go to page 73 and 74. And towards the bottom of 17 the page you note that you are not persuaded the customer 18 impacts would be sufficient to ignore moving in the 19 direction of some seasonality and that seasonal rates should be implemented and this could be done again 20 21 gradually to mitigate the impacts, is that correct? 22 MR. ADELBERG: Yes. 23 0.381 - Now if we could move on to the concept of industrial 24 rates, at page 78 of your testimony you note starting at

line 8, that the Board should expect a more detailed

26

1	- 2140 - Cross by Mr. MacDougall -
2	explanation of the role of electricity prices in the viability
3	of large customers, correct?
4	MR. ADELBERG: Yes.
5	Q.382 - And then you say that explanation might include for
6	example and you give some examples evidence of
7	industry profitability, competition, prior plant shut
8	downs related to energy costs, and other measures taken to
9	control those costs, correct?
10	MR. ADELBERG: Yes, I see that.
11	Q.383 - Now subsequent to the filing of your evidence, did you
12	review the evidence of the CME?
13	MR. ADELBERG: Yes.
14	Q.384 - And were you here for the cross examination of Mr.
15	Myers?
16	MR. ADELBERG: No, I don't believe so.
17	Q.385 - Okay. The witness for the CME?
18	MR. ADELBERG: I don't believe I was there, no.
19	Q.386 - Did you read the transcript of that?
20	MR. ADELBERG: I don't think so, no. I'm sorry. I may
21	have, but
22	Q.387 - You are familiar with the testimony?
23	MR. ADELBERG: I'm familiar with the testimony, yes.
24	Q.388 - And my reading of that testimony would suggest that it
25	provided a fairly clear explanation of the potential

1 - 2141 - Cross by Mr. MacDougall impacts on large industrial customers. It laid out what some 2 3 of the potential impacts on those customers could be, do 4 you agree with that? MR. ADELBERG: I guess I would want to look at it again. 5 My recollection was that most of the information that was 6 7 generally sought had been considered too sensitive to 8 reveal and therefore the testimony was fairly general. But I'm just --9 10 Q.389 - That's fine. 11 MR. ADELBERG: I'm rather having a lapse. I would be glad 12 to look at it at a break again but it's not fresh in my 13 mind at the moment. 14 Q.390 - No. I don't think we have to go -- I guess what I was 15 just trying to suggest, and maybe you can't answer, is 16 whether you thought that the type of information you were 17 suggesting be provided to the Board, that the CME had in 18 fact provided some of that further information. 19 MR. ADELBERG: Yes, I would want to look at it again, sir. Q.391 - Okay. I think that's okay. The next set of 20 21 questions, Mr. Garwood, I think you are going to have to 22 respond to them. Mr. Adelberg may be able to but they go 23 to something that I believe is specifically in reference 24 to some of your testimony. 25 MR. GARWOOD: All right.

1	- 2142 - Cross by Mr. MacDougall -
2	Q.392 - And in response to EGNB and I don't think we have
3	to pull this up right now EGNB IR-3, we were talking
4	about this earlier this morning. And you had indicated
5	that you had filed and you listed there ten sets of
6	testimony from 1992 to present
7	MR. GARWOOD: That's right.
8	Q.393 and number 9 in that list, Mr. Garwood, was your
9	testimony in Maine Public Utilities Commission docket
10	number 92-315.
11	MR. GARWOOD: Okay.
12	Q.394 - And my understanding was in that and it's listed in
13	your exhibit, the name of the utility you were
14	representing was your employer at the time, Central Maine
15	Power Company, is that correct?
16	MR. GARWOOD: That's correct.
17	Q.395 - And the subject matter was resource planning, retail
18	rate restructuring, avoided cost investigation, marginal
19	cost study, correct?
20	MR. GARWOOD: Correct.
21	Q.396 - And this morning you mentioned that was the testimony
22	that you did provide in response to one of the IRs,
23	correct?
24	MR. GARWOOD: Correct.
25	MR. MACDOUGALL: Mr. Chair, I'm not sure where that is in

1 - 2143 - Cross by Mr. MacDougall -2 your various binders. There was one piece of testimony that 3 Mr. Garwood did provide. It came to us sort of separately in an envelope. So I have made copies of that on the 4 5 understanding that it would probably be hard to find, but it is in the record. But if Mr. Adelberg or someone knows 6 7 where it is in the record, that would be helpful. That's right. Can staff or Mr. Adelberg help out 8 CHAIRMAN: 9 with that? 10 MR. MACDOUGALL: Because we were not provided it as part of 11 the binders or materials, it just was given separately. 12 MR. ADELBERG: The problem is we didn't have it in electric 13 form. 14 Q.397 - Yes. 15 MR. GARWOOD: I have got it if I can hold it up, can you see 16 it? 17 MR. MACDOUGALL: No. I actually have made copies, Mr. 18 Chair, so I can distribute copies if we can find it. 19 CHAIRMAN: If I can avoid getting any more paper up here, Mr. MacDougall, I would appreciate it. Let's just give it 20 21 a minute. 22 MR. MACDOUGALL: It might be behind EGNB-1 or EGNB-3. 23 MR. ADELBERG: See under tab 2 in the second binder, 24 testimony and exhibits of Steven Garwood -- is that what

1	- 2144 - Cross by Mr. MacDougall -
2	you are looking for?
3	MR. MACDOUGALL: Yes.
4	MR. ADELBERG: It is in the second binder at tab 2 in mine.
5	MR. MACNUTT: You have got to watch it. There is in yes,
б	in PUB-3, tab 2 has docket 92-315ii and then behind tab 3
7	is docket number 92-315. Which would be the correct one,
8	Mr. Garwood?
9	MR. GARWOOD: Well the ii refers to the fact that the case
10	proceeded into a second phase. So those without the
11	double i came before those with the double i.
12	MR. MACDOUGALL: No. The document I am referring to, just
13	so that everyone knows, would be the one docket 92315 re
14	resource planning, rate structures, avoided cost
15	investigation, February 17, 1993.
16	MR. MACNUTT: Which is tab 3.
17	CHAIRMAN: Mr. MacNutt, wait just a minute.
18	MR. MORRISON: I think we may have it, Mr. Chairman.
19	CHAIRMAN: Wait Mr. MacNutt. Mr. Morrison says he may have
20	it.
21	MR. MORRISON: It is PUB-3, tab 3. I'm sorry, tab 5.
22	MR. ADELBERG: Tab 5 is the one if that's the date you
23	are looking for is the February 17.
24	Q.398 - February 17, 1993.
25	MR. ADELBERG: Yes, that's the one.

1	- 2145 - Cross by Mr. MacDougall -
2	Q.399 - Yes, there were numerous documents and this was just
3	one of them.
4	CHAIRMAN: At last we are on the same page.
5	MR. MACDOUGALL: Thank you, Mr. Chair. And again, I
6	apologize, I don't have the same binders.
7	Q.400 - So Mr. Garwood, if we can go to page 1. And here my
8	understanding was you sponsored this testimony. And at
9	line 5 you indicated you were sponsoring it as Supervisor
10	of Cost Studies in the Rates and Load Research Department
11	at CMP?
12	MR. GARWOOD: Correct.
13	Q.401 - Now if we go to page 3 under the heading "2, Range of
14	Marginal Costs"?
15	MR. GARWOOD: Yes.
16	Q.402 - I just want to read that paragraph in. "Producing a
17	range of marginal costs provides a method of sensitivity
18	analysis and demonstrates how the volatility of marginal
19	costs can impact rates and class revenue requirements."
20	Correct?
21	MR. GARWOOD: COrrect.
22	Q.403 - And then if we go over to page 5, you are showing at
23	line 4, a 1992 study indicated as scenario 1. Correct?
24	MR. GARWOOD: Yes.
25	Q.404 - And then you show nine other scenarios? Correct?

1 - 2146 - Cross by Mr. MacDougall -MR. GARWOOD: That is correct. 2 3 Q.405 - And then below that, the sentence reads "These results 4 show a decline in total marginal revenues from a prior 5 docket, docket 89068 study, ranging from 37.2 percent to 47.3 percent. Section 2 of my testimony will discuss the 6 7 basis for determining a range of marginal revenues, 8 scenarios 1 through 9." Correct? MR. GARWOOD: Correct. 9 Q.406 - Now if we go to page 6, there is a question there. 10 11 Why has the company submitted several scenarios reflecting 12 a range of marginal costs? 13 And if I can just read in your answer. "The purpose of 14 the marginal cost study in docket number 89-068 was develop a single set of marginal costs that would be used 15 16 to design specific rates for actual implementation. This 17 current proceeding, docket number 92-315 involves an 18 investigation of changes in marginal costs and their 19 impact on rate structure and is not intended to result in the implementation of specific rates. These scenarios are 20 21 a form of sensitivity analysis which provide additional 22 information not shown by a single set of marginal costs." 23 These scenarios in your words again here are also give a 24 reasonable range of the company's marginal costs. 25 Correct?

2147 - Cross by Mr. MacDougall MR. GARWOOD: Correct.

3 Q.407 - So in that proceeding, I take it, was in your view, 4 based on differing assumptions and scenarios that are laid 5 out further on in that testimony, you could achieve a 6 reasonable range of a company's marginal costs. Is that 7 correct?

8 MR. GARWOOD: Right. And the main driver of that range, of 9 sensitivity analysis was the period of time in which you 10 look forward at your marginal costs, the company at the 11 time this study was done and the nine scenarios were 12 developed, in the shortterm was long on capacity as was 13 the region in general.

As you look further out in time going from I think five years to eight years and then to ten years, the company's capacity situation became different. The surplus was drying up with the company and in the region in general based on the company's load forecast.

19 Q.408 - Correct. And I think you show that later in your 20 testimony, that one of the main changes is looking 5 21 years, 8 years and 10 years, as you just previously 22 stated.

23 MR. GARWOOD: Right. And then on top of that was pancaked 24 three various levels of so-called A and G loaders that 25 were applied to the study based on some analysis done by

1 - 2148 - Cross by Mr. MacDougall -2 the company for National Economic Research Associates that 3 suggested the company had plant related and O and M 4 related A and G -- marginal A and G costs being incurred 5 that should be reflected in the study. And I believe it was from the comments in the prior case, docket 8968, this 6 7 was an issue not necessarily resolved in that case. And 8 so to just put a range around that, we chose to put forth the 5, 8 and 10 year marginal cost analysis with zero 9 10 percent loaders, 50 percent level of the loaders 11 calculated and 100 percent of the loaders calculated. 12 Q.409 - Okay. And if I go back then to page 5, doing those 13 sort of three sets of three for nine further scenarios, I see that there is a difference between scenario 1 and 14 15 scenario 9, which is the widest gap, of about \$72 million. 16 Correct? Between 390 million and 327, 328 million? 17 MR. GARWOOD: Wouldn't that be 62 million roughly? 0.410 - My math might be incorrect. 62 million. 18 19 MR. GARWOOD: 62, I think. Q.411 - Sorry. My apologies. 62 million. 20 21 MR. GARWOOD: Yes. 22 Q.412 - So these scenarios show a difference of \$62 million on 23 a maximum of 390 million. Correct? 24 MR. GARWOOD: Correct. Q.413 - Okay. And this is the only marginal cost study 25

1 - 2149 - Cross by Mr. MacDougall analysis that you have provided to this Board of an example of 2 3 one that you have been previously involved in, correct? MR. GARWOOD: That is correct. It was the one that I still 4 5 had the study in my office. It was I think the last one that I had done of the company. 6 MR. MACDOUGALL: Okay. Thank you. Mr. Chair, I think those 7 8 are my only comments on that docket. Q.414 - And now if we could go to EGNB IR-20(b). 9 10 MR. ADELBERG: It's at tab 13, page 22. 11 Q.415 - So EGNB IR-20(b). And in 20(b) you were asked to 12 provide any analysis that you had conducted or reviewed 13 that would enable the Board to ascertain the incremental 14 costs of providing the services referenced above to the 15 various customer classes of Disco, and I think we may have 16 dealt with this earlier. Your response was that you had 17 not conducted any such analysis, correct? 18 MR. ADELBERG: That's correct. 19 MR. GARWOOD: That's correct. Q.416 - Okay. 20 21 MR. GARWOOD: We were never requested to perform that 22 analysis. 23 0.417 - That's what I'm coming to. I think let's talk about 24 IR-21 as well. Likewise your response on stand-alone

1 - 2150 - Cross by Mr. MacDougall -2 costs which we mentioned earlier, your response here was, Mr. 3 Garwood, as you just said, you were not requested to conduct a review of such studies or analysis, correct? 4 MR. GARWOOD: Correct. 5 Q.418 - And I just want to ask you, for this proceeding did 6 7 you only do exactly what you were requested to do so or 8 did you look at the information and determine what you 9 felt was necessary to provide what you thought was the 10 best recommendation to the Board? 11 MR. ADELBERG: I think what we -- it was sort of in between 12 that. We met with the staff. They had fairly clear 13 guidelines, very clear guidelines and tasks that they wanted us to perform. We discussed what we thought the 14 nature of the work required would be and in some cases we 15 16 said that we didn't think that in the timetable allowed we 17 could do a particular analysis that they might originally 18 have wanted. So generally speaking it was fairly clear, 19 but there was a little bit of give and take as we tried to sort out what we thought could be reasonably done in the 20 21 time that we had allotted. 22 Q.419 - Great. Now if we could go to -- and this is just a 23 follow-up on a question earlier with respect to the 24 Canadian analysis. If we could go to EGNB IR-25(c). And there the question was with respect to the 25

- 2151 - Cross by Mr. MacDougall classification of distribution plant, and it said, are the
authors aware of any Canadian boards that have accepted
classification of any portion of distribution plant on the
basis of energy.

6 And you have said, the authors have not examined decision 7 of other Canadian boards. Was that answer only in 8 relation to that element, i.e., classification of any 9 portion of distribution plant or you have not examined 10 decisions of other Canadian boards in relation to any 11 aspect of this case?

12 MR. ADELBERG: In my case -- Steve can talk for himself. Ι 13 think in my case I briefly looked at a decision and I 14 think it came out of Nova Scotia, only because it came out 15 just about the time we took this engagement, as I recall. 16 But we did not make an effort to canvass other -- I did 17 not make an effort to canvass other Canadian board 18 decisions. Steve, I don't know if you have anything to 19 add to that.

20 MR. GARWOOD: No, I did not.

Q.420 - Okay. Now if we could go to EGNB IR-28, and here you were asked whether you believe that after an irrevocable decision is made to refurbish Point Lepreau whether any such costs or some costs are not marginal costs.

25 And in your response you stated that you would agree

1 - 2152 - Cross by Mr. MacDougall that costs incurred in refurbishing Point Lepreau would 2 3 generally be sunk after an irrevocable decision to 4 refurbish the plant except to the extent that the 5 refurbished plant or its components could be used for 6 another purpose, correct? 7 MR. ADELBERG: Correct. Q.421 - And is it your understanding that the provincial 8 9 government has now made its decision to refurbish Point 10 Lepreau and announce that decision publicly? 11 MR. ADELBERG: Whether that's irrevocable or not I have no 12 idea, but we have heard that decision. 13 Q.422 - Okay. And now I think I might have just one or two final questions. At EGNB IR-38, I just wanted to get you 14 15 to confirm here -- the question was asked whether you had 16 an opinion as to when the electric customers of Disco 17 would be able to purchase electric supply or generation 18 from an alternative supplier. And when you answered this 19 question your response was, the authors do not have an 20 opinion on that subject except to note their understanding 21 that some industrial customers self-generate. 22 Has there been anything since the time that you responded 23 to t his answer that allows you to have a greater opinion 24 on when customers of Disco may be able to purchase electric supply from an alternative supplier? 25

1 - 2153 - Cross by Mr. MacDougall -MR. ADELBERG: Yes. In the course of these hearings we 2 3 learned that the exit fee contemplated by the recent Electricity Act which would have a bearing on a customer's 4 5 decision to shop for power had not yet been set. So presumably that's one more obstacle that exists that we were 6 7 not aware of before. 8 MR. MACDOUGALL: Thank you. Mr. Adelberg, Mr. Garwood, 9 thank you very much. I really appreciate your time. Mr. 10 Chair, that's the end of my questioning. 11 CHAIRMAN: Thank you, Mr. MacDougall. Mr. Gorman, do you 12 have any questions of the witnesses? 13 MR. GORMAN: The Municipal Utilities have no questions for 14 this Panel, Mr. Chairman. 15 CHAIRMAN: Thank you. So it looks like it's Mr. Hyslop. We 16 will take our ten minute break then and give you a chance 17 to switch around. 18 (Recess) 19 CHAIRMAN: Go ahead, Mr. Hyslop. 20 MR. HYSLOP: Mr. Chairman, just before I start my cross 21 examination, I just wanted to make sure I was clear in my 22 own mind what was going to happen next week. As I 23 understand it --24 CHAIRMAN: Would you like to tell us? MR. HYSLOP: My understanding is we are going to do Ms. 25

1 - 2154 - Cross by Mr. MacDougall -Zarnett on Monday and Tuesday, if necessary and do arguments 2 3 on Thursday, am I correct? CHAIRMAN: Digging out the little list that counsel provided 4 5 me with --6 MR. HYSLOP: Yes. CHAIRMAN: -- it says November 7th and 8th, if necessary, 7 8 Ms. Zarnett. 9 MR. HYSLOP: Yes. 10 CHAIRMAN: And then 9 and 10 submissions on CARD. Then we 11 take an adjournment until the 21st and 22nd of November when 12 we do the load forecast. 13 MR. HYSLOP: So you would be anticipating arguments starting 14 on Wednesday the 9th? 15 CHAIRMAN: You won't be ready Monday afternoon? 16 MR. HYSLOP: Well, we could be, yes. 17 CHAIRMAN: No. I would suggest that Wednesday probably is 18 when we will come. 19 MR. HYSLOP: Very well. Thank you, Mr. Chair. 20 CROSS EXAMINATION BY MR. HYSLOP: Q.423 - Mr. Adelberg, my name is Peter Hyslop. I think we 21 have spoken a few times. And I just have a few questions. 22 23 And I do note I am getting to cross examine a lawyer. MR. ADELBERG: Is Mr. Garwood here? 24 25 MR. HYSLOP: Yes.

1	- 2155 - Cross by Mr. Hyslop -
2	MR. ADELBERG: Is Mr. Garwood on?
3	MR. GARWOOD: I am here, yes.
4	MR. ADELBERG: Okay.
5	Q.424 - Okay. Thank you. Briefly, first I want to just chat
б	a little bit. Yesterday, we had a little discussion on
7	the transmission costs. And in your direct evidence you
8	addressed the application of the FERC Rules. And I just
9	want to maybe make sure we are all on the same page.
10	First, I take it there is no disagreement from you that
11	Transco and its tariff are subject to the jurisdiction of
12	this Board?
13	MR. ADELBERG: Steve, why don't you take these questions?
14	MR. GARWOOD: Yes. No question. I agree with you.
15	Q.425 - And as I understand your evidence yesterday, that one
16	of the reasons for establishing of the Open Access
17	Transmission Tariff was an attempt in New Brunswick to
18	create not only a System Operator, but also to design a
19	tariff, which moves towards what the FERC Rules are, that
20	would be your evidence, sir?
21	MR. GARWOOD: That is correct.
22	Q.426 - Right. But it's my understanding that it is not an
23	absolute requirement that the FERC Rules be exactly
24	adopted in the creation of an Open Access Transmission
25	Tariff. Would you agree with that statement, sir?

1 - 2156 - Cross by Mr. Hyslop -MR. GARWOOD: Yes, I believe that's so. I think the general 2 3 concern was that if they varied substantially in ways 4 which they weren't required to for some valid reason, there seemed to be another line of concern that New 5 Brunswick Power Company may somehow be limited in its 6 7 ability to participate in the broader U.S. markets. Some 8 sort of restrictions imposed upon it by the FERC and that could have detrimental effects to those looking to invest 9 10 in the energy industry in New Brunswick as it was 11 developing its market and those negative effects could 12 trickle down into foregone benefits to electric consumers 13 in New Brunswick.

14 Q.427 - Sure. So I guess -- and I recall, because I was at 15 one of the amendment hearings, the attempt here is to be 16 if not exactly FERC, at least to be -- I think the word 17 was FERC compliant, something along that line. Does that 18 sound reasonable, sir?

19 MR. GARWOOD: Generally, yes.

20 Q.428 - Yes. And also it's my understanding that the FERC

21 Rules themselves don't require that a transmission company

use a 1CP methodology in creation of transmission tariff.

23 Would I be correct there, sir?

MR. GARWOOD: Not in all instances. But it clearly was the
 FERC's preferred method at the start with to have all

1 - 2157 - Cross by Mr. Hyslop -2 utilities base the design of their transmission rates on some 3 variation of coincident peak to the extent their loads 4 supported more of a single system CP, they were to use a 5 single system CP to the extent some sort of a seasonal one, a seasonal average, a seasonal average one should be 6 utilized. And in other cases, a 12CP average, which 7 8 actually -- absent compelling evidence towards using a single CP or a seasonal CP, the FERC -- or at least the 9 10 FERC's staff seemed to gravitate towards using a 12CP. 11 Q.429 - Yes.

MR. GARWOOD: And in other regions of the country where these RTO and ISO markets were developing with region-wide tariffs, the FERC has allowed more flexibility to the design of those tariffs in those instances. And in some cases, they have used completely different billing determinants for the allocation of transmission costs in the wholesale market.

19 Q.430 - So if I take everything you just said there, there 20 seems to be some flexibility and my question might be --21 it would appear to me at least that the FERC leaves some 22 deference with other regulators in creation of their 23 transmission tariffs. Would that be a fair comment, sir? 24 MR. GARWOOD: Certainly. And with respect to the New 25 Brunswick regulator, the FERC has no jurisdiction over

1 - 2158 - Cross by Mr. Hyslop -2 this matter. 3 Q.431 - Yes. But even if they did have some type of jurisdiction, they would leave some deference to 4 regulators in the States and in the determination of their 5 tariffs. Am I correct in that statement? 6 MR. GARWOOD: I would say perhaps not so much in an Open 7 8 Access Tariff, as much as they would give deference to a 9 state regulator say over the way in which the costs are 10 allocated for purposes of designing retail rates. 11 Q.432 - Sure. And the methodology this Board now accepts in 12 the creation of its transmission tariff to your knowledge 13 is not in conflict with the specific FERC requirement. Am 14 I correct there sir, to you knowledge? 15 MR. GARWOOD: Not to my knowledge. Yes, that's right. Q.433 - Thank you. And to go a little further, let's just 16 17 suggest that for some reason the Open Access Transmission 18 Tariff, there was sone concern of this, would not the 19 proper place to look at amending this tariff be at a Transco Transmission Tariff Hearing rather than a Cost 20 21 Allocation Hearing, would I be correct that that might be 22 the better place for it, sir? 23 MR. GARWOOD: It seems to me it would make sense to address 24 it in that context as well. I am not sure that it has to

be there first or necessarily coincident with a review in

26

1 - 2159 - Cross by Mr. Hyslop -2 both places. I mean in essence what's happening is by using 3 something other than the determinant that most planners would agree is the driving force behind why we are having 4 5 to build transmission infrastructure in the first place, you are deluding the -- you know, the proper price signal 6 that ought to be somehow reflected in consumers' rates. 7 8 And so whether it's done in the Open Access Tariff or as a standalone here in the Disco's retail tariffs, it isn't 9 10 clear to me it has to be reflected in both or at the same 11 time or not. Q.434 - Okay. Well, fair enough. I would just like to move 12 13 on briefly to deal with some of the discussion that came out of plant distribution costs, if I could. And I would 14 15 ask you to pull up one of our infamous charts, exhibit PI-16 7? MR. GARWOOD: Okay. Give me a moment. Now, you have really 17 18 challenged me to find some of these given my facilities 19 here. PI IR-7? MR. MACNUTT: Do you have the exhibit number, Mr. Hyslop? 20 21 MR. HYSLOP: Yes. It's exhibit PI-7. 22 MR. MACNUTT: Oh, PI-7 is the -- it's the exhibit, not an 23 IR. 24 MR. GARWOOD: If you have got any assistance in pointing me

1	- 2160 - Cross by Mr. Hyslop -
2	there, Arthur, that might
3	MR. HYSLOP: And he is looking for it, too, Mr. Garwood.
4	MR. GARWOOD: So this was a would it have been labelled
5	PUB PI IR-7?
6	Q.435 - No. It's PI exhibit PI-7. And it's Hypothetical
7	Plant Costs Classification Example - Conductors.
8	MR. GARWOOD: So it's an exhibit, not an IR?
9	Q.436 - That's correct.
10	MR. GARWOOD: There I am in trouble. I probably don't have
11	it at my location. Or if I do, I don't know I
12	certainly don't have it labelled by that exhibit number.
13	I will have to rely on Mr. Adelberg to now describe it to
14	me if he can locate it.
15	MR. ADELBERG: It's a chart of an illustrative zero
16	intercept graph.
17	MR. GARWOOD: Okay.
18	Q.437 - And just briefly to go through it in talking about
19	plant costs and the classification of plant costs during
20	these hearings, there have been three different methods
21	that have been discussed from time to time. There is what
22	they call the zero intercept method?
23	MR. GARWOOD: Yes.
24	Q.438 - The minimum system method?

25 MR. GARWOOD: Yes.

1	- 2161 - Cross by Mr. Hyslop -
2	Q.439 - And something called the basic customer or 100 percent
3	demand?
4	MR. GARWOOD: Okay.
5	Q.440 - And I don't think, Mr. Garwood, you were present when
6	Mr. Knecht testified, but he made a couple of points about
7	the hundred percent demand issue. One was that many
8	jurisdictions in the United States apparently accept the
9	hundred percent demand methodology. Would that be your
10	understanding?
11	MR. GARWOOD: I believe that's true.
12	Q.441 - Yes. But he also made a comment that common sense
13	would suggest that there at least there is some customer
14	component and for that, that's one of the weaknesses of
15	the hundred percent demand system. Would you also tend to
16	agree with that statement?
17	MR. GARWOOD: Right.
18	Q.442 - Right.
19	MR. GARWOOD: And as between I think a lot of
20	jurisdictions may rely just on the basic customer
21	approach.
22	Q.443 - Yes.
23	MR. GARWOOD: And again the tendency there appears just
24	my interpretation of what I have seen is a concern about

having the methodology used in the cost of service to

1	- 2162 - Cross by Mr. Hyslop -
2	suggest what some regulators and other parties may view as too
3	high a customer charge to reflect in customers' rates.
4	Q.444 - Yes.
5	MR. GARWOOD: And so they would tend to lean towards the
б	method that produces lower customer costs for that
7	purpose.
8	Q.445 - Yes. Sure. And also I think there was some
9	discussion earlier during the cross examination of Mr.
10	Ketchum and Mr. Larlee, that the minimum system cost
11	methodology, sometimes there is an allocation at the
12	allocation stage after classification you do the
13	allocation, sometimes there is an adjustment to decrease
14	the customer component. Is that also your understanding
15	of some of the weaknesses of the minimum system method,
16	Mr. Garwood?
17	MR. GARWOOD: Yes, I think I understand your question. I
18	have interpreted your question to be one which I think
19	maybe the company itself may have done, but at the end of
20	the day you don't oftentimes seen the proposed rate design
21	to fully reflect whatever the their cost service
22	studies may have shown for the customer costs.
23	Q.446 - Sure. Now as I understand your evidence, you see the
24	utility's position as being reasonable with regard to
25	plant costs?
0.5	

- 2163 - Cross by Mr. Hyslop -
MR. GARWOOD: Yes. Our view was it looked like they had
perhaps some data deficiencies, but given the data that
they had
Q.447 - Yes.
MR. GARWOOD: and they had identified a method that is
commonly used in developing customer costs, embedded cost
of service studies, and on that basis it seemed a
reasonable approach.
Q.448 - Sure. But it is also fair to say that based on what
you have told me about the acceptance of the basic
customer method and also I understand the zero intercept
method, that both these methodologies are often accepted
as reasonable as well, is that correct?
MR. GARWOOD: That's correct.
Q.449 - Right. So all these methodologies have some
consideration in terms of their have some merit in
terms of reasonableness, I would suggest?
MR. GARWOOD: Yes. I believe they have all been viewed in
various jurisdictions as a reasonable approach for looking
at customer costs.
Q.450 - Sure. If I might, Mr. Adelberg, just moving on to
another area and where we are going with marginal costs, I
am sure it's just about beaten death, but I just have one

2 this.

1

3 To your knowledge, sir, has any party to this proceeding proposed to do a marginal cost study for the purposes of 4 5 cost allocation? 6 MR. ADELBERG: No. 7 0.451 - No. Thank you. One last area of questioning I would 8 like to move on to. And I think, Mr. Garwood, this 9 related to your evidence yesterday and dealt with some 10 impressions that you had of Mr. Knecht's comments on Dr. 11 Rosenberg's evidence, and in particular, in relation to 12 the Coleson Cove costs.

13 And I just kind of want to go through Dr. Rosenberg's 14 methodology a little. And I hope you -- I will apologize 15 ahead of time if I still don't have some of the 16 subtleties. But in any event, I understand you start off 17 -- there is three different components to the cost under 18 Dr. Rosenberg's methodologies, is that your understanding, 19 Mr. Garwood? 20 MR. GARWOOD: I am sorry. Could you repeat the question?

21 Q.452 - Right. My understanding there is three different 22 components to cost under Dr. Rosenberg's methodology, is 23 that your understanding?

24 MR. GARWOOD: On his treatment of the power supply?
25 Q.453 - Yes.

1	- 2165 - Cross by Mr. Hyslop -
2	MR. GARWOOD: Yes, the three categories that I laid out
3	yesterday?
4	Q.454 - Well, I will put them to you perhaps.
5	MR. GARWOOD: Okay. Why don't you do that?
6	Q.455 - Sure. The first one is Dr. Rosenberg determines the
7	fixed capacity or demand cost by the Equivalent Peaker
8	Method, correct?
9	MR. GARWOOD: Correct. Yes.
10	Q.456 - And the part that is not the demand, he treats as
11	being demand-related costs, is that correct?
12	MR. GARWOOD: The part
13	Q.457 - Or duration-related costs?
14	MR. GARWOOD: The duration-related part, correct.
15	Q.458 - Yes. And then the third part of his analysis is the
16	allocation of fuel costs based on the duration-related
17	period, is that correct?
18	MR. GARWOOD: Correct.
19	Q.459 - Right. And the demand costs, according to Dr.
20	Rosenberg, are allocated on a peak demand basis?
21	MR. GARWOOD: Correct.
22	Q.460 - Right. And if we take the extra costs of the Point
23	Lepreau refurbishment or Coleson Cove refurbishment, I
24	am sorry, because of that refurbish, that wouldn't change
25	the demand portion because demand is based on a combustion
26	

1 - 2166 - Cross by Mr. Hyslop turbine, correct? 2 3 MR. GARWOOD: That's correct. Q.461 - Yes. So any increase in the refurbishment of Coleson 4 5 Cove in fact becomes a duration-related cost, correct? MR. GARWOOD: Yes. б 7 Q.462 - Yes. And would you agree that in Dr. Rosenberg's 8 methodology, the duration-related costs are allocated out 9 to each class based on that class' contribution to the 10 January load. And that's with respect to Coleson Cove? 11 MR. GARWOOD: The duration-related portion is allocated to 12 each class based on each class' contribution to the 13 January peak? 14 Q.463 - Yes. 15 MR. GARWOOD: Right. Q.464 - So you agree with that? 16 17 MR. GARWOOD: Right. 18 Q.465 - Right. And just to back up a little bit, because of 19 the split on the demand costs -- I will continue with the methodology -- I am sorry, I will withdraw. So you would 20 21 agree with me the residential class is a greater 22 contributor to the January load than it is to the average 23 annual energy? 24 MR. GARWOOD: Correct. 25 Q.466 - Right. And what that means is the residential class

1	- 2167 - Cross by Mr. Hyslop -
2	picks up more of the duration-related costs throughout the
3	whole year because of the way they are allocated in
4	January?
5	MR. GARWOOD: Correct.
6	Q.467 - Right. So the residential class gets more duration
7	costs for Coleson Cove based on Dr. Rosenberg's
8	methodology? Correct?
9	MR. GARWOOD: Correct.
10	Q.468 - And then Dr. Rosenberg moves on to the fuel costs.
11	And in allocating the fuel costs, he needs to allocate in
12	each month how much generation for each type of unit goes
13	to each class, is that correct?
14	MR. GARWOOD: That's correct.
15	Q.469 - Right. So at the end of the analysis, I think what
16	Mr. Knecht was suggesting is that because the because
17	of the fact that the anticipated savings due to orimulsion
18	weren't realized, because of Dr. Rosenberg's methodology,
19	they get the brunt of the demand charge, which was split
20	on I think a 95/5 basis, is that correct?
21	MR. GARWOOD: I believe that was the ratio. I don't have it
22	in front of me, but it sounds familiar.
23	Q.470 - Yes. And they also would get the brunt of the
24	duration-related costs, because of the fact that they are
25	going to be their costs for the duration-related are

1	- 2168 - Cross by Mr. Hyslop -
2	going to be based on the month of January when their
3	contribution to peak is at its highest, is that correct?
4	MR. GARWOOD: Right.
5	Q.471 - And then when you take the fuel costs and spread them
б	on that basis out across the whole year, they pick up the
7	brunt of the fuel costs, is that correct?
8	MR. GARWOOD: Except he spread the energy to just a subset
9	of the months.
10	Q.472 - Pardon me?
11	MR. GARWOOD: He has spread his energy costs the costs in
12	excess of the demand-related portion to a subset of months
13	he picked, which I think he tried to pick the high the
14	high use months
15	Q.473 - Yes.
16	MR. GARWOOD: and spread it to the classes based on their
17	consumption during those periods.
18	Q.474 - No. I believe that may have been to the coal
19	generation units. But with regard to the oil and gas, was
20	it not based simply on the month of January?
21	MR. GARWOOD: Oh, you are correct. You are correct.
22	MR. HYSLOP: Thank you very much, sir. I have no further
23	questions.
24	CHAIRMAN: Thank you, Mr. Hyslop. Mr. Morrison?
25	CROSS EXAMINATION BY MR. MORRISON:

1	- 2169 - Cross by Mr. Morrison -
2	Q.475 - Good afternoon, Mr. Adelberg.
3	MR. ADELBERG: Good afternoon.
4	Q.476 - Good afternoon, Mr. Garwood.
5	MR. GARWOOD: Hi.
б	Q.477 - My name is Terry Morrison and I am the solicitor for
7	the Applicant. I will be asking you both some questions.
8	I will be referring of course mostly almost
9	exclusively to your evidence, PUB-1.
10	And if you could turn to page 4 of that evidence and in
11	particular lines 12 to 14. I believe you may have been
12	brought to this by Mr. MacDougall, but I will bring it to
13	you again. It says, "While we take issue with some
14	elements of the company's approach, the resulting CCAS and
15	rate design recommendations are generally well documented
16	and suited to the company's circumstances." So is it fair
17	to say you take issue with some elements but generally you
18	are supportive of the approach taken by Disco?
19	MR. ADELBERG: It's a safe general statement.
20	Q.478 - Okay. And we will get into some of the elements that
21	you take issue with a little bit later on. As you know
22	and would you agree, Mr. Adelberg, that Disco has for the
23	most part taken what is sometimes referred to as the PPA
24	causative approach?
25	MR. ADELBERG: Yes.

1	- 2170 - Cross by Mr. Morrison -
2	Q.479 - And if we look at page 5 of your evidence at line 12,
3	you say, generally speaking the company's approach of
4	relying on billed costs appears reasonable. Is that a
5	fair statement?
6	MR. ADELBERG: Yes.
7	Q.480 - So to put it in sort of a broad context, Mr. Adelberg,
8	as I read the evidence, the real issue is the approach
9	what approach to take in classifying those PPA costs,
10	correct?
11	MR. ADELBERG: That's probably the largest issue from an
12	impact point of view.
13	Q.481 - Exactly. And in allocating those PPA costs, there are
14	a number of methods that are available, correct?
15	MR. ADELBERG: Yes.
16	Q.482 - And one of those methods and Dr. Rosenberg
17	explained it a little bit last week one of the methods
18	available is to use a straight fixed variable approach?
19	MR. ADELBERG: Correct.
20	Q.483 - And under that method, as I understand it, 100 percent
21	of all fixed costs are attributed to demand, correct?
22	MR. ADELBERG: That's my understanding and, Mr. Garwood, you
23	are free to chime in as well.
24	MR. GARWOOD: No. I'm all set.
25	Q.484 - Okay. If you are disagreeing with anything I am

1	- 2171 - Cross by Mr. Morrison -
2	saying, Mr. Garwood, just pipe up.
3	MR. GARWOOD: Sure.
4	Q.485 - We were going to have someone draw a picture of you
5	and put it in the chair next to Mr. Adelberg, but we
6	didn't know whether we would do you justice.
7	MR. GARWOOD: I could have sent a photo.
8	Q.486 - So you can use the straight fixed variable approach or
9	you can use a method that recognizes that a portion
10	some portion of the fixed charges are attributable to
11	energy, correct?
12	MR. ADELBERG: Correct.
13	Q.487 - And that's the approach you took, correct?
14	MR. ADELBERG: Correct.
15	Q.488 - And when I say that you used the Board approved
16	methodology of the 40/60 split, correct?
17	MR. ADELBERG: Well as we have now covered a couple of
18	times, we understand that's the approach that should be
19	followed. We had a slightly different understanding
20	coming into the hearing.
21	Q.489 - No, I understand. But even if you had used the Peaker
22	Credit Methodology, it is a methodology that allocates
23	some portion to energy, correct?
24	MR. ADELBERG: That's right.
25	MR. GARWOOD: Correct.

1	- 2172 - Cross by Mr. Morrison -
2	Q.490 - Okay. And it's the $40/60$ split method approach that
3	produced the results that we find in your evidence,
4	correct?
5	MR. ADELBERG: Generally speaking.
6	Q.491 - Okay. Now however when I look through your evidence
7	you do devote considerable amount of time space if you
8	will approximately 13 pages discussing the merits of
9	a marginal cost analysis, correct?
10	MR. ADELBERG: Correct.
11	Q.492 - And in the course of your evidence you have also
12	referred several times to the Khan text K-h-a-n text,
13	not context the text by Khan?
14	MR. ADELBERG: Yes, indeed.
15	Q.493 - So you would it's better than dis Knecht, but so
16	I assume then that you consider it an authoritative text,
17	correct?
18	MR. ADELBERG: I do.
19	Q.494 - Okay. I lam going to show you I have copies for
20	everyone but I don't think it's necessary. It is a
21	passage a section from Mr. Khan's text, and I'm just
22	going to get you to read the highlighted portion, Mr.
23	Adelberg. That passage that I'm going to get you to read
24	comes from the chapter in the text called "The Application
25	of Long and Shortrun Marginal Costs". You see that?
26	

- 2173 - Cross by Mr. Morrison -

2 MR. ADELBERG: Yes.

1

3 Q.495 - Could you read that portion that I have highlighted? 4 MR. ADELBERG: Yes. "The second part, the demand or 5 capacity charge, is a charge for the utility's readiness to serve on demand. This readiness to serve is made 6 7 possible by the installation of capacity. The demand 8 charge therefore distributes the costs of providing that 9 capacity to fixed capital costs on the basis of the 10 respective causal responsibilities of various buyers for 11 them. The proper measure of that responsibility is the 12 proportionate share of each customer in the total demand 13 placed on the system at its peak." Q.496 - Now would you agree with me, Mr. Adelberg or Mr. 14

15 Garwood, that what Khan is saying is in effect that he

16 advocates a straight fixed variable pricing methodology as

17 the best way to reflect marginal costs?

18 MR. ADELBERG: No.

19 Q.497 - You wouldn't? And why wouldn't you?

20 MR. ADELBERG: Because if you read his whole text, he is 21 quite clear that he prefers a method that looks to the --22 that will assign capacity costs to classes based on an 23 analysis of their consumption during hours of the year

25 Q.498 - But that would be based on their contribution to peak,

when they are facing a capacity constraint.

26

1 - 2174 - Cross by Mr. Morrison -2 correct? 3 MR. ADELBERG: No. Not necessarily. You could have 4 capacity constraints at other times. Steve, I don't know if you want to add anything there, but that's -- certainly 5 6 a lot of it -- most of it is going to at system peak, but 7 there can be capacity constraints. Q.499 - Okay. 8 9 MR. ADELBERG: I mean our experience -- there are different 10 ways of doing it but using the NERA approach -- and he is 11 basically the origin of the whole NERA method because 12 that's where he has worked for many, many years. 13 Q.500 - But a straight fixed variable approach would have the 14 same result, wouldn't it? MR. ADELBERG: Oh, I don't know that would be the case at 15 16 I think depending on when you look at the system, if all. 17 the system is not in equilibrium, capacity costs may be 18 so-called infra-marginal -- i-n-f-r-a -- infra-marginal, 19 and --20 Q.501 - You are losing me on that point. 21 MR. ADELBERG: Well basically they are non-marginal costs at 22 some points if the system is not anywhere near capacity 23 constraint. Then they can be allocated on the basis of 24 Ramsey Pricing or something else. Mr. Garwood, I don't 25 know if you want to add to that.

1 - 2175 - Cross by Mr. Morrison -MR. GARWOOD: No. I guess my thought was that it all 2 3 depends. In doing a marginal cost study you can determine 4 your marginal costs and the amount of capacity costs and the assignment of those to various classes under a variety 5 6 of methods. One may be an hourly probabilistic method where you are 7 8 looking at the probability that any one hour may be your 9 peak, and you will find a positive number probability to a 10 multitude of hours, not just the system single peak. 11 So that's one method where I think as Arthur is saying you 12 may have a number of hours, not just the one single system 13 peak, that would be the way in which costs -- capacity 14 costs are allocated to various hours of the year, and then you would allocate it to the -- those marginal costs would 15 16 be allocated to classes based on their use during those 17 hours. 18 0.502 - When you talk about those hours, are you still talking 19 about the most constrained hours, Mr. Garwood? MR. GARWOOD: They tend to be those most probabilisticly 20 21 determined to be likely to be constrained. 22 Q.503 - Okay. Thank you. Now Mr. MacDougall went on and I 23 think the -- I think I'm clear, and I don't want to beat

24 the marginal cost issue to death either, but I think you 25 outline, Mr. Adelberg, and it's in your evidence and you

1	- 2176 - Cross by Mr. Morrison -
2	outlined again this morning, the challenges to implementing a
3	marginal cost study, correct?
4	MR. ADELBERG: Correct.
5	Q.504 - And you readily admitted I believe yesterday afternoon
6	that there are many issues to the implementation and there
7	is I don't know if you used the word fraught, but there
8	are many judgmental decisions that have to be made along
9	the way, correct?
10	MR. ADELBERG: Correct.
11	Q.505 - And, Mr. Garwood, you spoke yesterday afternoon about
12	Central Maine Power?
13	MR. GARWOOD: Yes.
14	Q.506 - And I believe you said that after 1989, the regulator
15	directed only marginal cost studies to be done. Is that
16	what your evidence was yesterday afternoon?
17	MR. GARWOOD: After the conclusion of docket 89-68 which is
18	a revenue requirement and rate design proceeding that was
19	initiated by the company in 1989.
20	Q.507 - So after that then it's my understanding that you said
21	Central Maine Power the regulator over Central Maine Power
22	moved to marginal cost studies, is that correct?
23	MR. GARWOOD: That is correct solely.
24	Q.508 - Solely.

25 MR. GARWOOD: We no longer file embedded cost allocation

1	- 2177 - Cross by Mr. Morrison -
2	studies for purposes of rate design.
3	Q.509 - Okay. Now I understand that since that time Central
4	Maine Power and indeed other companies in that
5	jurisdiction it's my understanding that they are now
6	fully unbundled and divested of generation assets, is that
7	correct?
8	MR. GARWOOD: That's correct.
9	Q.510 - And does the regulator still require marginal cost
10	studies on generation costs today?
11	MR. ADELBERG: That's a fascinating question. The answer is
12	that technically speaking no, but they are the
13	regulators there are and this is a point I think I
14	raised in my live direct testimony, or rebuttal testimony.
15	The regulators there are quite concerned about the fact
16	that what they had hoped would be their wholesale market
17	sending the the competitive market sending efficient
18	price signals is not happening.
19	It's sending efficient price signals in the sense that on
20	an hour-to-hour basis costs the prices are reflecting
21	the marginal cost of producing power to the market and you
22	are getting efficiency in that respect. But as that power
23	gets packaged by re-sellers and sold to the utility, for
24	example, for standard offer service and Maine is a
25	little bit unusual, not unique, but a

1 - 2178 - Cross by Mr. Morrison little bit unusual in that the utility does not buy the power 2 3 for its so-called standard offer service. Standard offer 4 service refers to the service that customers get who do not wish to buy in the competitive market. They don't 5 want to buy from a retail seller. 6 7 When that -- the regulator actually oversees the 8 contracting for power in an RFP process, the competitive 9 solicitation. The packages of power they are getting to 10 offer their customers are coming back in some cases with 11 flat rates and not time differentiated rates, which has 12 got the regulators scratching their heads. 13 The competition was supposed to solve all these problems 14 and it's not working very well. And they are very 15 concerned that these packages are going to exacerbate 16 problems because customers aren't going to see -- these 17 are one year -- typically one or maybe two or three year 18 contracts. Customers are going to rely on non-time or 19 seasonally differentiated rates, and when they go out to bid the next time around, they are going to have to buy 20 21 more power -- larger blocks of power to supply the 22 customers, because the customers didn't get good price 23 signals. So the answer is there. They haven't formally started a 24

proceeding but there was a major conference on this

26

1 - 2179 - Cross by Mr. Morrison -2 subject in New England just in the last month where the -- one 3 of the members of the Maine Commission actually was the moderator and he sat and reviewed to the whole room, what 4 are we going to do about this? Do we need to get back in 5 and start looking at some kind of better price signals 6 than the market itself is giving. 7 8 So it's a late breaking development and it's an

9 interesting problem, but it bears on why I tried to touch 10 on this yesterday and why we thought that even if you have 11 some kind of a price signal coming out of a -- as some 12 kind of wholesale competition would emerge here, you might 13 not be able to escape some need to look into forward 14 costs.

MR. GARWOOD: The only thing I would add to that is sometime 15 16 in the mid to late '90s, and I forget which particular 17 year or docket, after the company had had its retail rates 18 established based on in part the results of the marginal 19 cost study, and then the company divested of generation 20 and became a wires only company, the company applied for 21 and the state commission approved what they called an 22 alternative rate plan where essentially their rate design 23 and revenue requirements were fixed and permitted to 24 change annually on an index basis, with a pass supervision of supply costs that was being passed through for standard 25

- 2180 - Cross by Mr. Morrison -

2 offer.

3	And so with certain flexibility the company was permitted
4	to change rates within rate classes and my belief is that
5	they were the limitations with which they were
6	restricted on making rate design changes within a rate
7	class was that those changes had to pass certain tests or
8	be confined within certain parameters. And one of those
9	was that they never could have a component be below its
10	marginal cost, if I remember correctly.
11	So the use of a marginal cost study for rate design
12	purposes took on a little bit of a different flavour or
13	tone once the company entered into this alternative rate
14	plan.
15	Q.511 - Okay. And that's a very long answer to what I thought
16	was going to be a very simple question, which was that
17	it's my understanding that the regulator in the Central
17 18	it's my understanding that the regulator in the Central Maine Power jurisdiction stopped using marginal cost
18	Maine Power jurisdiction stopped using marginal cost
18 19	Maine Power jurisdiction stopped using marginal cost studies after unbundling of the utility from generation,
18 19 20	Maine Power jurisdiction stopped using marginal cost studies after unbundling of the utility from generation, is that correct?
18 19 20 21	Maine Power jurisdiction stopped using marginal cost studies after unbundling of the utility from generation, is that correct? MR. GARWOOD: And I don't believe that it's true that they
18 19 20 21 22	<pre>Maine Power jurisdiction stopped using marginal cost studies after unbundling of the utility from generation, is that correct? MR. GARWOOD: And I don't believe that it's true that they stopped using them entirely for like one of the</pre>
18 19 20 21 22 23	<pre>Maine Power jurisdiction stopped using marginal cost studies after unbundling of the utility from generation, is that correct? MR. GARWOOD: And I don't believe that it's true that they stopped using them entirely for like one of the examples I just gave is this test about whether or not a</pre>

1	- 2181 - Cross by Mr. Morrison -
2	on marginal cost information from the company.
3	Another area was where the company may have been doing any
4	discounted pricing to maintain load on the system that was
5	threatening to otherwise go away. The company had been
6	given the flexibility by the commission to design targeted
7	rates for load retention purposes, and the marginal costs
8	were deemed critical to the company's design of those
9	targeted rates.
10	Q.512 - Now this seems to be touching on something that Mr.
11	MacDougall indicated this morning about using marginal
12	costs for specified purposes. Let me put the question
13	another way, Mr. Garwood. In the jurisdiction where CMP
14	is today, is a full marginal cost study used for
15	allocation of generation costs?
16	MR. GARWOOD: I don't believe so.
17	Q.513 - Okay. Thank you. And that would be because
18	generation is now unbundled from the distribution utility,
19	correct?
20	MR. ADELBERG: Well in the case of Central Maine Power
21	company the class load requirements are put out to bid
22	separately, so there is nothing to allocate.
23	Q.514 - Okay. If you could turn to page 11 of your evidence.
24	And again, Mr. MacDougall, spent a fair amount of time

with you on this, Mr. Adelberg and I am not going to plow

1 - 2182 - Cross by Mr. Morrison -2 the same road. But essentially if I understand the discussion 3 you had with Mr. MacDougall, he was talking about cross subsidies and I understand from you that revenue cost 4 ratios and embedded cost study are not effective for 5 6 determining cross subsidies between classes, is that 7 correct? 8 MR. ADELBERG: That's correct. Q.515 - And in this part of your evidence and in your 9 10 discussion this morning, you said that there is one method 11 available which is based in sound economic theory that 12 will allow you to identify cross subsidies between 13 classes, correct? 14 MR. ADELBERG: There is -- it has -- it actually has two 15 different tests in it, but yes. Q.516 - Right. And that's -- I guess for want of a better 16 17 word, I know it's been called a stand alone cost study, 18 but in effect what you are describing on page 11 is an 19 incremental cost study, correct? MR. ADELBERG: Yes and no. It has two aspects of it. If 20 21 you look at the quote in fact on page 11, it talks about 22 that the revenues of each service, in each group of 23 services -- and I am on line 11 are at least as great as 24 the incremental costs of that service or group of services. That is what you are referring to. The other 25

1 - 2183 - Cross by Mr. Morrison part of the test or the equivalent version is that the prices 2 3 are also subsidy free if the revenues of each service and 4 group of services are no greater than the stand alone costs. So those are two different ways of measuring. 5 Q.517 - That's fair enough. But that -- what you are talking 6 7 about here -- I call it an incremental cost study, but you 8 can call it whatever label you put it, it's not a marginal cost study, is it? 9 10 MR. ADELBERG: It's not a marginal cost study. And I made 11 that point -- I tried to make that point yesterday. 12 Q.518 - Exactly. 13 MR. ADELBERG: There is a difference between this and what 14 is traditionally viewed as a marginal cost study. 15 Q.519 - I think you referred to an IR this morning. I am just 16 going to get you to turn it up. And it was exhibit PUB-2. 17 And it's EGNB IR-21. And it's under tab 13, I believe. 18 Yes. 13 at page 24. 19 MR. ADELBERG: I am sorry. I lost it. Can you give it to 20 me again? Q.520 - Sorry. It's PUB-2. 21 22 MR. ADELBERG: But it's --23 0.521 - It's under tab 13. 24 MR. ADELBERG: 13.

1	- 2184 - Cross by Mr. Morrison -
2	Q.522 - It's the IR responses, I believe, Mr. Adelberg.
3	MR. ADELBERG: Yes. Oh, okay. I am sorry. Tab 13. All
4	right. I am with you.
5	Q.523 - And it's EGNB IR-21. And it's at page 24.
6	MR. ADELBERG: Okay. Sorry. I am with you.
7	Q.524 - And I believe Mr. MacDougall asked you questions about
8	why you didn't do the study in this case and you answered
9	those. And I am not going to go down that road. But in
10	the response to this undertaking, it seems to me that you
11	are describing the process that one would have to go
12	through in order to conduct the type of incremental cost
13	or standalone cost study that you are referring to, am I
14	correct in that?
15	MR. ADELBERG: I am sorry. Where in this response?
16	Q.525 - It says if you said
17	MR. GARWOOD: Part B I think, Art.
18	Q.526 - It's below Part B. I am sorry. Part B.
19	MR. ADELBERG: Okay.
20	Q.527 - And it says, "as this discussion suggests in order to
21	develop a recommendation in a particular case, the authors
22	would need to know the revenue requirement of the utility
23	in question first, correct?
24	MR. ADELBERG: Correct.
25	Q.528 - The results of a marginal cost study for the utility?

1	- 2185 - Cross by Mr. Morrison -
2	MR. ADELBERG: That's right.
3	Q.529 - The potential for rate instability from applying
4	Ramsey Pricing principles?
5	MR. ADELBERG: Correct.
6	Q.530 - The quality of available demand elasticity data?
7	MR. ADELBERG: Right.
8	Q.531 - And information about administrative
9	administrability given resource constraints of the
10	regulator and utility, correct?
11	MR. ADELBERG: Yes. The reason I hesitated is your
12	predicate of what we were looking for in this answer
13	didn't seem to match the question.
14	Q.532 - So this isn't a description of what is required for
15	this incremental cost study that you referred to on page
16	11?
17	MR. ADELBERG: No.
18	Q.533 - Perhaps you can just explain to me what is required
19	for that type of study?
20	MR. ADELBERG: Incremental cost study? It's there are
21	different ways of doing it. One way is it's a little
22	bit there are some similarities to the minimum system
23	approach in that you are basically trying to isolate out
24	the portion of a system that would be used if you were
25	just serving a certain kind of load. Instead of

1 - 2186 - Cross by Mr. Morrison -2 just serving customers with no load, in this case you are 3 saying what system do you use for just serving a class of 4 customers? So you would have to identify essentially the miles of distribution and transmission line, the kinds of 5 generation plant and that sort of thing. But you wouldn't 6 necessarily -- but as in any utility costing exercise, you 7 8 would use some shortcuts. You would figure out the size of a pole at each location. You would say there are --9 10 you would require for this number of hundreds of 11 kilometres of line you would need approximately this 12 number of poles and multiply it by the average cost of a 13 pole. It's that kind of thing. So you --Q.534 - So if I understand it, what the goal of this type of 14 study is to determine the standalone costs and incremental 15 16 cost for a particular service, correct? 17 MR. ADELBERG: One or the other, yes. 18 Q.535 - Okay. And fairly data intensive? 19 MR. ADELBERG: Again it's a matter of choice as to how detailed you want to do it. And it's the kind of thing 20 21 that when you have done it once, it's sometimes -- you 22 discover there begin to be rules of thumb and shortcuts 23 that become very effective. 24 MR. GARWOOD: One simplified approach on a stand alone basis

may say, could you serve this customer by simply having on

26

1 - 2187 - Cross by Mr. Morrison site generation, and that would be a stand alone cost. 2 3 Q.536 - So I am just trying to get a handle on the data requirements and the types of investigations that our 4 5 client would have to do in order to meet basically what I consider to be one of your recommendations. And as I 6 7 understand it in looking at the response to IR-21 and in 8 some of your evidence already, Mr. Adelberg, in order to determine the revenue requirement, you would still have to 9 10 do an embedded cost study I understand, right? 11 MR. GARWOOD: You wouldn't have to do a fully allocated 12 embedded cost study for determining the company's total 13 revenue requirement. The accountants know that without 14 having to figure out how they are allocated amongst all 15 the classes. Q.537 - But you would still have to determine the revenue 16 17 requirement, correct, first? 18 MR. GARWOOD: Yes. 19 MR. ADELBERG: Well, you --Q.538 - Then as I understand it, you are recommending that --20 21 MR. MACNUTT: Well, just --22 MR. ADELBERG: As I say, you have that already. I mean 23 that's not a separate undertaking. You are going to have 24 that as a result of this proceeding.

1	- 2188 - Cross by Mr. Morrison -
2	Q.539 - I am looking a hypothetically in the future if we were
3	coming back six, seven years from now?
4	MR. ADELBERG: Yes. Any time you are doing anything related
5	to rate design you need that
б	CHAIRMAN: We hope to come back before that, Mr. Morrison.
7	MR. MORRISON: Hope springs eternal, Mr. Chairman.
8	Q.540 - In any event, you still have to do some type of study
9	to determine the revenue requirement, correct?
10	MR. ADELBERG: That's right.
11	Q.541 - And if I understand your recommendations, you are also
12	saying that in order to be satisfied that there are no
13	cross subsidies between classes, you would have to do this
14	incremental cost study?
15	MR. ADELBERG: Or a stand alone cost study.
16	Q.542 - Okay. Whichever?
17	MR. ADELBERG: Right.
18	Q.543 - And then after you do that you were recommending a
19	marginal cost study, correct?
20	MR. ADELBERG: Well if you did a marginal cost study, you
21	probably would have the information needed to just your
22	incremental costs without doing any separate work, so that
23	you wouldn't have to do it twice.
24	Q.544 - And then after you do your marginal cost study, you

then have to do -- or as I understand it, a Ramsey Pricing

1 - 2189 - Cross by Mr. Morrison -2 analysis? 3 MR. ADELBERG: Well now you are mixing apples and oranges. 4 We are talking about cross subsidy tests. And for cross subsidy tests --5 Q.545 - No, no. As I understand your evidence, Mr. Adelberg, 6 7 and correct me if I am wrong, in order to reconcile the 8 revenue requirement to a marginal cost study, you have to 9 do a Ramsey Pricing analysis, is that correct? 10 MR. ADELBERG: No. 11 Q.546 - Then please explain to me where Ramsey pricing comes 12 in and how do you reconcile the revenue requirement to the 13 revenue requirement to the marginal cost analysis? 14 MR. ADELBERG: Well, in Maine -- well, after they looked at that question in some detail, they concluded that they 15 16 would do what's called an equity proportional 17 reconciliation in which they said we are not convinced 18 that the effort of doing a Ramsey type of analysis of 19 demand elasticity is just going to add enough value here. We think the important information was the marginal cost 20 21 of each class and we will take as an acceptable regulatory 22 shortcut we will simply allocate the unrecovered cost or 23 the deficiency in proportion to the marginal cost. 24 So it's a policy decision. You can sketch out if you want a worse case scenario to make this look as burdensome 25

1 - 2190 - Cross by Mr. Morrison -2 as you want, but the realities are in any set of regulatory 3 policies, judgments and trade-offs are made as to what 4 level of detail just as Disco decided in many cases in its 5 distribution analysis not to update data, because the added value of doing so just wasn't worth the burden. 6 So you always have those decisions and it's no more or less 7 8 true in a marginal cost world. MR. GARWOOD: And in the case of the Maine Commission using 9 10 the equity proportional method for reconciliation and not 11 going for the Ramsey Pricing method, knew for awhile that 12 they could deal with the kind of issues that a Ramsey 13 pricing reconciliation method would tend to get at could 14 be addressed separately through some of the targeted rate initiatives that I spoke to earlier. 15 Q.547 - But the reconciliation between revenue requirement and 16 17 marginal cost requires some study of pricing elasticity, 18 correct? 19 MR. ADELBERG: No. Q.548 - No. 20 21 The equity proportional method, as Arthur MR. GARWOOD: just mentioned did not require any such study. 22 23 0.549 - Well, I completely misunderstood your evidence then 24 between yesterday and this morning, Mr. Adelberg, because

as I understood it, that in order to translate or to

1 - 2191 - Cross by Mr. Morrison -2 reconcile the revenue requirement to a marginal cost study or 3 analysis -- and I made a note of it and perhaps correct me 4 if I am wrong. That there had to be some examination of 5 price elasticity. 6 Am I completely missing the point? MR. ADELBERG: As they would say in China. just like -- the 7 8 point in fairness -- this was a complicated point. But 9 what Mr. MacDougall was asking us about was if you -- if 10 you were doing it on a purely economic basis, in 11 consistent with economic principles, that is the way you 12 would do it. But as I say, regulators make trade-offs all 13 the time. And one of the trade-offs they make is let's put our effort into analyzing the marginal cost and for 14 reconciliation we will use a shortcut. And that's not an 15 16 uncommon --17 Q.550 - And that is fair enough. I was trying to reconcile it 18 with the theory. Because I thought we were talking about 19 economic theory at the time.

20 MR. ADELBERG: You were addressing to me, I think -- I will 21 be glad to stand corrected. You were asking me would we 22 have to do this to do reconciliation? And the answer is 23 no, you don't have to do it.

Q.551 - What I am getting at and I think I am fairly obvious
about it is obviously my client is very concerned with the

1	- 2192 - Cross by Mr. Morrison -
2	data burden administrative burden, the type of load
3	research that is required in order to implement your
4	recommendations. And what consequent or measurable
5	benefit you get from that.
6	In other words, it's a cost-benefit analysis type of
7	approach. I know in your evidence you refer to the
8	perfect I think should not be the enemy of the good. But
9	I guess we also have to look at is the perfect should not
10	be the enemy of the practical, Mr. Adelberg.
11	And that I mean, that is a legitimate concern of my
12	client, that will this Board end up with better signals
13	because I think you said earlier, that revenue to cost
14	ratios are effective for determining equity. Correct?
15	MR. ADELBERG: Yes. And I think we were quite clear in our
16	direct evidence that we would expect that the Board would
17	look at priorities and resource constraints as part of its
18	consideration whether to undertake any additional
19	analysis. That is absolutely would I agree on it, I
20	couldn't agree with you more. I am not saying it should
21	be done without regard to those at all.
22	The question is given the challenges the company faces,
23	given the rising rates, given the desire recognized
24	desire to improve price signals on very major portions of
25	your load, what kind of information would you

1	- 2193 - Cross by Mr. Morrison -
2	like to have to do that. That is really the question.
3	Q.552 - And not to beat a dead horse, but I think you said in
4	your evidence that revenue to cost ratios are effective
5	for determining equities. Correct? Or equities between
6	classes?
7	MR. ADELBERG: Yes. As long as it is understood what they
8	are showing. They are I think most people feel
9	intuitively they are the convey a sense of equity
10	because you are basically saying we have this product
11	costs. How can we divide them up in a manner that looks
12	fair?
13	But we were basically saying, you need to bear in mind
14	that that product cost is different than the product cost
15	that each of those classes causes as a separate class.
16	They don't cause a share of joint costs. By themselves
17	they cause the costs that would be necessary to serve
18	them. And those separate costs may not add up to that
19	part that you are allocating. That is all we are saying.
20	Q.553 - When we talk about equity, we are generally speaking
21	about a notion of fairness? Correct?
	about a notion of farmebb. correct.
22	MR. ADELBERG: That's right.
22 23	

24 MR. ADELBERG: That's right.

 $\,$ Q.555 - And you understand that this Board is charged with the

1	- 2194 - Cross by Mr. Morrison -
2	obligation of setting just and reasonable rates. Correct?
3	MR. ADELBERG: Absolutely.
4	Q.556 - I would like to talk about third party credits.
5	Because I believe that is one of the elements where we
6	disagree. Correct?
7	MR. ADELBERG: Yes.
8	Q.557 - And I think as Mr. MacDougall pointed out, when we are
9	talking about third party credits, we are really talking
10	about exports. Correct?
11	MR. ADELBERG: Correct.
12	Q.558 - In this context?
13	MR. ADELBERG: Correct.
14	Q.559 - And in that regard, I would like you to turn to
15	well I will get there in a moment. Is it your
16	understanding, Mr. Adelberg, that under the PPAs, Disco
17	has contacted for and has paid for all the capacity from
18	the heritage generation assets?
19	MR. ADELBERG: Generally.
20	Q.560 - Okay. And I think someone said, I don't know if it
21	was you or Mr. Knecht, that referred to export sales as
22	opportunity sales. In other words, when Genco has excess
23	capacity over Disco's in-province requirements, it can
24	make sales into the export market. Correct?
25	MR. ADELBERG: Well that was Mr. Knecht's statement. I
0.5	

1	- 2195 - Cross by Mr. Morrison -
2	would have I think I agree with it generally. I might have
3	stated it a little bit differently.
4	Q.561 - Okay.
5	MR. ADELBERG: Because excess capacity is a term that is
6	usually thought of in the context of utilities system peak
7	demand. A lot of most of these sales are actually made
8	not on-peak, but off-peak. And at that point, it is not
9	relevant to talk about excess capacity. It is just
10	because you design your system to meet your peak capacity
11	during periods of low load, relatively lower load, you
12	have surplus capacity. It is not excess. You are going
13	to need to have it at peak, but you don't need it at that
14	particular time. So sometimes people talk about having
15	excess energy
16	Q.562 - Perhaps I am using imprecise words. It is available
17	capacity is basically what we are talking about. When
18	there is available capacity, they can see into the export
19	market.
20	MR. ADELBERG: Well it is pretty hard to do it, if you don't
21	have the product to sell.
22	Q.563 - Exactly. Now I would like you to turn to exhibit A-
23	11. And it is Disco CME IR-1.
24	MR. MACNUTT: Would you repeat that please?
25	MR. MORRISON: Disco CME IR-1.

1	- 2196 - Cross by Mr. Morrison -
2	Q.564 - And if you could read that, Mr. Adelberg?
3	MR. ADELBERG: Just the response?
4	Q.565 - You don't have to read it in the record. Have you had
5	an opportunity?
6	MR. ADELBERG: Oh yes.
7	Q.566 - Okay. And I just want to talk about it in broad
8	terms. Disco's philosophy in allocating these export
9	benefits to capacity, the rationale for allocating to
10	capacity, is that since it has paid for all the capacity,
11	and capacity permits the export sales, then the benefit
12	should be allocated to capacity.
13	Would you agree with that I am not asking if you agree
14	with the statement. Do you agree that that is Disco's
15	rationale?
16	MR. ADELBERG: No, I don't.
17	Q.567 - Okay. What do you say is Disco's rationale?
18	MR. ADELBERG: Well that was a piece of Disco's rationale.
19	The other piece I heard was that they were being
20	consistent with the way they the way they classified
21	Genco fixed costs. And specifically when they were asked
22	if they classified Genco fixed costs differently, might
23	they classify export sales revenue differently, I
24	understood them to say they might. That was one point.
25	And the third point was they testified that their

1 - 2197 - Cross by Mr. Morrison -2 method of treating export sales revenue was consistent with 3 the way they were reflected as a credit in the PPA invoices. And we looked at the invoices. And as we 4 testified, we couldn't find a credit to capacity or to 5 fixed costs in the invoices -- there is a credit against 6 the total bill --7 8 Q.568 - No --9 MR. ADELBERG: -- which is energy and capacity. 10 Q.569 - I understand how it gets billed through. 11 MR. ADELBERG: Okay. So there were several rationales of 12 which that was one. But it certainly wasn't the only 13 one. And the other ones we had difficulty with. Q.570 - Okay. But you would agree in looking at the response 14 15 to Disco CME IR-1 that that is what Disco has indicated? 16 MR. ADELBERG: In this IR response, yes. 17 Q.571 - Okay. Fair enough. And if I understand it, your 18 philosophy is to look at each export transaction and --19 individually and if it is the sale of capacity, then you would allocate the benefit to capacity. Correct? 20 21 And if it was the sale of energy, you would allocate the 22 benefit to energy. Is that correct? 23 MR. ADELBERG: Well in the sense that we didn't look at 24 We were told by Disco what they were. So yes, in them. 25 that sense.

1	- 2198 - Cross by Mr. Morrison -
2	Q.572 - But it is the nature of the sale that drives how you
3	allocate the benefit. Correct?
4	MR. ADELBERG: That's correct.
5	MR. GARWOOD: And I think, just to add to that, if those
6	exports are into the New England market, and they are
7	energy transactions only with no capacity assumed as part
8	of the transaction, then New Brunswick isn't required to
9	have a unit or units on reserve to provide capacity. They
10	only need to be providing energy under the terms of their
11	transaction.
12	And it is quite different if they have a capacity
13	obligation to fulfil in that transaction such that if they
14	do enter into such transactions, they can't be they
15	must reserve that capacity and honor that transaction.
16	Even if no energy is taken whatsoever under the sale, and
17	many transactions are done that way, there is no energy
18	whatsoever, they have simply been entered into a contract
19	to provide somebody capacity.
20	Q.573 - And in that case you would apply the export benefit to
21	capacity. Correct?
22	MR. GARWOOD: Yes.

23 CHAIRMAN: Mr. Morrison, when you hit a convenient time, we
24 will break for the evening.

25 MR. MORRISON: I have two questions on this area, Mr.

1 - 2199 - Cross by Mr. Morrison -Chairman, and then we can break. 2 3 CHAIRMAN: Thank you. Q.574 - And just so I am clear, the result of Disco's approach 4 5 is that the export benefits get credited to capacity and would you agree that this benefits the low load factor б 7 customers? 8 MR. ADELBERG: We would agree. Q.575 - And in New Brunswick that would be a benefit to the 9 10 residential class. Correct? 11 MR. ADELBERG: That's correct. 12 Q.576 - And under your approach, more of the export benefits 13 get credited to Energy. Correct? 14 MR. ADELBERG: Yes. We are sort of unusual in that we are a 15 neutral party in this case so we -- you will see our 16 recommendations can have benefits from very different 17 classes. Q.577 - Sure. No, I am just trying to flesh out where it 18 19 shakes out. And your approach benefits the higher load 20 factor customers. Correct? MR. ADELBERG: As compared to one that assigns all costs to 21 22 demand. 23 0.578 - Right. In New Brunswick that would be a benefit to 24 the large industrial class. Correct? 25 MR. ADELBERG: That's right.

1	- 2200 - Cross by Mr. Morrison -
2	MR. MORRISON: Okay. I can stop there, Mr. Chairman.
3	CHAIRMAN: Thanks, Mr. Morrison. We will reconvene at 9:15
4	tomorrow morning.
5	(Adjourned)
6	Certified to be a true transcript of the proceedings of this
7	hearing, as recorded by me, to the best of my ability.
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9	Reporter
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