

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF: The Electricity Act, 2004, c. 25

- and -

IN THE MATTER OF: Section 18 of the Renewable
Electricity Regulations, N.S. Regs.
155/2010 (Renewable Energy Community
Feed-in Tariffs)

TRANSCRIPT

HEARD BEFORE: Peter W. Gurnham, Q.C. Chair
Roland A. Deveau, Q.C., Member
Murray E. Doehler, CA, P.Eng, Member

PLACE HEARD: Halifax, Nova Scotia

DATE HEARD: Wednesday, April 6, 2011

APPEARANCES:

Board Counsel: Mr. S. Bruce Outhouse, Q.C.

**Board Counsel
Consultants:**

Synapse Energy Economics, Inc.
Bruce Biewald
Geoff Keith

Meister Consultants Group
Wilson Rickerson, CEO
Hilary Flynn

Tellus Institute
Dr. John Stutz, Vice-President

Board Advisor: Steve Pronko, P.Eng.

Hearing Clerk: Anne Bonang, NSUARB

Recorded by: **Dictum Digital Inc.**

Transcribed by: **Dictum Digital Inc.**
Halifax, Nova Scotia

I N D E X O F P R O C E E D I N G S

PAGE NO.

April 4, 2011

Hearing opens..... 1

Discussions..... 1

SYNAPSE ENERGY ECONOMICS PANEL

Direct Examination by Mr. Outhouse (Quals.).... 12

Cross-Examination by Ms. Cameron (Quals.)..... 17

Direct Examination by Mr. Outhouse..... 18

Opening Statement by Synapse..... 20

Cross-Examination by Mr. Merrick..... 27

Cross-Examination by Ms. Rubin..... 100

Cross-Examination by Mr. Livingston..... 222

Cross-Examination by Mr. Simpson..... 266

Cross-Examination by Mr. Vogel..... 285

Hearing adjourns..... 297

April 5, 2011

Hearing resumes..... 299

SYNAPSE ENERGY ECONOMICS PANEL (Cont'd)

Cross-Examination by Mr. Giroux..... 299

Cross-Examination by Mr. Christmas..... 303

Cross-Examination by Ms. Ashworth..... 336

Cross-Examination by Mr. Reynolds..... 353

Cross-Examination by Mr. Roscoe..... 367

Cross-Examination by Mr. Barry..... 399

Cross-Examination by Mr. Pynn..... 408

Cross-Examination by Mr. Coady..... 425

Questions from Mr. Doehler..... 441

DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

I N D E X O F P R O C E E D I N G S

PAGE NO.

April 5, 2011

Questions from Mr. Deveau.....	483
Questions from The Chair.....	509
Further Cross-Examination by Mr. Reynolds.....	512
Further Cross-Examination by Mr. Giroux.....	514

ALLIANCE OF NOVA SCOTIA SAWMILLERS PANEL

Direct Examination by Ms. Rubin (Quals.).....	517
Cross-Examination by Mr. Outhouse (Quals.).....	520
Direct Examination by Ms. Rubin.....	521
Direct Examination by Ms. Rubin (Quals.).....	522
Direct Examination by Ms. Rubin.....	526
Opening Statement by ANSS.....	530
Cross-Examination by Ms. Cameron.....	538
Cross-Examination by Mr. Livingston.....	539
Further Cross-Examination by Ms. Cameron.....	549
Further Cross-Examination by Mr. Livingston.....	556
Cross-Examination by Mr. Simpson.....	557
Cross-Examination by Mr. McGrath.....	593
Cross-Examination by Ms. Ashworth.....	611
Hearing adjourns.....	624

April 6, 2011

Hearing resumes.....	625
Discussions.....	625

ALLIANCE OF NOVA SCOTIA SAWMILLERS PANEL (Cont'd)

Cross-Examination by Mr. Outhouse.....	628
Questions from Mr. Doehler.....	733
Questions from Mr. Deveau.....	743

DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

I N D E X O F P R O C E E D I N G S

PAGE NO.

Questions from The Chair..... 746

ST. FRANCIS XAVIER UNIVERSITY PANEL

Cross-Examination by Mr. Merrick..... 752
Cross-Examination by Mr. Livingston..... 776
Cross-Examination by Ms. Rubin..... 779
Cross-Examination by Mr. Outhouse..... 785
Questions from Mr. Doehler..... 791
Questions from Mr. Deveau..... 795
Questions from The Chair..... 797
Further Cross-Examination by Mr. Livingston.... 798
Further Cross-Examination by Ms. Rubin..... 799

CONSUMER ADVOCATE PANEL

Direct Examination by Mr. Merrick (Quals.)..... 804
Direct Examination by Mr. Merrick..... 804
Cross-Examination by Mr. Giroux..... 807

Opening Statement by Mr. Paul Chernick..... 824

Cross-Examination by Ms. Cameron..... 834
Cross-Examination by Mr. Livingston..... 841
Cross-Examination by Mr. Vogel..... 884

Hearing adjourns..... 913

LIST OF EXHIBITS

EXHIBIT NO.	DESCRIPTION	PAGE NO.
-------------	-------------	----------

April 4, 2011

B-16	Opening Statement of the Synapse Consulting Team.....	27
B-17	NSPI (Liberty) IR-33 p.1/1 N-9 (M02961) dated May 26/10.....	135

April 5, 2011

B-18	The Alliance of Nova Scotia Sawmillers Opening Statement.....	530
B-19	Figure 10 - Pulpwood Chip Price Index for Atlantic Provinces.....	562

April 6, 2011

B-20	U-10 filed by ANSS Panel Re: ANSS recommended rate for biomass CHP.....	625
B-21	MFS Original Research Series entitled, Understanding Valuation Metrics for Equity Securities.....	683
B-22	Opening Statement of Paul Chernick.....	834

LIST OF UNDERTAKINGS

PAGE NO.

April 4, 2011

U-1	To provide the work papers used to analyze Mr. Chernick's Submission.....	59
U-2	<i>Revised</i> - To provide the spreadsheet showing the offsetting adjustment calculations in the Biomass CHP Tariff.....	84
U-3	To provide the engagement contract for Ms. Susan Shaw describing the scope of work required.....	104
U-4	To provide the engagement contracts for consultants for ANSS.....	105
U-5	To provide copies of the Biomass CHP equipment estimates received from suppliers.....	114
U-6	To provide copies of the spreadsheet calculations for each of the sensitivities using the ANSS cost inputs, plus the calculations using all of those inputs combined.....	163
U-7	To produce a Synapse model using Neal Livingston's assumptions - payback in years 15-20.....	233

LIST OF UNDERTAKINGS

PAGE NO.

U-8	To produce a Synapse model using Neal Livingston's assumptions - Pynn letter and payback in 10 years.....	251
------------	--	-----

April 5, 2011

U-9	To provide a corrected version of B-1, "E".....	405
------------	--	-----

U-6(a)	To include the full amount of parasitic power in the calculations, as well as a separate calculation using the differential of approximately 5 percent.....	463
---------------	--	-----

U-10	To provide an approximation of The new proposed tariff to Replace the \$339/MWh.....	604
-------------	--	-----

April 6, 2011

U-11	To provide a suggestion formula For a reopener of the Biomass Tariff.....	750
-------------	---	-----

U-12	To provide a spreadsheet Showing St. F.X. data using The Synapse model.....	802
-------------	---	-----

1

2

--- Upon commencing at 9:00 a.m.

3

4

5

THE CHAIR: Good morning. Are there any preliminary matters before we resume cross-examination of this panel?

6

7

MR. OUTHOUSE: Mr. Chair, Ms. Rubin distributed this morning U-10, the response to U-10.

8

THE CHAIR: Okay.

9

10

MR. OUTHOUSE: It probably should be marked.

11

12

THE CHAIR: Okay. That will be Exhibit B-20.

13

--- EXHIBIT NO. B-20:

14

U-10 filed by ANSS Panel Re:

15

ANSS recommended rate for biomass

16

CHP

17

18

THE CHAIR: Do you need some time to look at it, Mr. Outhouse, or are you okay to press on?

19

20

I said do you need some time to look at it?

21

22

MR. OUTHOUSE: I don't, Mr. Chair, because I have no intention of getting into the

1 intricacies of the calculation. I'm sure it will be
2 reviewed by Synapse.

3 I am only interested in the number on
4 the first page.

5 **THE CHAIR:** Okay. The only other
6 preliminary matter I have, I understand we're having some
7 problems with the audio cast, but we're going to start
8 anyway.

9 **HEARING CLERK:** Actually, it's on.

10 **THE CHAIR:** It's on, is it? So I
11 guess people who are listening can now hear us.

12 Anything else before Mr. Outhouse
13 starts his cross-examination?

14 **MS. RUBIN:** Just one other thing, Mr.
15 Chair. Mr. Bodington has a flight scheduled that he would
16 have to leave early this morning.

17 I've discussed it with Mr. Outhouse,
18 and we think it's best that he reschedule so that the
19 questioning isn't rushed. I'm wondering if we can break
20 at 10:00 just so he can confirm his flight arrangements.

21 **THE CHAIR:** I can do that.

22 **MS. RUBIN:** Yes, thank you.

1

THE CHAIR: Mr. Outhouse.

2

MR. OUTHOUSE: Thank you, Mr. Chair.

3

Just give me a second.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

MR. FENTON TRAVIS, Resumed:

MR. PATRICK HAYES, Resumed:

MR. JEFFREY BODINGTON, Resumed:

CROSS-EXAMINATION BY MR. OUTHOUSE

MR. OUTHOUSE: Good morning, Panel.

Anyone on the panel is free to join in
at a certain point, but I think I've separated my
questions as best I can.

As I said yesterday, Mr. Hayes, I have
very few questions for you. I take it that you would have
been involved in preparing the response to U-10?

MR. HAYES: Yes, sir.

MR. OUTHOUSE: Exhibit B-20. And
there are a number of things mentioned in the notes to Mr.
Travis' evidence filed last week that qualified the \$339
per megawatt hour figure. Correct?

MR. HAYES: Yes, sir.

MR. OUTHOUSE: And I take it what
you've done in preparing Exhibit B-20 is to quantify those
matters as best you can. Is that correct?

MR. HAYES: Yes, sir.

MR. OUTHOUSE: And the effect of doing
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 that has reduced the number from \$339 per megawatt hour to
2 \$320 per megawatt hour?

3 **MR. HAYES:** I believe that's correct.

4 **MR. OUTHOUSE:** I'm just looking at the
5 ---

6 **MR. HAYES:** At the top sheet. And
7 honestly, yes, I wasn't involved in the economic side of
8 the model. My purview was on the capital cost and
9 operating costs which went in to developing it.

10 **MR. TRAVIS:** Yeah. Mr. Outhouse, I
11 was the one who inputted Mitch's information in the model
12 and got the output result of \$320 per megawatt hour.

13 **MR. OUTHOUSE:** All right. So be clear
14 now, then, the rate that the Alliance of Nova Scotia
15 Sawmillers is proposing is \$320 per megawatt hour.

16 **MR. TRAVIS:** That's correct.

17 **MR. OUTHOUSE:** Plus, I realize, a fuel
18 protection mechanism, which we'll get to later.

19 **MR. TRAVIS:** That's correct. That is
20 including -- that's the purview that a fuel adjustment
21 mechanism is in place to keep the cost of equity at 13
22 percent.

19 MR. OUTHOUSE: All right. Coming back
20 to you, then, Mr. Hayes, you indicated when we spoke
21 briefly yesterday when I asked you a couple of questions
22 that you hadn't done any engineering for 2-megawatt
DICTUM DIGITAL INC. CERTIFIED COURT REPORTER

1 biomass projects and that the smallest, I think, that you
2 had done to date was two sister 5-megawatt units?

3 **MR. HAYES:** On the CHP side, that is
4 correct.

5 **MR. OUTHOUSE:** On the CHP side.

6 **MR. HAYES:** Yes, sir. That's correct.

7 **MR. OUTHOUSE:** Is it true biomass
8 generally if I take away the CHP qualification?

9 **MR. HAYES:** I'm sorry?

10 **MR. OUTHOUSE:** Is the same statement
11 true for biomass, forget the CHP?

12 **MR. HAYES:** Actually, we have done
13 several facilities that are exactly this size on the
14 thermal side, but did not have the electrical generation
15 along with the thermal part.

16 **MR. OUTHOUSE:** Steam only.

17 **MR. HAYES:** Those were steam-only
18 facilities.

19 **MR. OUTHOUSE:** Okay. And has your
20 firm -- apart from the engineering work you've done, to
21 your knowledge has your firm acted as an EPC contractor
22 for any 2-megawatt CHP projects, biomass projects?

1 MR. HAYES: No, sir.

2 MR. OUTHOUSE: If you would just take
3 your evidence, Mr. Hayes, and go to page 6 at line 16.

4 The question was:

5 "Were there any other people
6 involved in generating background
7 information for this testimony?"

8 And you say:

9 "Not specifically for this
10 testimony."

11 And I'm not interested in that. You
12 then say:

13 "Yes, I did produce a CHP study
14 to identify the design basis,
15 operating costs and capital cost
16 of a generic biomass generation
17 facility for the Alliance."

18 MR. HAYES: Yes, sir.

19 MR. OUTHOUSE: Now, I'm just
20 interested in the term "generic."

21 Did you assume for the purpose of your
22 study that this was going to be a greenfield project?

1 **MR. HAYES:** No, sir. We assumed this
2 was going to be a brownfield project.

3 **MR. OUTHUSE:** Just elaborate.

4 **MR. HAYES:** Sure.

5 So the intent was that this could be
6 located anywhere in Nova Scotia adjacent to a steam host
7 who needed the 18,000 pounds per hour, roughly 20 megawatt
8 thermal energy.

9 The way in which we tried to make it
10 generic was to analyze what assumptions we could make
11 about that existing facility.

12 That existing facility is receiving
13 steam at a low pressure saturated temperature. We assume
14 that their internal infrastructure is existing for that
15 pressure and temperature.

16 However, when we go to generate
17 electricity, we're going to have to generate steam at a
18 much higher pressure and temperature which, according to
19 Canadian boiler code and ABMA, are going to require you to
20 change out all of the steam lines, all of the waterlines,
21 the water treatment system. It's going to require
22 additional steam because it's now a CHP plant.

1 you can sell the existing assets as scrap and have that
2 done for net value of zero. But there are significant
3 upgrades that need to be made for this kind of facility.

4 As we discussed yesterday, on the
5 operating side there is a large difference between
6 operating a small low pressure low temperature steam
7 system and operating a high pressure high temperature
8 electrical generation system on both operating and design
9 and capital side.

10 So it is very -- you're replacing so
11 much, it's almost like building a true new electrical
12 generating facility because you have to replace almost
13 everything.

14 **MR. OUTHOUSE:** So you did this, as you
15 say, as a generic study. You weren't looking at a
16 particular plant and what it would take at that particular
17 plant, I gather.

18 **MR. HAYES:** We were not looking at a
19 particular plant. We did do it based on trying to execute
20 this work in Nova Scotia.

21 We contacted some general contractors
22 here and gauged what kind of talent pool and the size of

1 talent pool in the area to determine some of the
2 specialties that will have to be brought in and just tried
3 to gauge how much construction will cost here in Nova
4 Scotia versus Newfoundland or some other places we've
5 built before.

6 So from that perspective, we tried to
7 make it generic for Nova Scotia, but it could be located
8 anywhere here without real consideration for a specific
9 site.

10 **MR. OUTHOUSE:** All right. Thank you,
11 Mr. Hayes.

12 Those are all the questions I had
13 specifically for you.

14 Mr. Bodington, good morning.

15 **MR. BODINGTON:** Good morning.

16 **MR. OUTHOUSE:** Mr. Bodington, you
17 concluded, as I understand your evidence, that debt
18 financing wasn't realistic for a small biomass chip
19 project.

20 **MR. BODINGTON:** That's correct, for
21 risk and size reasons.

22 **MR. OUTHOUSE:** Yes. And I think you
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 were looking at something in the order of a 2-megawatt
2 plant?

3 **MR. BODINGTON:** That's correct.

4 **MR. OUTHUSE:** And on that basis, you
5 recommended that for purposes of looking at financing
6 costs that it should be assumed to be 100 percent equity
7 financed.

8 **MR. BODINGTON:** Correct.

9 **MR. OUTHUSE:** In reaching that
10 conclusion did you assume that it would be non-recourse
11 financing?

12 **MR. BODINGTON:** Yes, I did. And I --
13 there are a couple of things that affect my answer there.
14 If you assume that there is recourse beyond the power
15 project, the 60/40 debt equity ratio, about which there
16 has been much discussion, starts to lose meaning because
17 it's 60 percent of what?

18 If there's recourse beyond the
19 project, then the assets which secure the loan are bigger
20 than the project. So I understood in the situation at
21 hand that I was supposed to assume that it was non-
22 recourse financing.

5 **MR. OUTHOUSE:** The -- and I appreciate
6 the theoretical side of it. We're dealing with, in this
7 case, the case of the Alliance, large sawmills, at least
8 four of them large as I understand it. Do you understand
9 that?

11 **MR. OUTHOUSE:** I'm going to explore it
12 a bit later with Mr. Travis but one of them is J.D. Irving
13 Limited. Are you familiar with J.D. Irving Limited?

16 **MR. OUTHOUSE:** Yes. And at least one
17 or more of them Ledwidge Lumber for example owns large
18 tracts of land in the Province, forest lands. Are you
19 aware of that?

21 **MR. OUTHOUSE:** So you're not

22 suggesting to the Board, I know, that these companies
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 couldn't finance these things either entirely through debt
2 or partially through debt, whatever they chose?

3 **MR. BODINGTON:** I am suggesting --
4 well first, I'm stating the assumption ---

5 **MR. OUTHOUSE:** Yes.

6 **MR. BODINGTON:** --- that I assumed
7 non-recourse financing.

8 **MR. OUTHOUSE:** Correct.

9 **MR. BODINGTON:** That the only source
10 of repayment for a lender would be the subject power
11 project.

12 **MR. OUTHOUSE:** Yes.

13 **MR. BODINGTON:** I think that is a
14 reasonable assumption based on my experience in financing
15 plants like this because we see some mills in situations
16 like this decide that they don't want to use their own
17 capital for what is a side business.

18 **MR. OUTHOUSE:** M'hm.

19 **MR. BODINGTON:** They want to preserve
20 their capital to devote it to mill operations or forestry
21 operations. They don't want to use up their ability to
22 raise money for their core business by using up some of

1 their recourse capacity to finance a power plant that is a
2 side business and a small business considering the full
3 scale of their operations.

4 **MR. OUTHOUSE:** I can understand that
5 but I also heard evidence yesterday that the members of
6 the Alliance lobby hard to not be included in the
7 community based program but to be able to do it on a
8 strictly commercial basis because they did not want
9 somebody else owning a part of what was their plant.

10 So they intended to build these things
11 themselves presumably using either their own capital or
12 borrowed capital, or are you suggesting that they would go
13 out and seek equity investors in their business?

14 **MR. BODINGTON:** We have seen both
15 happen in our experience.

16 **MR. OUTHOUSE:** You can't say what's
17 more probable would happen with these individual owners
18 such as J.D. Irving?

19 **MR. BODINGTON:** Not without evaluating
20 them specifically, no.

21 **MR. OUTHOUSE:** And you were not asked
22 to do that?

1 MR. BODINGTON: Correct.

2 MR. OUTHOUSE: Now, you've recommended
3 that the return on equity for these projects be set at
4 17.5 percent unless there is what you call an effective
5 hedge for fuel risk, correct?

6 MR. BODINGTON: Correct.

7 MR. OUTHOUSE: And you would accept 13
8 percent as being a reasonable rate on return of equity if
9 there was, in your view, an effective hedge of the fuel
10 risk?

11 MR. BODINGTON: That's right.

12 MR. OUTHOUSE: I take it from your
13 evidence that if Synapse had not included the CPI diesel
14 escalator which it's proposed and instead just went with a
15 20-year rate for biomass, you would still consider the
16 17.5 percent return on capital appropriate?

17 MR. BODINGTON: I'm not sure I
18 understand your question. I consider the index proposed
19 by Synapse -- and I know it's been used elsewhere -- to be
20 an ineffective fuel cost hedge.

21 MR. OUTHOUSE: Yes.

22 MR. BODINGTON: And with an

1 ineffective fuel cost hedge, I think the cost of capital
2 for a biomass project is going to be in the high mid-
3 teens, 17.5 percent.

4 **MR. OUTHOUSE:** Well if ---

5 **MR. BODINGTON:** So I'm not sure
6 whether that answers your question or not because I didn't
7 understand your question.

8 **MR. OUTHOUSE:** Well, I'll try again; I
9 put it badly.

10 My understanding of your evidence --
11 and I'm referring in particular to page 9 -- and because
12 there are no lines but there's a paragraph at -- you're
13 discussing the hedge.

14 And you say in the paragraph which
15 begins:

16 "Further, assuming that the
17 indexing is ineffective at all it
18 is unsubstantiated for reasons I
19 noted above, B&CO's experience is
20 that such an index, the index
21 that's been proposed, the CPI
22 diesel combined index would

1 usually be ignored as a material
2 means of supporting a 15-year
3 loan." (As read)

4 **MR. BODINGTON:** Yes, that's correct.

5 **MR. OUTHUSE:** I interpret that to
6 mean that you placed no value on that index when you were
7 setting the 17.5 percent rate of return?

8 **MR. BODINGTON:** That is correct. And
9 I have a direct analogy. We are working on a project
10 right now whose power price is indexed, it's escalated
11 over time and rather than a diesel cost index for a larger
12 region there is actually a smaller zone where they're
13 actually going to go about and sample what various
14 wholesale providers of diesel are going to charge, and
15 then adjust based on a dollar per gallon difference from a
16 starting diesel cost. They're going to actually adjust
17 the PPA price according to the change in the dollar per
18 gallon for diesel.

19 That project has no debt on it.
20 They've been unable to arrange any debt. That escalator
21 is viewed as a good thing but insufficient to cover fuel
22 risk.

1 **MR. HAYES:** And I think we've
2 discussed this amongst ourselves several times this week,
3 because we've worked on the same projects unknowingly.
4 But Jeff and I were discussing it; there are certain
5 things which just kill these projects, one of them being
6 the inability to adjust the rate based on the fuel -- the
7 variation in fuel. Investors look at that as a risk that
8 they are unwilling to take at whatever return, in our
9 experience.

10 **MR. OUTHOUSE:** We'll come back to this
11 later but you're aware, Mr. Hayes and Mr. Bodington, that
12 the Vermont Biomass Tariff has no fuel escalator in it?

13 **MR. HAYES:** Yes, sir and actually I've
14 been doing some research on that as well because we're
15 involved in some of those projects that have been
16 cancelled. Of the original nine people who responded to
17 say that they were going to build those biomass plants as
18 best I can tell there's one left in Montpelier.

19 The three that were referenced by
20 Synapse earlier in the week we were involved with two of
21 those and they've told us that they're no longer pursuing
22 those projects as -- in March of this year.

1 Montpelier in addition to the rate at
2 which they're getting from the PPA is also getting a 30
3 percent ITC, which was discussed by Synapse, which is
4 worth a lot of money on the backend of that project. But
5 in addition to that they're getting an \$8 million grant
6 straight up from the City of Montpelier to continue
7 development of that project because the PPA will not make
8 them whole.

9 And they would have abandoned the
10 project without that \$8 million grant, according to the
11 Montpelier News that I was looking at last night.

12 MR. OUTHOUSE: What were the two that
13 you say -- of the other three what were the two that were
14 cancelled?

15 MR. HAYES: The two that were being
16 developed by Beavertown in Powton and -- Pownal and
17 Fairhaven, Beaver Wood Energy.

18 MR. OUTHOUSE: Those are the two that
19 you ---

20 MR. HAYES: We have a construction
21 partner ---

22 MR. OUTHOUSE: --- don't have

1 reference to those specific ones but you're assuming those
2 were the ones that Mr. Keith and his panel were referring
3 to?

4 **MR. HAYES:** I am because when we were
5 at POWER-GEN in February we were canvassing the people who
6 used to have projects going on in Vermont and it came back
7 to us that all of the others were dead except for
8 Montpelier, Fairhaven and Pownal.

9 **MR. OUTHOUSE:** By the way, and I know
10 you referenced the 30 percent -- the Income Tax Credit,
11 are you sure of your own knowledge -- and I know that
12 there's evidence to that effect, are you sure of your own
13 knowledge it's 30 percent for biomass or 10 percent?

14 **MR. HAYES:** It is 30 percent for
15 biomass. The reality of that is that it's still being
16 fought out by lawyers in the States as to how that's being
17 applied.

18 But the 1603 grant is a 30 percent
19 grant based on capital cost which is installed equipment
20 at the facility, including EPC contract price and that's a
21 30 percent number.

22 **MR. OUTHOUSE:** So your understanding
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 is it applies to biomass, the same as wind, and it's not
2 10 percent for biomass?

3 **MR. HAYES:** It's not 10 percent.

4 Well, we're working on two projects right now that have
5 the ITC grant and those people tell us that they're
6 getting 30 percent.

7 **MR. BODINGTON:** Let me clarify that a
8 little bit. Yesterday in particular there was a lot of
9 talk about characterizing this 30 percent as an investment
10 tax credit; it's not an investment tax credit. It is
11 specifically called a 1603 grant. Sixteen zero three
12 (1603) because that is the section in the **American**
13 **Recovery Tax Act**, I think, or the **American Recovery Act**
14 and what it does is say for renewable technologies you
15 used to be entitled to a production tax credit and that
16 you would earn over 10 years and this applies, sir, to
17 wind and biomass. And if you take it over 10 years you're
18 subject to operating risk. If your project doesn't
19 operate the right way you're going to get less.

20 And in an effort to take that risk
21 away and in an effort to stimulate development of these
22 projects in lieu of the production tax credit you can get

1 a 1603 grant.

2 It is a cheque from the government, it
3 is not an offset of taxes, it is not a tax credit, it's a
4 cheque from the U.S. Department of Treasury.

5 And for biomass it is 30 percent,
6 period.

7 **MR. OUTHOUSE:** What is the dispute
8 over that? You said -- you started by saying it was being
9 fought over.

10 **MR. HAYES:** It's being fought over for
11 one primary reason, it had an expiration date of December
12 31st of last year and to qualify you have to have spent 5
13 percent of the total cost of the project.

14 And the argument was does that include
15 soft costs that could be considered refundable or not,
16 such as engineering or down-payment on equipment which is
17 not shipped and that sort of thing.

18 What people were doing was at the end
19 of the year they were writing big cheques to companies
20 like us to try and get credit for having spent money and
21 develop the project. The grant was extended to December
22 31st of this year but the sunset date has remained the
DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 same, as far as I know, in that they have to be
2 operational by December 31st of 2013.

3 So it's -- as Jeff did a much better
4 job of explaining it, it's a stimulus package. The entire
5 intent is to get them to build biomass projects and to do
6 it right now. "We'll give you cash. You get started
7 right now, you have to be done by 2013 or we're coming
8 back for our money."

9 So it's an impetus to develop these
10 projects because it takes so long and takes so much to get
11 them off the ground.

12 And in the States what we've
13 discovered is that there's so much risk associated with
14 these projects on, not just the financing side, on the
15 fuel delivery side, the fuel contract side, on the air
16 permitting side.

17 And of course in the States we have
18 different environmental regulations that are in flux. So
19 the government was trying to infuse into the biomass
20 sector this impetus to build plants and build them right
21 now. Similar to what I think you're trying to do here;
22 give people impetus to build renewable energy and to do it

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22

2 And in this particular case it's
3 exciting to see that it's community-based. I mean your
4 intent is to make sure that -- you know, you're not trying
5 to get the lowest cost per kilowatt, you're trying to get
6 a reasonable cost per kilowatt but incentivize the
7 community to get their returns on that.

8 And I would just say that I think
9 that's a great idea and that I would caution; you should
10 not set this rate so low that it's dangerous because it's
11 the community that would suffer if one of these plants
12 gets built at a low rate.

13 That's just -- sorry, that's a little
14 off track.

15 **MR. OUTHOUSE:** Well, there's two
16 things about that; first of all with respect to the CHP
17 rate it's not community-based.

18 MR. HAYES: I think that -- my
19 understanding is that it's community owned and under the
20 regulations it's considered as bringing revenue, keeping
21 revenue in Nova Scotia because those people -- those
22 businesses are here and employ people here and are
23 DICTUM DIGITAL INC. CERTIFIED COURT REPORT

1 resident of Nova Scotia. I'm sorry, in that way I was
2 under the impression that's why it's considered community
3 or regional or local, that's what I was ---

4 **MR. OUTHOUSE:** There are mills -- the
5 mills that we're talking about -- sawmills we're talking
6 about are located in Nova Scotia, I don't think any of
7 them are community owned; they're all private corporations
8 as I understand the list.

9 **MR. TRAVIS:** Is there a restriction on
10 community organizations for participating in the biomass
11 combined heat and power tariff? I didn't think that there
12 ---

13 **MR. OUTHOUSE:** The what?

14 **MR. TRAVIS:** I didn't think that
15 community organizations are able to participate in the
16 biomass combined heat and tariff.

17 **MR. OUTHOUSE:** They are.

18 **MR. TRAVIS:** Okay.

19 **MR. OUTHOUSE:** They are but I mean
20 that's not what -- they are -- it is exempted from the
21 requirement that they be. In other words, the other
22 tariffs they have to be operated by those organizations.

1 Your organization successfully
2 lobbied, as I understand it, to get an exemption for the
3 CHP project.

4 **MR. TRAVIS:** That's correct.

5 **MR. OUTHOUSE:** So that sawmills,
6 companies could engage in such projects. That's correct?

7 **MR. TRAVIS:** That's correct.

8 **MR. OUTHOUSE:** Okay.

9 I guess the other thing that I wanted
10 to ask about, and you talked about the dispute and so on,
11 it seems to be to be academic because you're telling me
12 that -- not academic entirely, but you're telling me
13 there's only one going to be built.

14 **MR. HAYES:** As far as we know right
15 now, there's only one plant left that's trying to compete
16 in Vermont for the rate which Synapse appeared to use as
17 their benchmark.

18 It's the same story in Ontario, my
19 understanding is that those projects have fallen apart
20 with the exception of St. Mary's Renewable Energy
21 Corporation which actually went back and broke the
22 original PPA with OPA and lobbied for a significantly
23 DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 higher rate which they got and are now developing because
2 that tariff had no effect on bringing in actual projects.

3 People announced they were going to do
4 them and then fell by the wayside as time went on. But my
5 understanding is that those are the only two that are
6 actually moving forward with contracts, St. Mary's and
7 Montpelier.

8 **MR. OUTHOUSE:** It's not your
9 understanding that there are three projects under contract
10 in Ontario for a total of 18 megawatts?

11 **MR. HAYES:** My understanding is that
12 those projects were announced but that they have not
13 signed any kind of -- they have not spent capital on
14 actual -- moving the projects forward outside of the
15 development side.

16 **MR. OUTHOUSE:** Did they sign PPAs?

17 **MR. HAYES:** I honestly don't know.

18 **MR. OUTHOUSE:** St. Mary's obviously
19 did, you said.

20 **MR. HAYES:** St. Mary's -- St. Mary's
21 applied and I don't know whether they signed the PPA in
22 2009 or not. But St. Mary's went to the government and

1 told them that they could not afford to build a CHP at the
2 rate the government offered under that call.

3 **MR. OUTHOUSE:** Do you know what rate
4 they got?

5 **MR. HAYES:** I do not know what rate
6 they got. What they have told me is that it is
7 significantly higher.

8 And they've just gone back out and are
9 hiring an EPC contractor to do that work, which we're one
10 of the finalists for, which is how I know that.

11 **MR. BODINGTON:** Mr. Outhouse, I need
12 to add one more element which I think is germane here to
13 my answer earlier.

14 While I am not familiar with the
15 situations in Vermont and Ontario, I am extremely familiar
16 with other situations in what we call contract failure is
17 high, and that is where developers of biomass projects
18 have actually executed power purchase agreements and their
19 either fail completely without trying to get an amendment
20 because they -- often these developers are inexperienced
21 and so they get into the project and realize, "Oh, I
22 really can't do it for that price."

1 I can name one off the top of my head,
2 Blue Lake, an 11-megawatt project which I think is now in
3 for its fourth renegotiation, saying to the utility, "We
4 need a higher price, we need a higher price."

5 There are also operating power
6 projects which have come in for renegotiations, saying,
7 "If you don't give us a higher price we're going to shut
8 down."

9 So the idea that anybody has signed a
10 power purchase agreement and that that is going to lead to
11 steel in the ground is an illusion.

12 **MR. OUTHOUSE:** I guess what you're
13 saying is that people will sign contracts without doing
14 the necessary footwork to determine what their costs are?

15 **MR. HAYES:** Well, I think it has to do
16 with how niche our business is, how much of a boutique
17 business it is. I think that Synapse has a lot of
18 expertise, but they've never built one of these before.

19 And the difference between having
20 expertise in a general area and actually having done
21 something before are pretty big.

22 You were talking about renovating your

1 house. I would imagine you could probably make a pretty
2 decent estimate of what it would require to renovate your
3 house ---

4 **MR. OUTHOUSE:** Don't go there.

5 **MR. HAYES:** --- but if you've never
6 done it before, you don't understand a lot of the
7 complexities that go into it that are just missed in the
8 wash.

9 We see this often in our business
10 where people approach us and say, "We've got a PPA, we
11 have an air permit, we have financing, here's our capital
12 cost," and we won't let them pay us to develop the project
13 any more because they can't make the project work at that
14 capital cost.

15 **MR. OUTHOUSE:** Let me put it to you
16 this way, Mr. Hayes.

17 **MR. HAYES:** Sure.

18 **MR. OUTHOUSE:** I'm looking at a rate
19 which has generated a FIT tariff that's being proposed at
20 \$320 which would be, round figures, probably six, seven
21 times the -- eight times the average cost of generation of
22 a system at the present time.

1 It is approximately double the highest
2 biomass tariff I'm aware of, and I'm trying to think of a
3 reason why, if that's the only type of project that's
4 available, the ratepayers in the province should be asked
5 to pay that sort of a price.

6 **MR. HAYES:** Yes, sir. I understand
7 that completely.

8 I guess my response to that would be
9 this. I think that it's dangerous to set a rate
10 arbitrarily based on Vermont and Ontario because it sounds
11 reasonable compared to them when they don't have any
12 successful projects, especially knowing that this project
13 is going to be done either by an entity here in the
14 province or community or what -- it's going to be done
15 locally.

16 And if you set the rate low enough
17 that there's no -- there are no successful examples and
18 they build something and they fail, which is primarily
19 what Mr. Bodington's business is, is taking ownership of
20 those businesses that fail, I think that's dangerous for
21 the community just as much as putting in a rate which is
22 very high.

1 And let me just say one more thing
2 about the -- the rate needs to be cost based, and I get
3 that there's an eye test on this which Synapse made. And
4 in their determination, they thought they should look at
5 Ontario and Vermont to make sure that this passed an eye
6 test, a sniff test, if you will, to make sure it sounds
7 reasonable.

8 The smaller these projects get, the
9 more they cost per megawatt. It's a parabola.

10 If you look at it, very small is very
11 expensive. The larger they get, it comes down.

12 If what you're trying to do is
13 incentivize small plants, you're going to have to pay for
14 it. And it's not going to be the cheapest rate for the
15 Nova Scotia -- the ratepayer, but it will be the only
16 thing that's going to work successfully for the community
17 in that those businesses will not go out of business.

18 **MR. TRAVIS:** I'd just like to add to
19 that, Mr. Outhouse, if I could, the rate for small wind,
20 and of course the rate for tidal, I believe, are higher
21 than what was in here.

22 **MR. OUTHOUSE:** To come back to the
 DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 biomass, you've focused on Vermont and Ontario, and
2 there's no question that those were markers that were
3 used.

4 Synapse, as you know, also looked at
5 the Nova Scotia scenario and what has been bid here and
6 large project being executed, others not so large that are
7 still under consideration and one that is in effect here
8 through Cape Breton Explorations.

9 I don't know whether you looked at
10 those numbers.

11 **MR. HAYES:** Only in passing. And the
12 only reason I started looking at the Vermont and Ontario
13 numbers specifically for this were because I kept hearing
14 in Synapse's testimony that they went back to those and
15 based this rate on those with equal weight to any kind of
16 cost or other considerations because they felt like those
17 closely resembled this and, therefore, they should be
18 relatively where they should be.

19 I think on the first day they talked
20 about they didn't want to propose a high rate and then
21 have people ask them why Vermont and Ontario were so much
22 lower.

1 My response to that would be because
2 somebody looked at actual costs and determined what the
3 actual numbers needed to be.

4 And I'm not advising you that that's -
5 - that this is what you should pursue. I'm advising you
6 that I think the numbers are very close to where it falls
7 out. And as you get bigger, the projects get more cost
8 effective, absolutely.

9 But Synapse's number, if you look at
10 their capital, it's in the range of a 25- to 40-megawatt
11 project for a 2-megawatt project, and that's just
12 untenable. That's not in any realm of possibility.

13 We've built some of the most cost-
14 effective biomass plants in North America and been
15 recognized for it by people like Power Magazine and
16 Bentley Systems internationally.

17 I know what these things cost, and I'm
18 just telling you that their capital and operating cost
19 estimate is not going to cover the needs of somebody
20 trying to apply for this tariff.

21 **MR. OUTHUSE:** You talked about the
22 incentive, the stimulus I think it was referred to as, in
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 the States.

2 Did you interpret the Regs. or did you
3 understand that that's what the intent was here, to
4 provide an economic stimulus through the FIT tariff?

5 **MR. HAYES:** No, sir. My understanding
6 was that the Regs. were there to incentivize people to
7 build renewable energy facilities here in Nova Scotia at a
8 small enough size that it would be locally owned and
9 community invested, whether that be through a community
10 business or a community individual.

11 That was my understanding of the
12 Regs., that they were to incentivize renewable energy
13 because the province wants renewable energy.

14 If the province wants lowest possible
15 cost per megawatt, we've got a problem here because this
16 isn't going to be it.

17 **THE CHAIR:** What you're telling us is
18 that this technology cannot be built for what regulators
19 and governments in other jurisdictions have decided is a
20 fair price, keeping ratepayers in mind?

21 **MR. HAYES:** In those provinces, it's
22 been our experience that the entities are now going back

1 and paying them more. In Montpelier it's public knowledge
2 that not -- in addition to the rate ---

3 **THE CHAIR:** But that's a grant from
4 the city, it's not a ratepayer ---

5 **MR. HAYES:** That's correct. They're
6 getting the grant from the federal government, an \$8
7 million grant. And by the way, their capital cost on a
8 facility which is -- theirs is 41 million BTU, and that's
9 -- so 20 percent larger.

10 Their capital cost is \$23 million. So
11 it's in the -- I mean, the capital cost we've submitted is
12 in the right range.

13 So for a \$23 million project, they're
14 getting 30 percent of that back from the government, an \$8
15 million additional grant from Montpelier and the PPA rate,
16 and it's open to fuel adjustment.

17 So -- and like I said, St. Mary's,
18 we're in the final list to be the EPC for that project in
19 Sault Ste. Marie in Ontario. They reneged on their
20 initial -- not reneged. I'm sorry. I don't know the
21 legal term.

22 They basically walked away from their
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 original PPA, which they did sign with OPA, or they agreed
2 to with OPA.

3 **THE CHAIR:** But what you're telling me
4 is these plants can't be built for what those
5 jurisdictions ---

6 **MR. HAYES:** For what -- no, sir. They
7 cannot be built for what those jurisdictions say.

8 **THE CHAIR:** --- have determined -- to
9 the ratepayers of Ontario, Vermont, British Columbia or
10 wherever you want to pick.

11 **MR. HAYES:** Yes, sir. I think it
12 would be safe to say that those governments are now
13 incentivizing outside of the ratepayer cost.

14 **THE CHAIR:** And that's the only way
15 these plants can be built.

16 **MR. HAYES:** No, sir. You know, we did
17 work for MacKenzie Green Energy in British Columbia. Now,
18 that's a significantly larger plant. That's a 70-megawatt
19 plant. That's a CHP associated with Canfor and another
20 sawmill in British Columbia.

21 And that plant actually had an
22 adjustment mechanism to make sure that the ratepayer was

1 paying a flat rate over what they -- you know, they
2 basically set a rate which would be tracked and would be
3 paid for the benefit of having renewable energy.

4 And that project was moving forward.

5 I think everyone was excited about that one until the
6 sawmills closed down because the lumber industry turned
7 down in 2008.

8 But I think that there are examples --
9 you know, we're working on plants right now, we're working
10 on four biomass plants right now which do have power
11 purchase agreements which are set -- are tied to
12 adjustable fuel mechanisms, but all of those plants are
13 larger.

14 The rates they're getting on their PPA
15 are smaller because they're larger and they get huge
16 economy of scale at that.

17 In your particular instance, I don't
18 think you have that opportunity, especially with the way
19 the Regs. are written, obviously.

20 If what you're trying to do is build a
21 2-megawatt facility the rate is going to be high. And I
22 don't know -- because it's got to be cost based. I mean,
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 you've got to protect both the ratepayer and the entity
2 building it because they're local and you want to protect
3 them.

4 It's a herculean task. I'm not sure
5 how to tell you you're going to solve it.

6 **THE CHAIR:** Yeah. I guess, are we in
7 a position where the affordability of the ratepayer and
8 the requirements of the developers simply can't be met?

9 **MR. HAYES:** Sir, I don't know that. I
10 think you'd have -- if it were me, I think you'd have to
11 look at what the entire base of generation here is and
12 what affect a handful of these projects would have on the
13 entire rate base.

14 You know, in the States where we're
15 all connected putting a plant on the grid that has an
16 incrementally higher cost but it's a small plant, that
17 really doesn't do anything to the ratepayer. But here
18 where you're insulated on a standalone grid, you can
19 obviously tell what -- you know, if you project that you
20 know some number of these plants are going to be built,
21 you should be able to figure out what the difference is
22 going to be to the ratepayer.

1 And I think that's -- I mean, if you
2 were asking my unsolicited opinion that's how I think
3 you'd do the analysis.

4 **MR. TRAVIS:** Mr. Chairman, I would
5 just add to that that it's really not a whole lot
6 different than the tidal or the small wind in that
7 respect, that they're both higher cost and you know that
8 they had the same challenges as both of those technologies
9 do.

10 **THE CHAIR:** Except the impact of five
11 2-megawatt biomass plants is a little different than a
12 less than 50 KW windmill. That's the order of magnitude
13 we've got to got to be concerned about.

14 **MR. TRAVIS:** Yeah, I'm not sure how
15 many 50 KW windmills would be installed. You'd have to
16 look at the entire ---

17 **THE CHAIR:** There's a cap in the
18 Regulations.

19 **MR. TRAVIS:** Okay. And in the tidal
20 Regulations is there a cap on the tidal project.

21 **THE CHAIR:** I don't think there is,
22 no.

1 **MR. TRAVIS:** Okay. So I guess at 65
2 cents a kilowatt hour they could have considerable rate
3 impacts.

4 **THE CHAIR:** Sure.

5 **MR. TRAVIS:** In fact, more so that the
6 biomass CHP in the project.

7 **THE CHAIR:** And I have some questions
8 on tidal as well.

9 **MR. TRAVIS:** Sure, okay. No problem.
10 Appreciate that.

11 **MR. BODINGTON:** All right. I have one
12 more point to add on this. Mr. Hayes described the
13 economies of scale that are associated with capital and
14 operating costs for biomass plants.

15 I agree 100 percent that the economies
16 of scale for those costs are huge. That ideal also
17 applies to how these projects are financed. Arranging
18 debt for a power project is an expensive process.

19 I'm an example of that cost. A lot of
20 evaluations need to be done. A lot of contracts need to
21 be negotiated. Amortizing all of those costs -- which are
22 almost the same for a 20-megawatt plant as they are for a

1 2-megawatt plant -- over a 2-megawatt plant runs the cost
2 up so high that it's just not economic to go out and try
3 to get non-recourse financing for a 2-megawatt project.

4 **THE CHAIR:** Thank you.

5 Sorry, Mr. Outhouse, I didn't mean to
6 get in the middle of that.

7 **MR. OUTHOUSE:** Of course we've already
8 -- sorry, we've already said -- you've already indicated,
9 Mr. Bodington, you have no idea how likely it is that any
10 of these sawmill owners would actually seek non-recourse
11 financing and drive those costs that you're talking about?

12 **MR. BODINGTON:** Well, that is true;
13 that is a different matter than whether or not Synapse's
14 assumption is realistic.

15 **MR. OUTHOUSE:** Yes, but you were
16 talking about financing costs and the cost of non-recourse
17 financing, hiring people like yourself to do valuations.
18 I'm having difficulty imagining J.D. Irving Limited going
19 through that process to finance something in the order of
20 \$15 million.

21 **MR. TRAVIS:** I'd like to just comment
22 for a second. We actually -- Marwood, we went to -- I
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 can't comment on J.D. Irving's situation or their ability
2 to acquire data, what they're doing; I don't have the --
3 you know, they're not going to let me into their business
4 to that ---

5 **MR. OUTHOUSE:** I'm sure.

6 **MR. TRAVIS:** --- degree so -- they
7 wouldn't even tell what me pressure their steam boiler was
8 operating at.

9 **MR. OUTHOUSE:** I agree about that.

10 **MR. TRAVIS:** So you know there's --
11 we're all pretty cutthroat competitors at the end of the
12 day. I couldn't get into everybody's business to that
13 degree but I can tell you that we went to ScotiaBank who
14 was our bankers at Marwood.

15 They told us to go to Scotia Capital
16 in Toronto and they said, "Your project's way too small.
17 Go see Jeff Bodington because we don't -- we aren't
18 interested and we can't finance a project like that."

19 **MR. OUTHOUSE:** Were you looking for
20 non-recourse financing?

21 **MR. TRAVIS:** What we asked them is
22 that, you know, "Can we get debt and what's your opinion

1 on debt and equity." And they said you know you're not --
2 "We don't do those projects. They're too small. You need
3 to see a boutique guy like Jeff," and so I can only speak
4 to one project's experience in terms of our ability to be
5 able to acquire debt.

6 Certainly I wish I could dig down into
7 J.D. Irving's and figure out what they're doing but
8 they're not going to let me go there. So neither are the
9 rest of the sawmills for that matter but ---

10 **MR. OUTHOUSE:** I want to come back to
11 Mr. Hayes for a second.

12 Mr. Hayes, I want to nail down as best
13 I can the projects in Vermont. I have in front of me
14 downloaded March 31st, I think, from the Vermont website
15 project. I did have it. It shows a project for New
16 England Waste Services in Coventry.

17 **MR. HAYES:** M'hm.

18 **MR. OUTHOUSE:** Is that one of the ones
19 you say is no longer there?

20 **MR. HAYES:** I've spoken to that
21 developer in the last three months and they told me that
22 they were not able to move forward at this time.

1 MR. OUTHOUSE: At this time?

2 MR. HAYES: Yes.

3 MR. OUTHOUSE: Are they one of the
4 ones that's looking for the grant?

5 MR. HAYES: They are one of the ones
6 looking for the grant; yes, they are.

7 MR. OUTHOUSE: How can they get the
8 cheque or -- if they're not intending to proceed?

9 MR. HAYES: They can't proceed because
10 they can't make it -- they can't raise the equity to
11 continue development of the project at their current PPA.

12 MR. OUTHOUSE: But they want the 30
13 percent grant?

14 MR. HAYES: They want it but they're
15 not going to get it.

16 MR. OUTHOUSE: I see. And what about
17 -- I'm going to get this wrong -- Cersosimo Lumber in
18 Brattleboro?

19 MR. HAYES: Yeah, we're not involved
20 in that one but I have heard through our construction --
21 one of our construction partners that that one's in the
22 same place.

MR. outhouse: And Moriah Group in

MR. HAYES: That one I'm not familiar

MR. OUTHOUSE: Okay. And New England

MR. HAYES: Yes, so two of those --

And in that time we've been approached

Of those 150 we've been approached

1 going to build the actual project.

2 And I guess -- so let me go back. I
3 don't have anything more than hearsay knowledge about
4 those projects. We've been involved in several of them
5 that have fallen apart there including Concord Power and
6 several others where we were paid to engineer portions of
7 the project because they had a PPA and they paid us that
8 money and then they could not close the deal on the
9 financing side.

10 Or they couldn't close the deal on the
11 permitting side and those projects spun apart and the
12 money they spent on us was essentially wasted because they
13 couldn't get a project. And they're not going to do
14 projects.

15 And developers for the most part will
16 say that their project is going -- if you were a developer
17 you're going to say your project is good to go even after
18 you've put the last nail in the coffin. Because if
19 somebody comes out of the blue and says here's some money,
20 you're right back in business and you're going again.

21 So I can't speak to whether they will
22 ever get projects out of that but they don't have any that

1 are going right now that I know of that are spending
2 capital other than Montpelier; that's the one I know of
3 and that wasn't on your list. They might have backed out
4 of their PPA, that might have been part of the agreement
5 to take the \$8 million grant from the City of Montpelier.

6 **MR. OUTHOUSE:** With respect to Ontario
7 they indicate there's nine projects in the queue there as
8 well as three assigned contract. You've spoken, I think,
9 about the three assigned contracts. I take it that,
10 again, is based on hearsay?

11 **MR. HAYES:** Well we are partnered with
12 a company called -- not partnered, that's too strong a
13 word -- we have been approached by Pristine Power, who is
14 a developer in Ontario and has operating biomass plants to
15 help them with capital costing and operating costing on
16 facilities like that.

17 And we did a decent amount of work for
18 them when this first came out. And since then they've
19 been in developer limbo as well, even though I believe
20 they're still in the queue they are not moving forward
21 because of various aspects of the project.

22 You know, when we talk to people about
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 this we liken it to try and get, you know, five people
2 from five different provinces to arrive at this meeting at
3 exactly the same time. That's how difficult it is to get
4 one of these projects off the ground. They're just tough,
5 between all the different intricacies.

6 **MR. OUTHOUSE:** And it's your opinion I
7 gather that you need a rate as high as \$320 per megawatt
8 hour before any of these plants are going to get built in
9 Canada at 2 megawatts?

10 **MR. HAYES:** I think it's my opinion
11 the capital cost and operating costs that I've given are
12 accurate and that if you're going to develop a cost-based
13 rate, that that's what you're going to need to do.

14 Now, I have no expertise on Synapse's
15 model as far as the economics that it spins off and I
16 think to this point ANSS has simply used Synapse's model.

17 You know, we've seen plenty of other
18 developers' models that have different -- not all
19 developers' models spit out the same number.

20 **MR. OUTHOUSE:** Sure, I understand what
21 -- and perhaps it's unfair to put that question to you.
22 Your expertise lies in the capital cost.

1 **MR. HAYES:** Yes, sir, and that's
2 really all I can speak to.

3 **MR. OUTHOUSE:** All right, I want to
4 come back to Mr. Bodington and continue where I left off
5 some time ago now.

6 I just wanted to ask you a couple of
7 questions about the calculation at the bottom of page 11
8 of your -- sorry, bottom on page 10, top of page 11.

9 **MR. BODINGTON:** Yes.

10 **MR. OUTHOUSE:** And in that last
11 paragraph on page 10 you -- let's see, it's in line 4, you
12 referred to a 2-megawatt biomass CHP as a small -- as a
13 medium to small business, correct?

14 **MR. BODINGTON:** Correct.

15 **MR. OUTHOUSE:** Okay. And would you
16 describe a well-established university which was going to
17 install a CHP project as a small to medium business?

18 **MR. BODINGTON:** I will say my
19 expertise is in power and power only.

20 **MR. OUTHOUSE:** Okay.

21 **MR. BODINGTON:** Whether or not a

22 university should even be characterized as a business is a
DICTUM DIGITAL INC.

1 question that I won't approach.

2 **MR. OUTHOUSE:** Would you say that a
3 large company with many plants is a small to medium
4 business, such as JDI for example?

5 **MR. BODINGTON:** I don't know anything
6 about JDI but let me give you another answer to that
7 particular question.

8 You'll see that in my example here I
9 used -- I provided you with some market data of this, it's
10 called an enterprise ratio.

11 **MR. OUTHOUSE:** Yes.

12 **MR. BODINGTON:** It's a measure of
13 value for AES.

14 Now, AES is a very large power
15 company, it's active in, I think it's certainly over 100
16 countries, they own 10s of thousands of megawatts, so it's
17 a huge company and I think that in this particular case I
18 used a calculation which was favourable to cost of capital
19 in this situation so that I'm not trying to bias the
20 number.

21 **MR. OUTHOUSE:** I was going to ask you
22 about that because you did use a large company.

MR. BODINGTON: AES is one of the

MR. OUTHOUSE: So in calculating this, you indicated that their enterprise ratio was 1.0, is that correct? And, for the year-end 2010?

MR. BODINGTON: Yes. Yes.

MR. OUTHOUSE: And then when I turn
n on page 11 to derive the 17.5 percent
t you used 5 rather than 5.7.

MR. BODINGTON: Yes.

MR. OUTHOUSE: Was that intentional?

MR. BODINGTON: It definitely is
the reason for that is that a 2-megawatt
even within AES' rounding error.

So smaller companies tend to sell for ratio valuations, and you can see that I earlier in that paragraph where it says, sell for two to four times..."

MR. outhouse: Yes.

MR. BODINGTON: And I used five partly
use two, the discount rate -- you can
head. If you use -- even on a ratio
CERTIFIED COURT REPORTERS

1 of two that's a discount rate of 50 percent, that's the
2 cost of capital, 50 percent, take away 2.5 percent growth
3 rate, your discount rate or your cost of capital, using a
4 -- even on a ratio of two would have been 47.5 percent.

5 I didn't use that number, I don't
6 think it's realistic in this situation. I used a much
7 higher valuation ratio that I think brings it into the
8 zone of what's realistic in this situation.

9 And then also falls into the zone that
10 I think is reasonable from other perspectives, such as the
11 build-up that I described yesterday where we start with
12 utility, add biomass, add development and construction
13 risks.

14 **MR. OUTHOUSE:** Mr. Bodington, would
15 you agree with me that the calculation of enterprise ratio
16 is not commonly used to calculate the cost of capital?

17 **MR. BODINGTON:** I disagree with that
18 categorically. It's something that we use all the time.
19 It is something that others use all the time. It is in
20 probably every finance textbook or valuation book, and we
21 -- every single time for 20 years, when we look at what is
22 a power plant worth we look at its EBIDA and we say what

1 kind of multiple is that going to sell for and that's
2 exactly what this enterprise ratio is.

3 We do that math and that is one of
4 three calculations that we make every time in order to
5 figure out what a power plant is worth and then we need
6 information such as Mr. Hayes' if it's worth that much and
7 what Mr. Hayes says is lower than that, if it costs lower
8 than that, then we have a viable project. If it costs
9 more, we don't.

10 **MR. OUTHOUSE:** Okay. But I asked you
11 whether it was used to determine the cost of capital which
12 is what you used ---

13 **MR. OUTHOUSE:** And I answered that.

14 **MR. OUTHOUSE:** Okay.

15 **MS. RUBIN:** Mr. Outhouse, sorry to
16 interrupt.

17 I don't know if we could take our
18 break.

19 **MR. OUTHOUSE:** Sorry, yes go ahead.

20 **THE CHAIR:** How long do you think you
21 need?

22 **MR. BODINGTON:** Probably 15, maybe 20
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 minutes.

2 **THE CHAIR:** Okay, 20 minutes. We'll
3 be back at 20 past 10.

4 **MS. RUBIN:** Thank you.

5 --- Upon recessing at 10:01 a.m.

6 --- Upon resuming at 10:20 a.m.

7 **THE CHAIR:** Mr. Outhouse?

8 **MR. OUTHOUSE:** Thank you, Mr. Chair.

9 **MR. FENTON TRAVIS, Resumed:**

10 **MR. PATRICK HAYES, Resumed:**

11 **MR. JEFFREY BODINGTON, Resumed:**

12 **CROSS-EXAMINATION BY MR. OUTHOUSE (Cont'd)**

13 **MR. OUTHOUSE:** Mr. Bodington, just
14 before we broke we were talking about the enterprise ratio
15 and its use and you were saying that you used it; it was
16 commonly used for calculation of the cost of capital.

17 Are you familiar with a company known
18 as MFS Investment Management?

19 **MR. BODINGTON:** No, I am not.

20 And if I may, I have two quick things
21 to add to the answer that was in process.

22 **MR. OUTHOUSE:** Yes, go ahead.

MR. BODINGTON: The first is that if

MR. OUTHOUSE: M'hm.

MR. BODINGTON: The second is that if

MR. OUTHOUSE: Want to check?

MR. BODINGTON: Whether that -- the

MR. OUTHOUSE: Let me just show you

1 copies ---

2 (LAUGHTER)

3 **THE CHAIR:** The crowd significantly
4 thinned.

5 This will be Exhibit B-21.

6 --- **EXHIBIT NO. B-21:**

7 MFS Original Research Series
8 entitled, Understanding Valuation
9 Metrics for Equity Securities

10 **MR. OUTHOUSE:** And there's a -- if you
11 look at the inside page, there's a description of what MFS
12 is. I assumed you might know about it. I gather it
13 doesn't ring a bell with you?

14 **MR. BODINGTON:** I do not. I see there
15 definitions and it looks like pretty standard stuff. I
16 see on page 7 they deal with the enterprise ratio.

17 **MR. OUTHOUSE:** That's correct.

18 First of all, have a look at the
19 definition that's there. Do you have any difficulty with
20 that definition?

21 **MR. BODINGTON:** Let me pause and read
22 it.

1 MR. OUTHOUSE: Yes, certainly.

2 (SHORT PAUSE)

3 MR. BODINGTON: I agree with the
4 definition. I find their characterization of common use a
5 little odd, and we certainly don't use it that way. We
6 use it, I think, in a careful way where I would not want
7 to compare the enterprise ratio of, let's say, a forest
8 products company to a power company. We use it to compare
9 power company to power company.

10 And so their description here of "used
11 to measure companies in similar industries," okay, I agree
12 with that, but different countries, well, maybe this whole
13 analysis is about comparing companies across countries.
14 We don't use it that way. I can imagine reasons that that
15 would be a dangerous practice.

16 MR. OUTHOUSE: You said you use it to
17 compare power companies to power companies?

18 MR. BODINGTON: Yes.

19 MR. OUTHOUSE: And for the purposes of
20 your analysis, did you consider that the chip
21 owner/operator was a power company as opposed to a lumber
22 company?

1 **MR. BODINGTON:** When a chip
2 owner/operator, to use your phrase, gets into the power
3 business, it becomes a mix of the two. And when looking
4 at what the power part of any business that's in other
5 businesses as well is worth, we look at power companies,
6 small companies. We try to take into account the
7 differences between companies so that we're comparing, as
8 much as possible, which is not easy, apples to apples.

9 **MR. OUTHOUSE:** True.

10 But at least as I understood the
11 testimony yesterday that the power plant is the mouse and
12 the lumber mill is the elephant in this room, this
13 business, and if you're saying you would use it to compare
14 power companies to devise your rate of capitalization,
15 when the dominant entity here is a lumber company, why
16 would you do that?

17 **MR. BODINGTON:** We're not talking
18 about an investment in the lumber business. We're talking
19 about an investment in the power business.

20 **MR. OUTHOUSE:** To make the lumber
21 business more efficient, among other things, as I
22 understand?

MR. BODINGTON: In part, yes.

And furthermore, the cost of capital

So the cost of capital for a power

The cost of capital for a project has

MR. OUTHOUSE: So if we were to

1 it's unhappy with. So it's not functioning properly. So
2 it's now going to build a new system, and it can sell
3 excess power at a certain rate. It looks at that rate,
4 looks at the benefits the sawmill will achieve, if it can
5 in effect buy off the grid at one price, sell back to the
6 grid at a higher price, improve efficiencies in its
7 lumberyard, it's main business.

8 Don't those benefits have to be taken
9 into account in determining the cost of capital?

10 **MR. BODINGTON:** They should be, and
11 you're getting to another element of something that I know
12 that was discussed yesterday particularly concerning Mr.
13 Hayes and Synapse's approach to how do we take the boiler
14 plant part of the CHP facility and should we allocate some
15 of that to what the mill would have been spending anyway.

16 And while the point that you make,
17 sir, is a valid conceptual point that I do agree with,
18 that we have essentially, in the parlance of finance and
19 economics, we have a business which has joint products.
20 Using your example, it has benefits to the mill and it
21 also gets the mill into a new business. It's selling and
22 exporting electricity.

1 There is no theoretically correct way
2 to allocate costs for joint products. That principle
3 applies to Mr. Hayes' capital costs as well as it applies
4 to my cost of capital.

5 So it's a consideration. There is no
6 great answer. Maybe a blend makes sense, but I think that
7 when considering that, you still have to keep in mind that
8 if you're going to get in the business of generating
9 electricity for export and you're going to take the fuel
10 cost risk associated with buying biomass fuel to generate
11 that electricity, if you're going to take the development
12 and construction risks associated with that, those things
13 need to be reflected in the cost of capital for the
14 project.

15 **MR. OUTHOUSE:** And I assume that your
16 answer wouldn't be the same -- just as with respect to the
17 all-equity scenario, your answer wouldn't be the same if
18 you assume recourse financing?

19 **MR. BODINGTON:** I think you have to be
20 extremely careful. My answer would be the same, and here
21 is why. If there is recourse financing, what have you
22 done? What you've done is taken the rest of the business
 DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 and eaten away at its ability to raise capital for other
2 purposes.

3 So recourse financing could make the
4 -- if you just do the simple math, the cost of capital
5 appears smaller, but you're ignoring the costs that you
6 have then imposed on the party providing the recourse.
7 They no longer have that ability to invest or borrow for
8 another project.

9 And this is an element, again, of the
10 cost of capital for any particular project is determined
11 by the risks associated with that project.

12 And whether it's recourse or non-
13 recourse doesn't ultimately decrease that cost of capital
14 because of its recourse. You haven't made any risk go
15 away, so you can't reduce the cost of capital.

16 All you've done with recourse is
17 changed who's bearing the risk. Well, if somebody else is
18 bearing the risk, all you've done is shift that cost to
19 them.

20 **MR. OUTHOUSE:** You're assuming that if
21 a company like JDI made this sort of investment that it
22 wouldn't be realistic to look at its cost of borrowing for

1 our portion of that. You should look at the opportunity
2 cost of capital on the internal company basis and say
3 that, well, J.D. Irving has compromised its ability to
4 borrow to this extent; what's the opportunity cost of that
5 capital?

6 **MR. BODINGTON:** That's still not quite
7 right.

8 **MR. OUTHOUSE:** Okay. I'm not
9 surprised.

10 **MR. BODINGTON:** And here's the reason.
11 You may have -- and I'll use JDI even
12 though I know nothing about them. If you have done
13 recourse financing and compromised JDI's ability to borrow
14 and do other things, what -- and shifted risk, therefore,
15 to them, what extra risk have you shifted to them? It's
16 the risk of the power project.

17 So the cost of capital for JDI's
18 decision to provide some recourse for the power project is
19 the cost of capital associated with the risks of the power
20 project, not what else they're doing.

21 **MR. OUTHOUSE:** Are you suggesting the
22 bank is going to charge JDI what they -- JDI comes and
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 looks for 10 or \$15 million. Are you suggesting that the
2 bank looks through JDI at the project and says, "We're
3 going to charge you X, 17.5 percent for the loan on that?

4 **MR. BODINGTON:** Well, first of all, a
5 bank would not go through the exercise that you just
6 described.

7 If JDI wanted to borrow for a 2-
8 megawatt project -- even though I think that's a
9 completely unrealistic idea and can cite an example of
10 where somebody didn't do that -- the bank would say,
11 "What's the money for?"

12 And if JDI said, "It's for the power
13 project," they'd say, "We want to be sure there's extra
14 recourse there. And if the power project goes bad, you're
15 going to have to take away from your other businesses to
16 repay the loan."

17 **MR. OUTHOUSE:** You're speculating.

18 **MR. BODINGTON:** Emphatically not.

19 **MR. OUTHOUSE:** You think you know the
20 relationship between JDI and their banker?

21 **MR. BODINGTON:** Well, I started my
22 answer saying I don't know anything about JDI. I'm saying

1 this is how lenders think.

2 **MR. OUTHOUSE:** Yeah. I understand
3 what you're saying. All right.

4 I'm going to pass on. I'm reminded of
5 the adage never get into a swordfight if the other guy has
6 a gun, so I'm going to leave that subject.

7 Mr. Bodington, the -- as I understand
8 it, you are basing your evidence on your experience and
9 knowledge of the power business, if I can put it that way.

10 **MR. BODINGTON:** Correct.

11 **MR. OUTHOUSE:** And I read your CV or
12 your summary of qualifications, and I assume that what's
13 reflected there is reflective of your knowledge and
14 experience in this business.

15 **MR. BODINGTON:** Yes.

16 **MR. OUTHOUSE:** Now, as I read it, and
17 you may have already said this, but I want to be clear,
18 have you been involved in the purchase or sale or
19 financing of any 2-megawatt biomass projects?

20 **MR. BODINGTON:** No, I have not.

21 That's because under the rate schemes that I've been

22 exposed to so far in my career, 2-megawatt projects just
DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 aren't economic, primarily for the economics of scale
2 reasons that we've discussed earlier.

3 **MR. OUTHOUSE:** So you're not -- and
4 you haven't been -- any 2-megawatt projects, biomass or
5 otherwise.

6 **MR. BODINGTON:** That's not correct.
7 I've worked on gas-fired -- natural gas-fired projects. I
8 think the smallest one is probably .6 megawatts, 600
9 kilowatts, so I've worked on some very small ones.

10 **MR. OUTHOUSE:** Okay. And given the
11 number of projects you've been involved in, I can
12 understand why they're not here.

13 **MR. BODINGTON:** And I will also
14 mention that the smallest biomass plant that's actually
15 been built that we've been involved in is about 6.5
16 megawatts.

17 **MR. OUTHOUSE:** All right. And you've
18 been previously involved in no projects in Nova Scotia ---

19 **MR. BODINGTON:** Correct.

20 **MR. OUTHOUSE:** --- prior to this?
21 Any in Canada?

22 **MR. BODINGTON:** A natural gas-fired

1 power project, and that's it.

2 **MR. OUTHOUSE:** And where was that?

3 **MR. BODINGTON:** The client was in
4 Calgary. I think it was somewhere in the middle of Canada
5 but, frankly, it was maybe 10 years ago and I just don't
6 remember where it was.

7 **MR. OUTHOUSE:** Have you been involved
8 in the financing of any biomass plants as opposed to sale
9 or ---

10 **MR. BODINGTON:** Oh, yes.

11 **MR. OUTHOUSE:** --- purchase?

12 **MR. BODINGTON:** Yes.

13 **MR. OUTHOUSE:** I didn't see any listed
14 in your CV, but you have been in ---

15 **MR. BODINGTON:** There is a list of
16 power plants in my CV. It's a few more than 100 of the
17 many I've been involved in. And I was involved in
18 arranging -- oh, sorry. Thank you.

19 I was involved in arranging financing
20 for several of them.

21 **MR. OUTHOUSE:** Okay. I was just

22 looking under the financing section, and I didn't see any
DICTUM DIGITAL INC.

1 biomass.

2 **MR. BODINGTON:** Oh, that was just a
3 summary.

4 **MR. OUTHOUSE:** All right.

5 **MR. BODINGTON:** Yeah.

6 **MR. OUTHOUSE:** Fair enough.

7 **MR. BODINGTON:** Yeah. That's only
8 five deals.

9 **MR. OUTHOUSE:** Fair enough, Mr.
10 Bodington. Thank you.

11 Those are all my questions that were
12 specific to you, Mr. Bodington. Still on the panel,
13 obviously, and I'm sure I'll hear from you again.

14 **MR. BODINGTON:** Thank you.

15 **MR. OUTHOUSE:** I want to turn to your
16 evidence now, Mr. Travis ---

17 **MR. TRAVIS:** Sure.

18 **MR. OUTHOUSE:** --- as soon as I can
19 lay my hands on it.

20 Mr. Travis, just go to page 1 of your
21 evidence.

22 **MR. TRAVIS:** Page 1, yeah.

22 MR. OUTHOUSE: It was an electricity
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 only plant?

2 **MR. TRAVIS:** That's correct. Yeah, it
3 wasn't CHP. Yeah, that's right.

4 **MR. OUTHOUSE:** And is that project
5 going ahead?

6 **MR. TRAVIS:** No, it is not. It had
7 issues with wood supply, so we terminated the project
8 about a year ago.

9 **MR. OUTHOUSE:** And was there a FIT
10 rate in New Brunswick? I don't think ---

11 **MR. TRAVIS:** No. Actually, back at
12 the time, the New England market was actually -- when
13 natural gas -- just before 2008 it was somewhere around 14
14 million BTU per -- \$14 per million BTU, the electricity
15 rates in New England were on spot and selling out at
16 around somewhere in the 14 cent range.

17 And the Rack Market at the time down
18 there was probably around \$52 a rack, so 5.2 percents per
19 kilowatt hour. That price was, of course, very attractive
20 to a biomass power plant at the 25-megawatt scale, and
21 that's the market that we were going after at the time.

22 **MR. OUTHOUSE:** Okay. So it was an

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

MR. TRAVIS: That's correct.

MR. OUTHOUSE: And the other project that you refer to at the bottom of the page, there's the one here in Nova Scotia ---

MR. TRAVIS: Yes.

MR. OUTHOUSE: Brookfield site.

MR. TRAVIS: Yes.

MR. OUTHOUSE: And then there's a large-scale bio-energy project the province is -- is that the same project?

MR. TRAVIS: No, it is not, it's a separate project that Marwood is currently working on right now to develop in the Province of New Brunswick.

MR. OUTHOUSE: Okay. It is not a biomass project?

MR. TRAVIS: It is related to biomass but it's not biomass electricity.

MR. OUTHOUSE: Okay. And it is, what, purely steam?

MR. TRAVIS: Actually, this project is a torrefaction process.

1 Torrefaction is a process by which you
2 convert green chips into a product that can directly
3 substitute in a coal plant without any retrofitting of the
4 existing equipment in the coal plant. So it's an advanced
5 biomass conversion technology.

6 **MR. OUTHOUSE:** Okay, all right.

7 Just with respect to Marwood, on page
8 2, you discuss what the company is, and as I understand
9 it, it has six manufacturing sites, three in Nova Scotia,
10 three in New Brunswick?

11 **MR. TRAVIS:** Yes, that's correct.

12 **MR. OUTHOUSE:** And is it still a
13 family-owned company?

14 **MR. TRAVIS:** Yes, it is. In fact, the
15 owner is actually sitting in the back of the room, Mr.
16 Creelman.

17 **MR. OUTHOUSE:** And the Alliance ---

18 **MR. TRAVIS:** Yes.

19 **MR. OUTHOUSE:** --- Nova Scotia
20 Sawmillers, is -- if I understood your evidence correctly
21 this is an alliance which was formed specifically for the
22 purpose of ensuring the FIT rate developed in this

1 province would be set at a level high enough to make it
2 worthwhile for sawmills to go into the production and sale
3 of electricity; is that correct; to engage in the building
4 of such projects?

5 **MR. TRAVIS:** Yes, that's correct.

6 **MR. OUTHOUSE:** Okay. It's not an
7 industry association, it's a special ---

8 **MR. TRAVIS:** No, it's a -- you know,
9 it's just a group of us said, you know, we're interested,
10 these all could be potentially good opportunities for our
11 organizations and so we decided that we would come
12 together and share cost and that sort of thing, for the
13 year.

14 **MR. OUTHOUSE:** Fair enough.

15 Now, Mr. Travis, you were here, I
16 know, when Ms. Rubin cross-examined the Synapse Panel and
17 you heard the discussions about granularity.

18 **MR. TRAVIS:** Yes, I did.

19 **MR. OUTHOUSE:** And you have your
20 evidence in front of you, I'm sure.

21 **MR. TRAVIS:** Yes.

22 **MR. OUTHOUSE:** Can you just turn to
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 Appendix A, briefly, on page 3.

2 And this was your first submission, as
3 I understand it to ---

4 **MR. TRAVIS:** Synapse, page 3?

5 **MR. OUTHOUSE:** Page 3.

6 **MR. TRAVIS:** Okay.

7 **MR. OUTHOUSE:** And there's a heading
8 called, "Data Granularity."

9 **MR. TRAVIS:** Yes.

10 **MR. OUTHOUSE:** And you start by saying
11 "Our preference is toward a model
12 that allows for enough detail to
13 provide a fair representation of
14 the cost of generating
15 electricity with a chip plant."

16 **MR. TRAVIS:** Yes.

17 **MR. OUTHOUSE:** "We would err on the
18 side of greater detail rather than less," and you say
19 this:

20 "The Vermont model appears to
21 have reasonable granularity based
22 on the information shown in the

1 presentation."

2 MR. TRAVIS: Yes, I had took a quick
3 look at a model that Jeff -- particularly the one I was
4 looking at was the Excel spreadsheet and I thought the
5 spreadsheet looked pretty good.

6 I wasn't making a comment on anything
7 beyond that.

8 MR. OUTHOUSE: Okay, well that was
9 your first ---

10 MR. TRAVIS: Right.

11 MR. OUTHOUSE: --- submission, I
12 appreciate. And it's true that Synapse did use that
13 Vermont model.

14 MR. TRAVIS: The Excel model to
15 produce the calculation; correct.

16 MR. OUTHOUSE: Now, in your second set
17 of comments which is attached as Appendix B and it's a
18 letter dated 3-07-2011?

19 MR. TRAVIS: Yes, regarding
20 efficiency?

21 MR. OUTHOUSE: Yes.

22 MR. TRAVIS: Yes.

1 **MR. OUTHOUSE:** And you strongly
2 recommended that there should not be a minimum efficiency
3 target set.

4 **MR. TRAVIS:** That's correct.

5 **MR. OUTHOUSE:** The biomass chip;
6 right?

7 **MR. TRAVIS:** That's correct.

8 **MR. OUTHOUSE:** And Synapse ultimately
9 accepted that recommendation as well.

10 **MR. TRAVIS:** Yes, that's correct.

11 **MR. OUTHOUSE:** And in that same letter
12 you recommended against the use of a back pressure
13 turbine, correct?

14 **MR. TRAVIS:** That's correct.

15 **MR. OUTHOUSE:** And Synapse accepted
16 that as well, ultimately?

17 **MR. TRAVIS:** Correct.

18 **MR. OUTHOUSE:** So, ANS has, throughout
19 these proceedings, and I mean from the start, expressed
20 concern about the tariff being set too low; that's
21 correct?

22 **MR. TRAVIS:** Well, we're just

1 interested in making sure that the feed-in tariff is set
2 based on costs, reasonable return.

3 **MR. OUTHOUSE:** Sure. And by too low I
4 meant too low to make it worthwhile for the sawmills to
5 become involved in biomass projects.

6 **MR. TRAVIS:** Yes.

7 **MR. OUTHOUSE:** You were looking at the
8 cost of your project and what that would do; correct?

9 **MR. TRAVIS:** Yes, we engaged Mr. Hayes
10 and Mr. Bodington to give us an assessment of what a power
11 plant would cost based on a -- what we've determined, as
12 best we could, a reasonable size sawmill within Nova
13 Scotia.

14 **MR. OUTHOUSE:** And while you didn't
15 have Mr. Hayes' information or Mr. Bodington's information
16 to bring forward until Synapse had finalized its tariffs,
17 you were making input all the way along?

18 **MR. TRAVIS:** That's correct.

19 **MR. OUTHOUSE:** And as a result of your
20 input and others, presumably, Synapse's biomass rate, as I
21 recall, probably more than doubled from its initial
22 presentation in December till its final tariff end of
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 February.

2 **MR. TRAVIS:** Yeah, their initial
3 presentation in December was based on EPA 2007, a study
4 for a 1-megawatt back pressure turbine.

5 **MR. OUTHOUSE:** Sure. So that's what
6 had -- that's what had happened in that process?

7 **MR. TRAVIS:** Yes.

8 **MR. OUTHOUSE:** Okay. So you're not
9 telling the Board that Synapse's tariff or in developing
10 its tariff that Synapse ignored the representations that
11 your group and others made to it?

12 **MR. TRAVIS:** No. Synapse was very
13 open with their discussions with us and so on and we were
14 quite pleased with the access that we had.

15 I mean, the only caveat I would say,
16 at the end we offered Synapse to -- we offered to discuss
17 after had our capital cost study done and had Mr.
18 Bodington's information in and we had our model assembled,
19 we offered that we have a discussion prior to this
20 hearing.

21 **MR. OUTHOUSE:** Yes.

22 **MR. TRAVIS:** Such that we might be

1 able to resolve some issues and not spent perhaps as much
2 time at the hearing, but they declined to do that given --
3 you know, the timeframe was tight so we understand that.

4 **MR. OUTHOUSE:** That offer was made, I
5 think, in the last -- or last week, prior to the hearing.

6 **MR. TRAVIS:** Yeah, I believe it was
7 two weeks, Nancy, prior to the hearing, is that correct?

8 **MR. OUTHOUSE:** I know the offer was
9 for last Thursday or Friday but I don't know when it was
10 made. I guess Ms. Rubin knows.

11 **MS. RUBIN:** The offer was made at the
12 time that the request for an extension of time for the
13 filing of evidence which would have been a little over two
14 weeks before the start of the hearing, that was the
15 purpose of the request, and then there were some question
16 about scheduling, when the meeting or discussion could
17 take place.

18 **MR. OUTHOUSE:** I really don't want to
19 get into it because I think my recollection is different
20 than Ms. Rubin's in the sense that at the time the request
21 was made she was not going to be here but subsequently her
22 schedule opened up.

1 So I'm not sure, I know Nancy sent an
2 email, I'm not sure when it was but the offer was made for
3 last Thursday or Friday.

4 **MR. TRAVIS:** Certainly. And I'd like
5 to ---

6 **MR. OUTHOUSE:** After Mr. Travis filed
7 his last piece of evidence which was on the 21st or
8 something.

9 **THE CHAIR:** Does anything turn on
10 this?

11 **MR. OUTHOUSE:** Pardon?

12 **THE CHAIR:** Does anything turn on
13 this?

14 **MR. OUTHOUSE:** Not really. Not
15 really.

16 I didn't want it to appear that
17 Synapse turned them down for no good reason.

18 In any event, Mr. Travis, you
19 certainly recognize that Synapse was responsive to many of
20 your -- I won't say demands -- many of your
21 representations throughout this process?

22 **MR. TRAVIS:** Yes, we were very happy

1 at the level of -- Geoff very accessible and we were very
2 happy at the level of discussion that they provided with
3 us and the level of accessibility.

4 **MR. OUTHOUSE:** Okay. I want to take
5 you to the text of your evidence.

6 **MR. TRAVIS:** Sure.

7 **MR. OUTHOUSE:** Page 9. Sorry, page 3.

8 **MR. TRAVIS:** Page 3.

9 **MR. OUTHOUSE:** Those are the nine --
10 there's nine points that you make on that page.

11 **MR. TRAVIS:** Yes.

12 **MR. OUTHOUSE:** And as I understand it,
13 if the Board were to accept all of those recommendations
14 that you've made there ---

15 **MR. TRAVIS:** Yes.

16 **MR. OUTHOUSE:** --- one through nine,
17 has now taken into account ---

18 **MR. TRAVIS:** Sure, the revised number?

19 **MR. OUTHOUSE:** B-20.

20 **MR. TRAVIS:** Sure, \$320 per megawatt
21 hour is our final -- that includes those nine
22 recommendations, yeah.

1 **MR. OUTHOUSE:** Okay. And I think what
2 you said yesterday, that under a rate like that your
3 estimate is that four of the six members of the Alliance
4 would probably develop projects.

5 **MR. TRAVIS:** Yeah. I mean, it's
6 really difficult for me to comment on other people's
7 businesses because I don't have the level of detail that
8 you really need to have to assess whether or not those
9 folks can develop a project.

10 But if I had to make an estimate today
11 I would say that probably, you know -- groups -- as it
12 stands today, I believe the mill is still shut down in
13 Nova Scotia. So discounting them, if they come back
14 online, I'm not certain whether they would participate.

15 So it's highly speculative, I guess,
16 but, you know, it would be something in that rate.

17 **MR. OUTHOUSE:** Three or four through
18 would be realistic?

19 **MR. TRAVIS:** I think so, yeah. I
20 think so.

21 **MR. OUTHOUSE:** Okay. And so at least
22 as compared to the Synapse rate there would be three or

1 four plants who would be receiving \$320 per megawatt hour
2 as compared to 156 if we're just looking at that
3 comparison.

4 **MR. TRAVIS:** That's correct.

5 **MR. OUTHOUSE:** And for a 2-megawatt
6 plant would you accept that the annual generation is about
7 12,600 megawatt hours?

8 **MR. TRAVIS:** Let me just double check
9 that with Mr. Hayes. Are you referencing Synapse's model?

10 **MR. OUTHOUSE:** That's where I got the
11 number.

12 **MR. TRAVIS:** Yeah. So that is not
13 including the parasitic power loss that we had previously
14 discussed.

15 **MR. OUTHOUSE:** Sure. But you're
16 tending to -- okay, does that go down? Because I
17 understood you were buying the parasitic power loss off
18 the grid -- that was your intention -- and selling gross
19 output.

20 **MR. TRAVIS:** That's true but they
21 don't include that in their analysis so they would have to
22 include the purchase of that parasitic power load. And so
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 I just put that caveat to that.

2 **MR. OUTHOUSE:** Okay. Would it be
3 close to 12,600?

4 **MR. TRAVIS:** Yes. Provided you, you
5 know, the purchase the parasitic power load correct.

6 **MR. OUTHOUSE:** Mr. Hayes, close?

7 **MR. HAYES:** Yes.

8 **MR. OUTHOUSE:** Yes. Okay. So that
9 difference between those two rates, the difference between
10 those two rates at that generation would be about \$2
11 million per year per plant?

12 **MR. TRAVIS:** Would you like me to
13 double check that as well?

14 **MR. OUTHOUSE:** Subject to check I ---

15 **MR. TRAVIS:** Okay. I'm just going to
16 open our model up and have a look at their model. Is it
17 good?

18 **MR. HAYES:** Yeah it's good.

19 **MR. TRAVIS:** Sure, that's good.

20 **MR. OUTHOUSE:** Yeah, okay. So -- well
21 there's always a question of judgment how many would be
22 developed under which rate, if one project was developed

1 under the Synapse rate -- of course we know we have one
2 proponent saying we would develop but if you had one
3 project developed under the Synapse rate it would receive
4 in effect \$2 million per year more than it was prepared to
5 bill for.

6 And so over the life of that plant
7 you'd be looking at \$40 million per plant; is that right?

8 **MR. TRAVIS:** Would you mind repeating
9 that?

10 **MR. OUTHOUSE:** Well, if it's \$2
11 million per year, if you have one plant that's prepared to
12 build under the Synapse rate, if you got one plant under
13 the Synapse rate you'd be paying it 2 million less a year
14 than under your rate. Which means that over the life of
15 the project that plant would be paid 40 million more ---

16 **MR. TRAVIS:** Mr. Outhouse, we're
17 suggesting that there be no plants.

18 **MR. OUTHOUSE:** I realize that. I'm
19 just ---

20 **MR. TRAVIS:** I'm strongly suggesting
21 that there's going to be no plants built.

22 **MR. OUTHOUSE:** Okay.

1 **MR. TRAVIS:** So I'm not sure if that
2 analysis is, you know -- I mean, we can talk about that
3 but I would suggest quite strongly that there will be no
4 plants.

5 **MR. OUTHOUSE:** All right.

6 **MR. TRAVIS:** Certainly not from the
7 sawmills.

8 **MR. OUTHOUSE:** I didn't say by the
9 sawmills.

10 **MR. TRAVIS:** Okay, sure.

11 **MR. OUTHOUSE:** I didn't say by the
12 sawmills.

13 **MR. TRAVIS:** Yeah, we have one
14 gentleman -- I don't believe Mr. Lisi's here today at the
15 hearing.

16 **MR. OUTHOUSE:** No.

17 **MR. OUTHOUSE:** I should have said --
18 and I don't know whether I did, Mr. Chairman, for the
19 record; he had sent a letter to the Board indicating he
20 was ill and would not be able to attend, other than
21 monitor the broadcast.

22 Mr. Travis, are you aware of any

1 biomass rate in North America today that is \$320 or
2 anything approaching it?

3 **MR. TRAVIS:** I am not.

4 **MR. OUTHOUSE:** Anything at 200?

5 **MR. TRAVIS:** No, I'm not.

6 **MR. OUTHOUSE:** Anything higher than
7 the Synapse rate anywhere in North America today for
8 biomass CHP?

9 **MR. HAYES:** Yes, we've seen -- I don't
10 know if I can count them off the top of my head a number
11 of PPAs signed for higher than the Synapse rate. Not
12 tariffs. And there's a distinction there, as I'm sure
13 you're well aware because ---

14 **MR. OUTHOUSE:** Yes.

15 **MR. HAYES:** --- you know the PPA is
16 based on that specific project but -- and you're deciding
17 a tariff here so they're different but there are rates
18 higher than the Synapse rate in North America.

19 **MR. OUTHOUSE:** There are PPAs higher?

20 **MR. HAYES:** There are PPAs higher. I
21 don't know of any tariffs higher.

22 **MR. OUTHOUSE:** Any tariff that's
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 higher. Those would be negotiated between the individual
2 utility and the project?

3 **MR. HAYES:** Yes.

4 **MR. OUTHOUSE:** Talking about the
5 supplying utility, the regulated utility and the supplier?

6 **MR. HAYES:** Typically they're
7 negotiated between the non-regulated utility and the
8 supplier. Very few utilities in the States will sell the
9 PPAs directly to an individual facility like that.

10 They typically sell to wheeling
11 agencies or larger entities who will gather up the power
12 and then sell them in bulk. But I don't know that that
13 changes the concept.

14 And, sorry, while I have my mic on I
15 just wanted to make one comment because it kind of came
16 out of something that was just said.

17 You know, I don't think I disagree
18 with any of the information that Mr. Keith has provided
19 about who's in queues in Vermont and Ontario. We look at
20 it from a different perspective because the queue means
21 absolutely nothing to us as an EPC contractor.

22 We're trying to build projects and so

1 we only look at it from the perspective of who's actually
2 proceeding forward. I don't -- you know, if I came across
3 as disputing anything that you were saying earlier about
4 what's on line information I was not.

5 I was simply talking to our knowledge
6 as a builder of who's actually building not who's in a
7 queue or who's not in a queue. And I think the Board
8 probably has lots of experience with people in queues who
9 don't eventually build.

10 **MR. OUTHOUSE:** And I didn't understand
11 that you were disputing what was in the queue, Mr. Hayes
12 so -- and I also heard you say that, you know, this is
13 what it is today. If something changed tomorrow they'd be
14 back and running.

15 **MR. HAYES:** Absolutely. And that's
16 obviously the nature of these -- you know, the number in
17 the queue right now if something economically having
18 nothing to do with the PPA were to change, you know, that
19 might suddenly spur a growth in any of those queues.

20 So it was simply an analysis of as the
21 EPC contractor who we want to try and go talk to to get
22 business.

1 **MR. OUTHOUSE:** Yeah sure. I
2 understand. I understand the difference in perspective.
3 All right.

4 I want to come to the last subject and
5 I'll try to be as quick as I can, and that's the fuel
6 risk.

7 **MR. TRAVIS:** Sure.

8 **MR. OUTHOUSE:** And the reopener.

9 **MR. TRAVIS:** Sure.

10 **MR. OUTHOUSE:** And on page 9 of your
11 evidence, Mr. Travis, you deal with that. And you suggest
12 two options and they've been discussed here.

13 **MR. TRAVIS:** Yes.

14 **MR. OUTHOUSE:** The first one which is
15 a fuel adjustment mechanism whereby the cost of fuel is
16 simply passed through to the electricity rate as is done
17 with NSPI.

18 And with respect to that option ---

19 **MS. HAYES:** Yes.

20 **MR. OUTHOUSE:** --- you're aware that
21 NSPI absorbs the first \$5 million of fuel variance risk?

22 **MR. TRAVIS:** No, I was not aware of

1 that.

2 MR. OUTHOUSE: Okay, your mechanism
3 doesn't propose any absorption of a band of risk by the --
4 -

5 MR. TRAVIS: Well, I believe that it
6 should have a band of risk, certainly; that, you know, I
7 think as I understand it there's a percentage above and a
8 percentage below. If you go above you get a kind of a --
9 you don't get -- you know, there's a penalty and if you go
10 below you get a reward so I think that there has to be a
11 driver for us to keep our cost of fuel low.

12 There has to be a -- definitely has to
13 be built in there and we would absolutely accept that.

14 MR. OUTHOUSE: You haven't put it in
15 here but you're saying it would be accepted?

16 MR. TRAVIS: Absolutely no question,
17 Mr. Outhouse, that we fully accept that.

18 MR. OUTHOUSE: And I guess with NSPI,
19 as you appreciate, it's one fuel cost. That is to say it
20 is one company that you're dealing with. There's an
21 elaborate process, planned administration this thick,
22 auditors ---

DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 MR. TRAVIS: Sure.

2 MR. OUTHOUSE: --- monitoring the
3 costs, proceedings every year to deal with that. As I
4 read the proposal and some of the back-up material it
5 almost sounded as if the sawmillers were looking for
6 individual protection; that is to say, I'm sawmill X, my
7 fuel costs were Y and I've submitted the bills, pay me.

8 MR. TRAVIS: Right.

9 MR. OUTHOUSE: And so you would wind
10 up with that sawmill getting one fuel adjustment, another
11 sawmill located nearby or perhaps in another part of the
12 province entirely getting a higher fuel adjustment.

13 MR. TRAVIS: Right.

14 MR. OUTHOUSE: Is that what you
15 envisage?

16 MR. TRAVIS: Yes. That -- initially
17 it was one option. On reflection it would appear to be,
18 you know, the mechanics of that are obviously difficult.
19 So perhaps an aggregate or an average of fuel costs
20 between the plants may be more appropriate.

21 MR. OUTHOUSE: Sure. And how would
22 that work? And I'm just wondering if that would satisfy

1 anything because I heard Mr. Bodington yesterday ---

2 **MR. TRAVIS:** Yeah, perhaps Mr.

3 Bodington ---

4 **MR. OUTHOUSE:** --- talk --

5 specifically about local ---

6 **MR. BODINGTON:** Let me add just a
7 couple of quick points there. I think what Mr. Travis is
8 describing would work. There has to be some way to shift
9 -- you've heard me say over and over again -- risk out of
10 the project.

11 That risk would be shifted out of the
12 project with some mechanism that was based on a plant's
13 actual fuel costs. If a mechanism is adopted which is not
14 plant-specific then an investor's next question will be
15 how is your plant different than the plant assumed or the
16 methodology assumed for the adjustment and what are the
17 risks associated with your difference from the
18 methodology?

19 I'll also point out that this problem
20 has been faced before, and actually Michigan has a statute
21 under which individual biomass plants submit their fuel
22 costs to the utility and are paid dollar for dollar the
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 overage that is in excess of the fuel that's already paid
2 for within the PPA.

3 So an approach which looks at a plant-
4 specific fuel cost passed through has been done, is being
5 done in Michigan, just as an example.

6 **MR. OUTHOUSE:** So if I look at the
7 NSPI model -- and I don't know how you ever could police
8 it otherwise without doing audits of all those costs,
9 making sure that somebody wasn't buying from their
10 brother-in-law at inflated prices and all the things that
11 go with that -- are you suggesting that that would be a
12 workable mechanism on a per-plant basis?

13 **MR. BODINGTON:** Are you addressing Mr.
14 Travis or me, or both of us?

15 **MR. OUTHOUSE:** I just ---

16 **MR. BODINGTON:** Okay. I will say that
17 I know this program has been under way for -- it's at
18 least five years in Michigan. I could site the
19 legislation and exactly how long it's been; I just don't
20 remember as I sit here now.

21 I agree with you; yes, there are
22 questions about would people honestly comply and how do

1 you know that these are their real fuel costs and do you
2 want to build in incentives? Those are legitimate
3 questions. I know that there have been some audits in
4 Michigan, but I don't know the details of how those issues
5 are grappled with in Michigan.

6 **MR. OUTHOUSE:** And it would be
7 complicated further, would it not, by the fact that all of
8 the sawmillers would have a certain amount of self-supply
9 and you would have to put a value on that, correct?

10 **MR. BODINGTON:** That certainly would
11 be an important consideration, I agree.

12 **MR. OUTHOUSE:** All right.

13 I want to go to the second option just
14 for a moment which is the reopener.

15 **MR. TRAVIS:** Yes.

16 **MR. OUTHOUSE:** And as I understand it,
17 what you're saying is this option would be to take the
18 proposed index by Synapse, the index proposed by Synapse
19 ---

20 **MR. TRAVIS:** Right.

21 **MR. OUTHOUSE:** --- let it run?

22 **MR. TRAVIS:** Yes.

1 **MR. OUTHOUSE:** And have either a set
2 periodic review or a trigger that would be based on the
3 index, not tracking actual fuel costs; in other words, a
4 petition basis almost, and come in and look at how it is
5 tracking?

6 **MR. TRAVIS:** What would be
7 preferential is almost a formula type situation where you
8 have every, call it, two years, the Board is given fuel
9 cost information and based on that fuel cost information,
10 through a formula, makes an automatic adjustment up or
11 down of the fuel portion of the COMFIT.

12 So if the cost is actually going lower
13 than what was proposed in the COMFIT, then the cost going
14 forward for the feed-in tariff drops, and vice versa.

15 **MR. OUTHOUSE:** And what if it's going
16 down for one plant and not for another? Because I
17 understand that that could happen?

18 **MR. TRAVIS:** Yeah, there are regional
19 differences. I would say, Mr. Outhouse, that no solution
20 is perfect. We understand that. But this one is, for us,
21 much, much better than a 20-year fixed. It's difficult to
22 get a perfect solution. We do understand that those risks

1 are there, but it's difficult to get a perfect solution.

2 That's also another motivator to keep
3 the fuel costs down because you don't know what your
4 neighbour is doing and everybody has got to make sure they
5 try to keep that fuel cost as low as they can in between
6 those years, and that competition, in the subsequent years
7 coming, when you get to readjust, you should see some of
8 that competition in there to keep that fuel cost ---

9 **MR. OUTHOUSE:** I don't understand what
10 you mean. You refer to competition ---

11 **MR. TRAVIS:** Sure.

12 **MR. OUTHOUSE:** --- and I don't see it,
13 because (a) in terms of your electricity, you've got a
14 guaranteed market.

15 **MR. TRAVIS:** Sure, yes.

16 **MR. OUTHOUSE:** And so it doesn't
17 matter.

18 **MR. TRAVIS:** Right.

19 **MR. OUTHOUSE:** You're going to sell
20 the same amount of electricity, nothing to do with what
21 the other mills may be doing.

22 **MR. TRAVIS:** Right, sure.

1 MR. OUTHOUSE: And if you're going to
2 get a pass-through ---

3 MR. TRAVIS: Right.

4 MR. OUTHOUSE: --- a complete pass-
5 through ---

6 MR. TRAVIS: I'm going to try to get
7 that fuel cost -- because I'm going to try to get that
8 fuel cost lower than what the established cost is. I'm
9 going to try to. Now, whether I'm successful or not,
10 we'll see. I don't know. And I'm going to try to see if
11 I can get that lower. I'm going to try to drive that down
12 below to see if I can increase the return.

13 Now, whether I can do that or not is
14 subject, of course -- there's only a latitude -- a small
15 latitude in there, give or take, to beat the market,
16 right? So it forces me to go and seek out -- instead of
17 being lazy and calling the same guy all the time for the
18 fuel price, it forces me to go around to different -- same
19 way we do with lumber today, to try to go around, call the
20 different people, the suppliers, and say, "Okay, what's
21 your price?" and try to get that cost as low as I can. So
22 that's the incentive.

8 If you have a fixed -- you know, Mr.
9 Simpson had a piece of evidence that he had submitted. It
10 was with respect to the pulp chip price index for the
11 Atlantic provinces, and granted, you know, the scope of
12 that is large, but it illustrates the tenuous situation
13 you get into.

21 And in the same respect, to protect
22 the ratepayers' interest, if today we're at a high market
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 and we fix it in today's prices, it's going to be a
2 significant overpayment to the biomass CHP proponents if
3 you don't have these periodic adjustments to make sure
4 that the fuel cost is actually reasonably tracking the
5 actual market.

6 And so we think it works to the
7 benefit of both proponents.

8 **MR. OUTHOUSE:** When you say "actual
9 market", Mr. Travis, I'm assuming you're meaning an
10 average market?

11 **MR. TRAVIS:** Yeah, to the extent that
12 you can get -- I mean, that's -- I don't really know how
13 to get it any better than that. I mean, you know, it's
14 not absolutely perfect, but it's something we would have
15 to -- it's significantly improved over a fixed 20 years
16 without any ---

17 **MR. OUTHOUSE:** I just want to ask you
18 a couple more questions for clarity.

19 **MR. TRAVIS:** Sure. Sure.

20 **MR. OUTHOUSE:** You're looking at a
21 forward reopener. You're not looking at retroactively
22 compensating people for what's happened in the last two

1 years, making repayments for what's ---

2 MR. TRAVIS: That's correct.

3 MR. OUTHOUSE: --- happening in the
4 last few years?

5 MR. TRAVIS: That's right. It's not
6 like the NSPI FAM where you get re-compensated, correct.

7 MR. OUTHOUSE: And I guess the other
8 thing with respect to it is you indicated that there would
9 be an incentive to beat the current price; that is, you've
10 got a built-in price now ---

11 MR. TRAVIS: Sure.

12 MR. OUTHOUSE: --- and if you can beat
13 that price, you get to keep it, but what you're saying is
14 you'd only get to keep it for a year or two, whatever the
15 reopener was, and then you would lose it.

16 So you think that would be an
17 effective incentive to, as you say, work hard to get your
18 fuel costs down, knowing that if you succeed, the result
19 is going to be the price is going to be lowered in a year
20 or two years' time?

21 MR. TRAVIS: I promise you that if I

22 have to go to get that much more out of that rate, I will
DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 beat that wood price down. We do that every day in our
2 business and I promise that we'll do that, no question.
3 If there's a little bit of incentive in there to go in
4 there, we'll definitely go after the price and try to
5 drive it lower. That's just the nature of the beast in
6 the private sector, and certainly the nature of how
7 Marwood operates.

8 **MR. OUTHOUSE:** Thank you, Mr. Travis.

9 Just give me a second. Sorry, you
10 wanted to say something?

11 **MR. BODINGTON:** I have two things to
12 add to what Mr. Travis said, but if you need to confer,
13 I'm happy to ---

14 **MR. OUTHOUSE:** I was only going to
15 confirm that I had nothing else to ask.

16 **MR. BODINGTON:** Oh, all right. Let me
17 add two more points.

18 Mr. Travis mentioned the benefit of a
19 formulaic reopener, and I want to elaborate on that a
20 little bit. I'm not sure what Mr. Travis meant, but
21 you've heard me say many times that the key from a
22 financing perspective is a transfer of risk.

1 If the reopener includes material
2 discretion on the part of some party such as the Board,
3 that will not be an effective transfer of risk. It will
4 not be effective, therefore, in reducing the cost of
5 capital.

6 And the reason it won't be an
7 effective transfer of risk is that the investors' question
8 to me is going to be, "What happens when that reopener
9 comes up toward the decision maker?"

10 The investor will say, "I care about
11 are my fuel costs being covered." And to the extent that
12 a decision maker's job is to balance other influences such
13 as what is the cost to ratepayers, that decision maker
14 could decide not to allow a full transfer of risk out of
15 the project.

16 And to the extent that that is a risk,
17 my investors are going to say that discretion means that
18 this risk transfer is not effective; therefore, I need to
19 be compensated for keeping that risk.

20 The second point that I wanted to
21 elaborate on is Mr. Outhouse has talked about putting
22 incentives in place, and Mr. Travis talked about
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 incentives to try to keep fuel costs down so that it would
2 benefit ratepayers.

3 In situations like that, what we have
4 seen is things such as the adjustment provides for
5 reimbursement of 95 percent of costs or some ratio so that
6 there is an almost total but formulaic transfer of risk,
7 but there remains some incentive for the party to control
8 costs.

9 **MR. OUTHOUSE:** Mr. Bodington, just to
10 be clear, as I understood the evidence of Mr. Travis, in
11 his written evidence and on the stand, that the cost of
12 equity would be 13 percent with a reopener as he's
13 described it. And I assume within that was an average
14 fuel cost.

15 Are you saying that's not so?

16 **MR. BODINGTON:** I think that I am
17 saying something different, that the 13 percent in my view
18 does include a transfer of risk for the subject project, a
19 transfer of fuel risk out of the project that's going to
20 be built.

21 And to the extent that the risk for
22 that project is different from the average, that's

1 something I haven't thought about. It's difficult to
2 think about that in the abstract.

3 I don't know how different the average
4 would be from any particular project, but I can imagine a
5 situation where in the case of a particular project you
6 would say, "Well, because of my location, because of
7 what's going on in the forest where I am" -- we talked
8 yesterday about how local fuel costs are -- "or because of
9 what my product is and what my chips may be costing, my
10 fuel cost is substantially different and uncorrelated with
11 the average," so that is not an effective mechanism for
12 transferring risk.

13 What I just described is entirely
14 theoretical. We'd need to deal with it with exactly what
15 average and exactly what plant in order to assess that
16 risk and whether or not the risk transfer is effective.

17 **MR. OUTHOUSE:** But I guess, at least
18 as I understand your answer, the 13 percent is based on a
19 complete transfer of a fuel risk outside the project.

20 **MR. BODINGTON:** That's correct,
21 subject to a small incentive as I described it, yes.

22 **MR. OUTHOUSE:** Sure. So basically,
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 what you're looking at is the risk -- the project would
2 have a feed-in tariff at a set rate, would sell all the
3 power it could produce at that rate so its only risk would
4 be in plant operation and construction. And for that, it
5 gets 13 percent.

6 **MR. BODINGTON:** And development.
7 That's correct.

8 **MR. OUTHUSE:** Okay. All right.
9 Those are all my questions.

10 **QUESTIONS FROM MR. DOEHLER**

11 **MR. DOEHLER:** I just have a few
12 questions. I want to pursue this fuel issue just a bit
13 more.

14 **MR. TRAVIS:** Sure.

15 **MR. DOEHLER:** And if I understand,
16 when you have these boilers right now, they're running
17 your kiln ---

18 **MR. TRAVIS:** Yes.

19 **MR. DOEHLER:** --- right, at 15 psi,
20 whatever it is.

21 **MR. TRAVIS:** Correct.

22 **MR. DOEHLER:** And I know you said you

1 have a whole bunch of boilers, different fuel sources,
2 whatever.

3 **MR. TRAVIS:** Right.

4 **MR. DOEHLER:** But isn't the idea to
5 try and use your waste that you have that is not going
6 anywhere anyways, the biowaste or whatever you want to
7 call it?

8 **MR. TRAVIS:** Yes. And we'll do so.
9 And different plants have different amounts of that waste.
10 In Marwood's case, we're a secondary
11 manufacturer, so we would expect we probably have
12 somewhere around, maybe around 20 percent or 30 percent of
13 our own waste product available from our manufacturing
14 facility.

15 **MR. DOEHLER:** So this will vary all
16 over the place and the idea, really, is just stuff
17 sticking around that has no value unless you burn it and
18 somehow can (inaudible) steam.

19 **MR. TRAVIS:** Oh, no, that's not
20 correct at all.

21 There's a market value, certainly, for
22 the wood fibre. NewPage, as an example, is going to
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 construct a 60-megawatt power plant, and they're going to
2 need fuel for that power plant. And you know, there's a
3 market for that product.

4 Certainly it's not a valueless -- by
5 any means is it a valueless product.

6 **MR. DOEHLER:** So therefore, the
7 sawmill will do an equation of saying yes, I can sell it
8 or I can run it through my own boiler to run my kiln, and
9 so it's just a value judgment on that.

10 So here is a cost of amount of fuel
11 they have to buy just to run their kiln at 15 psi, or to
12 heat the kiln. Okay.

13 Then if I understood yesterday, Mr.
14 Hayes said something along the line that you get the water
15 to a certain temperature, you boil the stuff, to super-
16 temperature like 600 psi or whatever you want to do, is 20
17 percent of the fuel to jump at that next bit?

18 **MR. HAYES:** So the reality of it is
19 that water has a BTU value per pound somewhere -- warm
20 water somewhere in like the 100 to 150 BTU per pound
21 range. So 100 to 150.

22 It takes about 900 BTUs per pound to

1 boil the water. To get it from 1,000 BTUs at basically
2 100 degrees Celsius atmospheric pressure, to get it from
3 that point to 650, 750 takes about 200 BTUs.

4 So if you look at that 900 goes into
5 boiling it, an additional 200 to 250, somewhere in that
6 range, goes into raising the pressure and temperature, if
7 you go to a utility unit you're going up to 13, 1,350 in a
8 high-pressure utility unit, it's still only a small
9 percentage of the energy required to actually cause the
10 phase change from water to steam.

11 **MR. DOEHLER:** So therefore, the
12 philosophical argument would be for the CHP plant which is
13 being debated here is that the only cost we should look at
14 is 20 percent of fuel cost, roughly, because it's the only
15 thing that's going for electricity. The rest is because
16 you need it anyways.

17 **MR. HAYES:** Yes, sir. That's the
18 argument that I believe Synapse is trying to make, is that
19 they're regarding the threshold for both capital and
20 operating costs be laid off on the heat user, the steam
21 user, and that's their benchmark for trying to guarantee
22 that it's a CHP plant.

DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 **MR. DOEHLER:** I want to go now to your
2 handout that you gave us this morning, B-20, which is
3 response to U-10.

4 **MR. TRAVIS:** Yeah, sure.

5 **MR. DOEHLER:** And it's on the -- I'm
6 not sure. You don't have the pages numbered.

7 **MR. TRAVIS:** Sorry.

8 **MR. DOEHLER:** It's the third page in
9 where it's, "biomass CHP cost scenarios; scenarios in 2012
10 dollars."

11 **MR. TRAVIS:** Yeah.

12 **MR. DOEHLER:** I just want to
13 understand if I understand the columns here.

14 **MR. TRAVIS:** Sure.

15 **MR. DOEHLER:** So the first one is the
16 value for steam only. So this is if you were ---

17 **MR. TRAVIS:** Yeah. This is you built
18 an 18,000 pound boiler at 15 psi. This is what ---

19 **MR. DOEHLER:** You would use as a
20 sawmill to ---

21 **MR. TRAVIS:** Yeah, that's right.

22 **MR. DOEHLER:** --- run your kiln.

1 MR. TRAVIS: Yeah.

2 MR. DOEHLER: And then the gross sale
3 for a CHP scenario, which is the whole thing, all in.

4 MR. TRAVIS: That's right. That's the
5 power plant at 2.414 megawatts as designed by ESI.

6 MR. DOEHLER: And then the middle one,
7 though, "shared value steam-only scenario," what are those
8 numbers all about?

9 MR. TRAVIS: Yes. What we're talking
10 about there, and that's to our point that, you know,
11 Synapse argues that the cost of -- you know, they argue
12 that you would have had to build a boiler anyway to get
13 your steam so that the ratepayer shouldn't have to pay the
14 costs associated with the capital, the O&M, or the fuel in
15 to generate that steam.

16 And our argument is that you could
17 easily argue that the other way around. You could say in
18 order to make renewable electricity from biomass, you
19 would have had to produce all that steam to go through the
20 turbine and, therefore, our incremental cost should only
21 be the cost associated with putting a CHP plant in.

22 And recognizing that electricity

1 generation requires the boiling of water in the same way
2 that a dry kiln -- the heat to get to a dry kiln requires
3 the boiling of water, too. Both products require the
4 boiling of water.

5 And we recognize that you could go
6 from one extreme to the other and the ratepayer could say,
7 "Well, you take all the cost," and we could say, "No, no,
8 no, no. You guys should bear all the costs because you
9 would have otherwise had to build a power plant with steam
10 in it anyway."

11 We said, "Look, it's -- we think it's
12 equitable to settle someplace in the middle and say, look,
13 we'll both bear the costs of generating that steam because
14 we both benefit from it."

15 We produce electricity with that steam
16 and we produce -- obviously produce heat for our dry kilns
17 and so, you know, we tried to figure out a mathematical
18 engineering approach and divide that cost. It doesn't
19 exist. I would have put it in here certainly if I could
20 have figured out.

21 So I said, look, we'll get arbitrage
22 saying, you know, we both recognize we're producing

1 products here, electricity and steam. I clearly know that
2 it's not right to dump it all on the electricity ratepayer
3 and I know it's not right to dump all the cost on the heat
4 user because we share the steam.

5 So what I've done in the middle column
6 there is I said take all the boiler only costs and divide
7 it by two to split it, and then that's the net value that
8 the ratepayer has to pay.

9 So we absorb some of the costs and so
10 does the ratepayer, I guess.

11 **MR. DOEHLER:** So is your philosophy --
12 -

13 **MR. TRAVIS:** Correct.

14 **MR. DOEHLER:** --- using Synapse's
15 philosophy, I take the 19 million 380 and subtract
16 5,741,000.

17 **MR. TRAVIS:** Yeah. Down at the
18 bottom, that's right. You would take -- that's right.
19 Using Synapse's philosophy, you would take the total
20 boiler cost and subtract it from the CHP cost, and that
21 would put all of the costs on the steam user. Correct.

22 **MR. DOEHLER:** Then also, as I
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 understand it, this is for a 15 psi system and Synapse, I
2 believe, in their model used 100 psi system, so those
3 numbers, 5.7 million, would be a little higher.

4 And I know you didn't calculate it,
5 but just it would be higher. But 100 psi is not used in
6 sawmills.

7 **MR. HAYES:** That's correct. A hundred
8 (100) psi is not used in sawmills. There would be an
9 incremental cost to go from 15 psi saturated to 100 psi
10 saturated. It'd be pretty -- it would still be pretty
11 small.

12 Where you really hit the delta is when
13 you put the super-heated steam in. The cost of the super-
14 heater, a temporator, the high-pressure-feed water pumps,
15 those things are where you start to see a bigger delta.

16 But you are correct that there would
17 be a change from Synapse's valuation of the 75 to 100 psi
18 model versus a 15.

19 The 15 would be a shop-assembled truck
20 shift unit that you could just pop down and hook up.

21 **MR. DOEHLER:** So it's the 100, 600 or
22 700 psi where all of those costs come in.

4 **MR. DOEHLER:** And I think also, if I
5 heard correctly, we're talking about efficiency and that
6 the smaller plants -- and Mr. Bodington, you alluded to it
7 -- I mean, is the smaller plants really are not as
8 efficient; it's the larger ones. And so that that is why
9 these costs are driven so high.

13 MR. DOEHLER: Yeah.

20 MR. DOEHLER: And so I guess, then,
21 going the corollary of that is that if you said, okay,

CERTIFIED COURT REPORTERS

1 that this rate could make it all work, you're now not just
2 a CHP. You're essentially electricity driven with steam
3 as a small component.

4 **MR. BODINGTON:** Yes. And that's
5 something that came up yesterday, and I think I mis-spoke
6 about when we were talking about St. F.X. You know, the
7 Synapse point, and Mr. Keith pointed this out yesterday,
8 essentially their steam host component is very small
9 compared to the electrical generation component that they
10 had in the study, which was not based on this particular
11 model. It was just one they had around that they
12 refreshed.

13 But in that analysis, yes, I mean,
14 you're essentially building a much larger generating
15 facility and it has a very small CHP component to it.

16 And in that analysis, then you are
17 certainly lowering the overall thermal efficiency of the
18 system. But the cost/benefit analysis is that you're
19 getting cheaper power. You're getting significantly
20 cheaper power.

21 **MR. DOEHLER:** Thank you.

22 **QUESTIONS FROM MR. DEVEAU**

1 MR. DEVEAU: I have just one question,
2 Mr. Travis.

3 In terms of the cost, you know, the
4 reopener or the adjustment mechanism, just give us an
5 idea, if you can, of what's the range of markets in Nova
6 Scotia.

7 I realize Mr. Bodington spoke
8 yesterday of, you know, these micro markets or micro
9 regions and I realize that this happens, but just perhaps
10 give us an idea in Nova Scotia what the reality is.

11 You know, are we talking three or four
12 different markets; you know, Cape Breton, western Nova
13 Scotia, eastern Nova Scotia, are there ---

14 MR. TRAVIS: Yeah, sure.

15 I would probably divide it into three.
16 I would say central Nova Scotia, northern sort of Cape
17 Breton area and then southern Nova Scotia has maybe a bit.
18 Those three areas probably have -- may vary a little bit
19 in markets there.

20 They have -- central Nova Scotia has a
21 lot of the sawmills and within reasonable range to the
22 pulp mills. Now, southern Nova Scotia has very few

1 sawmills, has one pulp mill. And you know, in Cape Breton
2 you've got -- you know, you've got Port Hawkesbury up sort
3 of in that range.

4 And I'm not sure in terms of large
5 sawmills. I don't know if there are any or a whole lot of
6 them. Ligni Bel is sort of up in that range there, so
7 that's generally it.

8 The central market is more robust and
9 its two extremities have less sawmills in those areas.
10 Most of our group are located centrally, for the most
11 part.

12 MR. DEVEAU: So we're not talking
13 about 15 different markets, basically.

14 MR. TRAVIS: No. Yeah, we're not
15 talking about 100 different price scenarios here.

16 So you know, that's why we've
17 suggested that, you know, the -- yeah, the average may not
18 be perfect, but we understand that things aren't perfect,
19 you know, so ---

20 MR. DEVEAU: And how much -- just if
21 you know, how much of a difference, what's the order of
22 magnitude difference or the difference between the three

1 markets? Do you have any idea of that at any given point?

2 **MR. TRAVIS:** I would have to look into
3 that for you to find that out.

4 **MR. DEVEAU:** Is that something that's
5 easy to find?

6 **MR. TRAVIS:** No, not particularly
7 because none of us share our data with one another, so ---

8 **MR. DEVEAU:** Okay. So you know your
9 market where you're operating, but it ---

10 **MR. TRAVIS:** Yeah, yeah.

11 **MR. DEVEAU:** Okay. Thank you.

12 **QUESTIONS FROM THE CHAIR**

13 **THE CHAIR:** As you can see, we're
14 struggling a bit with this reopener and how it might work.
15 And the suggestion of a fuel adjustment mechanism suffers
16 from kind of the same problems that you've described in
17 that the one we have for Nova Scotia Power, the cost of
18 administering it is spread over 2,300 megawatts, whereas
19 it's difficult to replicate it for a bunch of 2-megawatt
20 plants.

21 Is there a better index that you could
22 think of as a starting point then CPI diesel, or did you
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 give any thought to that?

2 MR. TRAVIS: I tried very hard to find
3 -- I tried to do that. I called suppliers and I tried
4 because I wanted to present something that was better.
5 But at the end of the day, I couldn't find anything that
6 was sufficient to be able to adequately cover off the
7 risk.

8 And I reviewed it with Mr. Bodington,
9 and the data is really tough to get, which is why I think
10 it's important that we report this information to you as
11 the Board. You know, if we're going to ask for, you know,
12 a formula to be -- to readjust the rate then I think, you
13 know, you guys need to have our costs in the market.

14 That will establish -- start to
15 establish a knowledge base of biomass -- that will become
16 a biomass index before too long. People will recognize
17 that in the forestry business and others will recognize
18 it, and that will start to become an index on itself, I
19 think, after we start, you know, tracking that.

20 I think it will be valuable
21 information going forward because it's difficult right now
22 to determine. That's one of the difficult things to do,

SO ---

THE CHAIR: Now, under the **Public Utilities Act** if we want to know something from Nova Scotia Power, we just ask them. And they're a regulated utility and they've got to give it to us.

We don't regulate J.D. Irving or the Creelman companies or any of those companies. What's the mechanism to ensure we're going to get this information from ---

MR. TRAVIS: I guess you could make it a requirement of the tariff so that in order to be qualified to -- if we accept the tariff and the contract, we would sign an agreement that we would provide you with our -- you know, the fuelling.

THE CHAIR: What would be the consequence if you didn't?

MR. TRAVIS: I would say that that -- you know, I think it would have to be a review and then a potential withdrawal of the rate if you're not compliant.

I mean, I think that -- if we're going to ask for a readjustment, then we have to give you the information required. And if we can't do that, then, you

DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 know, I don't -- if there's a company out here in the
2 forestry business that doesn't want to do that, that's
3 fine.

4 But I don't think it's fair to ask you
5 to readjust our rate and us stay behind closed doors. I
6 don't think that's reasonable at all.

7 **THE CHAIR:** And I'm sensitive to your
8 point that there can't be any discretion in the reopener
9 or lenders are going to -- investors are going to have a
10 problem. So we've really got to get the formula right in
11 the beginning.

12 **MR. TRAVIS:** Yes, that's correct. It
13 would be a formula-type arrangement where every so many
14 years the CPI diesel escalator that the CPI diesel
15 escalator gets readjusted to make sure that it's actually
16 tracking the market.

17 **THE CHAIR:** So could you give some
18 thought as to how -- what that might look like? I don't
19 mean sitting here today.

20 **MR. TRAVIS:** Yes.

21 **THE CHAIR:** But what the formula would
22 be.

1 MR. TRAVIS: Yes.

2 MS. RUBIN: Mr. Chair, we could take
3 that as an undertaking.

4 MR. TRAVIS: Yeah, we certainly could.
5 I mean, I'd be happy to do that. I don't think the
6 formula's going to be overly complicated.

7 THE CHAIR: Well, except it's a lot
8 easier to approve or not approve something when you can
9 look at it and see what it looks like.

10 MR. TRAVIS: No, I appreciate that.
11 And if we can -- we can work on that quite quickly if you
12 would like. We'd be happy to do that.

13 THE CHAIR: That will be undertaking
14 11.

15 UNDERTAKING U-11 - To provide a
16 suggestion formula for a reopener
17 of the Biomass Tariff

18 THE CHAIR: Those are my questions.
19 Thank you.

20 Any questions arising out of Board
21 questions.

22 Any re-direct, Ms. Rubin?

1 **MS. RUBIN:** No, Mr. Chair.

2 **THE CHAIR:** I want to thank you very
3 much. You've been very candid and your evidence very
4 helpful. So the Board appreciates your presentation.

5 **MR. TRAVIS:** We're happy to do so.

6 **MR. BODINGTON:** My pleasure.

7 **THE CHAIR:** And you're all excused.
8 So go wherever you have to go.

9 So I think St. F.X. is next, Mr.
10 Outhouse.

11 **MR. OUTHOUSE:** That's correct, Mr.
12 Chair.

13 (SHORT PAUSE)

14 **THE CHAIR:** Good morning, gentlemen.
15 Probably Mr. Coady you should
16 introduce the panel. I'll swear you in and then you can
17 make whatever presentation you'd like.

18 **MR. COADY:** I'm Moses Coady
19 representing St. F.X. and Darren Hartlen, who is the
20 author of the CBCL report that was done on our behalf.

21 **THE CHAIR:** Thank you.

22

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

MR. MOSES COADY, Affirmed:

MR. DARREN HARTLEN, Affirmed:

THE CHAIR: So you don't have counsel.

So however you want to make your presentation ---

MR. COADY: Sure.

THE CHAIR: --- and then we'll -- the parties may have some questions for you.

MR. HARTLEN: We really don't have any opening statement other than to present ourselves here to answer questions based on the evidence that we submitted and so other than to thank the Board for the opportunity to do so.

THE CHAIR: I'll use this one. Sorry guys, I've got so many pieces of paper here I -- here we are. Mr. Merrick, any questions?

CROSS-EXAMINATION BY MR. MERRICK

MR. MERRICK: Yes, Mr. Chair.

Good morning, gentlemen.

MR. COADY: Good morning.

MR. HARTLEN: Good morning.

MR. MERRICK: Mr. Coady, I'll direct my questions to you, if I can, and you can rely on the
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 panel if you need assistance.

2 Can you tell me typically what would
3 be the structure that the university would undertake if it
4 were to construct or develop some infrastructure, capital
5 infrastructure. How would you do it?

6 **MR. COADY:** I'm not an expert at this
7 but typically as I understand it universities are averse
8 to debt in the building of buildings and those types of
9 things. And traditionally that's -- their approach has
10 been to accumulate the funds and make the investments.

11 Under the COMFIT we're of the view
12 that there are a number of ways in which we could
13 participate in the COMFIT. And that could be as a
14 university. Or it could be as a commodity power
15 developer.

16 The ownership of -- and the ownership
17 of that could be a range of possibilities which could
18 include a minority partner or as a majority partner. A
19 minority ---

20 **MR. MERRICK:** Well, let me ---

21 **MR. COADY:** --- with COMFIT ---

22 **MR. MERRICK:** Let me take you back to

1 my question first and then we'll explore the areas as to
2 how you may do the COMFIT.

3 **MR. COADY:** Okay.

4 **MR. MERRICK:** Typically in facing an
5 infrastructure expenditure, would the university -- how
6 would the university raise the funds?

7 **MR. COADY:** Well -- and once again
8 that takes you to the ownership structure and who actually
9 develops the project.

10 **MR. MERRICK:** Well, let's say it's a
11 residence and you want to build a residence.

12 **MR. COADY:** Well, I'm not a -- I can't
13 speak to that but my general understanding is is that
14 residences are amongst the few kinds of investments that
15 universities will make using debt.

16 **MR. MERRICK:** And are you -- do you
17 have any knowledge -- and I don't want you to give me any
18 confidential information but do you have any knowledge as
19 to how the university accesses debt, what interest rates
20 it pays for debt?

21 **MR. COADY:** No, I do not.

22 **MR. MERRICK:** Do you know whether the
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 university pays less than market debt depending on the
2 project?

3 **MR. COADY:** No, I do not.

4 **MR. MERRICK:** Do you know if on
5 occasion the university might finance an infrastructure
6 program or project by using something other than debt; for
7 example, fund raising?

8 **MR. COADY:** Well, I'm aware that they
9 do use fund raising as a means of sponsorship of buildings
10 and the like, if you will.

11 **MR. MERRICK:** Yes.

12 **MR. COADY:** The same appeal does not
13 exist when it comes to a physical plant.

14 **MR. MERRICK:** Well, it depends on who
15 you might name it after.

16 (LAUGHTER)

17 **MR. COADY:** If you have any advice on
18 that, we'll take it.

19 **MR. MERRICK:** Well, the name Merrick
20 has a nice ring to it.

21 (LAUGHTER)

22 **MR. COADY:** You should be an engineer

1 if that's the case.

2 **MR. MERRICK:** I'm disqualified
3 already.

4 So you can't tell me where -- on
5 occasion when the university has raised capital funds by
6 debt financing, you can't tell me about any of the terms
7 of that financing, amortization period, anything like
8 that?

9 **MR. COADY:** Perhaps it would be
10 helpful if I explained my role in this exercise and ---

11 **MR. MERRICK:** All right.

12 **MR. COADY:** --- and how I got here and
13 maybe then it would be -- you'd understand why I'm here
14 and the university -- in 1991 Clair Callaghan, a former
15 President Emeritus of what was known then at the time as -
16 - what was Technical University of Nova Scotia submitted a
17 proposal to the very first RFP that Nova Scotia Power had
18 for what was called non-utility generation.

19 And we submitted that proposal as a
20 private sector company that wanted to develop an 11-
21 megawatt combined heat and power project at the university
22 to substitute for the existing facility which is, by all
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 accounts, very old. It's 90 years old and it's in the
2 wrong place because it's right in the lower centre campus.

3 So over the years there had been
4 attempts to make that development happen and I've been
5 attached to almost all those developments. The -- over
6 those years I've acquired an interest in that development
7 and if nothing else I would -- I have a strong personal
8 desire to see that project proceed because of the time and
9 energy that I have invested in it over the years.

10 With respect to representing St. F.X.
11 at these hearings and I think it's fair to say that St.
12 F.X. was not aware that these hearings were underway. I
13 was involved in these hearings by virtue of an association
14 with other people in this room. And the Synapse
15 consultants at one of the earlier technical sessions
16 indicated that to the best of their knowledge there were
17 no universities interested in combined heat and power in
18 Nova Scotia.

19 I knew that was not the case. And so
20 I asked -- I made -- I spoke to the consultants at that
21 hearing. I told them that indeed there were university
22 interested in combined heat and power. I told them that I

1 had been affiliated with that for a very long period of
2 time. I presented them some evidence to that effect by
3 presenting them, first of all, with a document that had
4 been done two years ago when another assessment had been
5 done by the university and others to develop this project.

6 And I also submitted to them copies of
7 former proposals that I had made in my capacity as a
8 company called Antigonish Districting Heating Limited, Dr.
9 Callaghan and I had.

10 So the university -- all the
11 university sector, really, weren't aware that this was
12 going on and I don't think they understood that it was
13 important to their future. And so I had some discussions
14 with the university, very preliminary, and they suggested
15 that I ask for status to speak on their behalf.

16 It's become a much more important
17 endeavour now, now that they have a better understanding
18 of how important this is to the potential of them to fix a
19 longstanding problem on the campus. And so it was
20 happenstance, mostly, that I got here.

21 As a result of that, I can't speak to
22 pressure and steam loads and those kind of things. If the
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 Board would like, we have someone in the room who can
2 other than Darren. We have the physical plant director
3 from St. F.X.

4 So my comments will be as a generalist
5 and not as a technical person. And I'll speak to the
6 evidence that I presented in writing to the Board.

7 **MR. MERRICK:** I can assure you, you
8 don't have to have any fear of questions from me on a
9 technical level.

10 **MR. COADY:** I'm encouraged by that.

11 **MR. MERRICK:** Let me go back, though,
12 to the preliminary point that I just wanted to get a feel
13 for, and that was how a university might typically go
14 about financing an infrastructure project.

15 And is it fair to assume that the
16 majority of large capital projects are probably financed
17 initially by fundraising?

18 **MR. COADY:** No, I don't think that's
19 fair at all.

20 **MR. MERRICK:** Is there any ratio that
21 you can suggest as to when -- what would be used other
22 than fundraising?

1 **MR. COADY:** Well, they could do a
2 number of things.

3 They could use -- I mean, they could
4 use debt financing. Depending on -- see, what they have
5 not decided and what we have not done yet is that we have
6 not really done any detailed analysis as to how we would
7 finance this project.

8 **MR. MERRICK:** No, I'm not talking
9 about this project. I'm talking about generally, an
10 infrastructure project.

11 **MR. COADY:** Well, generally, you know,
12 as I -- I'm not an expert to answer those questions.

13 But as I understand it, residences can
14 be funded with debt, but typically, the rule of thumb over
15 the years for universities was that they pay as they go.
16 And fundraising would definitely have an impact -- would
17 have driven a large portion of that.

18 **MR. MERRICK:** So that would ---

19 **MR. COADY:** Governments would also
20 contribute funds, and that's the way it typically was
21 done.

22 **MR. MERRICK:** So the debt financing
 DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 wouldn't be your majority source of funds for
2 infrastructure.

3 **MR. COADY:** Well, once again, for this
4 project ---

5 **MR. MERRICK:** Not for this project,
6 but generally.

7 **MR. COADY:** Well, generally for
8 university infrastructure, I'm really not equipped to
9 answer that.

10 **MR. MERRICK:** All right. And you
11 can't describe what the debt costs would be on occasion
12 when the university would raise funds by debt?

13 **MR. COADY:** No, I cannot.

14 **MR. MERRICK:** And I take it that a
15 return on earnings or an ROE return is not a typical
16 consideration or applicable to an infrastructure project.
17 For example, if you build a residence, you're not looking
18 to calculate your return on earnings.

19 **MR. COADY:** If you're building a
20 residence, you're looking -- as I understand it, and I'm
21 not an expert, but as I understand it, when you build a
22 residence, a residence has a direct revenue stream.

1 People pay residence fees and a portion of that debt -- or
2 the debt is retired -- it's like a business in itself, as
3 I understand it, so that you can actually finance projects
4 using debt for that type of a project. But I can't speak
5 at length about how the university finances its projects.

6 But I can tell you they've financed a
7 lot and -- over the last 15, 10 years, and I think it's in
8 the \$150 million range, and a lot of that has to do with
9 fundraising.

10 **MR. MERRICK:** All right. But I take
11 it that in deciding whether to go ahead with a particular
12 project -- and I'm not talking about this project
13 specifically by itself -- the university hasn't got a
14 requirement that it's got to have a certain return on
15 earnings or internal rate of return.

16 **MR. COADY:** I can't speak to that.

17 **MR. MERRICK:** Okay. So we don't know
18 if it requires a 13 percent or 15 percent or doesn't have
19 that as a criteria at all.

20 **MR. COADY:** The analysis that we did
21 and which we offered as evidence and which we did not back
22 with engineering studies and financial analysis,
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 essentially, we took a credible expert -- a document that
2 was developed by CBCL, a well-established engineering
3 firm, that we had assessed the project two years ago.

4 We upgraded the capital costs based on
5 certain assumptions and then we inputted Synapse's
6 assumptions into our model. And in order to get a 13
7 percent rate of return on investment, which was what the
8 Synapse consultants indicated would be required, we would
9 -- we simply calculated in year one that there would be a
10 requirement for 21.3 cents per kilowatt hour to achieve
11 that 13 percent rate of return.

12 **MR. MERRICK:** And as I read your
13 testimony, I took it that that was the main purpose, that
14 to get that 13 percent return you needed a tariff level of
15 two cents a ---

16 **MR. COADY:** Two hundred and thirteen
17 (213) is ---

18 **MR. MERRICK:** Two hundred and thirteen
19 (213) ---

20 **MR. COADY:** Yeah.

21 **MR. MERRICK:** --- per megawatt or
22 kilowatt, depending on what your denomination is.

1 **MR. COADY:** Based on the cost
2 estimates and operating -- that we have in the study.

3 **MR. MERRICK:** But you're not
4 suggesting that 13 percent return is a requirement before
5 the university would go ahead with the project.

6 **MR. COADY:** I am not suggesting that.

7 **MR. MERRICK:** In fact, why would you
8 not consider -- or is it possible that you might consider
9 going ahead with this kind of co-generation project by
10 looking at fundraising or other sources of funding other
11 than debt financing?

12 **MR. COADY:** I can't speak to that
13 other than to say that there's -- the funding targets of
14 the university have been touched and touched and touched
15 and touched again, and I don't know what kind of capacity
16 there is for fundraising.

17 But the -- in 10 years there's been
18 \$150 million of investment in new plant and equipment at
19 the university, and I can't tell you what percentage, but
20 a significant percentage of that would have come from the
21 donor group.

22 **MR. MERRICK:** All right. Can you tell
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 me the -- you began to give me the history of the sort of
2 development of this possibility or this project with the
3 university, and you went back to 19 ---

4 **MR. COADY:** Ninety-one ('91).

5 **MR. MERRICK:** Ninety-one ('91). And I
6 take it that it's only been in the last year that it's
7 been developed with the idea of possibly using a COMFIT
8 tariff?

9 **MR. COADY:** It might even be less time
10 than that.

11 **MR. MERRICK:** Yeah. So that all the
12 plans and ideas and development of the concept has been
13 taking place in the absence of consideration of a COMFIT
14 tariff.

15 **MR. COADY:** Could you repeat that
16 question?

17 **MR. MERRICK:** Whatever plans and ideas
18 or concepts were being developed for this type of co-
19 generation project on the part of the university has not
20 been influenced by the possible existence of the COMFIT
21 tariff.

22 **MR. COADY:** The current consideration

1 of its replacement is largely around the possibility of
2 COMFIT tariff, but previous attempts, there was no
3 evidence that one was available and so you work within the
4 means that you have.

5 **MR. MERRICK:** And when you say
6 currently, we're talking about just the last couple of
7 months?

8 **MR. COADY:** Yes.

9 **MR. MERRICK:** Yeah. Can you tell me
10 how the concept was going to be structured in the earlier
11 plans pre-COMFIT? Can you tell me anything about it?

12 **MR. COADY:** Can I tell you how it was
13 to be structured?

14 **MR. MERRICK:** Yes. For example, how
15 was it to be financed?

16 **MR. COADY:** Well, when I was proposing
17 a development at the university, I had engineering
18 expertise through turbine developers who helped us develop
19 these concepts. We had some discussions with banks that
20 it would be financed with a 60/40 split.

21 Now, that was if, indeed, this -- the
22 lay of the land was that Antigonish District Heating
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 Limited owned and operated that facility and St. F.X.

2 would be a steam host only.

3 But those were never substantially
4 tested because there was always a lot of push-back from
5 utilities and others to developing this project at all
6 because they would argue that there was adequate capacity
7 in the province and that there was no need to build the
8 project.

9 **MR. MERRICK:** And in making your
10 discussions, were there any pro forma statements prepared
11 or calculations done?

12 **MR. COADY:** Yes.

13 **MR. MERRICK:** And did you include --
14 and as I take it you were thinking of it in terms of some
15 amount of debt financing through the banks?

16 **MR. COADY:** Yes.

17 **MR. MERRICK:** And can you tell me
18 anything about your conversations with the banks?

19 For example, were there any cost of
20 borrowing that was discussed?

21 **MR. COADY:** Yeah. These documents
22 range from 1991. I've got literally five different

1 business plans.

2 The original one was as a result of an
3 RFP, the 1991 RFP that Nova Scotia Power submitted. They
4 found us technically deficient because we were, you know,
5 we were working from a rather low technical base; we
6 didn't have a lot of resources but we thought it was a
7 good idea and we did the best we could.

8 Over the years we have continued to
9 advocate that, and we've had different business plans.
10 We've attempted to -- just to give you some sense of the
11 efforts we've made over years, we attempted to not only do
12 a co-gen but we also did a business plan that identifies
13 75 additional thermal loads that could be served from the
14 co-gen in that community.

15 So we did that analysis to see if we
16 could indeed find a financial way to not only do the
17 co-gen but to add the hospital, and all of the large
18 frontal loads in what is a really small community,
19 Antigonish is only two square miles, and we were to do
20 that with low temperature hot water that would be less
21 cost. Moving steam around is very expensive so it was
22 designed to be low temperature hot water.

1 We went -- after failing at that, we
2 decided that we would attempt to purchase the utility in
3 Antigonish, which was a unique set of circumstances
4 whereby they have a municipal utility in Antigonish; I
5 don't get my bill from Nova Scotia Power, I get it from
6 the Town of Antigonish.

7 So we tried to see if we could find a
8 business means by which we could make the project work
9 using the spread between the retail and the large
10 industrial rate, which the spread existed in the town
11 utility.

12 So we were trying a lot of things.
13 The most recent attempt was two years ago when Nova Scotia
14 Power indicated that they were going to get serious about
15 biomass and they started holding biomass workshops and
16 talking to the community and trying to identify where
17 projects were. And as a result of discussions between the
18 utility and the university president, and the financial
19 people at the university and myself, it was decided that
20 we should have another hard look at the project.

21 The preliminary results were
22 demonstrated that the project was uneconomic, and so

1 everybody went back to trying to find another solution.

2 The reason we're here today is because
3 we think that a COMFIT for combined heat and power could
4 provide the financial basis for a project to be feasible.

5 **MR. MERRICK:** And what I'm trying to
6 explore with you, Mr. Coady, is the extent to which an
7 institution like the university might be able to engage in
8 a COMFIT project but on terms that may be different from a
9 commercial operator ---

10 **MR. COADY:** I don't believe those
11 exist.

12 **MR. MERRICK:** Well, let me ask you
13 this. In the projects or the concepts that were being
14 developed, when you were looking at bank financing, can
15 you tell me what the accessibility of bank financing was
16 for a university? I take it that -- were you getting
17 favourable responses?

18 **MR. COADY:** I think the responses were
19 -- had nothing to do with the fact that it was a
20 university. The responses had more to do with the fact
21 that it was a business opportunity for combined heat and
22 power at the university.

DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 MR. MERRICK: And ---

2 MR. COADY: The fact that it was a
3 university, to my knowledge, didn't make any difference,
4 other than, I guess, other than I -- what I would suggest
5 is that when you're trying to make these projects work,
6 governments sometimes to do participate if you're a
7 university or a public institution.

8 MR. MERRICK: Were you encountering
9 any hurdles, though, in seeking bank support?

10 MR. COADY: It's -- in fairness it
11 would be -- it would -- in fairness, the projects never
12 got to the point where you could have a serious
13 conversation about financing. The financing was, by and
14 large, based on assumption.

15 MR. MERRICK: All right. Return on
16 earnings or rate of return or internal rate of return,
17 whatever you want to call it; I take it that in deciding
18 whether to go ahead with a project now, possibly under the
19 COMFIT, there is nothing that requires a university, or
20 the university wouldn't see the requirement of earning 13
21 percent return on its equity or earnings as being a
22 requirement to go ahead with the project?

21 MR. MERRICK: But I take it that there
22 would be motivations on the part of the university other
DICTUM DIGITAL INC. CERTIFIED COURT REPORTER

1 than simply making a profit?

2 **MR. COADY:** The greatest discerner
3 based on the university is to fix what is a vexing problem
4 on a very lovely campus, and that is that they've got a
5 90 year facility that's burning Bunker C in the heart of
6 the lower campus between a \$32 million science building
7 and a new Schwartz -- \$30 million Schwartz Business
8 Centre, and adjacent to that is a meal hall, and you've
9 got a physical plant there.

10 So the university's highest
11 infrastructure priority is to fix that problem. They've
12 fixed all the other problems, by and large. As I said,
13 they've invested large amounts of money over the last 10
14 years, but this has been the vexing problem and it is
15 their hope that there will be a remedy through the COMFIT.

16 **MR. MERRICK:** I take it you're not
17 able to tell the Board whether the university would
18 continue to proceed with developing whether this project
19 was feasible?

20 You -- if the university were not able
21 to get a return on debt or a cost of debt at 9.5 percent
22 or 8 percent or a return on equity of 13 percent -- I take

1 it if you weren't able to get 13 percent return on equity
2 that wouldn't necessarily kill the interest in the
3 project?

4 **MR. COADY:** It's a large priority to
5 fix the problem at St. F.X., and in an ideal world, you
6 would want to be able to finance it in a conventional way,
7 either with partners or without.

8 But once again, the underlying
9 priority is to find a way to make this happen and we're
10 looking, hopefully, to the COMFIT.

11 **MR. MERRICK:** But to come back to my
12 question. I assume that it isn't your position that if
13 you couldn't earn a 13 percent return on equity that you
14 wouldn't go ahead with the project?

15 **MR. COADY:** I can't speak on behalf of
16 the university. I don't think I could answer that
17 question, what the financial people at the university
18 would decide was the cut off.

19 But the 13 percent that we used was
20 simply -- we accepted the assumptions of Synapse and we
21 said they are saying that based on their research to get
22 all of these assumptions they're saying that a 13 percent
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 return on equity would be required to finance this.

2 That's their advice.

3 **MR. MERRICK:** Well ---

4 **MR. COADY:** Whether or not that's the
5 case with the university, I'm really not in a position to
6 say.

7 **MR. MERRICK:** Yeah, if the 13 percent
8 came from your consultants telling you that this is the
9 characteristics of the project as being considered?

10 **MR. COADY:** The 13 percent came from
11 the consultants saying that these are the circumstances
12 and the assumptions that would have to be in place if --
13 in order to finance this project and to provide the
14 incentive, in terms of the COMFIT, to attempt this
15 project.

16 **MR. MERRICK:** All right. Those are
17 all I've got.

18 Thank you, Mr. Chair.

19 **THE CHAIR:** Thank you, Mr. Merrick.
20 Black River Wind?

21 **CROSS-EXAMINATION BY MR. LIVINGSTON**

22 **MR. LIVINGSTON:** Good morning. Neal

1 Livingston.

2 I just wanted to clarify one thing.

3 The -- is there going to be a use of the waste heat from
4 this project by the university?

5 **MR. COADY:** Yes.

6 **MR. LIVINGSTON:** Okay. And is part of
7 the calculation that you made for being paid a rate under
8 the feed-in tariff program that you're saying that needs
9 to be paid, in the information you put forward to come up
10 with the rate, is the university paying for that waste
11 heat?

12 **MR. COADY:** Is the university paying
13 for ---?

14 **MR. LIVINGSTON:** Well, the university
15 is using the waste heat. Are they going to be paying for
16 that ---

17 **MR. COADY:** Oh, sorry.

18 **MR. LIVINGSTON:** --- waste heat?

19 **MR. COADY:** Of course.

20 **MR. LIVINGSTON:** Okay. And do you

21 know what value that has? Is it kilowatt value or what

22 that was in your calculations in the information you

1 submitted?

2 **MR. HARTLEN:** In our model we used \$16
3 per million BTUs.

4 **MR. LIVINGSTON:** Okay, great. And do
5 you know how that compares to, let's say, currently the
6 price of whatever fuel you're using for heating the
7 university?

8 **MR. HARTLEN:** That cost was developed
9 based on fuel, the cost of Bunker C oil at 45 cents per
10 litre. I thought that was the price at the time.

11 **MR. LIVINGSTON:** How does that compare
12 to BTUs?

13 **MR. HARTLEN:** If ---

14 **MR. LIVINGSTON:** If you were to waste
15 heat from this -- if the waste heat from the biomass plant
16 is rated a certain dollar -- a kilowatt value or dollar
17 value per million BTUs, how does that relate to your
18 current oil value in today's dollars?

19 **MR. COADY:** The -- if I may. The
20 university has a cost now, and they consume four million
21 litres of -- four to five million litres of whatever fuel.
22 They've traditionally burnt Bunker C, but they've been

1 using fish oil from Ocean Nutrition which has been a good
2 experience for them. That experience has been cut short
3 because the cost of fuels, bio-fuels has gone through the
4 roof. What they used to get for 25 cents, they now would
5 be charged a dollar. So unfortunately they have gone back
6 to Bunker C because of the economics.

7 It costs something to heat the
8 university and the costs are what they are. The steam
9 load that would be replaced by a co-gen, we believe would
10 come in and around their current cost.

11 **MR. LIVINGSTON:** So just to be --
12 clarify that, so in your calculations you've essentially
13 used a number which is of the university paying for that
14 steam cost at an equivalent rate to what they would
15 otherwise be paying today for fuel?

16 **MR. COADY:** It's an avoided cost, yes.

17 **MR. LIVINGSTON:** Okay, good. And I'd
18 asked Mr. Travis yesterday a little bit about the process
19 through which the original design of this policy, which
20 was a COMFIT for all types of generators, and there was a
21 process of meetings with government by the biomass people
22 that got that changed into a feed-in tariff which removed
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 the CEDIF restrictions. I just wondered if you or the
2 university played any role in asking for that change as
3 well?

4 **MR. COADY:** I did in another capacity,
5 but not in association with the university.

6 **MR. LIVINGSTON:** Do you mind telling
7 us what the other capacity was since you mentioned it?

8 **MR. COADY:** I'd sooner prefer not to.

9 **MR. LIVINGSTON:** Okay.

10 **MR. COADY:** Not that it's a secret,
11 but it's just not relevant to this discussion.

12 **MR. LIVINGSTON:** Okay. So you were
13 representing other clients in the biomass business?

14 **MR. COADY:** That's about right, yes.

15 **MR. LIVINGSTON:** Okay. Thanks, that's
16 all the questions I have.

17 **THE CHAIR:** Thank you.

18 I'm sorry, Ms. Rubin, I skipped you.
19 My apologies.

20 **CROSS-EXAMINATION BY MS. RUBIN**

21 **MS. RUBIN:** That's all right. I'm
22 trying to understand the -- how we compare the rate that

1 you said was generated by the St. F.X. model, as compared
2 to the rate proposed by the Alliance of Nova Scotia
3 Sawmillers and the rate proposed by Synapse. Did you have
4 your own model, or did you use the Synapse model when you
5 derived your rate?

6 **MR. COADY:** We haven't so much as
7 derived a rate. What we've done is we've demonstrated
8 what rate would be required to achieve the assumptions
9 that the Synapse folks said would be required. And we
10 submitted those into our own model which we -- was
11 produced by CBCL.

12 We did not provide evidence as to
13 engineering costs, other than the capital costs. We
14 didn't have the kind of evidence -- we didn't have the
15 kind of evidence that you folks had, for instance. We
16 offered what we had and -- I'm not sure if I remember your
17 question.

18 **MS. RUBIN:** My question was the basis
19 for the modelling done to derive the rate. And what I
20 heard was that it was a CBCL model?

21 **MR. COADY:** That's correct.

22 **MS. RUBIN:** Okay. And am I correct
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 that the only original evidence was what was provided by
2 CBCL in the nature of an EPC contract to put this biomass
3 CHP plant on the ground? Is that correct?

4 **MR. COADY:** Could you ask it again,
5 I'm sorry?

6 **MS. RUBIN:** The original evidence
7 related to the capital and O&M costs for a biomass CHP
8 plant.

9 **MR. COADY:** The original evidence that
10 I submitted to the Board?

11 **MS. RUBIN:** Yes.

12 **MR. COADY:** Yes.

13 **MS. RUBIN:** Okay.

14 **MR. COADY:** And the commentary, a
15 written commentary on a certain amount of other issues.

16 **MS. RUBIN:** Right. But the financing
17 assumptions were just a plug in from Synapse's
18 assumptions?

19 **MR. COADY:** Exactly.

20 **MS. RUBIN:** Okay. Are you able to run
21 your capital cost through the Synapse model?

22 **MR. COADY:** Am I able? Probably not.

1 Is he able? Maybe.

2 **MR. HARTLEN:** If we had the Synapse
3 model, certainly we could.

4 **MS. RUBIN:** The Synapse model is
5 submitted as an Excel spreadsheet.

6 **MR. HARTLEN:** We really -- we didn't
7 attempt to do that.

8 **MS. RUBIN:** Okay.

9 **MR. COADY:** We basically wanted to
10 present a case that -- a specific case, and to demonstrate
11 what the COMFIT would be required to meet our capital
12 costs, our operation costs, and the assumptions on
13 interest and debt equity, and capacity factor and all of
14 those things. We had -- we inputted their assumptions and
15 we developed a rate which would be a rate which would be,
16 as I understand it, year one in the life of a project.

17 **MS. RUBIN:** Okay. And what
18 assumptions did you make in the CBCL model about what
19 happens to fuel?

20 **MR. HARTLEN:** We just have an
21 escalation rate. I think it's stated in there, 2 to 3
22 percent per year.
DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 **MS. RUBIN:** Okay, so you didn't use
2 the fuel escalator that was embedded in the Synapse model?

3 **MR. HARTLEN:** No.

4 **MS. RUBIN:** So to the extent that that
5 rate is greater than your inflationary rate that you've
6 applied, that would also have an increase on the levelized
7 rate that you determined would be acceptable?

8 **MR. COADY:** Yes.

9 **MR. HARTLEN:** I'd like to correct
10 that. We used 1.8 percent as the fuel escalation rate,
11 over the life of the project, per year.

12 **MS. RUBIN:** Okay. Thank you.
13 Thank you, Mr Chair, those are my
14 questions.

15 **THE CHAIR:** Thank you.
16 Canadian Wind Energy Association?
17 Champlain, not here.
18 Ecology Action Centre? Don't see them
19 here.

20 First Nations Engineering and
21 Technical Services?
22 Fundy Tidal?

1 Mr. Giroux?

2 **MR. GIROUX:** No questions, Your

3 Honour.

4 **THE CHAIR:** HRM isn't here.

5 Johnson Control?

6 **MR. LEITCH:** With respect, sir,

7 nothing.

8 **THE CHAIR:** Thank you.

9 KMKNO?

10 **MR. CHRISTMAS:** No, we're good, sir.

11 **THE CHAIR:** Thank you.

12 LaHave Renewables?

13 **MR. TOWSE:** No questions, sir.

14 **THE CHAIR:** Thank you.

15 Liberal caucus office is not here.

16 Membertou First Nation?

17 Minas Basin?

18 Colchester?

19 Northumberland Wind Farm?

20 Department of Energy?

21 **MR. McGRATH:** No questions, Mr. Chair.

22 **THE CHAIR:** Nova Scotia Power?

1 **MS. GODBOUT:** No questions.

2 **THE CHAIR:** Nova Scotia Sustainable

3 Electricity Alliance? I don't see them here. Mr.

4 Reynolds isn't here.

5 Scotian Windfields?

6 Seaforth Energy?

7 Wind Prospect Inc?

8 Mr. Outhouse?

9 **MR. OUTHOUSE:** Thank you, Mr. Chair, I
10 have very few questions.

11 **CROSS-EXAMINATION BY MR. OUTHOUSE**

12 **MR. OUTHOUSE:** I guess it's unclear to
13 me, Mr. Coady, whether -- I know the figure of \$2.13 is
14 there, or .213 cents per kilowatt hour is there. What --
15 is that your proposal, 21.3 cents per kilowatt hour, or is
16 it just a number that has been generated?

17 **MR. COADY:** It was a means to
18 illustrate what COMFIT level would be required to meet all
19 of those assumptions presented by Synapse in our
20 particular individual case.

21 **MR. OUTHOUSE:** Without saying that you
22 would need to meet all of those things?

5 I was granted a late intervenor status
6 which indicates that we were late getting at this. And
7 would we like to be more prepared and offer more detailed
8 advice, of course. But it is what it is, and we presented
9 the evidence that we had.

14 **MR. OUTHOUSE:** Bottom line as I
15 understand it, Mr. Coady, the university is faced with a
16 situation it wants to remedy and it's described on page 1
17 of your evidence.

21 MR. COADY: Right.

22 MR. OUTHOUSE: So -- and it's not a
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 particular sexy project in terms of getting donations,
2 somebody wants to put their name on the building; it's not
3 a sports complex, it's not a business school so ---

4 **MR. COADY:** Exactly.

5 **MR. OUTHOUSE:** --- has the university
6 made an estimate of its cost just to do what it's doing
7 now; that is, to have a steam plant some sort, heating
8 plant in a different location and what the cost of that
9 would be without the electrical component?

10 **MR. COADY:** The answer is yes. They
11 are faced with a problem that they have to deal with.

12 **MR. OUTHOUSE:** Yes.

13 **MR. COADY:** And it's been -- they've
14 been attempting to deal with this for a long time. And
15 they will deal with it at some point. Ideally it would be
16 with a COMFIT that would underwrite the cost of doing --
17 of relocating it to a new facility.

18 There was a comparator looking at
19 another alternative which would be a standalone steam
20 facility ---

21 **MR. OUTHOUSE:** Yes.

22 **MR. COADY:** --- the capital cost of

1 which would be lower but not significantly lower. And I
2 don't have the detail but it would be -- it would -- the
3 cost of a steam-alone plant would compel you to look to a
4 co-gen.

5 **MR. OUTHOUSE:** All right. So it's one
6 thing to say that 213 would make it -- give us this rate
7 of return and so on but compared to the other options the
8 university has, a COMFIT rate lower than 213 would make it
9 a better project than the steam only.

10 I don't know what that rate would be
11 and I don't know whether you know.

12 **MR. COADY:** Yes.

13 **MR. OUTHOUSE:** But clearly a rate
14 lower than 213 would offer advantages to the university on
15 a CHP project?

16 **MR. COADY:** Well, a rate of 213 would
17 offer greater advantages.

18 **MR. OUTHOUSE:** It would offer greater
19 -- I know that, 320 even greater still, but ---

20 **MR. COADY:** But once again it's based
21 on the evidence and the needs in this circumstance.

22 **MR. OUTHOUSE:** The -- on the
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 calculation of the \$16, that's the fuel cost that was, in
2 effect, attributed to the steam load that was being
3 purchased by the university I just wanted to be clear, was
4 that just a fuel cost only?

5 **MR. HARTLEN:** That's correct, just
6 fuel only.

7 **MR. COADY:** There would be no -- you
8 mean is there a grant in lieu of -- or a ---

9 **MR. OUTHOUSE:** No, no I was looking at
10 -- and I don't know whether in coming up with the numbers
11 generating the numbers whether any cost other than the \$16
12 was assigned to the steam load.

13 **MR. COADY:** I think the concept is
14 that in the configuration that we presented the simple
15 conscript would be that the \$16 per ---

16 **MR. HARTLEN:** Million BTU.

17 **MR. COADY:** --- million BTU is a rate
18 that we believe is comparable to the cost of the existing
19 system.

20 **MR. HARTLEN:** Fuel only cost.

21 **MR. OUTHOUSE:** Fuel only. That's what
22 I ---

1 MR. HARTLEN: Fuel only cost.

2 MR. OUTHOUSE: --- want to be clear
3 about, it's the fuel only cost. So there's no allocation
4 on the capital side for steam?

5 MR. HARTLEN: That's correct.

6 MR. COADY: And that could be as a
7 result of this being conceptually designed as a private
8 sector development. This document was written before we
9 even knew COMFIT would exist.

10 MR. OUTHOUSE: Yeah. I understand. I
11 just wanted to be clear.

12 MR. HARTLEN: And of course we're
13 comparing two different fuels. The new plant will burn
14 biomass and the 16 is based on Bunker C oil.

15 MR. OUTHOUSE: I realize that.

16 From the university's point of view if
17 the incremental cost of going with the CHP project as
18 compared to the steam-only project was more than covered
19 off under the FIT tariff with additional benefit to the
20 university besides, which I will try to quantify at the
21 moment in dollar terms whether rate of return or

22 otherwise, would that incent the university to go forward
DICTUM DIGITAL INC.

1 with such a project?

2 **MR. COADY:** I think the university's
3 posture would be that let's see what the COMFIT comes in
4 at and then we can quantify what's missing. And hopefully
5 nothing's missing.

6 But the priority is such that they
7 would have to find a way to fill the hole. And that's not
8 yet -- you can't really contemplate that until such time
9 as we get the decision from this Board.

10 **MR. OUTHUSE:** Thank you, Mr. Coady.

11 **MR. COADY:** Thank you, sir.

12 **QUESTIONS FROM MR. DOEHLER**

13 **MR. DOEHLER:** Just continuing with the
14 \$16 per million BTU, that's just as fuel so therefore the
15 capital cost of the plant is now running and the operating
16 costs of the plant now they're -- that would be -- those
17 are not including the \$16 obviously. So the university
18 would get a deal.

19 **MR. COADY:** Could -- say that once
20 more.

21 **MR. DOEHLER:** Sixteen dollar (\$16) per
22 million BTU, if I understand it ---

1 MR. COADY: Right.

2 MR. DOEHLER: --- is only to replace
3 the cost of fuel the plant now runs. It does not include
4 the operating costs, the capital contribution, all those
5 type of things that go into the repairs and maintenance.

6 So the university would get a deal at
7 \$16 a million BTU.

8 MR. COADY: Yes, but what I would say
9 is that the -- that original analysis was done based on
10 the presumption that the university would be a steam host.
11 And that would be the financial relationship between the
12 developer and the university.

13 You could argue that that's
14 unreasonable. And it might well be but the -- what's
15 missing there would -- if it is missing and I'm talking
16 about, you know, a capital contribution for that of which
17 you speak, yes, it would be -- the university would be
18 well positioned to take that.

19 It would mean that they could have an
20 -- they wouldn't have to cover off the avoided cost of
21 standalone steam.

22 MR. DOEHLER: Right. And then also if
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 I look at, and do very quick calculations using your
2 schedules, search within your 2013, if we took the 13
3 percent return on equity out I -- my calculation that's
4 about 15 percent of the total for electricity.

5 So we could reduce the electricity
6 rate by 15 percent and give you zero percent return on
7 equity.

8 **MR. COADY:** Well, you've lost me.

9 **MR. DOEHLER:** Because you have a
10 profit of around \$2 million ---

11 **MR. COADY:** Yes.

12 **MR. DOEHLER:** --- which would give you
13 a 13 percent return on equity per your schedule. And it's
14 near the back what I refer to as the big spreadsheets at
15 the back. And for the year 2013 I see a net income before
16 tax of two million seven.

17 Then I see a total at that time,
18 revenue from electricity sales of thirteen million five.
19 So that tells me it's about 15 percent. So if we reduce
20 the revenue on the sales of electricity by 15 percent it
21 gives you zero percent return on equity.

22 **MR. COADY:** I think we also should

1 acknowledge that we've come to this Board with the
2 evidence that we have but we also recognize that once we
3 get a COMFIT we may have to reinvestigate all of our
4 assumptions including technology, size, you know, all of
5 those things might have to be reassessed to find where is
6 the new equilibrium that will make this work.

7 **MR. DOEHLER:** And in your evidence on
8 page 4 at the bottom you talk about the overall efficiency
9 requirement that should be -- we should not put an overall
10 efficiency requirement in there so that you could be
11 eligible for COMFIT.

12 **MR. COADY:** The concern that we had is
13 that if you find yourself in a position where you could be
14 -- where you can be disqualified from the COMFIT even
15 though it may be remote that would infinitely make the
16 financing arrangements much more complicated.

17 And if you're ever at risk of losing
18 your COMFIT, you're in trouble. And we believe that the
19 overall efficiency rate could put some projects at risk of
20 being financed because of that risk.

21 **MR. DOEHLER:** Thank you.

22 **MR. COADY:** Thank you.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

QUESTIONS FROM MR. DEVEAU

MR. DEVEAU: I want to elaborate perhaps on something that was asked by the Consumer Advocate, Mr. Merrick.

Did I understand your testimony that you were aware of other universities who are considering renewable projects? Were you aware of other attempts whether or not ---

MR. COADY: Yeah.

MR. DEVEAU: --- they tied into a COMFIT?

MR. COADY: What we attempted to do, and all in a short timeline, was to try to determine whether there were other universities with likeminded -- like -- with similar issues.

The -- I think the university sector really didn't understand that there was a unique opportunity here for them, and for that reason they didn't -- they weren't here, and through my initiative they are.

We attempted to identify other universities that might want to participate in this -- these hearings. For a whole bunch of complicated reasons

1 we couldn't find anybody else to sit on the panel with us.

2 But I do believe that a number of
3 other universities have found long-term energy solutions,
4 which is what this is all about, long-term energy
5 solutions in metro using natural gas. Both of the
6 universities there have systems now comparable to this
7 co-gen.

8 There are some -- I think the
9 university at St. Anne is part of the way to a CHP.

10 **MR. DEVEAU:** I think they have a ---

11 **MR. COADY:** They have a ---

12 **MR. DEVEAU:** --- newly opened -- newly
13 installed wind turbine as well.

14 **MR. COADY:** Yes, they do. They do.
15 But they have a biomass-fired boiler too, and what could
16 be done there. I was disappointed that they didn't
17 participate.

18 And I am not sure, the University of
19 Cape Breton has some issues that they're looking at trying
20 to fix, but this is an excellent opportunity for those
21 universities to find long-term stable solutions to their
22 energy problems, which most of them had. And St. F.X. has
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 got bad.

2 **MR. DEVEAU:** So in relation to those
3 other projects that have actually happened, and I realize
4 some may or may not qualify, you know, for the classes
5 here. But in terms of financing those projects, do you
6 have any idea of how they financed them? If they have
7 expected a return on equity and that sort of thing?

8 **MR. COADY:** I don't.

9 **MR. DEVEAU:** Okay. Okay. Thank you,
10 Mr. Coady.

11 **MR. COADY:** Thank you.

12 **QUESTIONS FROM THE CHAIR**

13 **THE CHAIR:** Who are you going to sell
14 the power to if you're in the Town of Antigonish?

15 **MR. COADY:** In order to access the
16 COMFIT you need to sell the power to Nova Scotia Power.

17 **THE CHAIR:** Yeah, but you're not in
18 their service territory.

19 **MR. COADY:** I'm sorry?

20 **THE CHAIR:** You're not in their
21 service territory.

22 **MR. COADY:** Well, we believe that --

1 we've looked at that. We are going to move the plant out
2 of the Town of Antigonish, so we will be in their service
3 area, and we've identified two sites close to the Lochaber
4 Substation, which has a sufficient takeaway capacity to
5 accommodate this type of a project.

6 **THE CHAIR:** So this will built in the
7 county?

8 **MR. COADY:** Yes.

9 **THE CHAIR:** Thanks very much.
10 Any questions arising out of the Board
11 questions?

12 **FURTHER CROSS-EXAMINATION BY MR. LIVINGSTON**

13 **MR. LIVINGSTON:** I just have one
14 question relative to the Chair's question.

15 Again, if you are looking at a plant
16 outside of the town in Lochaber, how do you transmit the
17 steam to the university and what distance is that?

18 **MR. COADY:** It's a short distance and
19 it would be -- it would be a steam line underneath the
20 existing roadbed.

21 **MR. LIVINGSTON:** Okay. And that cost
22 is in your project cost?

1 **MR. COADY:** It was in the historical
2 one, so I'm assuming it was in there too, yeah.

3 **MR. LIVINGSTON:** Okay. And what
4 distance is it approximately?

5 **MR. COADY:** I'd say -- well, if you
6 have a good arm you could throw a rock at it.

7 **MR. LIVINGSTON:** Oh, okay. So you're
8 just outside the town line for its utility?

9 **MR. COADY:** A kilometre would be the
10 outside.

11 **THE CHAIR:** The substation's right on
12 the edge of town.

13 **MR. COADY:** Yeah.

14 **THE CHAIR:** Yeah, I know where it is.

15 **MR. COADY:** Yeah.

16 **MR. LIVINGSTON:** Okay.

17 **THE CHAIR:** I guess there will be no
18 re-direct because you're asking yourself -- sorry, one
19 more question.

20 **FURTHER CROSS-EXAMINATION BY MS. RUBIN**

21 **MS. RUBIN:** I just wanted to get a
22 little clarification on the \$16 in the revenue.

22 MS. RUBIN: --- revenues says
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 electrical energy production, 52,553,868 ---

2 **MR. HARTLEN:** Yeah.

3 **MS. RUBIN:** --- at a rate of .2130?

4 **MR. HARTLEN:** Oh, we do have the right
5 one up, yeah. Okay. I must have printed the wrong one
6 off for myself. Okay. So what was your question?

7 **MS. RUBIN:** Yeah, and then when you
8 drop down you see a second revenue stream from the thermal
9 energy production at a rate of \$16 per MMBTU?

10 **MR. HARTLEN:** Yes.

11 **MS. RUBIN:** Okay. So in your model
12 you didn't allocate the cost -- sorry, you didn't allocate
13 out the cost to steam, you earned revenue from the sale of
14 steam?

15 **MR. HARTLEN:** That's correct.

16 **MS. RUBIN:** Okay. And the Synapse
17 model, it allocated the steam plant costs to steam. Is
18 that your understanding?

19 **MR. HARTLEN:** Yes.

20 **MS. RUBIN:** Are you able to take your
21 figures and run it through the Synapse model?

22 **MR. HARTLEN:** I don't see why we

1 couldn't do that if we had that Excel spreadsheet.

2 **MS. RUBIN:** Could I get an
3 undertaking, Mr. Chair?

4 **THE CHAIR:** Sure. Are you prepared to
5 do that?

6 **MR. HARTLEN:** Sure.

7 **THE CHAIR:** What number, Anne? It
8 will be Undertaking U-12.

9 **UNDERTAKING U-12 - To provide a**
10 **spreadsheet showing the St. F.X.**
11 **data using the Synapse model**

12 **MS. RUBIN:** Thank you.

13 **MR. COADY:** I think the outcome will
14 be that the COMFIT will escalate.

15 **THE CHAIR:** Sorry. Thanks very much.
16 The Board appreciates your coming to present this
17 evidence.

18 **MR. COADY:** Thank you, sir.

19 **THE CHAIR:** I think Mr. Chernick is
20 next.

21 **MR. OUTHUSE:** Mr. Chernick is next.

22 **THE CHAIR:** Okay. And I think we'll
 DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 break for lunch and come back at quarter to two.

2 --- Upon recessing at 12:33 p.m.

3 --- Upon resuming at 1:47 p.m.

4 **THE CHAIR:** Mr. Merrick.

5 **MR. MERRICK:** Thank you, Mr. Chairman.

6 I have Mr. Paul Chernick here to be

7 sworn.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

MR. PAUL CHERNICK, Affirmed:

DIRECT EXAMINATION BY MR. MERRICK (QUALIFICATIONS)

MR. MERRICK: Mr. Chernick, can you identify yourself to the Board and describe what organization you're associated with?

MR. CHERNICK: Yes. My name is Paul Chernick. I'm the President of Resource Insight Incorporated, headquartered in Arlington, Massachusetts.

And it's an energy and utility regulatory consulting firm.

MR. MERRICK: You've been retained by the Consumer Advocate for the Province of Nova Scotia?

MR. CHERNICK: I have.

MR. MERRICK: And for what purpose?

MR. CHERNICK: To review the -- initially the proposals -- proposed tariffs by Synapse, the Synapse team, on behalf of Board staff, and to critique those.

MR. MERRICK: And can you give me a brief overview of your experience, particularly as it may relate to your present task?

MR. CHERNICK: Well, my resume is
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 attached to my evidence, so I won't go through all 300
2 pieces of testimony, if that would be okay. But there are
3 a number of topics that I've covered in my 33 years of
4 experience in the business.

5 I've been involved in setting of rates
6 for renewables and co-generators since the very early
7 1980s, and a number of those activities wound up in
8 testimony that are listed in my resume.

9 Reviewing power purchase agreements,
10 both from the perspective of the consumers and from the
11 perspective of developers. Allocation of costs, including
12 the allocation of joint products such as steam
13 electricity.

14 The design of rates, and I've had
15 several recent assignments in Nova Scotia, including two
16 or three projects involving Heritage Gas, so I'm familiar
17 with their risk profile somewhat.

18 Three NSPI wind projects, and the Port
19 Hawkesbury PPA and then the NSPI biomass plant.

20 **MR. MERRICK:** Have you had occasion to
21 be qualified as an expert before regulatory tribunals?

22 **MR. CHERNICK:** Yes, in a couple of

1 hundred proceedings.

2 **MR. MERRICK:** And you've been
3 qualified as an expert in proceedings before this Board as
4 well?

5 **MR. CHERNICK:** Yes.

6 **MR. MERRICK:** Mr. Chairman, I'm not
7 going to go through all of his qualifications, but I would
8 move that he be qualified as an expert qualified to give
9 opinion evidence on rate structure and rates, including
10 the design and setting of feed-in tariffs and the
11 identification of electrical project costs.

12 **THE CHAIR:** Any question on
13 qualifications?

14 Then he's so qualified.

15 **MR. MERRICK:** Thank you.

16 **DIRECT EXAMINATION BY MR. MERRICK**

17 **MR. MERRICK:** Mr. Chernick, you filed
18 testimony in this proceeding?

19 **MR. CHERNICK:** I did.

20 **MR. MERRICK:** And do you endorse that
21 testimony as being true and correct to the best of your
22 ability?

1 MR. CHERNICK: Yes.

2 MR. MERRICK: He's ready for cross-
3 examination, Mr. Chair.

4 THE CHAIR: Thank you. Ms. Rubin.

5 MS. RUBIN: No questions.

6 THE CHAIR: Black River isn't here.
7 Canadian Wind Energy isn't here.

8 Is there anybody who wants to cross-
9 examine other than Mr. Outhouse?

10 Mr. Giroux.

11 CROSS-EXAMINATION BY MR. GIROUX

12 MR. GIROUX: I must admit I don't have
13 your evidence in front of me, but I'm intrigued, I guess,
14 by some of the statements I read in it at the time about
15 certain altruistic investors in some of these projects.

16 And I guess I'm just wondering, do you
17 have any idea what the unemployment rate is in some of the
18 rural areas of Nova Scotia?

19 MR. CHERNICK: No, not offhand.

20 MR. GIROUX: Do you know what the
21 Canadian dollar is trading for today?

22 MR. CHERNICK: I believe it's above

1 the American dollar.

2 **MR. GIROUX:** Yeah, 1.04, in fact.

3 I guess my questions surround, really,
4 the fact that most of these communities are entirely
5 resource based; forestry, farming, fishing and also
6 manufacturing where hard hit by the high dollar as well.

7 I come from a community on the South
8 Shore which has very little other than some forestry and
9 some fishing. And every few point rise in the Canadian
10 dollar is not very good. Tens of thousands of dollars on
11 a transaction, in some respects.

12 And do you think these could be
13 factors in people's altruistic contribution of assets to
14 energy generation when they're unemployed?

15 **MR. CHERNICK:** Well, in terms of
16 having money to put into a project to invest at any
17 expected return, whether that's the 11 percent equity
18 return that I suggested to the Board or the 13 percent
19 that Synapse assumed, for wind and hydro, at least, the --
20 obviously somebody who doesn't have money, doesn't know
21 where his or her future cash flow is going to come from,
22 is going to have little opportunity to make any kind of
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 investment.

2 In terms of investment of time and
3 effort in terms of, for example, for wind farms locating
4 sites, spending time with various Boards and getting
5 permits, doing all the footwork that's involved in
6 development, somebody who's unemployed or under-employed
7 may have a greater opportunity to contribute than somebody
8 who's working long hours.

9 MR. GIROUX: I have an experience
10 myself, and I just wonder if you can -- would understand
11 it and give me your opinion of it.

12 But I -- you know, I'm only exploring
13 hydro projects in acid rain-impacted systems, which are
14 probably the only systems in Nova Scotia where this is
15 possible because of the salmonids and trouts and stuff
16 that are listed endangered, et cetera.

17 And these acid rain-impacted systems
18 came from coal-fired power plants in another jurisdiction
19 or three, I guess. And when ---

20 MR. CHERNICK: Probably the same ones
21 that produce the sulphur that fall on Massachusetts.

22 MR. GIROUX: We just send ours down

1 into the ocean somewhere.

2 But one of the experiences I had in
3 trying to develop a specific location for a hydro facility
4 is that the family that owned the majority of the land
5 and, in fact, the old sawmill site on the land, you know,
6 as the other -- you know, as they shut down their sawmill
7 that had been operating independently of this land and as
8 they, you know, became less -- there were less
9 opportunities for them, their -- I guess you could say
10 their aspirations for the values of the land that I was
11 talking to them about rose.

12 Now, do you think that's a legitimate
13 -- you know, faced with no other opportunities, what few
14 opportunities they still have within their control, they
15 tried to maybe -- I've heard all kinds of economists here
16 in the last few days.

17 You know, I'm just a fisherman. I'm
18 sorry. But if your options are limited, don't you value
19 what you have left?

20 **MR. CHERNICK:** Well, I know that's
21 probably a very complicated kind of question. It probably
22 depends on the details of the situation, to a large
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 extent.

2 **MR. GIROUX:** I agree, yeah.

3 **MR. CHERNICK:** If they're thinking
4 we're going to get out -- that we shut down the sawmill,
5 we're going to get out of this business, maybe we've got
6 property here that can be sold for vacation homes or
7 something and we're valuing it that way then they may be
8 less interested in having a hydro development at an
9 existing dam or it may not affect it much.

10 It really depends upon the details of
11 the situation what they think they're going to do with the
12 land.

13 **MR. GIROUX:** Well, it was just a
14 negotiation with the family. There was a development -- a
15 component where there were maybe some cottage developments
16 on certain portions that would -- this development would
17 allow access. But the assets in question, the land that
18 would be required for this project, as the conditions
19 worsened in the local economy and, you know, 20 percent
20 unemployment in some of these jurisdictions and, you know,
21 no building permits issued in one municipality I know
22 about last year, or two years ago, the family's price for

1 this piece of land rose.

2 And that's what I was -- the real
3 estate development was -- yeah, that was a separate
4 discussion but it was already on the table, but ---

5 **MR. CHERNICK:** I can't -- given your
6 description, I can't see why this situation would have
7 affected their valuation of the land, especially if they
8 thought it was going to be -- given the dearth of building
9 permits, it was going to be harder to sell the land for
10 additional development than whatever land your project was
11 going to take up.

12 It seems like they would be more
13 interested in getting some money out of it now rather than
14 holding it for the indefinite future. But obviously that
15 depends upon ---

16 **MR. GIROUX:** Circumstances.

17 **MR. CHERNICK:** It depends on
18 circumstances and it depends on psychology. When you're
19 talking about individuals -- sometimes even when you're
20 talking about corporations, but certainly when you're
21 talking about individuals there are people who feel like,
22 you know, if I'm in a tough situation I need to sell my
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 house, then the market needs to pay me more.

2 Well, the market may not be willing to
3 pay you more, but that doesn't mean that you don't hold
4 out for it. In your case where you're looking at a
5 specific site, that may mean that you can't move forward
6 as long as they hold those attitudes.

7 **MR. GIROUX:** Yes, I agree. Or as the
8 conditions worsen, let's say, the family may have held a
9 bunch of land, property taxes creeping up all the time in
10 assessment value, sawmills no longer operating, you know,
11 things like that, other factors.

12 And I guess one other question.
13 Really, I have in my evidence, et cetera, I had talked to
14 many local investors and, in fact, people like the
15 landowners and community leaders to try to assemble these
16 things because the only way some of these things are going
17 to work in these rural areas is if there are benefits to
18 these people.

19 You know, you hear a lot of people
20 complaining about windmills and stuff like that, and hydro
21 can probably take a pie in the face or two about things.
22 But you know, I guess I really get a little assaulted,

1 almost, by somebody expecting -- you know, people who are
2 -- we are trying to get on side for these types of
3 projects by them having to accept a lower rate of return
4 or by somebody even thinking that they should accept a
5 lower rate of return.

6 In fact, they're being inconvenienced
7 or displaced in some respects, and I find it hard to
8 rationalize how someone, maybe in a rich economy you can
9 be altruistic, you can contribute to the greater good, but
10 I -- how can you justify that not in a rich economy kind
11 of thing?

12 **MR. CHERNICK:** Well, when you talk
13 about a lower return, if we're talking about getting a 6
14 percent return on debt, that's a pretty good investment
15 for most people. And as you point out, when people are
16 unemployed, they may not have any money to invest and so
17 it doesn't matter whether you're offering them better than
18 they can get from a GIC or from some other account that
19 they might have.

20 And they may not be thinking about
21 making an investment for their retirement 20 years from
22 now, so a CEDIF structure, for example, may not be very --
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 of much interest if they're thinking they're going to move
2 tomorrow.

3 And where you run into that kind of
4 situation, you may have a hard time getting community
5 support and the community may be interested in things
6 other than community renewable development.

7 My understanding is that this tariff
8 is primarily addressed to a situation in which the
9 community has some interest in developing the renewable.

10 Now, that may be sparked by somebody
11 like yourself coming in and pointing out that they have an
12 opportunity. That's fine. But if the community doesn't
13 get behind it, it doesn't seem to me to be a community
14 project and eligible under -- at least with the spirit of
15 the community feed-in tariff.

16 And if the people have no money and no
17 skills and are not willing to donate the use of their land
18 and are not interested enough in having the renewable to
19 do something to make it happen, if the community's not
20 interested in cutting a tax deal to make it easier for it
21 to happen, then I just don't see how it's a community
22 project.

1 MR. GIROUX: Well, we could have an
2 off the page discussion about that, but I guess you could
3 say that, you know, when you look at the newspaper every
4 day and, you know, you hear the Board's decisions on
5 certain returns on investment for other utilities, let's
6 say, and things like that, I mean, people in the community
7 that you start to talk to about these issues say, "Well,
8 you know, all things being equal, we should get the same
9 treatment," you know, and that sort of thing.

10 So I mean, that -- I think, again,
11 that if you're trying to convince the communities that
12 there's some benefit for them, that you're increasing the
13 tax base, you're potentially creating jobs, you're giving
14 them a bit of energy security, you're distributing
15 electricity, you know, differently.

16 Right now we get half our electricity
17 from across the harbour, and half of that is lost in the
18 line, so I mean, there's lots of reasons that communities
19 can be talked into these projects besides the return.

20 But return, I don't think we have a
21 right to deny them access to the same return that they see
22 in the newspaper or whatever in a reasonable sense.

1 **MR. CHERNICK:** Well, I'm not sure
2 where they would be seeing a return on debt of 8 percent
3 and a return on equity of 13 percent. Obviously you put
4 your money into a stock market index, you sometimes get
5 more than 13 and sometimes you get something negative.

6 When I'm making these kinds of
7 decisions, I'm looking at what I'd get in a mutual fund or
8 what I'd get from the U.S. equivalent of a GIC. And 6
9 percent looks like a pretty good return to me.

10 **MR. GIROUX:** But the return that
11 utilities are guaranteed is different than that.

12 **MR. CHERNICK:** Well, they're not
13 guaranteed, but NSPI is allowed, I think it's 9.5 percent
14 return on equity, which is less than I'm suggesting would
15 be a reasonable value for a community project.

16 And Heritage has no contract, no
17 guarantee of revenues, spends money without knowing
18 whether it's going to sign up the load and has been in a
19 lot of situations where they've done exactly that.

20 So it's a very different kind of a
21 business than a project being developed under a COMFIT
22 rate.

1 **MR. GIROUX:** But I've heard also as
2 well throughout these hearings that risk at times requires
3 more return, and I can't borrow money for 8 percent. My
4 bankers have said you're lucky, you know, we'll try to
5 give you whatever for these types of projects.

6 Synapse talks a lot about, you know,
7 the experience of doing it. I mean, even in the situation
8 I'm talking about, if I -- my archaeological survey
9 uncovers something that's of any note, I'm facing an open-
10 ended possibility, so there are risks that I can't
11 quantify and tie down.

12 There are other construction risks and
13 then I have whole reams of biological laws that govern my
14 conduct in around rivers and sedimentation and things like
15 that.

16 So it's -- I think some of that is
17 required because there are some unknowns still. Would you
18 agree? Not a windmill here. Not a windmill, I'm not
19 talking about the steam. I'm talking about something
20 that's been around for a couple of hundred years, really,
21 but not in these locations. And ---

22 **MR. CHERNICK:** I guess I'm trying to
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 parse out all the things that you laid out in your
2 question and sort of take them one at a time.

3 In terms of the archaeological survey,
4 that's an up-front cost. I assume that you incur that
5 early in the process and find out whether there are
6 archaeological sites before you actually start doing any
7 building, so there is some money at risk in that process.

8 And in a model more complicated and
9 sophisticated than the Synapse model, you might say that
10 cost component is riskier and therefore, as part of the
11 interest during construction, maybe there's a little more
12 built in for the parts that have to be done before your
13 archaeological survey.

14 In terms of your operating in
15 accordance with the law and regulations protecting aquatic
16 life, I would hope that the model is designed to include
17 the operating parameters that work in terms of capacity
18 factor and flow rates and that sort of thing, but
19 obviously that's going to vary from stream to stream.

20 **MR. GIROUX:** That's right.

21 **MR. CHERNICK:** So there's no way for
22 anybody to set a single rate that's going to work for each

1 location. And there may be places where, because you have
2 to guarantee a minimum flow, you're facing losing a large
3 part of your potential power output a lot of the time and
4 it just doesn't make sense to go forward.

5 I don't think anybody expects a lot of
6 hydro plants to be developed under the FIT rates. And
7 whatever rate is set, we'll have to see what kind of
8 response there is and at some point the government will
9 have to decide whether it wants to change something to
10 make it easier to build projects.

11 **MR. GIROUX:** Well, my point was that
12 higher risks may get higher return. I've heard that
13 through the hearing, so ---

14 **MR. CHERNICK:** There -- yes, but there
15 are a couple of -- there are different kinds of risks.

16 There's the risk that you'll spend
17 some money doing some preliminary studies and find that
18 the project isn't feasible.

19 **MR. GIROUX:** That's right.

20 **MR. CHERNICK:** And in which case,
21 you're not going to get paid at all.

22 **MR. GIROUX:** Right.

1 **MR. CHERNICK:** In order to get people
2 interested, you have to offer some -- a high enough return
3 to cover that initial period that you may do all this work
4 and then it may turn out that the space that you thought
5 was available on the distribution line was taken by
6 somebody else.

7 You may find out that you've got an
8 archaeological problem. You may find out that you've got
9 an environmental problem. All sorts of things can cause
10 you had to spend some effort and some money and reach a
11 dead end.

12 Once you've gotten over those hurdles
13 and you're actually in the construction phase or
14 completing construction, then the risks are more one of
15 how well you can operate your system, whether the
16 manufacturers stand by their warranties and those kinds of
17 issues which I think are a lot lower risk.

18 And that's the bulk of the period that
19 we're talking about.

20 **MR. GIROUX:** If you look at a 100-year
21 project, yes, but ---

22 **MR. CHERNICK:** Or even for a 20-year

1 project.

2 **MR. GIROUX:** The construction period,
3 for example, you could encounter a geological issue that
4 you didn't drill for or tap into, rock structures or
5 something that -- et cetera. Again, the -- you have to be
6 really careful of sedimentation, et cetera all through
7 this process.

8 You could encounter a wet summer of
9 construction, and you don't want that. There are some
10 other risks as well; you agree.

11 **MR. CHERNICK:** Yes. I wasn't trying
12 to give an exhaustive list of ---

13 **MR. GIROUX:** Exactly.

14 **MR. CHERNICK:** --- the risks involved
15 in construction of any complicated project.

16 **MR. GIROUX:** Okay, thank you.

17 **MR. MERRICK:** Mr. Chair, I just
18 realized inadvertently that Mr. Chernick had an opening
19 statement he was prepared to give. I wonder if I can ask
20 the Board's indulgence ---

21 **THE CHAIR:** Yeah, sure.

22 **MR. MERRICK:** --- to give an almost
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 opening statement.

2 **THE CHAIR:** Yeah. Go ahead.

3 **MR. MERRICK:** I think this ---

4 **MR. OUTHOUSE:** He's hoping for the
5 complete free pass, so he ignored the opening statement
6 and realized that the room was empty.

7 (LAUGHTER)

8 **MR. MERRICK:** It was going to be a
9 closing summation.

10 **MR. OUTHOUSE:** I might say, Mr. Chair,
11 several people have approached me and indicated that
12 they're sorry not to have been here at the start of the
13 session but they do have questions, Mr. Chair.

14 **THE CHAIR:** I should tell you that
15 when I was managing partner of my law firm we used to have
16 management meetings at 8:30, and lawyers being lawyers,
17 tended to drift in at ten to nine.

18 And I started a process whereby I
19 would make decisions starting at 8:30. And if I was the
20 only person in the room, they didn't get revisited.
21 However, I will revisit, Mr. Outhouse.

22 **MR. OUTHOUSE:** The only thing that

1 surprised me, I thought you were going to say you locked
2 the door at 8:30.

3 **THE CHAIR:** But shortly after that
4 people arrived at 8:29.

5 Go ahead, Mr. Chernick.

6 **OPENING STATEMENT - MR. CHERNICK**

7 **MR. CHERNICK:** Okay. I'll try to be
8 somewhat briefer orally than in writing.

9 One of the big issues in this case
10 which I've already discussed a little bit in cross-
11 examination is the issue of what does it mean to have a
12 community project and what effect does that have on
13 return.

14 And on the one hand, Synapse
15 interpreted community as having no real benefits for the
16 cost of the project or the return requirements and, in
17 fact, increasing the return is simply an impediment.

18 I looked at it as an indication that
19 there should be community support and that the community,
20 whether it's the municipality which has to cover its bond
21 costs or individuals who are members of a CEDIF or other
22 organizations, should be willing to participate in a
DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 community project, if it's really a community project, for
2 less than market returns for projects of nominal or equal
3 risk because it's something the community wants.

4 There are other reasons for developing
5 it other than just cash flow.

6 So I came in with a recommendation for
7 both debt and equity at two points lower than Synapse's.

8 And then we have various wind
9 developers saying that they need 20 percent or 20 to 30
10 percent for equity or 10 percent for debt. Those are --
11 those variations would make a big difference in the rates.

12 And I just wanted to be clear that --
13 because this was an issue raised by Mr. Biewald on cross-
14 examination, that my proposal was not that people be
15 expected to come up with capital for free, but that they
16 should be expected to come up with capital at what are,
17 for them, good rates but maybe are less than a third party
18 commercial investor would demand.

19 And I think it's reasonable to start
20 by assuming that communities really will get behind some
21 of these projects and see what kind of response there is.
22 And if that response is judged to be inadequate over a

1 couple of years, then rethink whether the community FIT
2 should be refashioned into sort of community-flavoured
3 commercial FIT that Synapse assumes.

4 A related issue is what kind of goals
5 there are for the COMFIT program. And I think a number of
6 times on the stand Synapse expressed their understanding
7 that there was some kind of a mandate to get 100 megawatts
8 of COMFIT projects.

9 And I think they were referring to the
10 statement in the renewable energy plan referring to an
11 objective of supplying 100 megawatts from community/small-
12 scale renewable electricity projects. And that statement
13 is in the context of revisiting to see whether the
14 province is on track to achieve that and not necessarily
15 starting with rates that will ensure that level of
16 participation.

17 And secondly, that the 100 megawatts
18 refers to a broader category than just COMFIT. And there
19 are already, as I counted, 40 2-megawatts, depending on
20 what you consider to be small, renewables either on-line
21 or under contract to NSPI.

22 So the province is a large way towards
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 that objective if the objective is just what is written
2 down there already, and with net metering and other
3 programs, including continued RFPs, more of it may be
4 filled out in the future.

5 So the idea that a COMFIT has to
6 produce 100 megawatts I think is unnecessarily
7 restrictive. If it does, great. And I hope that there
8 are a lot of community groups that are really going to get
9 behind projects and a lot of communities that will be
10 organized and stimulated to produce projects that make
11 sense economically.

12 One more issue that came up I believe
13 in questions from the Board to Synapse was this question
14 of regulatory arbitrage. And I think what people were
15 talking about there was the experience in other
16 jurisdictions where rates that were set for relatively
17 small projects like a 10- or 20-megawatt wind farm were
18 being utilized by 200-megawatt wind farms that just broke
19 up their output into pieces.

20 And they could do that because they
21 could connect five or 10 turbines to a meter and say
22 that's Project 1 and next to it is Project 2 and so on.

1 And so for a very small amount of basically wiring and
2 metering costs, they could get a better rate by getting
3 under a threshold.

4 You don't have that situation here.
5 Small wind is limited to 50 KW turbines. You can't take a
6 2-megawatt turbine and say it's 40 50-kilowatt projects
7 and break it up internally that way. So I don't see that
8 ---

9 **THE CHAIR:** I understood the concern
10 to be if the economic solution was to build a 1.5 megawatt
11 turbine and somebody built however many 50-megawatt or
12 less turbines there'd be more cost to the system but the
13 same output of power.

14 **MR. CHERNICK:** Well, that is a problem
15 with paying higher rates for one technology than another.
16 The same is true for tidal as compared to ---

17 **THE CHAIR:** But I don't know why
18 you're saying that's not a problem here.

19 **MR. CHERNICK:** The regulatory
20 arbitrage of pretending that a large project is a small
21 project, you can't really have that kind of situation
22 because you either have 1.5 megawatt turbine or you have a
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 50 KW turbine. There's no ambiguity.

2 **THE CHAIR:** But what's to prevent you
3 from having a bunch of small turbines?

4 **MR. CHERNICK:** You certainly could do
5 that. I don't think that there are any large economies of
6 scale in putting up a dozen or two dozen small turbines.

7 Assuming that the price is set right
8 and not too generously in the first place, you won't --
9 there won't be a huge incentive to pursue those kinds of
10 projects.

11 There is a cap on the total. I see --
12 if there's a problem, it would be that the 5-megawatt cap
13 might get gobbled up by a couple of aggressive
14 organizations that have found that it's very easy to put
15 these up in whatever area they're working in.

16 Whether they're really all one
17 project, they're right next to one another, for example,
18 or whether it's a matter of scattering them all over the
19 county and it's a county-wide CEDIF doing it, for example,
20 and that's the sort of thing that I would hope the
21 government would be paying attention to. And if they got
22 very large numbers of applications for the small wind from

1 a single organization or a bunch of related organizations
2 that they might put the brakes on some of them to give
3 somebody else a chance under that cap.

4 But that's a very -- it's a much more
5 limited problem than other jurisdictions have experienced
6 with having two rates for different size projects.

7 Moving on to Mr. Livingston's
8 testimony, his exhibit, he makes some assumptions that are
9 very different than those made by Synapse. And I don't
10 want to comment here on whether he's right or not, just
11 that his overall cost of capital isn't necessarily much
12 different from that assumed by Synapse since he assumes
13 half of the equity would be raised at 20 percent and the
14 other half would be raised at 6 percent through a CEDIF.

15 And a 6 percent return through a CEDIF
16 because of tax credits is actually quite an attractive
17 return for the investors. So there's no reason why his
18 particular financing wouldn't work.

19 His exhibit that purported that there
20 was no money left over for the CEDIF investors had a
21 couple of errors to it. One is that the -- he has a very
22 large reserve requirement, which even if you assume that
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 the reserve requirement is -- financial reserves have to
2 be as large as he says they do, he assumes an amortization
3 of that reserve fund.

4 And that's not what a reserve fund is.
5 That's money that's put in the bank and kept there.
6 You're not using it up. And at the end of the time, you
7 can give it back to whoever lent it to you.

8 So you only have to pay interest; you
9 don't have to pay principal.

10 And then both for the -- that fund and
11 for the borrowing, he assumes that those last 15 years`--
12 and then sort of ignores the fact that there's another
13 five years to the contract after that when there would be
14 no debt payment and no debt-related reserves.

15 And I find that correcting his errors
16 even with all of his other input assumptions, which are
17 much more expensive than Synapse reports as being typical,
18 that there would be a return to the CEDIF that would
19 provide, I think, an adequate, if not particularly
20 generous, return to the equity investors.

21 And I would point out that Mr.
22 Livingston's company has three projects under contract

1 with NSPI, 2-megawatt size, and those prices are listed in
2 my confidential exhibit. I won't mention them now.

3 But I think his suggestion that you
4 can't finance a 2-megawatt unit at the Synapse rates is
5 not consistent with the evidence.

6 Mr. Pynn also comes up with a bunch of
7 inputs, including higher interest during construction, a
8 shorter loan amortization period, higher equity returns,
9 higher capital costs. And he says that's based on the
10 Watts Wind Energy, Watt section plan actually developed by
11 a CEDIF.

12 And the offering memorandum from Watts
13 Wind Energy from February of 2011 reports a capital cost
14 that's pretty close to what he asserts in his testimony.

15 But it also points out that the
16 offering -- in the offering memorandum also points out
17 that the project accepted a contract from NSPI at about
18 \$127 a megawatt hour, which is considerably lower than
19 Synapse's proposed rate.

20 And while the Watts bar costs are
21 higher than the -- excuse me, what section costs are
22 higher than Synapse's assumption. The capacity factor is
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 also higher than Synapse's assumption.

2 If you just plug those two numbers
3 into the Synapse model, I get a total pre-tax return on
4 investment of about 8 percent. And how that's divided up
5 among debt and equity is not completely clear, in Mr.
6 Pynn's view, but you certainly could get quite reasonable
7 returns for CEDIF investors from those rates of perhaps
8 6.5 percent to 8 percent and then, with the tax credits,
9 that would be equivalent to a 15 to 18 percent return on
10 investment, which is higher than most people say that
11 investors would need.

12 And finally, in terms of Scotia
13 WindField's evidence, there's a suggestion in there that
14 the capacity factors are all mis-stated because NSPI and
15 wind energy consultants and the wind project proponents
16 report wind capacity factors wrong, ignoring outages and
17 ignoring line losses.

18 The studies I've seen have included in
19 great detail all of the ways that you lose output.
20 Investors are counting on the accuracy of these numbers to
21 figure out whether the returns are acceptable.

22 And the capacity factors that I

1 reported in my evidence were those that had been accepted
2 by NSPI and used by the company in figuring out whether it
3 was meeting its requirements for renewable energy.

4 **THE CHAIR:** Thank you. Sorry, this
5 will be Exhibit B-23 -- B-22. Mr. Doehler can't count.

6 **--- EXHIBIT NO. B-22:**

7 Opening Statement of Paul
8 Chernick

9 **THE CHAIR:** I think we'll go back
10 through the list, Mr. Merrick.

11 So Ms. Rubin isn't here. Black River?

12 (SHORT PAUSE)

13 **CROSS-EXAMINATION BY MS. CAMERON**

14 **MS. CAMERON:** I have a -- just a
15 question for my purposes and your purposes.

16 I was wondering if you could clarify
17 what your understanding is of the difference between the
18 FIT and the COMFIT? Because I've heard you earlier refer
19 to the number of hydro projects which would be developed
20 under a FIT and then you've talked about COMFITs for
21 biomass.

22 **MR. CHERNICK:** I don't think I was
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 making a distinction there. I probably got lazy at some
2 point and left the COM part out of COMFIT.

3 But in general, the difference would
4 be that a feed-in tariff would be available to anyone who
5 developed a project that otherwise met the requirements
6 whereas a COMFIT, a community feed-in tariff, is available
7 only to specified community organizations and entities.

8 **MS. CAMERON:** So it's your
9 understanding that a COMFIT is available for any renewable
10 sector, or that a FIT is ---

11 **MR. CHERNICK:** No, for ---

12 **MS. CAMERON:** --- available for any
13 renewable sector?

14 **MR. CHERNICK:** No, there are always
15 technology requirements in terms of size and the fuel
16 source and, in some cases, efficiency.

17 **MS. CAMERON:** Well, for the purposes
18 of this hearing, what's your understanding of which -- in
19 which case -- which renewable technologies are qualifying
20 under FITs and which renewable technologies are applying
21 under COMFITs?

22 **MR. CHERNICK:** Well, this proceeding

1 only deals with the COMFIT. There's a separate process
2 that I understand the Board will be undertaking at some
3 point of reviewing a FIT, a non-community F-I-T for
4 developmental tidal projects, which are -- which certainly
5 can be larger and can connect to the transmission system.

6 But in this proceeding, we're dealing
7 only with four technologies, five if you count the two
8 sizes of wind, and they all have to be owned by what are
9 defined in the regulation as community entities.

10 **MS. CAMERON:** So is it your
11 understanding that biomass is a FIT or a COMFIT?

12 **MR. CHERNICK:** The rate that's being
13 developed here?

14 **MS. CAMERON:** Yeah.

15 **MR. CHERNICK:** By definition, then,
16 it's part of the COMFIT. For biomass, there is a special
17 exemption that allows the steam host to be considered to
18 be the community entity, whereas in the other cases it's -
19 - for all of the other technologies it has to be a CEDIF,
20 a non-profit, a municipality, a university.

21 **MS. CAMERON:** In your opening
22 statement on the second-last paragraph on page 1 you talk
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 about Nova Scotia Power Corporation having a workable RFP
2 process for procuring commercial projects.

3 Are you aware of how many projects
4 have failed under NSPI's RFP process?

5 **MR. CHERNICK:** I don't have the number
6 at hand. I certainly could count that up from various
7 tabulations.

8 There are certainly projects that have
9 -- there are projects that have proposed and been
10 unsuccessful and there are some for which a PPA was
11 offered but not accepted. Other cases, the PPA was drawn
12 up but the project failed.

13 **MS. CAMERON:** So in this case where
14 you're saying workable, you really don't have a -- any
15 evidence to provide -- to sort of substantiate what you're
16 describing as being workable. You wouldn't know whether
17 it would be 50 percent, 60 percent, 40 percent?

18 **MR. CHERNICK:** Well, I said I've got
19 the numbers and I could get it for you if you wanted to --
20 that in terms of number of projects and number of
21 megawatts. I just don't -- I haven't tabulated it.

22 I don't see that having a workable RFP

1 project requires that all the projects that are proposed,
2 even those that are accepted on a price basis, that they
3 all succeed.

4 The process hasn't failed if you
5 accept a good price and it just doesn't materialize. You
6 go out and get another project.

7 **MS. CAMERON:** And would you be aware
8 of the number of projects that Nova Scotia Power
9 Corporation has acquired through independent power
10 producers being unable to finance their projects, so I
11 guess sort of -- from the RFPs is what I'm referring to,
12 and kind of like bankruptcy?

13 **MR. CHERNICK:** You know, I get a
14 little bit confused about the details.

15 For Point Tupper, I believe the
16 company stepped in and bought the turbine as a temporary
17 measure to help the developer get them on site and not
18 delay the process and then wound up negotiating a deal to
19 buy a part of the project, although that was not, in my
20 understanding, necessary to make it work.

21 But it was cheaper for ratepayers to
22 have NSPI own the project than to pay the PPA cost.

1 I'm sorry, I have a hard time
2 remembering which is Nuttby and which is Digby because to
3 me they sound a lot alike. But for one of them -- one of
4 them was affiliated with Layman Brothers, which went
5 bankrupt, having nothing to do with the project. Layman
6 Brothers had other problems that nearly brought down the
7 world economy, and NSPI wound up owning that.

8 Originally an affiliate of NSPI bought
9 it and then NSPI offered to transfer it to utility
10 ownership because the price would be lower for ratepayers.

11 I believe that was Digby. And I do
12 not remember the details of how Nuttby came to be owned by
13 NSPI, but I certainly could look that up if you were
14 interested.

15 And some of those problems were due to
16 a dysfunctional transmission queuing process, which I hope
17 has been resolved now.

18 **MS. CAMERON:** Yeah, I just find it a
19 bit of a stretch that you're talking about a workable RFP
20 process without being able to provide kind of any clear
21 evidence whether -- what the number of contracted projects
22 was compared to the number of those projects that were

1 actually built.

2 **MR. CHERNICK:** Well, I can provide
3 that if you'd like to make an undertaking ---

4 **MS. CAMERON:** Yeah, an undertaking.

5 **MR. CHERNICK:** --- or we could sit
6 here while I add it up.

7 **MS. CAMERON:** No, I don't think I want
8 to take up the time of the Board to do that.

9 In a lot of the material that you've
10 presented and you speak about what communities can bring
11 to a project, and a lot of that seems to be not just
12 equity but in kind, like maybe donating skills or land or
13 those kinds of things.

14 Do you know -- have you had experience
15 in financing renewable energy projects, small ones?

16 **MR. CHERNICK:** Well, I hope to -- I
17 contributed some of the money that paid for photovoltaics
18 to be put on the roof of my town's high school.

19 The town does not tax those
20 photovoltaics, did not charge a fee for the use of the
21 roof, and the people who donated to it, I believe we got
22 tax deductions. But we basically had a negative 65

1 percent or so return on our investment.

2 **MS. CAMERON:** So in the case where a
3 community was looking at developing a renewable project,
4 do you know how banks would normally treat in kind
5 contributions with regard to ---

6 **MR. CHERNICK:** Well, if it's a cost
7 that doesn't have to be incurred. If, for example, a
8 local real estate developer or a farmer goes out and
9 bulldozes the road out to the wind site for you and
10 somebody donates a load of gravel at cost, doesn't charge
11 for his labour or the use of his truck in getting it over
12 to the site, that just is a cost that you don't have to
13 finance.

14 And so I assume that the bank would
15 look at that as being not a cost.

16 **CROSS-EXAMINATION BY MR. LIVINGSTON**

17 **MR. LIVINGSTON:** Good afternoon. Neal
18 Livingston.

19 Are you aware of -- you're dividing --
20 I'm talking about community projects as kind of a --
21 almost as a form of sweat equity and public interest
22 within a community.

1 And within the definitions of this
2 hearing, are you aware of how a community investment
3 development -- community economic development investment
4 fund what it is in Nova Scotia, legally?

5 **MR. CHERNICK:** I haven't reviewed the
6 enabling statute. I've read some of the offering
7 memoranda and I understand something about how they're
8 organized. But this is probably more complicated than
9 I've gotten into.

10 **MR. LIVINGSTON:** Okay. Yeah. One of
11 the major pretexts, I think, in your -- both your direct
12 testimony and your additional information today is that
13 community projects are, in effect, different from what
14 they are under this hearing and that a CEDIF is a limited
15 private company under the **Securities Act** in Nova Scotia so
16 that CEDIFs are regulated by the Nova Scotia Securities
17 Commission.

18 So are you aware of that sort of legal
19 format that these have to work under and formally anything
20 about ---

21 **MR. CHERNICK:** Well, I know that they
22 have to -- I don't know exactly what the regulatory scheme
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 is, but it's clear that they are regulated and they file
2 very formal-looking offering memoranda and amendments with
3 disclaimers and so on just ---

4 **MR. LIVINGSTON:** Okay. Is it ---

5 **MR. CHERNICK:** --- much like any other
6 corporation would.

7 **MR. LIVINGSTON:** M'hm. Is it possible
8 that you misunderstand the notion of what you're calling
9 community effort or community project versus the actual
10 rules and structure around what the government is
11 proposing that these projects work under, which is a
12 CEDIF, and under the CEDIF rules in Nova Scotia?

13 **MR. CHERNICK:** Well, first of all, I
14 think your question is -- your premise is wrong. The
15 CEDIF is one possible structure.

16 But a municipality can own one of
17 these projects, or own 51 percent of the project. The
18 rest could be owned in other ways. It can be a
19 non-profit. It can be university. It can be a special
20 purpose entity created by a municipality, so it doesn't
21 have to be a CEDIF.

22 CEDIF has huge tax benefits and is

1 very attractive, but it doesn't have to be a CEDIF.

2 And then if you have a question ---

3 **MR. LIVINGSTON:** Yeah, I'm ---

4 **MR. CHERNICK:** I'm trying to answer
5 it, but I got lost.

6 **MR. LIVINGSTON:** --- not sure that a
7 community -- under these rules, I'm not sure that a
8 community project is the same as a project done by a
9 municipality or an -- even an aboriginal group, but I
10 think it's different -- it's a different sector, really.

11 I think the province is assuming a
12 rate that will be available to municipality, but
13 municipality won't be working, as the project is not a
14 community project.

15 So would you agree or disagree with
16 that?

17 **MR. CHERNICK:** That's not the way I
18 read the regulations.

19 **MR. LIVINGSTON:** Okay.

20 **MR. CHERNICK:** I believe that a
21 cooperative is listed along with a non-profit, a
22 municipality, a subsidiary municipality, university, a
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 native band in the same list. I don't think there's a
2 distinction made in the COMFIT regulations between those
3 categories.

4 And if you'd like to direct me to
5 something, I'd be happy to look at it.

6 MR. LIVINGSTON: Maybe I can get back
7 to that later on. In terms of how I'm organized, I think
8 it'll take me some time to find that.

9 I wanted to look at some of your
10 direct testimony. So I wanted to start on page 5 with
11 about line 11.

12 So I wanted to make sure your comments
13 has to do with community projects, sort of putting in
14 sweat equity and free value. You mentioned somebody
15 bulldozing something in the last few minutes.

16 The actual organization of a CEDIF
17 formally, if we're looking at that being -- the nature of
18 my questions has to do with that, you know, not a
19 municipality but a CEDIF.

20 A CEDIF's a legal entity and it has
21 certain requirements for the way it has to work. And the
22 comments that you were making about how a community

1 project would work seems to not fit into much of how a
2 CEDIF would work.

3 And it concerns me that you're -- as
4 an expert with a very large expertise and a large CV may
5 be misunderstanding how a CEDIF works in Nova Scotia and
6 the rules it has to work by, and I see that in that
7 comment. And you're disagreeing with Synapse in that --
8 and also, I guess, part of my testimony in that you think
9 that community projects can bring free benefits to
10 projects, and I think the Consumer Advocate said that,
11 where in reality that may not be true.

12 So I just wondered if you had any
13 comment on understanding the difference between how a
14 CEDIF works and its rules and versus a community group
15 because they're quite different entities.

16 **MR. CHERNICK:** I'm not aware of
17 anything that would prohibit a CEDIF from receiving free
18 or discounted service, and I believe that the Boards of
19 CEDIFs are not paid. And so any work that they do in
20 establishing the CEDIF fundraising, raising the capital,
21 doing the planning, identifying sites, working with
22 potential vendors, that all of that is a contribution
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 compared to what you would expect from a commercial
2 entity.

3 But in any case, I don't know anything
4 that prohibits them from getting support from the
5 municipality, from getting support from other people in
6 the community or even from the members of the CEDIF, the
7 investors in the CEDIF putting in their own efforts to
8 make the CEDIF's projects work.

9 **MR. LIVINGSTON:** Is it possible,
10 though, that you -- because you're not familiar with the
11 CEDIF rules around CEDIFs that you're misunderstanding
12 what is called community projects versus what they
13 actually are, which is a private company of a group of
14 investors that has to function under certain rules for the
15 Securities Commission?

16 **MR. CHERNICK:** If there's a rule of
17 the Securities Commission that prohibits the kinds of
18 activities that I've talked about, then I don't know about
19 it. And then to the extent that what I've suggested is
20 inconsistent with the requirements for a CEDIF, then it
21 would not be applicable to projects developed by a CEDIF.

22 Whether that is -- whether those

1 limitations are great enough to make up for the very large
2 tax benefits of the CEDIF, I wouldn't know because I don't
3 know what the limitations are.

4 And if they did over -- if those were
5 more important for a project than the tax benefits of the
6 CEDIF, then it might be developed some other way.

7 **MR. DEVEAU:** Mr. Chernick, what you're
8 saying, your very last statement there, you wouldn't --
9 that doesn't mean that it couldn't proceed by way of a
10 municipality co-op, a not-for-profit?

11 It may well proceed those other ways
12 if it doesn't -- or vice versa.

13 **MR. CHERNICK:** Yes.

14 **MR. DEVEAU:** There may be a
15 combination of, you know, one particular scenario be more
16 attractive to one form of community organization than
17 another.

18 **MR. CHERNICK:** Yes. And the
19 requirement, as I understand it, is that a majority of the
20 ownership of the project be from an eligible community
21 organization, so a CEDIF might own 20, 40, 60 percent of
22 the project. The rest of it might be owned by the
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 municipality or by some other group.

2 And if the CEDIF is prohibited from
3 accepting certain kinds of donations, then those donations
4 could go to the other entity.

5 But again, I don't know of any such
6 limitations and I don't know how they're interpreted, and
7 I'm not suggesting that anybody do anything to evade Nova
8 Scotia's laws and regulations.

9 But if there's a problem, you'd want
10 to look at whether there's an organizational solution
11 rather than just saying, well, we can't accept your
12 bulldozer time because we're a CEDIF.

13 **MR. DEVEAU:** And in the context of
14 those documents as well, again, just -- some projects may
15 work better for universities; other projects -- you know,
16 at a set COMFIT rate. Some projects may work better for
17 universities, others for non-profits, others for
18 municipalities.

19 It depends on the project, depends on
20 the -- on what's being ---

21 **MR. CHERNICK:** And it depends on the
22 local situation that for exactly the same project with

1 exactly the same costs in one place, given the politics
2 and the way that people are organized in the community,
3 the ---

4 **MR. DEVEAU:** And the resources that
5 can bring to bear, whether it's human resources or other
6 types of resources?

7 **MR. CHERNICK:** Yes. The municipality
8 might step in in one case and be the owner, basically
9 carrying out the wishes of a group of people who've
10 convinced the municipality that they certainly won't lose
11 any money and may make a little bit.

12 In another situation, I would hope
13 that the municipality would at least cooperate with a
14 truly local CEDIF that was developing a project that was
15 popular in the community.

16 **MR. LIVINGSTON:** It's interesting how
17 much the scenarios that you imagine, I think, are
18 different than the reality of scenarios that people have
19 been working with here, so it's quite interesting to hear
20 that.

21 But you know, I would -- I guess it's
22 hard to be asking questions versus testifying, but I would
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 disagree, and I can do that later.

2 But you're assuming in one way that
3 communities working together have a higher efficiency and
4 lower cost than, let's say -- I mean, I'm President of a
5 CEDIF, so I have experience with that. I'm also trying to
6 be a private developer and I have a history of selling
7 power.

8 That private entrepreneurship often is
9 able to do things at a lower cost than a group of people
10 in a community.

11 And you're assuming that an
12 inexperienced group of people gathering together in a
13 community are able to have a lower cost. And that seems
14 to me to be very odd, and I kind of take issue with that
15 because I would say a community group sitting around which
16 has no expertise would have to go and hire a very
17 expensive engineering firm to do a study for them versus
18 an entrepreneur who might, in-house, have a certain
19 capability to do that study.

20 So I don't understand where the basis
21 for you making assumptions on lower cost really come from
22 because they don't seem to be based in any fact.

1 **MR. CHERNICK:** Well, obviously the
2 facts depend upon the individual projects that get
3 developed. And there is a provision in the regulations
4 that allows minority ownership by non-community entities,
5 so in your case, a private developer could certainly be a
6 minority owner and have some equity and get a return based
7 upon the effort that that developer puts in, and perhaps
8 also money.

9 I just don't see why it should be a
10 disadvantage to have the community's support.

11 A private developer is not going to
12 have people helping him raise money for free. He's not
13 going to have people contributing goods and services to
14 him unless he's very lucky and doing something that's
15 very, very popular. And he's not likely to get a lot of
16 breaks from the municipality.

17 **MR. LIVINGSTON:** Are you aware that
18 under the CEDIF, the way that money gets raised during a
19 CEDIF -- because you repeated this several times -- that
20 their commission's paid when money is raised. And in
21 fact, there's arm's length requirement that the Securities
22 Commission has. In fact, if they consider, let's say, the
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 CEDIF group in some way to be too close as the developer
2 that in some ways they can't even sell. They could even
3 have to have other people sell who are at arm's length.

4 But are you aware of those two issues
5 at all?

6 **MR. CHERNICK:** I know these
7 commissions are paid. I'm not familiar with the arm's
8 length requirements.

9 **MR. LIVINGSTON:** But you were just
10 suggesting that money can be raised without fees being
11 paid, I think you were just saying.

12 **MR. CHERNICK:** If the -- again, if the
13 CEDIF requirements -- you may have found an area in which
14 the CEDIF is not the most efficient fundraising operation.
15 Perhaps the CEDIF would make sense for raising the equity
16 portion of the project and the debt would be raised
17 through a non-profit or through the municipality.

18 You know, regardless of who actually
19 sells the investment vehicle, having a community
20 organization that is strongly promoting it and sending
21 their friends and neighbours to your sales agents should
22 be an advantage for a CEDIF.

1 **MR. LIVINGSTON:** Do you know anything
2 about the maximum amounts that have been raised by a CEDIF
3 to date in Nova Scotia?

4 **MR. CHERNICK:** I don't.

5 **MR. LIVINGSTON:** Okay. And I want to
6 look at page 9 -- on page 9 and page 10 -- top of page 9
7 and then into page 10, line 17 in your testimony, this is
8 -- you talk quite a bit about capacity factors. You
9 mention the Hatch Report.

10 I'm a little bit unclear when I read
11 this what you're determining from those remarks. It
12 appears that in one way you're believing the Hatch Report,
13 which is, you know -- was hardly an expert report. And on
14 the other hand, you're talking about capacity factors that
15 are lower and higher and which ones to go with, and that
16 can affect the returns.

17 Ultimately, I think you're disagreeing
18 with Synapse, so you can provide a little more clarity on
19 that?

20 **MR. CHERNICK:** Yes. I don't think I
21 call the Hatch Report into question other than suggesting
22 that perhaps the reference to a 32 percent capacity factor
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 may have been a badly written sentence.

2 It's also possible that for the
3 particular calculation they were doing at that point in
4 the report they used a 32 percent capacity factor.

5 The important data that I provide from
6 the Hatch Report is at the top of page 9, I guess it is,
7 the -- which gives the capacity factors that Hatch
8 estimates for each of their six regions, which are all
9 higher than the capacity factor assumed by Synapse.

10 **MR. LIVINGSTON:** And you're suggesting
11 those figures in the Hatch Report are credible?

12 **MR. CHERNICK:** Yes.

13 **MR. LIVINGSTON:** But you also ---

14 **MR. CHERNICK:** But this report ---

15 **MR. LIVINGSTON:** --- mention that
16 NSPI's actual experience has been lower, around 26
17 percent?

18 **MR. CHERNICK:** Yes.

19 **MR. LIVINGSTON:** So why would you
20 assume the Hatch is anything but wrong?

21 **MR. CHERNICK:** Well, as I say, the --
22 and I'm not seeing exactly where I -- oh, yeah. As I say

on page 10:

"The 11 earlier small wind units owned by or selling to NSPI have an average capacity factor of 26 percent. The new ones are expected to have much higher capacity factors."

And from that I conclude that developers seem to be getting better at identifying good wind sites.

MR. LIVINGSTON: So you disagree with Synapse's use of the lower capacity factor than what ---

MR. CHERNICK: I do.

MR. LIVINGSTON: Okay.

MR. CHERNICK: And I looked at the same report they looked at, and I think I just read it more carefully and found much higher estimates of capacity factor than the one that they picked, which was one of the lowest numbers they could have found in that report.

MR. LIVINGSTON: And what would you say if I said it was the developer that no one would even believe me if I talked about delivering a net capacity

DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 factor that's higher than what Synapse is suggesting?

2 **MR. CHERNICK:** I don't know what
3 people would believe from you. I know that Watts --
4 what's it called? Watts Field reports a 35 -- that it
5 expects a 35 percent capacity factor.

6 **MR. LIVINGSTON:** On page 11, line 5,
7 you again state that:

8 "Synapse is ignoring all the
9 benefits of community..."

10 **MR. CHERNICK:** I'm sorry. Which ---

11 **MR. LIVINGSTON:** Oh, page 11, line 5

12 ---

13 **MR. CHERNICK:** Thank you.

14 **MR. LIVINGSTON:** --- in your
15 testimony.

16 **MR. CHERNICK:** Yeah.

17 **MR. LIVINGSTON:** You're saying that:

18 "Synapse submits that community
19 involvement adds to the cost of
20 project development and ignores
21 all the benefits of community-
22 based development."

18 But I don't see that Synapse has any
19 basis for its assumption that there will be no material
20 community support renewables. And the evidence that I
21 have is that communities who want renewables support them
22 with time and with money. And sometimes it's people like
DICTUM DIGITAL INC. CERTIFIED COURT REPORTER

1 me just giving money to pay for the renewable.

2 Sometimes it's people like Mr. Biewald
3 investing in renewables that he knows will have little or
4 no return for him.

5 So sometimes it's people putting their
6 efforts into raising the money or planning the projects or
7 otherwise assisting the development.

8 **MR. LIVINGSTON:** So when Emera goes to
9 the bond market or the bank or whatever they do and they
10 raise money, money comes -- Robin McAdam has stated
11 repeatedly in these hearings that they get money at a very
12 low cost.

13 They're big, and they -- but when a
14 new entity like a CEDIF with no track record raises money,
15 it's considered higher risk and, therefore, results in a
16 higher cost.

17 Would you agree with that?

18 **MR. CHERNICK:** Well, it depends on
19 what you mean by raising money. When ---

20 **MR. LIVINGSTON:** Going to the bank and
21 have the bank saying, you know, "We've never seen you
22 before; you have no track record. We consider you to be

1 very high risk. We're going to charge you a higher
2 interest rate."

3 **MR. CHERNICK:** It's possible that if
4 you have to go the bank that that would be the case. If
5 you go to the municipality and the municipality wants to
6 support the community project, then that wouldn't be the
7 case.

8 And in the -- in terms of equity
9 financing, the Watts Wind offering statement talk -- I
10 believe it was -- or no, I think it was the Cape Breton
11 West offering statement talked about a 4 percent return on
12 investment being their target for a satisfactory return.

13 So depending upon how you're financing
14 a project, you could be paying more for some bank debt.
15 You could be paying less for some non-conventional
16 financing. You certainly should be paying less for the
17 equity if you're using a CEDIF.

18 **MR. LIVINGSTON:** Are you aware
19 previous to the two recent projects, the Watts project
20 that got built and I think there's another project in
21 Cumberland-Colchester that's going to get built this year,
22 that -- to my knowledge, at least, all the previous wind
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 project CEDIFs haven't returned -- haven't made dividends
2 to their shareholders so that, in effect, there's what I
3 would call negative business climate around renewable
4 energy CEDIFs in Nova Scotia based on what's gone on in
5 Nova Scotia in the last decade so that that might
6 fundamentally, you know, change the climate of investment
7 that you're talking about ---

8 **MR. CHERNICK:** No, I don't have ---

9 **MR. LIVINGSTON:** --- for individuals
10 and communities.

11 **MR. CHERNICK:** I don't have any
12 information along those lines. I did what I could from
13 looking for financial reports from the wind CEDIFs and
14 online, and I haven't found anything that would be
15 responsive to your question. So I don't know how many
16 projects they've developed and how successful they've
17 been.

18 **MR. LIVINGSTON:** And is there any
19 example that you know of where -- in Nova Scotia where
20 there's been any linkages or -- developed between CEDIFs
21 and municipalities like you suggested a number of times?

22 **Because I -- my general opinion is**

1 that they don't match well, so I was just interested
2 because you keep proposing this as a potential model. And
3 I'm not even sure a municipality can -- in Nova Scotia can
4 legally provide money in the way you're suggesting.

5 **MR. CHERNICK:** Well, I don't know of
6 any reason why a municipality couldn't own part of a
7 project, but you have to -- I haven't researched the legal
8 limitations on municipal investments.

9 Apparently the government thinks that
10 municipalities can invest, that they -- and certainly
11 suggests that they don't have to be 100 percent owners,
12 but I'm not familiar with the laws on investment.

13 **MR. LIVINGSTON:** On page 13, line 1 to
14 4, you talked about potential for donations, lands and
15 services, and property tax relief.

16 It seems to me that that's a pretty
17 big assumption relative to this because I don't think
18 there's any mechanism, at least on the property tax
19 relief, for that to happen in Nova Scotia.

20 Again, it seems to me to be that's a -
21 - what your experience may have been in the United States
22 may not be functional here.

1 **MR. CHERNICK:** Well, I would be
2 surprised to find that if a municipality owns a project
3 that it would charge itself property taxes.

4 As for the other structures and
5 whether the municipality is allowed to negotiate payments
6 in lieu of taxes rather than using the standard tax
7 formulas, if I'm wrong about that factually, so be it.

8 **MR. LIVINGSTON:** Page 13, line 20, you
9 say that:

10 "As for local individuals and
11 institutions, they frequently
12 donate money to support causes
13 they believe in, and earning a
14 direct financial return of
15 negative 100 percent or something
16 a little less than negative if
17 they can offset it by income tax
18 deduction. This is how the
19 construction of community centres
20 and libraries are typically
21 funded."

22 Are you aware that libraries and

1 community centres in Canada are funded by our tax dollars
2 and they're projects that are built by government, and
3 that isn't the case in this country?

4 **MR. CHERNICK:** Well, actually, I
5 didn't find any particular citation on libraries, but in
6 terms of, I believe it was community centres, that when I
7 was looking for information about the community projects
8 in Nova Scotia I found a couple of references to community
9 centres that were being built with a combination of
10 sometimes a federal or provincial grant, some municipal
11 money and private fundraising.

12 And that seemed very familiar to me
13 from my town's recent effort to -- successful effort to
14 rebuild our library that used a blend of state and local
15 and non-profit and private contributions.

16 Again, if I'm wrong and, factually,
17 libraries do not raise any money from the community and
18 are entirely tax supported, I would stand corrected ---

19 **MR. LIVINGSTON:** Okay.

20 **MR. CHERNICK:** --- if that's not the
21 facts here. But I doubt that Nova Scotians are so
22 different in their emotional makeup that they would not
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 contribute to something they saw as being a community
2 project.

3 **MR. LIVINGSTON:** That's something I'd
4 previously stated, is CEDIF is a -- is essentially a
5 corporation, a private entity owned a by a group of
6 individuals. And in your line 20 and 21 again, you make
7 mention of the fact that there's some relationship to
8 community spirit or donating money to support causes.

9 It seems to me that those statements
10 have nothing to do with what we're discussing here
11 relative to setting a context for -- even a context in
12 describing what we're setting rates for and understanding
13 what this is about.

14 So I just -- I don't know if you want
15 to comment on the fact that the physical structure of what
16 a CEDIF is does not relate -- seems to me does not relate
17 to the comments you're making.

18 **MR. CHERNICK:** Well, again, your ---

19 **THE CHAIR:** CEDIF is one of seven
20 structures that the regulations allow to own these
21 entities in the regulations.

22 **MR. LIVINGSTON:** Yeah, I'm aware of

1 how a cooperative works. I don't think it would be
2 typically different.

3 **THE CHAIR:** Well, all your questions
4 seem to be premised on the fact that the only way you can
5 do this is through a community economic development
6 corporation.

7 **MR. LIVINGSTON:** Well, I'm not saying
8 it's the ---

9 **THE CHAIR:** It's one of seven
10 ownerships.

11 **MR. LIVINGSTON:** I'm not saying it's
12 the only way. I'm trying to show that comments this
13 expert is making may be, you know, factually problematic
14 relative to the organization of how you're going to
15 determine rates under the policy is ---

16 **THE CHAIR:** I guess the point is that
17 your questions all pre-suppose one ownership structure.
18 And he's explained four or five times that the regulations
19 allow for a variety of ownership structures.

20 **MR. LIVINGSTON:** I agree with you on
21 that.

22 On page 15 in line 9 to 11, you
 DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 suggested that lower interest rates are available than
2 what a number of parties have brought forward and Synapse
3 has brought forward, and also the equity returns.

4 And I'm not clear on why you think
5 your information is correct and Synapse's or the other
6 parties' is not, why the Board should listen to your
7 evidence on this and not other evidence.

8 MR. CHERNICK: Well, if you accept
9 Synapse's view that the -- that market investors who are
10 investing their money solely to make a return and do not
11 care whether the project is a renewable energy project or
12 a coal mine and do not care whether it's in Nova Scotia or
13 Tierra del Fuego. If those people will accept eight
14 percent on debt and 13 percent on equity, then people who
15 care about the project, who support renewables, who want
16 to see more of them, who want to see them in their
17 community, who perhaps also see them as being beneficial
18 to the community directly in various ways should be
19 willing to invest at lower returns.

20 I don't have a source of data for this
21 input, or certainly I didn't at the time I wrote my
22 testimony. Since then, it's become clear to me that

1 CEDIFs raise equity from their members that -- at rates
2 considerably below the 10 percent.

3 And I was basically looking at it and
4 saying if somebody came to me with a project in the
5 community that was something that I wanted to have there,
6 photovoltaics, small wind, some other -- something else
7 with environmental benefits or cultural benefits, and
8 offered to let me buy their debt offering with a five or
9 six percent coupon and -- or invest on the equity side
10 with an expected return at 10 or 11 percent, that seems
11 pretty good.

12 If they come and ask me for a small
13 amount of money, I would probably just give it to them. I
14 have in the past, and a lot of people do.

15 Now, what's a small amount of money
16 depends on how much money you've got, but when you're
17 getting the return, even if it's maybe less than you would
18 expect to get from investing in some stock market index
19 over the next 20 years on average, if you're getting a
20 return and you care about the thing you're investing in,
21 you'd expect that you'd be willing to accept a somewhat
22 lower return.

DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 MR. LIVINGSTON: So it appears in some
2 ways that your whole premise for saying that the rates
3 should be lower are that these kind of projects will get
4 built is the fact that you think that there are community
5 investors who are looking for a lower return.

6 But in our experience in raising money
7 for the CEDIF, that wasn't the case. That if people want
8 to donate philanthropically to something they do, but they
9 see these as investments that they think they should
10 receive as much as anybody else should, and that hasn't
11 been the case.

12 So again, how do you see the ability
13 for you to justify your comments based on community
14 philanthropy when, in effect, the vehicle that exists here
15 -- and again, I guess we are talking about the CEDIFs here
16 because you're talking about individual investors -- don't
17 seem to be in that category, from our view.

18 So you're -- essentially we're talking
19 about two different kinds of things, but you're trying to
20 influence the Board to make decisions on rates. And
21 you're saying people are willing to not want much and, in
22 effect, the reality here is that people see that these

1 should be better than what they're getting from their, you
2 know, RSP investments or anything like that. That's why
3 they're going to haul it out of an RSP and throw it into
4 this.

5 And I guess the tax break might modify
6 the risk against no return. But the cost of having a
7 private RSP would mitigate the tax break.

8 So it's -- I think that the way that
9 you're portraying how it works isn't how it is here. I
10 guess that's my difference.

11 And I guess you're either going to
12 have to justify that you're right to -- better than this
13 than just making statements to have the Board believe
14 you're right.

15 **MR. MERRICK:** Mr. Chairman, it's not
16 my style to run interference, but we have been there quite
17 a few times. And to the extent that there's a question,
18 it's been asked and answered.

19 To the extent that it's testimony,
20 it's premature.

21 I wonder if we could ask Mr.
22 Livingston to move it along.

1 **THE CHAIR:** I agree, Mr. Livingston.

2 I understand you disagree with him.

3 **MR. LIVINGSTON:** I do. So I guess
4 that's why you'd say we disagree.

5 **THE CHAIR:** But we knew that an hour
6 ago.

7 **MR. LIVINGSTON:** Okay.

8 In your information you put forward
9 this morning, your opening statement, I just wanted to go
10 over a couple points in there, is that you -- I don't need
11 to look at it there.

12 Under "Mr. Livingston's exhibit," you
13 stated that I was bringing forward a 50/50 ownership
14 model, but I don't think that I actually said that in my
15 information. So I just wanted you to tell me how you
16 assumed that when it didn't seem to be in that model.

17 **MR. CHERNICK:** I believe that my
18 understanding was that you were assuming a 20 percent
19 return on equity would be necessary for one million of the
20 \$2 million of equity, that \$3 million would be debt
21 financed and the remainder would be financed half at 20
22 percent and half by the CEDIF.

4 But if I said I disagreed with your
5 assumption that I had said 50/50, would you agree that I
6 could disagree, or do we have to look at that otherwise?

10 MR. LIVINGSTON: Five million.

```
14         And if you'd like to point out ---
```

19 MR. CHERNICK: I guess your example
20 was if you did 50/50, then you'd wind up not paying
21 anything to the CEDIF investors, and that's not acceptable
22 outcomes, so you were showing that it didn't work, but I
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 thought in your example you were assuming the 50/50 and
2 then proving that there was a problem.

3 If I misunderstood that, I apologize.
4 You didn't have a spreadsheet. I was trying to read your
5 text and trying to figure out how you were getting your
6 numbers.

7 **MR. DOEHLER:** Excuse me, Mr.
8 Livingston. What's the difference between 50/50 and
9 51/49?

10 You have 51 percent here. One percent
11 is insignificant for what we're talking about, I would
12 suggest.

13 **MR. LIVINGSTON:** I would be happy to
14 address that, I think, better when I'm on the stand, but
15 the point I was making was I don't think you could even
16 end up with anything near that unless you -- is it
17 appropriate to say that I could answer that better when
18 I'm there? No?

19 Pardon me?

20 **MR. DOEHLER:** I'm just saying you're
21 going 50/50. 51/49 to me is no different.

22 **MR. LIVINGSTON:** Oh, no, I wasn't

1 suggesting you could end up with 51/49. It would have to
2 be something ---

3 **MR. DOEHLER:** Well, that's what you
4 have in your example and that's what Mr. Chernick, I
5 think, answered, so ---

6 **MR. CHERNICK:** Mr. Livingston, if you
7 look at the top of your exhibit, you assume a \$5 million
8 cost; one million is invested by the CEDIF and there's --
9 let me just find the right line. Outside equity of \$1
10 million.

11 So one million from the CEDIF and one
12 million from outside equity; it looks like 50/50 to me. I
13 thought that's what your example was doing. If I misread
14 it ---

15 **MR. LIVINGSTON:** Yeah, I guess you
16 looked at other issues. I was trying to make a statement
17 under other issues, that it simply couldn't work like
18 that, but I could address that later.

19 **MR. CHERNICK:** Oh, and let me say I
20 was not suggesting that you thought this was a viable
21 financial structure. I thought you were demonstrating
22 that there would be no return to the CEDIF investors and
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 they would be disappointed and that -- and I did not
2 interpret your exhibit as saying that this would be a good
3 way to finance it.

4 But I think that there were some
5 arithmetic errors in your analysis, so even if your inputs
6 were right, you under-estimated the long-term return to
7 the CEDIF and grossly under-stated the long-term return to
8 the CEDIF investors.

9 **MR. LIVINGSTON:** Yeah, one of the
10 items may have come from the way I wrote that, so if I was
11 to explain something differently maybe you can look at it
12 different, was that if I was to say that in our experience
13 during the long payback period that the outside equity
14 wants to see in the range of 18 to 24 percent but that
15 after the long payback period they want as full a return
16 as they can get after that, I guess, wasn't clear and
17 would affect the CEDIF shareholder.

18 **MR. CHERNICK:** So in your example, you
19 were assuming that -- as I understand it, that the outside
20 equity gets 20 percent for the first 15 years and then,
21 after that, it jumps to some much higher number.

22 **MR. LIVINGSTON:** Yeah, that's correct.

1 **MR. CHERNICK:** Oh. In that case, you
2 could wind up with an assumption that -- or conclusion
3 that there would be no return for the CEDIF investors if
4 the outside equity demands that much and your other inputs
5 are correct.

6 **MR. LIVINGSTON:** I just wanted to ask
7 a couple questions about reserve fund because you disagree
8 with me.

9 The -- I assumed that the purpose of a
10 reserve fund was that if you needed cash for repairs or
11 things like that, that that cash comes from the reserve
12 fund or else the business goes out of business.

13 Would you agree with that?

14 **MR. CHERNICK:** Either the business
15 goes out of business or it raises more money.

16 **MR. LIVINGSTON:** But effectively, if
17 you need cash on hand that you don't have from monthly
18 revenues, you use money from the reserve fund. Is that
19 correct?

20 **MR. CHERNICK:** Yeah, there are -- in
21 some cases, there are mandatory reserve funds, for
22 example, if you're borrowing money, there may be a
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 requirement from the lender to maintain a reserve fund.

2 In other cases, it's a matter of
3 keeping working capital on hand to carry you over periods
4 of, say, low wind or making sure there's enough money to
5 pay for maintenance when the bill comes in from the
6 manufacturer, whoever you have a maintenance contract
7 with.

8 **MR. LIVINGSTON:** So in your page 3 of
9 your opening statement, you disagree with my calculation
10 on reserve fund, but it doesn't seem to me that you're
11 making allowance for the reserve fund being used for real
12 needs during that time period.

13 **MR. CHERNICK:** Well, no, the purpose -
14 - I think I understand now what you mean by my disagreeing
15 with you because I was going to say that I wasn't
16 disagreeing with you -- it's not that I agree with you.

17 But I wasn't disagreeing with you
18 about the size of the reserve fund. I was just pointing
19 out that Synapse and other sources such as Watts Wind
20 reported much smaller reserve fund costs.

21 But my understanding of the reserve
22 fund is that it's not a fund that you expect to gradually

1 deplete over the course of the project. It's a fund that
2 will rise and fall, and you want to have a certain amount
3 in there because there will be rainy days.

4 There will be times when a bill comes
5 in. There will be times when the wind doesn't blow as
6 much and you have to pay your debt payments even though
7 the revenues are lower, and therefore you need some cash.

8 But on the other hand, there will be
9 other times when the wind blows more than average, and
10 then there will be long periods of time between
11 maintenance bills, and therefore, the reserve fund will
12 build up again. And then it'll come down as various
13 things go wrong, at least in the short term, and then it
14 will come back up again.

15 And that's what everybody does in
16 terms of cash working capital; you have to have some money
17 on hand just for the ebb and flow of costs and revenues.

18 **MR. LIVINGSTON:** So it is possible
19 that, although you think my calculation includes errors,
20 that a reserve fund could result -- could be needed on
21 that level for a small wind project from a small company
22 that has no other capital reserves, and it might end up
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 getting used in the cost that I'm assuming might be
2 between what you're saying and what I'm saying?

3 **MR. CHERNICK:** Well, the number that I
4 calculate takes your size return -- your size reserve fund
5 and your assumed eight percent return and takes no credit
6 for that money sitting in a bank some place earning any
7 interest, and so I take all of your assumptions except for
8 the assumption which maybe was explicit, rather than in
9 error, that the fund gets used up.

10 Other sources indicate your numbers
11 are too high. I have not independently reviewed the
12 issue, and other than just reporting what Watt's Wind
13 says, I'm not taking a position on what the reserve fund
14 needs to be.

15 **MR. LIVINGSTON:** Okay. Besides saying
16 that I had errors.

17 Here's, I think, the classic kind of
18 situation that ends up with these CEDIFs. So if I came to
19 you and I said, "Well, I think overall, over 20 years, we
20 can give you a four percent return if you invest, if
21 you're a CEDIF investor; however, I'm pretty damn sure
22 you're not going to see anything until year 16, and

1 between year 16 and 20 there could be a good upside to
2 you, but if we needed a rebuild on the turbine or the
3 blades started having problems or something else started
4 having problems, you still might get very, very little",
5 do you think that anybody would say, "Geez, if I don't get
6 a dividend until year 16, I'm really happy to give you my
7 money"?

8 **MR. CHERNICK:** I think, in general,
9 that would be an unusually long time to wait for a return
10 on an arm's length investment. On the other hand, one of
11 the ways that the CEDIFs market their investment is as
12 part of a retirement fund. And if you're 40 or 45 and
13 you're not planning on touching the money until you're 65,
14 then it doesn't really matter when it comes in.

15 **MR. LIVINGSTON:** And you're aware
16 that CEDIFs cost money to run and they pay tax, things
17 like that. I think you examined my testimony probably
18 where I mention that at one point?

19 **MR. CHERNICK:** They pay -- I'm not
20 sure what the tax structure is. And there are -- and of
21 course, I don't know what you built in to your operating
22 costs, which again are much higher than those assumed by
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 Synapse based on review of other sources. So your
2 operating costs may include the cost of operating the
3 CEDIF.

4 **MR. LIVINGSTON:** And also the CEDIF
5 paying tax. I'm just -- it just may deteriorate what
6 you're classically looking at, that four percent may
7 deteriorate further, potentially, because of the
8 government -- I guess the example I used on page -- I
9 guess mine is B-1 or B-2. Exhibit B-2.

10 I mention in B-2 that our CEDIF, which
11 has not been able to return a dividend to the
12 shareholders, has already had to pay tax to the government
13 so that, in fact, you know, it may not be possible to --
14 even if you have a -- what I would call a gross delivery
15 of funds into the CEDIF from a project that you can
16 actually provide dividends at the same percentage rate to
17 the individual shareholders.

18 **MR. CHERNICK:** Well, in terms of
19 income taxes, if you're assuming that there is no income
20 for a while I don't know why the CEDIF would be paying
21 income taxes. But I see your assumption that the return
22 to shareholders is taxed, and that would -- in your case,

1 it would -- at 17 percent? It would reduce the four
2 percent to 3.4 percent or something like that.

3 **MR. LIVINGSTON:** And are you -- you
4 may or may not have been at the hearing, but I think at
5 the biomass hearing last year for NewPage Port Hawksbury
6 that there were questions asked to Robin McAdam, a VP at
7 Nova Scotia Power, about the small wind projects that had
8 PPAs.

9 His comment was he was very doubtful
10 that many of those would get built, and yet in your
11 testimony you're using -- you're mentioning those, so I
12 just wondered if you were aware that that was how the
13 utility felt about those projects over a year ago.

14 **MR. CHERNICK:** I was there for part of
15 the hearing. I do not remember having heard anything
16 along those lines. And in all of the reports that I've
17 seen from NSPI regarding its renewable standards
18 compliance, it's counting these wind farms, these
19 projects, the small projects in addition to the larger
20 farms.

21 **MR. LIVINGSTON:** And my final question
22 is, if I were to tell you that I agreed with Mr. Pynn's
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 comment that outside equity is looking for in the range of
2 20 to 30 percent, do you see that as being credible when
3 it's coming from, basically, a developer trying to do a
4 project and also someone who's just done a project that
5 that should be used as a benchmark?

6 **MR. CHERNICK:** Well, again, since -- I
7 don't know whether you want me to talk about how much
8 you're contracted to get for your projects, but certainly
9 Mr. Pynn's project is getting considerably less than
10 Synapse has suggested would be necessary at a 13 percent
11 return. So he's clearly not financing much of his project
12 with 30 percent equity.

13 **MR. LIVINGSTON:** I guess we'll be able
14 to ask that to Mr. Pynn when he actually is here, then,
15 and you could ask that of me when I'm in your seat.

16 Thank you very much, and thanks for
17 your time.

18 **THE CHAIR:** I think we'll take a 15-
19 minute break.

20 --- Upon recessing at 3:36 p.m.

21 --- Upon resuming at 3:53 p.m.

22 **MR. PAUL CHERNICK, Resumed:**

1 **THE CHAIR:** So the Canadian Wind
2 Energy Association? Any questions? Champlain isn't here.
3 The Ecology Action Centre, any
4 questions?

5 **CROSS-EXAMINATION BY MR. VOGEL**

6 **MR. VOGEL:** Good afternoon, Brennan
7 Vogel with The Ecology Action Centre.
8 First question, are you familiar with
9 the filing on behalf of the EAC and NovaSea by E3
10 Analytics?

11 **MR. CHERNICK:** I've reviewed it. Do
12 you want to direct me to something?

13 **MR. VOGEL:** Sure. No, that was the
14 question.

15 So second part to the question is
16 would you support the suggested changes that E3 Analytics
17 has made with regards to the wind and the tidal tariffs as
18 a means of ensuring greater efficiency and cost
19 effectiveness of these technologies providing renewable
20 electricity to ratepayers of Nova Scotia?

21 **MR. CHERNICK:** Well, maybe you ought
22 to walk me through a change at a time.

1 **MR. VOGEL:** Sure. Let's talk about
2 the winter first.

3 **MR. CHERNICK:** Okay.

4 Are you talking about the rate design
5 and moving to the -- a transition from the 50kIBU to 1.5
6 megawatts?

7 **MR. VOGEL:** I guess my question would
8 be whether it makes sense for the Board to have a rate
9 that pays substantially more for, say, a 650 or 700
10 kilowatt turbine than for a 1.5 megawatt.

11 What are the benefits to the province
12 of investing in much more expensive technologies, assuming
13 that they are much more expensive?

14 So one question is if the cost that
15 occurred in Figure 2 of your evidence actually reflects
16 the real cost pattern, do you want to encourage a 75
17 kilowatt or 750 kilowatt units?

18 The other problem -- another problem I
19 have with it is that the -- there's no evidence supporting
20 the linear interpolation. We really don't know whether as
21 projects get over 50 KW they drop in cost very quickly so
22 that by the time you get up to, say, 700 KW, they're

1 almost as cheap -- almost as less expensive as the 1.5
2 megawatt. Or whether until you get over a megawatt there
3 are very few economies and the curve actually is quite
4 flat and then drops suddenly.

5 So without knowing that, I don't think
6 the Board really is in a position to draw the kind of line
7 that you've asked them to draw.

8 Secondly, as it's -- or third point, I
9 guess, is that as it's proposed, the rate design would
10 wind up with a different tariff for each project or for
11 each different size project. And that seemed to be a
12 stumbling point for, certainly, Synapse's interpretation
13 of what's allowed under the regulations.

14 I would say if the Board wanted to
15 have some kind of differentiation it could have a price
16 for a certain number of megawatt hours per month and then
17 have the price for additional megawatt hours drop off.

18 So if we had enough data and the Board
19 wanted to price medium capacity factor, 700 KW sites, so
20 that they were cost effective and also moderate capacity
21 factor of 1.5 megawatt sites and high capacity factor
22 sites and 2 megawatt sites, you could look at a declining
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 block tariff. So there's single tariff.

2 If you're a large plant, you get one
3 rate up to so many kilowatt hours a month and then it
4 drops, and it drops further as you get larger.

5 And so both larger projects, larger
6 units, which are presumably cheaper, and larger -- excuse
7 me, higher capacity factors would result in lower average
8 payment per kilowatt hour. But it would be the same
9 tariff for all of the COMFIT projects in the large
10 category.

11 That would be -- I think that would
12 work a little better. But again, we just don't have the
13 data to estimate what that curve ought to look like.

14 Oh, sorry. And maybe it's the sort of
15 thing that the Board might look at next time it revisits
16 the tariffs, depending upon the events that have
17 transpired in the intervening months. But I just don't
18 see how on this record they could design a tariff that
19 made sense.

20 **THE CHAIR:** Can I ask a question here?

21 I've been kind of puzzling over this,
22 as you probably figured out yesterday, but conceptually I

1 under -- I accept what you're saying -- well, I don't
2 accept what you're saying, but I understand what you're
3 saying about the record. But conceptually, when you talk
4 about the stumbling block that Synapse had, I mean, is
5 there any difference between, conceptually, a multi-block
6 rate and something that declines, which we approve all the
7 time, or have approved all the time, and what you see in
8 Figure 2, from, you know, a design perspective?

9 In other words, a rate can have
10 several blocks.

11 **MR. CHERNICK:** A rate can have several
12 blocks, and that's what I was suggesting.

13 **THE CHAIR:** And doesn't that solve the
14 regulation problem? I mean, this may be a legal question,
15 but I'm trying to work my way through this.

16 **MR. CHERNICK:** Well, the only --
17 obviously it is a legal question and I don't know what "a
18 tariff" meant to the government when it wrote that
19 regulation. But ---

20 **THE CHAIR:** I guess it's now open to
21 us to interpret that.

22 **MR. CHERNICK:** I suppose that would be
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 the case. But I think there's a large conceptual
2 difference between saying this is the tariff, if you
3 generate this many megawatt hours you get this price and
4 if you generate this many in the next month you get this
5 price. That's a fairly straightforward rate design that
6 you see in lots of places.

7 If you are a commercial customer using
8 more than the peak demand, more than 200 KW, you may be on
9 a rate that gives you one rate for so many kilowatt hours
10 and a different rate for the next number of kilowatt hours
11 and so on.

12 As I read the proposal here from E3
13 Analytics, the suggestion was to basically set the rate
14 for each project based on its size, and that sounds to me
15 more like a set of tariffs. And depending on how you
16 interpret it, you could say, well, no, that's really one
17 tariff that has a bunch of schedules within it.

18 But I think my approach is somewhat
19 more straightforward, also lets you capture the capacity
20 factor so that the ratepayers share in the benefits of
21 very high capacity sites -- high capacity factor sites.
22 And I think it would just be easier to administer.

1 **THE CHAIR:** So I'm not sure I
2 completely understood it, so just run it by me again.

3 **MR. CHERNICK:** Well, as in any block
4 rate where you're normally charging for energy and -- so
5 in some jurisdictions you'll find a residential rate that
6 charges eight cents a kilowatt hour for the first 500
7 kilowatt hours a month, and then six and a half cents a
8 kilowatt hour for the next 400 a month.

9 **THE CHAIR:** Sure. At one time Nova
10 Scotia Power's rate was designed that way.

11 **MR. CHERNICK:** I'm suggesting a design
12 like that so that if you have a low output turbine, either
13 because it's small or because your capacity factor is bad,
14 I -- excuse me.

15 I'm not suggesting it. I'm laying
16 this out as an alternative because I was asked. But if
17 you wanted to go that way, it takes into account whatever
18 would make that a low output month. In -- and it would
19 also help with the cash flow problems that I was
20 discussing with Mr. Livingston that in a month that just
21 didn't have much wind or you were out for maintenance,
22 you'd be getting the first block payment for all of your
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 kilowatt hours.

2 In a month when you were just roaring
3 along because it was very windy, you'd be getting more
4 dollars but a lower average rate because more of your
5 kilowatt hours would be at the lower tail block rates.

6 **THE CHAIR:** But Figure 2 is an attempt
7 to solve what I'll call the gaming the system problem,
8 which I know you say isn't as big a problem as ---

9 **MR. CHERNICK:** Yeah.

10 **THE CHAIR:** --- some others think it
11 is. But your proposal wouldn't solve that problem, would
12 it?

13 Yours is kind of a demand rate in
14 reverse.

15 **MR. CHERNICK:** Well, I'm not quite
16 sure how this approach would really solve the problem
17 either. If you were overpaying for the 50 KW units, if
18 they really cost \$400 a megawatt hour to build and run and
19 you're paying 400 or 415 or 420, then the -- there's no
20 great big windfall to be made by building lots of them.
21 So you're not going to have the system running amuck.

22 If you estimate this kind of curve

1 either using the kind of approach I laid out or the one
2 that E3 Analytics laid out and you're wrong about the
3 shape, then you could wind up giving developers an
4 incentive to build, say, the 700 KW because you set a
5 price for that that was 20 percent more than they need,
6 whereas the 1.5 megawatt might be just what they need.

7 So you'd have to be very careful about
8 how you design it to avoid that kind of problem.

9 **THE CHAIR:** Sure. But the capacity
10 and energy rate or whatever you want to call it you were
11 just talking about, that wasn't meant to address this
12 problem?

13 **MR. CHERNICK:** It'd not be -- not so
14 much the incentive, but to the extent that you wanted to
15 be able to pay a unit smaller than 1.5 megawatts, enough
16 to make it viable. And clearly, one smaller than 1.5
17 megawatts with favourable site and financing and so on
18 could still match the 1.5 megawatt rate.

19 But if you're talking about something
20 too big for the 50 KW but much smaller than a 1.5 megawatt
21 and you wanted some of those to be viable, then you could
22 take the kind of approach that I was taking and you
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 wouldn't have this problem of each different size being on
2 a different tariff.

3 **THE CHAIR:** Thanks.

4 Sorry, Mr. Vogel.

5 **MR. VOGEL:** That's fine.

6 Are you familiar with linear
7 interpolation models being used in feed-in tariff design
8 in other jurisdictions?

9 **MR. CHERNICK:** I haven't really
10 reviewed the specific rates in most of the European
11 jurisdictions. But when I've seen tables of feed-in
12 tariff rates they've always had distinct categories; under
13 20 kilowatts, 20 to 100 kilowatts, so on. I don't
14 remember or I haven't seen a formula-based ---

15 **MR. VOGEL:** Okay.

16 **MR. CHERNICK:** --- approach.

17 **MR. VOGEL:** What dangers does the
18 current wind tariff structure present?

19 **MR. DEVEAU:** Mr. Vogel, are you
20 suggesting Synapse's suggestion?

21 **MR. VOGEL:** I'm suggesting with
22 respect to the E3 Analytics' observation around a

1 threefold difference in the tariff creating a perversion.

2 Would you see that as an issue?

3 **MR. CHERNICK:** Not really, because
4 what would that cause you to do. You'd get paid much more
5 for a 50 KW turbine, but it's much more expensive.

6 So unless the Board has erred badly in
7 -- well, erred badly and in a way that makes the 50 KW
8 much more profitable than the 1.5 megawatt, I don't see
9 there being any real issue. And if there is an issue,
10 it's limited by the fact that only 100 50-kW turbines can
11 be sited under the COMFIT.

12 And as I said earlier, I would hope
13 that the government would pay some attention to who's
14 applying for certification and if you saw -- if they saw
15 35 or 40 of those applications, of those slots being
16 requested by a single party that they would say, well
17 wait, we have to save some because this is the category in
18 which really small entities can play in the system, and
19 it's the one that will really get a lot of separate
20 projects built across the province to give people the real
21 sense that this is happening in their community as well.

22 And those seem to be objectives of the
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 renewable energy plan and of the COMFIT program.

2 I don't know of an easy way for the
3 Board to regulate that, but I would expect the government
4 to pay some attention to it.

5 **MR. VOGEL:** So you don't think that
6 there is a danger to the ratepayers for there to be this
7 clustering effect to be happening around the 50 kilowatt?

8 **MR. CHERNICK:** If the five megawatts
9 of small wind get built, I expect it to raise retail rates
10 by a couple tenths of a percent. And that would be true
11 regardless of whether it's a few developers who find some
12 way to do it cheap and cookie cutter, or whether it's 100
13 separate community organizations putting turbines in one
14 another's backyards.

15 There is a burden on customers. It's
16 not the most important burden that they could face as a
17 result of this proceeding. And I don't believe that
18 clustering the 50 kW units is going to have dramatic
19 effects on the costs of building or maintaining them.

20 So there may be some advantages to
21 having four or five of them spread out along the road
22 connecting to the distribution line at different points

1 and maybe some community organizations will take an
2 approach of doing that sort of thing, but I doubt that the
3 efficiencies are so great that it's going to run away with
4 the system.

5 And again, if some CEDIF or
6 municipality or other eligible party applies for a large
7 number of those limited slots, I would expect that the
8 government would put some conditions on their application
9 limiting the number that can be built until somebody else
10 gets a chance.

11 **MR. VOGEL:** All right. Let's move on
12 to the tidal tariff.

13 With respect to the suggested changes
14 that E3 Analytics has made with regards to shortening the
15 duration of the tariff as a means of ensuring prudence is
16 upheld for the ratepayer, would you support that?

17 **MR. CHERNICK:** Well, I don't have any
18 difficulty with shortening the period of the tariff. But
19 if you do that by assuming a shorter project life and
20 therefore have a much higher rate, it's not going to be in
21 the interests of the ratepayers. It's my assumption that
22 whether these turbines last 20 years or less, five years,
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 the ones that would be installed in the next few years are
2 basically loss leaders. They're demonstration projects.

3 And Nova Scotia should not be trying
4 to make it profitable to put in a developmental or
5 demonstration project, but to make it less unprofitable,
6 less of a cost centre for the equipment developers than it
7 would be to do it some place else.

8 And a rate considerably lower than
9 that proposed by Synapse I think would beat the tidal
10 tariffs in most of the world and, combined with your
11 excellent tidal resources, would tend to have the effect
12 of attracting equipment developers to work with local
13 groups to get some units installed.

14 **MR. VOGEL:** All right. Let's move on
15 to inter-connection.

16 Do you see any danger that unresolved
17 or unknown distribution zone capacity constraints and
18 inability of the system operator to service inter-
19 connection requests in a timely manner and/or lack of
20 transparency and inability to access distribution zone
21 availability and capacity information, do you see these
22 presenting problems to potential COMFIT developers?

1 MR. CHERNICK: Yes. And I perhaps
2 should start by saying that, as a consultant, I am often
3 dependent upon publicly available data. And I have a very
4 strong basis towards data being publicly available, unless
5 there's a very good reason for it not to be.

6 And in this case, I cannot think of
7 why it would be a problem to have a map of the province
8 with the distribution lines sketched in and the capacity
9 on each of the sub-stations indicated.

10 So if you have an idea about where to
11 put a project and you know what road it's next to, you
12 could look on the map and see that that line, it's fed off
13 of this sub-station and it has one and a half megawatts of
14 available capacity, or it has six or it has zero.

15 We went through this in New York City
16 with Consolidated Edison dragging its heels on hooking up
17 distributed generation, and eventually they reached the
18 point where they published a map that said, "These are the
19 areas in which we have as much generation as we can
20 tolerate."

21 They had different kinds of issues on
22 the networks in New York City than you have here, but the
 DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 sub-stations just can't tolerate having any more in this
2 area and in this area, but this one is tight, but there's
3 some left. And those were yellow. And then there were
4 the green areas where there was plenty of room left, and
5 they had definitions of what that meant.

6 And I think that was probably very
7 helpful for potential developers, and I can't see how it
8 would be a competitive problem for NSPI. I don't see how
9 it's a security problem for NSPI because anybody who
10 wanted to interfere with the reliability of your electric
11 system can certainly find those overhead distribution
12 lines and find the substations just by driving around.

13 And I'm at a loss to understand why
14 NSPI hasn't published that information.

15 **MR. VOGEL:** In your example in New
16 York, was the utility mandated by a regulatory board or
17 government to make that information publicly available?

18 **MR. CHERNICK:** I do not remember
19 whether the New York Public Service Commission actually
20 had to force Consolidated Edison to release that
21 information or whether it was just clear to Con Ed that
22 this is something it was expected to do, and it could

1 either meet people's basic requirements in the way that it
2 found most convenient or its regulator was going to order
3 it to do something that it might not like.

4 So the train was certainly leaving the
5 station and Con Ed, which can be very slow to turn around,
6 being very large, had managed to figure out which way the
7 train was going and get on board.

8 **MR. VOGEL:** Would you have any
9 suggestions for this Board or the government of Nova
10 Scotia with respect to this issue?

11 **MR. CHERNICK:** Well, they might want
12 to ask NSPI the question that I just asked about why
13 haven't they provided already, and perhaps also what would
14 it take to get you to provide it.

15 Unfortunately, NSPI has not filed
16 evidence. We haven't had a chance to question them on
17 these matters.

18 **MR. VOGEL:** So in several instances in
19 your filing, you've made some observations or assumptions
20 or demonstrated to have some opinion or knowledge with
21 regards to what I would term subjective variables that
22 would affect the start-up and level of support and/or
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 ownership of renewable electricity projects in Nova
2 Scotia.

3 For instance, on page 15 of your
4 evidence, lines 1 to 4, 21 to 24, just to summarize,
5 you've offered that a lower cost of capital and reduced
6 development costs for wind and hydro should be considered
7 in this rate-setting exercise.

8 And I'm just wondering, did you
9 consult with Nova Scotian communities involved in
10 renewable electricity production or any of the other
11 stakeholders that would be eligible under the COMFIT in
12 making those observations?

13 **MR. CHERNICK:** No, I didn't.

14 **MR. VOGEL:** And on what basis are you
15 making these observations?

16 **MR. CHERNICK:** Well, it's my belief
17 that if returns in the range that I've been talking about
18 are not enough to get community entities, residents and
19 organizations to invest in a renewable project, then there
20 really isn't much in the way of community support and it's
21 not really a community project.

22 **MR. VOGEL:** And are you aware of any

1 feed-in tariff rate-setting exercise in other
2 jurisdictions that have included the types of
3 considerations that you're suggesting be included here?

4 **MR. CHERNICK:** No.

5 **MR. VOGEL:** All right. On page 34 of
6 your evidence, you suggested the following interventions
7 as least cost or more cost-effective than COMFIT; lower
8 COMFIT rates and RFP process, Labrador Hydro and new NSPI
9 construction.

10 Are you aware that there is a
11 one-third/one-third/one-third policy structure; that's
12 one-third for COMFIT, one-third for the new RE
13 administrator and one-third for NSPI RFP as the provincial
14 policy direction for meeting the 2015 300-megawatt
15 installed capacity RE?

16 **MR. CHERNICK:** I do not know most of
17 the things that you have just asked me about and, in
18 particular, I don't believe that there is an installed
19 capacity requirement for renewable energy.

20 There's an energy production target
21 and I -- but I'm not familiar with a one-third/one-
22 third/one-third requirement.

1 **MR. VOGEL:** Okay. Are you aware of
2 the percentage target that COMFIT is being geared up for
3 meeting provincial legislative targets of 25 percent
4 renewable by 2015?

5 **MR. CHERNICK:** I believe I have a
6 document from NSPI with its plans.

7 **MR. VOGEL:** Your Exhibit PLC-1; is
8 that correct? The last page of your submission?

9 **MR. CHERNICK:** I'm sorry?

10 **MR. VOGEL:** The tables with the
11 different renewable electricity provision in the years
12 projected to come online.

13 **MR. CHERNICK:** No, not the
14 confidential information. I'm talking here about -- hang
15 on just a second ---

16 **MR. VOGEL:** There's a non-confidential
17 list.

18 **MR. CHERNICK:** --- from this -- okay,
19 I'm sorry from that -- I may be confused about which
20 exhibit you're referring to.

21 **MR. VOGEL:** Sure, yeah.

22 **MR. CHERNICK:** In the ACE proceeding

1 ---

2 MR. VOGEL: Yeah. That's the one I'm
3 referring to.

4 MR. CHERNICK: Okay. Yes.

5 MR. VOGEL: So would you take my math
6 subject to check, 10.6 percent of the 25 percent target?

7 MR. CHERNICK: COMFIT is listed by
8 NSPI as 50 to 300 gigawatt hours in 2015.

9 MR. VOGEL: Right. So I would correct
10 that to say up to 10.6 percent of the 25 percent target?

11 MR. CHERNICK: Okay, it's listed as an
12 option.

13 MR. VOGEL: Right. It has appeared in
14 the strategic plan by NSPI so does that not indicate that
15 it is part of the larger policy direction here.

16 MR. CHERNICK: I'm sorry, I thought
17 that you were asking about a provincial mandate or policy.
18 NSPI is not the government. This is NSPI's view of how
19 they'll meet the 2015 ---

20 MR. VOGEL: Right, NSPI is mandated by
21 government as a regulated utility to meet those targets.

22 MR. CHERNICK: To meet those targets,
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 right. And since COMFIT exists it makes sense that
2 they're assuming that -- or, you know, the process exists
3 and the rates will exist. It makes sense that they're
4 including some number with a six-fold range for what would
5 come from that.

6 They have much more coming from large
7 scale wind and some from additional co-generation and some
8 from NSPI co-firing.

9 **MR. VOGEL:** Right. And the percentage
10 of the COMFIT, should it be fully realized, what
11 percentage would that form of the total gigawatt hours at
12 NSPI, best-case scenario?

13 **MR. CHERNICK:** For 2020 ---

14 **MR. VOGEL:** Twenty fifteen (2015),
15 let's talk about 2015.

16 **MR. CHERNICK:** Twenty fifteen (2015),
17 okay. NSPI projects up to the 300 gigawatt hours. And
18 that would be about 3 percent of electricity sales.

19 **MR. VOGEL:** Right. So 3 percent of
20 electricity sales. So given the small impact that this
21 would have in terms of the total supply of NSPI's
22 electricity, is it fair to say that the rate impacts would

1 be offset because it is such a small percentage of the
2 total gigawatt hour sales?

3 **MR. CHERNICK:** Well, I did the
4 calculations of what would happen at various megawatt
5 penetrations for various technologies at Synapse proposed
6 rates and at my proposed rates. Obviously it's less than
7 would be the case if you were talking about 500 megawatts
8 of COMFIT.

9 **MR. VOGEL:** All right. Just a few
10 more questions here. Are you aware of any other auxiliary
11 benefits that might result from this Community Feed-in
12 Tariff program for the Nova Scotian economy, particularly
13 in rural Nova Scotia?

14 **MR. CHERNICK:** Well, there would be
15 some employment related to installing, possibly in
16 maintaining the equipment. For some of it maybe somebody
17 who's basically flown in and drives around and does the
18 routine maintenance, is a specialist in that technology.
19 But other work may be done by locals.

20 **MR. VOGEL:** So there are auxiliary
21 benefits to this program?

22 **MR. CHERNICK:** Yes. And I think there
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 are perhaps, you know, social benefits of just organizing
2 this kind of project.

3 **MR. VOGEL:** And so given the
4 circumstances there is another piece of legislation, I'm
5 not sure if you're familiar with, called the **Environment**
6 **Goals and Sustainable Prosperity Act** here in Nova Scotia.
7 Are you familiar with that piece of ---

8 **MR. CHERNICK:** I am not.

9 **MR. VOGEL:** Okay. So given that there
10 are auxiliary benefits there is a small penetration of
11 COMFIT, best-case scenario, would you consider that the
12 lowest-cost argument would be offset by some of these
13 auxiliary benefits and the long-term energy security
14 benefits of developing local renewable energy in Nova
15 Scotia?

16 **MR. CHERNICK:** Well, I think you have
17 to break that out technology by technology. And say that
18 for the small wind, reading between the lines of the
19 Renewable Energy Plan and the Regulations, there seems to
20 be a real interest in having a lot of organizations around
21 the province be able to participate and put up at least a
22 small turbine and paying them a remarkably uneconomic rate

1 to allow them to do that.

2 I think the decision has been made at
3 the policy level that that trade off is worthwhile. And
4 I'm -- I am not in the position to substitute my judgment
5 for that of the government.

6 On the tidal, getting some small
7 amount of expensive tidal development installed and
8 raising Nova Scotia's profile as a global magnet for tidal
9 technology development, demonstration, research and
10 hopefully even manufacturing, that clearly has some
11 potential benefits.

12 I've suggested a cap on the total
13 amount to make sure it doesn't run out of hand if Synapse
14 has guessed from the wide variety of possible costs, but
15 some of that may be worthwhile.

16 For the large wind, there's a very
17 different kind of calculus because the large wind, from a
18 COMFIT perspective, is small wind for the NSPI's RFPs and
19 other procurement processes.

20 There are certainly other ways of
21 getting projects built where they're cost effective. And
22 whether it's a 2-megawatt unit on one hill and a 2-
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 megawatt on another or 10 2-megawatt units in the same
2 windy rural location, I think the benefits for the
3 community would be very similar.

4 And so I don't think any additional
5 cost above the costs of NSPI procuring that power through
6 other means would be worthwhile.

7 What have we got left? The small
8 hydro I just -- I don't have enough information about how
9 that would really be developed and where it would be
10 developed. To have an opinion, it might be a boom for
11 some community. It doesn't seem like there's going to be
12 very much of it in any case. And the biomass seems to be
13 in part an effort to help out the forest industry without
14 damaging the forests. And I'm sure that there are some
15 benefits.

16 There are also environmental costs and
17 the costs of competing -- take the biomass away from
18 competing uses. So it's a very hard balancing act for me
19 to undertake.

20 And that sort of exhausts what I can
21 tell you about that.

22 MR. VOGEL: All right. Just a couple

1 of more questions here.

2 So you'd suggested as alternatives
3 also Labrador Hydro and NSPI construction. If you were
4 requested to do so, could you provide capital cost
5 information with regards to these suggestions, in
6 particular Labrador Hydro, in comparison to the suggested
7 Synapse COMFIT procurement?

8 **MR. CHERNICK:** Well, I think that's
9 still under negotiation.

10 **MR. VOGEL:** Right. And similarly,
11 could you provide that information with regards to NSPI,
12 new construction; in particular, new coal plants?

13 **MR. CHERNICK:** No, I wouldn't consider
14 coal plants to be an alternative, so I ---

15 **MR. VOGEL:** Okay.

16 **MR. CHERNICK:** I think the existing
17 coal plants are going away.

18 **MR. VOGEL:** We would hope so.

19 **MR. CHERNICK:** I don't think any new
20 coal plants are coming in, or at least the existing ones
21 are going to be running a lot less.

22 By NSPI new construction I was talking
DICTUM DIGITAL INC. CERTIFIED COURT REPORTERS

1 about construction of wind or possibly small hydro. And
2 for the wind, we have three projects that NSPI has
3 completed, either as owner or co-owner, recently. And
4 there's cost data available on those.

5 **MR. VOGEL:** All right. And just one
6 last question.

7 I didn't want to spend too much time
8 on this, but with regards to the COMFIT eligibility of the
9 different stakeholders, do you see any dangers of unfair
10 damages being given to any one particular group that's
11 eligible for the COMFIT rate given the different
12 variables?

13 **MR. CHERNICK:** Well, so far as I can
14 tell, everybody who's eligible who's spoken up has said
15 that they have tremendous barriers to participating.

16 The Bands have problems with getting
17 any outside capital and not a lot of capital generated
18 internally, apparently. The universities, to the extent
19 we've heard from them, have high cost projects. The
20 municipalities aren't interested.

21 Mr. Livingston says that the CEDIFs
22 can't possibly work. So it seems like everybody is

1 complaining about this process almost equally.

2 **MR. VOGEL:** Almost -- you did leave
3 out some stakeholder groups.

4 **MR. CHERNICK:** And I don't know
5 anything about co-operatives and not-for-profits.

6 **MR. VOGEL:** The biomass CHP.

7 **MR. CHERNICK:** They -- I think that
8 varies dramatically. Some potential developers face a lot
9 of difficulties, owner developers. And others seem like
10 if they get a high enough rate, they're likely to be able
11 to go ahead.

12 I don't see that there is particular
13 groups that are favoured. If the First Nations' position
14 is correct, maybe they just can't participate given other
15 factors. But the rest of them, it all seems to be
16 situational.

17 **MR. VOGEL:** Okay. No further
18 questions. Thank you very much.

19 **THE CHAIR:** Thank you.

20 I think we'll adjourn for today.

21 Could parties indicate to Mr. Outhouse if you have

22 questions for Mr. Chernick, before you leave tonight, so
DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS

1 we can get a sense of what tomorrow looks like?

2 And we'll resume at 9 o'clock
3 tomorrow.

4
5 --- Upon adjourning at 4:37 p.m.

6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

CERTIFICATE OF COURT TRANSCRIBER

I, Patricia Cantle, Court Transcriber, hereby certify that I have transcribed the foregoing and it is a true and accurate transcript of the evidence given in this matter.



Patricia Cantle
Registration No. 2006-57

Halifax, Nova Scotia

Thursday, April 7, 2011

DICTUM DIGITAL INC.

CERTIFIED COURT REPORTERS