MANITOBA PUBLIC UTILITIES BOARD

Re: CENTRA GAS MANITOBA INC.

        TRANSPORTATION AND PORTFOLIO APPLICATION

Before Board Panel:

            Regis Gosselin   - Board Chairman

            Monica Girouard   - Board Member

            Raymond Lafond   - Board Member

HELD AT:

            Public Utilities Board

            400, 330 Portage Avenue

            Winnipeg, Manitoba

            June 25, 2012

            Pages 1 to 240

```
 1                    APPEARANCES

 2  Bob Peters                   )Board Counsel

 3

 4  Doug Bedford                 )Manitoba Hydro

 5

 6

 7  Brian Meronek                )CAC

 8  Thomas Masi                  )

 9

10  Nola Ruzycki (np)            )Just Energy Manitoba

11

12  Paul Kerr (np)               )Shell Energy

13

14  Kim Johnston (np)            )BP Energy Group

15

16

17

18

19

20

21

22

23

24

25
```

 1   TABLE OF CONTENTS

 2   Page No.

10

11 CENTRA GAS PANEL:

12   VINCE WARDEN, Sworn

13   GREG BARNLUND, Sworn

14   NEIL KOSTICK, Sworn

15   LORI STEWART, Sworn

16   BRENT SANDERSON, Sworn

21

22

23

24

25

 1   LIST OF EXHIBITS

 2 Exhibit No.   Description   Page No.

 3 PUB-1   Notice of Application and Pre-   Filed

 4   Hearing Conference dated March   at

 5   26, 2011   PHC

 6 PUB-2   Draft Timetable   Filed at PHC

 7 PUB-3   Affidavit of Service and

 8   Publication of Notice of Public

 9   Hearing   Filed at PHC

10 PUB-4   Board Order No. 49/12 dated April

11   26, 2012   14

12 PUB/CENTRA-5-1 TO 5-24

13   The Public Utilities Board's 1st

14   round Information Requests and

15   Centra Gas Manitoba Inc's responses   14

16 PUB/CAC 6-1 TO 6-16

17   The Public Utilities Board's

18   Information Requests and

19   Consumers' Association of Canada

20   responses   14

21 PUB-7   Book of Documents   15

22 CENTRA-1   Centra Gas Manitoba Inc.   Filed

23   Application dated March 23, 2012 at PHC

24 CENTRA-2   Rebuttal Evidence   Filed at PHC

25

20

21

22

23

24

25

 1   LIST OF UNDERTAKINGS

 2 No.   Description   Page No.

 3   1   Centra to determine whether or not

 4   the costs shown are net of capacity

 5   management revenues; and if they're

 6   not, determine if that can also be

 7   provided   97

 8   2   Centra to reconcile the chart

 9   included with pre-ask PUB/CENTRA-1

10   for the February 2006 point, with

11   the indication in CAC/CENTRA-17-E

12   which provides the 2005/'06 storage

13   withdrawal volumes   157

14   3   Centra to indicate what the

15   restructured proposal is from

16   TransCanada for tolls in the 2013

17   calender year, assuming the

18   restructuring proposal is implemented

19   but taking into account the updated

20   throughput study and related

21   assumptions, and provide the status

22   quo number that the TCPL is using as

23   the other end of the calculation   197

24

25

 1 --- Upon commencing at 9:30 a.m.

 2

 3   THE CHAIRPERSON: Good morning, ladies

 4 and gentlemen. Welcome to the commencement of the oral

 5 hearing of Centra Gas and Manitoba Inc.'s incor --

 6 transportation and storage portfolio application.

 7   We'll be -- we will be spending the next

 8 four (4) days, approximately, together in this hearing

 9 room, so I'd like to introduce myself and the other

10 panel members. My name is Regis Gosselin.

11   On April 1st, 2012, I was appointed as

12 the new chair of the Public Utilities Board. In that

13 capacity, I'll be chairing this -- this hearing. With

14 me are Board members Monica Girouard and Raymond

15 Lafond. I know both of you are very busy people, so

16 thanks very much for agreeing to sit on this panel.

17   The Board will be assisted by our acting

18 secretary, Kurt Simonsen, and Board counsel, Bob

19 Peters, together with Brady Ryall, the engineering

20 advisor from ECI Consulting. So welcome to all of you.

21   The operating -- the Board's operating

22 advise -- pardon me, accounting advisor is Roger

23 Cathcart, but he is available to assist in this case in

24 course -- in case the Board needs to call on his

25 services.

 1   It appears from the material filed that

 2 Centra's transportation and storage portfolio in the US

 3 was established through contractual arrangements some

 4 twenty (20) years ago, and those will expire on March

 5 31st, 2013.

 6   My colleague, Mr. Girouard, was on the

 7 panel that authored the Board Order 65/11 subsequent to

 8 Centra's 2011/12 cost of gas application. In that

 9 hearing, the Board was advised that Centra had

10 initiated a process to investigate alternatives in

11 options with respect to the replacement of its

12 transportation and storage arrangements.

13   In that order, 65/11, the Board directed

14 changes to the portfolio review process that Centra had

15 in -- proposed at that time. The Board stated its

16 intention, that it would require Centra to seek Board

17 approval of changes to the existing arrangements prior

18 to finalizing new contracts. The Board also directed

19 that the review process should include an oral hearing

20 component.

21   On March 23rd of 2012, Centra filed its

22 application seeking this Board's approval of the fixed

23 costs associated with the proposed replacement

24 contractual arrangements for natural gas storage and

25 related interstate transportation with the ANR Pipeline

 1 Company and the Great Lakes Grass Tan -- Gas

 2 Transmission Limited Partnership.

 3   On April 11, 2012, the Board conducted a

 4 pre-hearing conference to deal with procedural matters.

 5 That hearing gave rise to Order 49/12, of which all

 6 participants should be aware.

 7   Today is the start of the oral evide --

 8 evidentiary portion of the hearing. And I will turn

 9 the microphone over to Board counsel, Bob Peters, to

10 address the procedures over the next four (4) days.

11 Mr. Peters?

12   MR. BOB PETERS: Thank you and good

13 morning, Mr. Chairman, panel members Girouard and

14 Lafond. For the record, my name is Bob Peters, and I'm

15 counsel to the Public Utilities Board in respect of

16 this application by Centra. As noted by the Chair, the

17 Board is also assisted by its engineering advisor,

18 Brady Ryall, seated to my right.

19   Recognizing the duration and the cost of

20 the storage and transportation contracts entered into

21 by Centra, the Board, in Order 65 of '11, directed that

22 a meaningful opportunity should be provided to all

23 stakeholders to explore Centra's options and

24 alternatives prior to a new arrangement being

25 finalized.

 1   That brings us to today's hearing.

 2 Centra is seeking the Board's approval of the annual

 3 fixed costs of Centra's preferred arrangement.

 4 Notably, while the 1992 arrangements were for a twenty

 5 (20) year period, the currently proposed arrangements

 6 will extend seven (7) years.

 7   Mr. Chair and Board member Lafond, as

 8 relative newcomers to the regulation of Centra Gas, you

 9 need to be forewarned that there is a language unto its

10 own and there are acronyms, units of measure, and

11 abbreviations that all counsel and witnesses will be

12 mindful to explain.

13   Please interrupt us at any time -- any

14 time there's a question or answer that needs

15 clarification. We recognize our roles in assisting the

16 Board in its understanding of the issues and the

17 evidence that will come before it.

18   In turning to the procedures that you've

19 asked me address, Mr. Chairman, I've circulated on

20 yellow paper today an outline of procedures, and I'll

21 just take a few minutes to review them.

22   In the opening comments, Mr. Chairman,

23 yours have already been given. I'll be concluding mine

24 shortly. I will then suggest that you turn to the

25 Intervenors that have been approved for intervention

1 into this Hearing.

2   And, excuse me, firstly, the Consumers'

3 Association of Manito -- sorry, of Canada (Manitoba)

4 Inc., or abbreviated as CAC, is represented across the

5 Hearing room by Brian Meronek and Thomas Masi.

6   Secondly, Just Energy Manitoba Limited

7 Partnership is in Intervenor. They're a gas retailer

8 active in Manitoba, and they're represented by Nola

9 Ruzycki. Ms. Ruzycki will not be in attendance during

10 the oral evidentiary portion of the hearing.

11   Thirdly, Shell Energy North America

12 (Canada) Inc. is a licensed gas broker in Manitoba

13 that's also involved in gas trading and marketing

14 throughout the rest of Canada. Shell Energy is

15 represented by Mr. Kerr, and Mr. Kerr will not be in

16 attendance during the evidentiary portion of the

17 Hearing.

18   Lastly, in terms of Intervenors, BP

19 Energy Group ULC is a supplier of natural gas to both

20 transportation service customers and western

21 transportation service customers served by Centra. And

22 BP Energy group is represented by Kim Johnston, and

23 again, Kim Johnston will not be in attendance during

24 the oral evidentiary portion of the Hearings.

25   So with those Intervenors, I would

 1 suggest that when I'm finished my opening comments that

 2 the Board turn to Mr. Meronek for his.

 3   And then following Mr. Meronek's opening

 4 comments you'll see that there's time for Centra Gas

 5 (Manitoba) Inc., through its counsel, Mr. Bedford, to

 6 provide their opening comments.

 7   Once the opening comments have been

 8 provided it would then be appropriate to swear in the

 9 witnesses and allow them to provide any direct evidence

10 that they wish in response to any questions from Mr.

11 Bedford.

12   The five (5) witnesses will be

13 introduced, but I've listed their names on the outline

14 of procedure. Following any questions that Mr. Bedford

15 has of his witnesses, the witnesses would them be

16 turned over for cross-examination, starting firstly

17 with myself and then concluding with Mr. Meronek.

18   Once the Centra Panel witnesses are

19 finished, CAC has a witness, Mr. Mark Stauft, who we

20 will be bringing to Winnipeg to testify. And the

21 procedure for Mr. Stauft will be similar in that he

22 will provide his direct evidence through questions by

23 Mr. Meronek and Mr. Masi, and then he'll be cross-

24 examined firstly by Centra and secondly by myself.

25   The last matter on the outline of

1 procedures are closing submissions. And if I look back

2 to the order your referenced, Mr. Chairman, Order 49 of

3 '12, the procedural order, there seemed to be a

4 consensus that closing submissions would be held on

5 Wednesday, July the 4th. And we'll confirm that before

6 this Hearing steps down or adjourns. But that is the

7 date that is presently -- presently targeted.

8   I should indicate that with respect to

9 the Intervenors Just Energy, Shell, and BP Canada, I've

10 been in email communications with them, including

11 recently, and I've indicated that if they have

12 intentions to provide any closing submissions, and if

13 they intend to do so in writing, they should advise

14 myself and the Board and endeavour to have those

15 closing submissions filed the day before the Board

16 convenes for its oral closing submissions. I have yet

17 to hear back as to when -- whether any of them will.

18   Mr. Chairman and Board members, I'd like

19 to turn to the exhibit list that was also circulated to

20 the parties in advance of today. And the exhibit list

21 is to keep track of the record of proceedings, in terms

22 of the documents that get filed. And I'll take the

23 liberty of -- of just mentioning them for all parties.

24   Under the PUB's exhibits the notice that

25 was published in the newspapers and approved by the

1 Board would be PUB Exhibit 1.

2   Exhibit 2 would be the draft timetable.

3   Exhibit 3 was the affidavit of service

4 and the affidavit of publication of the public notice.

5   PUB-4 was the procedural order 49/12.

6

7 --- EXHIBIT NO. PUB-4:   Board Order No. 49/12 dated

8   April 26, 2012

9

10   MR. BOB PETERS: And then Exhibits PUB-

11 5-1 through 5-24 would be the Public Utilities Board's

12 written Information Requests of Centra and Centra's

13 responses.

14

15 --- EXHIBIT NO. PUB/CENTRA-5-1 THROUGH 5-24:

16   The Public Utilities Board's 1st

17   round Information Requests and Centra

18   Gas Manitoba Inc's responses

19

20   MR. BOB PETERS: PUB Exhibit CAC-6-1 to

21 6-16 would be the Public Utilities Board's written

22 Information Requests of the witness for CAC and the

23 responses.

24

25 --- EXHIBIT NO. PUB/CAC-6-1 THROUGH 6-16:

 1   The Public Utilities Board's

 2   Information Requests and Consumers'

 3   Association of Canada responses

 4

 5   MR. BOB PETERS: And while we have the

 6 exhibit list open, Mr. Chairman, I will propose at this

 7 time that a book of documents that I've also circulated

 8 would be marked as PUB Exhibit 7.

 9

10 --- EXHIBIT NO. PUB-7:   Book of Documents

11

12   MR. BOB PETERS: The book of documents

13 that has been assembled is for convenience. Paper

14 copies distributed this morning, although electronic

15 copies were circulated I believe to Centra last

16 Wednesday and to Mr. Meronek and Mr. Masi last Friday.

17   For those who will follow the

18 proceedings by way of the transcript, I've given an

19 electronic copy to the Board to see if they can post it

20 on their website. The notable point there is that the

21 book of document (sic) has page numbers in the top

22 right-hand corner. And to ensure that the PDF copy

23 that will be posted on the Board's website is the same

24 as the one we're working at in the hearing room, the

25 page numbers have been numbered sequentially. And to

1 do that, I guess, I'm told the tabs themselves even

2 have to have tabe -- page numbers.

3   Now these documents, Mr. Chairman and

4 Board members, are not necessarily newly created

5 documents. For the most part they are documents that

6 Centra will have seen before. In fact, most of them

7 were prepared by Centra. There's a couple from PUB

8 orders and there's a couple of others that they may not

9 have authored but they're aware of. And if there's any

10 issues, we'll -- we'll address that as we go through.

11   I would just quickly note that the last

12 tab in the book of documents, tab 24, contains unit

13 conversions and some units of measure and abbreviations

14 that the Board members may find useful during the

15 hearing. Although again, I -- I reiterate that at any

16 time there's questions by the Board for clarification

17 or explanation of any units or acronyms or

18 abbreviations, to please -- to please let us know.

19   Following the PUB exhibits, Centra has -

20 - Centra Exhibit 1 would be their application dated

21 March the 23rd. That has already been filed.

22   Centra Exhibit 2 will be the rebuttal

23 evidence, and that was filed on Friday, June the 22nd,

24 and the Board should have a copy of that.

25   In terms of Centra Exhibit 3, I propose

1 that Centra Exhibit 3 be the witness qualifications

2 that were also filed Friday by Centra, and they filed

3 five (5) witness qualifications for the panel that's

4 before the Board.

5

6 --- EXHIBIT NO. CENTRA-3: Witness Panel and Witness

7   Qualifications of Vince

8   Warden, Greg Barnlund, Neil

9   Kostick, Lori Stewart and

10   Brent Sanderson

11

12   MR. BOB PETERS: I will also note that

13 in preparing the book of documents, Centra cooperated -

14 - and much appreciated -- in providing responses to two

15 (2) pre-asked questions. One (1) of them dealt with

16 units of measure, and one (1) dealt with revising a

17 chart on ANR storage. Those pre-asked questions are

18 already incorporated into PUB Exhibit 7. But if my

19 friend wants a further exhibit number, we can address

20 that as well.

21   Then turning to the Consumers'

22 Association of Canada (Manitoba) Inc. exhibits, I

23 propose that CAC/CENTRA-1-1 through 1-22 be the

24 Information Requests posed by CAC and the written

25 responses by Centra.

 1 --- EXHIBIT NO. CAC/CENTRA-1-1 TO 1-22:

 2   Consumers' Association of Canada

 3   (Manitoba) Inc. - 1st round

 4   Information Requests and Centra Gas

 5   Manitoba Inc.'s Response.

 6

 7   MR. BOB PETERS: CAC Exhibit 2 would

 8 become the pre-filed written evidence of Mr. Stauft

 9 filed on behalf of the Consumers' Association of Canada

10 (Manitoba) Inc.

11

12 --- EXHIBIT NO. CAC-2:   Evidence of Mark Stauft on

13   behalf of Consumers'

14   Association of Canada

15   (Manitoba) Ltd.'s

16

17   MR. BOB PETERS: Then Just Energy

18 Manitoba Limited Partnership has two (2) exhibits,

19 JEMLP/CENTRA-1-1 to 1-2 would be the Information

20 Requests posed by Just Energy and responded to by

21 Centra.

22

23 --- EXHIBIT NO. JEMLP/CENTRA-1-1 TO 1-2:

24   Just Energy Manitoba L.P.'s 1st Round

25   Information Requests and Centra Gas

1   Manitoba Inc.'s Response

2

3   MR. BOB PETERS: I can indicate that

4 there are no exhibits from Shell Energy at this time,

5 and no exhibits from BP Canada Energy at this time,

6 although, as I've indicated, they may have some closing

7 submissions.

8   Mr. Chairman, in closing I suggest the

9 Board call on CAC counsel, Mr. Meronek, for any opening

10 comments on behalf of his client. And then following

11 Mr. Meronek's opening comments, I would suggest the

12 Board call on Mr. Bedford for Centra's opening comments

13 and introductions prior to the swearing of Centra's

14 witnesses. And once the witness panel is sworn, it's

15 suggested that direct evidence and cross-examinations

16 will proceed as indicated in the outline.

17   And finally, Mr. Chairman, please call

18 on me at any time during the hearing in respect of any

19 procedural matters that the Board may have. And,

20 subject to your questions of me at this time, I would

21 again suggest you call on Mr. Meronek for his opening

22 comments on behalf of his client.

23   THE CHAIRPERSON: Thank you, Mr.

24 Peters. Mr. Meronek...?

25

1 OPENING COMMENTS BY CAC:

2   MR. BRIAN MERONEK: Excuse me. Good

3 morning, Mr. Chairman and members of the Board.

4 Welcome. Good morning to the panel, especially Mr.

5 Bedford, who apparently has nothing better to do other

6 than Bipole III.

7   Along with Mr. Thomas Masi, I represent

8 the Consumers Association of Canada. And without fear

9 of contradiction, I don't think, we are the major

10 stakeholder other than the Board and -- and Centra. I

11 -- I emphasize stakeholder as opposed to interested

12 party because there are several interested parties.

13 But this application deals with a long-term contract

14 that Centra has negotiated on behalf of the consumers

15 who are paying for the cost of the arrangement.

16   So the way I like to look at it is

17 Centra is acting on our behalf. And we're -- we're

18 going to be paying, good, bad or indifferent, whatever

19 the results of this application determine.

20   It's -- it's a situation which is

21 becoming more and more the norm as opposed to the --

22 the exception in that for many years, more or less, CAC

23 has been at odds with Centra on a -- on a number of

24 serious issues. You will see as -- as the week unfolds

25 that -- that the disagreements between Cen -- Centra

 1 and CAC are not as extreme as they sometimes have been.

 2 We will be introducing evidence in the form of written

 3 and oral evidence from Mr. Stauft, who agrees with a

 4 lot of the things that Centra has done.

 5   We find our role here is to assist the

 6 Board and to contribute in the sense of, if -- where we

 7 have issues, we will identify them. Where we have

 8 agreement, we will identify them. So the Board

 9 hopefully will have some confidence from an inde --

10 independent perspective that -- that what Centra is

11 proposing is appropriate. So the thrust of our

12 intervention is going to be essentially to clarify a

13 lot of the material, essentially, because it is

14 complicated.

15   The process some -- sometimes is

16 inadequate in the sense that questions that get posed

17 in information requests, if -- if the right question

18 isn't asked, the -- the answer sought is not obtained.

19 Sometimes the information obtained begs more questions.

20 So that is one (1) of the roles that we deem to be

21 appropriate.

22   So I will be asking Centra some

23 questions in various areas, assuming that Mr. Peters

24 doesn't steal all my thunder, which he is wont to do.

25 And then we will be calling Mr. Stauft and -- for his

1 evidence. And we will be participating extensively

2 throughout and also providing oral ar -- oral argument

3 at the end. And we welcome the opportunity of being

4 here and assisting the Board. Thank you.

5   THE CHAIRPERSON: Thank you, Mr.

6 Meronek. I'll turn it over to Mr. Bedford.

7

8 OPENING COMMENTS BY CENTRA GAS:

9   MR. DOUG BEDFORD: Thank you and good

10 morning. And as you've learned, my name is Doug

11 Bedford and I work in the legal department of Manitoba

12 Hydro. And I'm very happy to predict that the subject

13 matter of this hearing over the next four (4) days is

14 no doubt going to be far less controversial than the

15 Bipole III project.

16   I'm going to introduce my colleagues

17 from Manitoba Hydro and Centra Gas. I then have some

18 very brief remarks I would like to make to you. And

19 then I'll ask that the panel of witnesses be sworn in.

20 Some of them in their direct evidence will tell you a

21 little bit more about what their jobs are at Centra

22 Gas.

23   I anticipate that the direct evidence

24 that we're going to lead will take something less than

25 an hour this morning. So by way of introduction, to my

 1 immediate right is Mr. Vince Warden. Mr. Warden is the

 2 senior vice-president, finance and administration, at

 3 Manitoba Hydro. He's also the chief financial officer.

 4 And he's also the senior person responsible for the

 5 business of Centra Gas.

 6   Next to him is Mr. Greg Barnlund. And

 7 as I indicated, Mr. Barnlund and his colleagues will

 8 tell you more about what they do in their direct

 9 evidence. Next to Mr. Barnlund, Mr. Neil Kostick.

10 Next to him is Lori Stewart. And next to her, Mr.

11 Brent Sanderson.

12   Behind me, Ms. Teri Bercier, who is a

13 regulated -- regulatory coordinator with Centra Gas.

14 Next to her, Ms. Natalia Giraldo-Gomez, who is a

15 regulatory coordinator as well with Centra Gas, and Ms.

16 Christine Foulkes, a storage and transportation

17 specialist.

18   Our purpose here is to seek your

19 approval of the fixed costs of a set of eight (8)

20 contracts we plan to enter into with ANR Pipeline

21 Company and Great Lakes Transmission -- Great Lakes Gas

22 Transmission Limited Partnership.

23   We, at Centra Gas, believe that the

24 eight (8) contracts, or as my colleagues here want to

25 call them, "the portfolio," merit approval because 1)

 1 they will help us to maintain reliable and secure

 2 service by which we mean, for example, that both ANR

 3 Pipeline Company and Great Lakes Gas Transmission

 4 Limited Partnership have a proven track record with

 5 Centra Gas through our experience with them over the

 6 last twenty (20) years.

 7   The contracts will allow us to reduce

 8 the amount of gas which we would otherwise be required

 9 to purchase in the winter. And, therefore,

10 correspondingly these contracts will allow us to buy

11 gas in the summer when prices historically have been

12 lower.

13   2) We believe that the eight (8)

14 contracts merit approval because they give us greater

15 operational flexibility, by which we mean, for example,

16 that they will allow us to acquire gas in the winter

17 when we need it even after the markets are closed.

18 They will allow us to acquire gas even if our

19 nominations are rejected.

20   3) We believe the eight (8) contracts

21 merit approval because they give us greater diversity,

22 by which we mean, for example, that we have the option

23 to draw from storage as well as buy in the market. We

24 have the option to draw in gas from the United States

25 as well as buying from suppliers in Alberta.

1   And 4) We believe that the eight (8)

2   contracts merit approval because they reduce costs, by

3   which we mean the fixed costs are about $3 million less

4   per year than the current fixed costs that Centra Gas

5   pays for storage and transportation.

6   Thank you. And if it's now convenient,

7   I would like to have the panel sworn.

8

9   CENTRA GAS PANEL:

10   VINCE WARDEN, Sworn

11   GREG BARNLUND, Sworn

12   NEIL KOSTICK, Sworn

13   LORI STEWART, Sworn

14   BRENT SANDERSON, Sworn

15

16   EXAMINATION-IN-CHEF BY MR. DOUG BEDFORD:

17   MR. DOUG BEDFORD: I would like to now

18   proceed with Mr. Warden making a few initial remarks to

19   you, and thereafter I will proceed by way of question

20   and answer with the remaining members of the Panel.

21   MR. VINCE WARDEN: Mr. Chairman,

22   members of the Public Utilities Board, ladies and

23   gentlemen, good morning and -- and welcome. Centra is

24   pleased to have this opportunity to provide the Board

25   with an overview of Centra's operations and to discuss

1 some of the major attributes -- attributes and

2 challenges that Centra has in serving its customers.

3   In this application Centra's applying to

4 the Public Utilities Board for approval of the costs

5 associated with the proposed new contracts for natural

6 gas storage and related transportation. Before we get

7 into the details of the application, however, I thought

8 it might be useful to provide the Board with a brief

9 overview of Centra Gas and the history of the

10 acquisition by Manitoba Hydro.

11   Centra currently serves approximately

12 two hundred and sixty-eight thousand (268,000)

13 customers located primarily in the southern part of the

14 province. Of the total customers, approximately --

15 approximately two hundred and forty-three thousand

16 (243,000), or 91 percent, are residential, with the

17 balance of approximately twenty-five thousand (25,000)

18 being commercial and industrial.

19   Centra's total assets are about $590

20 million, while annual revenues can range widely from

21 approximately $300 million to over $600 million

22 depending on the price of gas and the severity of -- of

23 winter weather.

24   Most recently, with the very low natural

25 gas prices, combined with an exceptionally mild winter,

 1 Centra's total revenues were three (3) -- 328 million

 2 for the year ending March 31st, 2012. Of this total,

 3 approximately 200 million was the cost of natural gas

 4 and transportation, which is a flow-through cost to

 5 customers with no markup by Centra.

 6   Because Centra's revenues are so weather

 7 sensitive, Centra's net income can also be

 8 significantly impacted by weather. For example, for

 9 the year ended March 31st, 2011, which was a year in

10 which colder winter weather was experienced, Centra's

11 net income was $7 million. This past year, however,

12 for the year ended March 31st, 2012, in which a very

13 mild winter weather was experienced, Centra will incur

14 a net loss in the order of $6 million.

15   In fact, in six (6) of the past ten (10)

16 years Centra has incurred a net loss in operations.

17 Net losses have reduced Centra's retained earnings to

18 approximately $34 million at March 31st, 2012. And

19 assuming that International Financial Reporting

20 Standards, IFRS, are implemented next fiscal year,

21 Centra's retained earnings will be totally eliminated

22 and actually be in a negative position.

23   While this is an issue for another day,

24 in another hearing, it is an issue I thought the Board

25 should be aware of.

1   On the subject of retained earnings,

2 because the gas utility is wholly-owned by Manitoba

3 Hydro, and all of its debt has the guarantee, support

4 of the Province of Manitoba, there isn't a need for

5 Centra to have a large amount of retained earnings.

6 This, together with the synergies realized by the

7 operation of an integrated gas and electric utility has

8 been of significant benefit to gas ratepayers in the

9 province since the acquisition of Centra Gas by

10 Manitoba Hydro in 1999.

11   However, it's important that the very

12 low retained earnings or equity in Centra not have a

13 negative impact on the electricity ratepayers. And for

14 this reason Centra will be submitting a general rate

15 application to the Public Utilities Board applying for

16 a modest distribution rate increase later this year.

17 Again, this is an issue for another hearing but an

18 important one for the fiscal stability of Centra Gas.

19   Yet another issue that will be covered

20 as part of the general rate application will be

21 approval sought from the PUB for a new gas supply

22 contract to replace the existing contract with

23 ConocoPhillips that expires on October 31st, 2012.

24   Centra is currently concluding

25 negotiations on a new supply contract and, as with the

1 current supply contract, Centra intends to file the new

2 contract in confidence with the Board prior to its

3 commencement. With that filing, Centra will be seeking

4 approval of the gas cost consequences of the new supply

5 contract.

6   With respect to this hearing, Centra is

7 applying to the PUB for approv -- approval of the gas

8 cost consequences of entering into contracts with the

9 ANR Pipeline Company and the Great Lakes Gas

10 Transmission Limited Partnership to provide 15.5

11 million gigajoules, or 15.5 petajoules, per year of

12 storage capacity; two hundred and seventeen thousand

13 seven-sixty-four (217,764) gigajoules per day of

14 storage deliverability; as well as access to related

15 transportation facilities to connect with TransCanada

16 Pipelines at Emerson, Manitoba.

17   The total fixed costs of the proposed

18 storage and transportation arrangements will be

19 approximately $14 million for each year of the seven

20 (7) year contract commencing April the 1st, 2013.

21 Centra's current contracts for similar storage and

22 transportation arrangements were entered into in '90 --

23 1993 and have fixed costs of approximately $17 million

24 per year.

25   So, subject to the approval of the PUB,

 1 the proposed new contracts will result in savings to

 2 natural gas consumers in Manitoba of approximately $3

 3 million per year compared to the current contracts

 4 which expire on March 31st, 2013.

 5   Mr. Chairman, members of the Board, when

 6 Manitoba Hydro acquired Centra Gas back in 1999 our

 7 mandate was defined as follows: Centra will acquire,

 8 manage, and distribute supplies of natural gas to meet

 9 Manitoba market requirements in the most safe, cost-

10 effective, reliable, and environment --

11 environmentally-responsible manner.

12   Our proposed new contracts with ANR

13 Pipeline Company and the Great Lakes Gas Transmission

14 Limited Partnership are totally consistent with that

15 mandate, and through this proceeding we are requesting

16 your approval of the gas cost consequences of those

17 contracts. Thank you.

18   MR. DOUG BEDFORD: Mr. Warden, before

19 we move on to our next witness, do you adopt on behalf

20 of this panel the written evidence filed with this

21 application by Centra Gas?

22   MR. VINCE WARDEN: Yes, I do.

23   MR. DOUG BEDFORD: Mr. Kostick, would

24 you please outline your areas of responsibility with

25 respect to this application.

 1   MR. NEIL KOSTICK: Thank you. Good

 2 morning, Mr. Chairman, members of the Public Utilities

 3 Board, ladies and gentlemen. In my testimony I will be

 4 providing evidence related to the proposed

 5 transportation and storage contracts with ANR and Great

 6 Lakes described in the application, including the

 7 evaluation process and the characteristics, benefits,

 8 and term of the proposed arrangements.

 9   MR. DOUG BEDFORD: Mr. Kostick, before

10 I move on to some of the details of the contracts that

11 I'd like you to explain to the Board, can you tell the

12 Board what your role and responsibilities are at Centra

13 Gas, generally, your job title?

14   MR. NEIL KOSTICK: My job title is

15 Project Leader, and I have held that position for

16 approximately two (2) years. And one (1) of the key

17 areas of responsibility was leading the project team

18 that engaged in the evaluation of portfolio

19 alternatives and ultimately negotiating and reaching

20 agreement on a suite of services that we ultimately

21 decided on with ANR and Great Lakes.

22   MR. DOUG BEDFORD: Can you please

23 describe for us some of the key features of the

24 proposed transportation and storage portfolio and how

25 it differs from the current one?

 1   MR. NEIL KOSTICK: Certainly. The

 2 proposed storage and transportation portfolio has a

 3 number of features that are similar to the current

 4 portfolio that has served Centra reliably for almost

 5 twenty (20) years.

 6   At the same time, the proposed portfolio

 7 has a number of new features that improve flexibility

 8 and access to supply, with no erosion of reliability or

 9 security of supply.

10   Even with these enhancements, Centra's

11 rate payers will enjoy a reduction in the annual fixed

12 costs of the portfolio from 17 million to 14 million US

13 dollars per year, or a reduction of $3 million per

14 year.

15   The proposed portfolio features a

16 similar level of total storage capacity of 15 1/2

17 petajoules. A new feature of the storage capacity is

18 that it would include 7.4 petajoules of annual storage,

19 which allows for winter injections and cycling of

20 inventory up to one point four (1.4) times per year.

21   In conjunction with this annual storage,

22 Centra proposes to hold winter transportation capacity

23 from the Chicago market to storage, providing a highly

24 liquid source of supply to manage the storage levels

25 through winter injections. In addition, storage

1 deliverability is proposed to increase by about 7,000

2 gigajoules per day.

3   Regarding summer operations, total

4 summer transportation capacity to storage will be

5 reduced by about 25 percent, which will provide annual

6 fixed cost savings. This summer storage fill can be

7 accomplished through a combination of Western Canadian

8 supply, Chicago supply, and Michigan supply purchased

9 at storage.

10   All of the proposed storage and

11 transportation contracts are discounted below the ANR

12 and Great Lakes tariff rates. These discounted rates

13 cannot rise over the course of the contract term.

14 Centra was also able to secure renewal rights on all

15 contracts.

16   MR. DOUG BEDFORD: Can you describe for

17 us, please, the process that Centra Gas undertook to

18 evaluate various transportation and storage options

19 before you began exploring in detail negotiations with

20 ANR and Great Lakes Gas, the proposals and the

21 contracts that are before us?

22   MR. NEIL KOSTICK: As the parties

23 attending this hearing are aware, Centra's current ANR

24 and Great Lakes transportation and storage arrangements

25 expire March 31st, 2013.

1   In anticipation of the expiry of these

2 contracts, Centra investigated a wide range of storage

3 and transportation options, including consideration of

4 sources of natural gas supply that could be accessed

5 through such arrangements.

6   Upon examining an array of

7 geographically dispersed options and the costs and

8 operational considerations associated with those

9 options, Centra determined that a portfolio that

10 included storage located in the Michigan or Southern

11 Ontario region would be the most reliable and cost-

12 effective option.

13   Centra then held detailed discussions

14 with storage operators in this region, which included

15 discussion of service attributes, rates, and

16 interconnections with regional pipelines.

17   Proposals were received from four (4)

18 storage operators in this region. This allowed for the

19 short list -- short-listing of storage operators based

20 on the evaluation of reliability characteristics, the

21 cost of storage services, and other costs that may not

22 be under the storage operator's control, such as the

23 cost of transportation to and from the storage

24 operator's facilities.

25   The discussions also allowed Centra to

 1 evaluate other considerations, such as access to

 2 supply, supply diversity, and portfolio flexibility.

 3   MR. DOUG BEDFORD: Is this the extent

 4 of the analysis that was conducted?

 5   MR. NEIL KOSTICK: No, it was really

 6 just the start of the analysis. Upon short-listing the

 7 two (2) leading storage operators, extensive

 8 negotiations ensued which involved ongoing discussion

 9 of rates and services.

10   These discussions provided the

11 transportation and storage input data used in the

12 optimization modelling that Centra conducted. The

13 modelling also used forward price curves from various

14 supply hubs that were derived from futures prices as

15 well as price curves from a proprietary forecast

16 provided by a consultant.

17   An iterative process ensued in which the

18 model results would form the basis for further

19 negotiation of rates and services. After several

20 iterations of this process, final model results were

21 obtained for the two (2) leading candidates and were

22 compared.

23   On a total cost basis, the two (2)

24 candidates were very close, less than 1 percent apart,

25 with the ANR and Great Lakes storage and transportation

 1 portfolio generally having a small cost advantage.

 2 These model results were reported in Tab 7 of the

 3 application.

 4   MR. DOUG BEDFORD: Mr. Kostick, given

 5 that the model results were so close, how is it that

 6 Centra was able to decide what the best storage and

 7 transportation portfolio was for its circumstances?

 8   MR. NEIL KOSTICK: In selecting the ANR

 9 and Great Lakes portfolio over option B, Centra looked

10 at other key factors beyond cost, starting with

11 reliability. ANR and Great Lakes have, to date,

12 flawlessly delivered Centra's storage gas to Manitoba,

13 including accommodation of intra-day and late-night

14 modifications to storage withdrawals.

15   ANR is ideally situated and connected to

16 Great Lakes in Michigan, providing greater assurance of

17 ANR's ability to deliver Centra's storage gas to Great

18 Lakes under constrained operating conditions.

19   The ANR and Great Lakes portfolio also

20 provides the ability to diversify from Western Canadian

21 supply transported on TransCanada using both Chicago

22 and Michigan supply.

23   Chicago is the most liquid natural gas

24 hub in the region and one (1) of the most liquid in

25 North America. In comparison, the option B portfolio

 1 did not provide access to the Chicago market and placed

 2 greater reliance on supply at a single alternative hub

 3 to Western Canadian supply.

 4   MR. DOUG BEDFORD: Do you have any

 5 other comments in relation to the evaluation process or

 6 Centra's modelling results?

 7   MR. NEIL KOSTICK: An important point

 8 related to portfolio modelling is that the model

 9 optimizes on the basis of minimizing costs on a total

10 portfolio basis. The model used twenty (20) years of

11 weather and selects a best-fit storage and

12 transportation portfolio that minimizes costs over a

13 range of Manitoba weather conditions.

14   To accomplish this, the model has to

15 consider all inputs, including weather, the price of

16 gas from various hubs, and the rates and stor -- and

17 the rates for storage and transportation services,

18 including the rates resulting from Centra's

19 negotiations.

20   When it comes to Manitoba weather, it

21 goes without saying that there will be mi -- mild

22 winters and cold winters that can't be predicted in

23 advance. It's Centra's job to implement a portfolio

24 that can accommodate a wide range of weather outcomes

25 in a cost-effective manner. And the model -- model

1 results assist in this regard.

2   MR. DOUG BEDFORD: Mr. Kostick, please

3 comment on Centra's choice of 15.5 petajoules of

4 storage capacity in the proposed portfolio in relation

5 to the modelling results that you've described.

6   MR. NEIL KOSTICK: As reported in Tab 7

7 of the application, Centra ran four (4) different

8 natural gas price curves in the model. In each case

9 the model selected a single best-fit storage capacity

10 that minimizes costs over the twenty (20) years of

11 weather in the model.

12   For ANR storage, using the two (2) price

13 curves derived from futures prices, the average best-

14 fit storage capacity was 15 1/2 petajoules. Using the

15 two (2) price curves from the consultant, the average

16 best-fit storage capacity was 17.6 petajoules.

17   These results include consideration of

18 both warm years and cold years and the cost of storage

19 capacity that Centra negotiated with ANR. This annual

20 -- this annual cost amounts to just over two hundred

21 and eighty thousand dollars ($280,000) per year -- per

22 year per petajoule of capacity.

23   So the model minimizes costs on a total

24 portfolio basis while taking into account twenty (20)

25 years of weather and the cost of ANR storage capacity.

 1 And the results do not support a reduction in storage

 2 capacity from the current 15 1/2 petajoules.

 3   I think it's also worth noting that the

 4 twenty (20) years of weather in the model were the most

 5 recent twenty (20) years, which does not include the

 6 coldest year on record. So in other words, the model -

 7 - the model results were not unduly influenced by a

 8 single year's cold weather with respect to sizing

 9 storage capacity.

10   MR. DOUG BEDFORD: Was any other

11 analysis conducted that supported Centra's portfolio

12 decision-making process?

13   MR. NEIL KOSTICK: Yes. Centra engaged

14 the services of a consultant to perform its own

15 modelling of Centra's two (2) short-listed candidates

16 as a check, if you will, on Centra's modelling results.

17   The modelling approach taken by the

18 consultant was somewhat different in the sense that

19 rather than selecting a single best-fit storage and

20 transportation portfolio for a wide range of weather

21 scenarios, the consultant's model produced discreet

22 portfolios for each weather scenario.

23   Although the approach differed, the

24 consultant's results in aggregate were directionally

25 similar to Centra's results, that the ANR portfolio had

1 a slight total cost advantage over option B, that

2 injections of Western Canadian supply into storage were

3 economic, and storage capacity was directionally

4 similar in not supporting a reduction from the current

5 15 1/2 petajoules.

6   MR. DOUG BEDFORD: Mr. Kostick,

7 comment, please, on the suggestion that storage

8 capacity should only be sized to accommodate normal

9 weather with no consideration of colder than normal

10 weather.

11   MR. NEIL KOSTICK: Well, for starters,

12 colder than normal weather can be expected to occur 50

13 percent of the time. So potentially running out of

14 storage gas during winter would become a frequent

15 event.

16   I think there's generally two (2)

17 perspectives on using natural gas storage: that of a

18 local distribution company like -- or -- or an LDC,

19 like Centra, and that of a natural gas marketer.

20   In the case of an LDC, like Centra, the

21 LDC is responsible for serving a particular market on a

22 long-term basis, which includes serving that market's

23 natural gas requirements in both the warmest and the

24 coldest years. The LDC has to plan its assets

25 accordingly, including the size of storage.

 1   A marketer, on the other hand, has no

 2 long-term market to serve and will select storage

 3 capacity based on its appetite to buy gas into storage

 4 and then sell it to generate a profit by exploiting the

 5 summer/winter price differentials or shor -- short-term

 6 price volatility.

 7   It generally wouldn't select capacity,

 8 considering the need to serve a particular weather-

 9 sensitive market like Manitoba that can have wide-

10 ranging natural gas requirements.

11   Where an LDC like Centra and a gas

12 marketer would likely agree is that completely

13 depleting storage is not a goal. After all, if you

14 paid for storage capacity and it's sitting empty, it

15 can't provide any value.

16   MR. DOUG BEDFORD: Mr. Kostick, what

17 are the consequences of running out of storage gas in

18 the winter?

19   MR. NEIL KOSTICK: Not having access to

20 storage gas would make it more difficult and more

21 costly to serve the Manitoba market requirement for

22 natural gas in winter.

23   Manitoba is, of course, a cold-weather

24 market that is largely characterized by residential and

25 commercial space heating requirements. As a result,

 1 Centra serves a Manitoba natural gas load that is more

 2 variable and volatile than virtually any other market

 3 in North America.

 4   This drives a significant need for swing

 5 supply, which is the ability to nominate gas volumes in

 6 highly variable quantities on a day-ahead basis and an

 7 intra-day basis, or within the day, and that includes

 8 even when natural gas markets are closed.

 9   Storage is Centra's largest and most

10 reliable source of swing supply and is Centra's primary

11 tool to serve the Manitoba market's weather-driven

12 winter gas requirements. Without access to storage

13 gas, Centra would need to acquire other supply, which

14 would be less flexible, less reliable, and potentially

15 more expensive.

16   The consequence would certainly be

17 higher balancing fees on the upstream pipeline,

18 TransCanada, as it would -- as it would be difficult to

19 match supply with daily Manitoba demand for natural

20 gas.

21   MR. DOUG BEDFORD: Mr. Kostick, it has

22 been suggested that local distribution companies like

23 Centra Gas can take whatever gas they need from the

24 TransCanada pipeline and that a reduced ability to meet

25 Manitoba's daily winter gas requirement should not

1 really be of great concern, as it would simply be a

2 matter of paying higher penalty fees to TransCanada

3 pipeline. Comment, please, on this.

4   MR. NEIL KOSTICK: Certainly. I think

5 any upstream pipeline would find the view that shippers

6 can take whatever gas they need from the pipe to be

7 quite alarming. The balancing penalties are in place

8 to ensure LDCs operate responsibly in matching gas

9 supply with gas demand.

10   This includes not only daily penalty

11 fees for being out of balance, but cumulative penalty

12 fees as well. The cumulative fees apply every day

13 until the gas owed is made up by way of incremental

14 deliveries to TransCanada. This can be a problem

15 during consecutive days of cold weather in which Centra

16 may already be maximizing its deliveries to Manitoba

17 and has no excess capacity to make up the gas that is

18 owed.

19   TransCanada also has the further ability

20 to declare emergency operating conditions in which

21 severe financial penalties can be assessed to shippers

22 taking any gas from the pipeline that is not theirs.

23 This can potentially amount to millions of dollars in

24 penalties per day.

25   MR. DOUG BEDFORD: Do you anticipate

 1 any operational changes resulting from the increased

 2 flexibility associated with the proposed storage and

 3 transportation portfolio that's being considered by

 4 this Board?

 5   MR. NEIL KOSTICK: Yes. Centra expects

 6 to gener -- generally rely more heavily on storage

 7 withdrawals in the proposed portfolio which will enable

 8 less reliance on Western Canadian supply transported on

 9 TransCanada. The new ability to refill storage in

10 winter and the corresponding firm winter transportation

11 from the Chicago market to storage make this approach

12 viable as it provides the assurance that Centra will

13 not lose critical access to swing supply from -- from

14 storage during the winter.

15   MR. DOUG BEDFORD: Is it conceivable

16 that the proposed new flexibility to refill storage in

17 winter could allow Centra to reduce storage capacity

18 below the 15.5 petajoules that I asked you about

19 earlier?

20   MR. NEIL KOSTICK: The modelling that

21 Centra performed took the ability to refill storage in

22 winter into account. Over twenty (20) weather

23 scenarios and among many other factors, the model

24 evaluated the cost of the storage capacity against the

25 cost of increased winter gas purchases that would be

 1 necessary with less storage. The model -- model

 2 results suggest that 15 1/2 petajoules of storage

 3 capacity is appropriate to minimize the total portfolio

 4 costs combined with generally pulling harder on -- on

 5 storage gas with the ability to refill storage in

 6 winter with Chicago supply.

 7   MR. DOUG BEDFORD: Do you have any

 8 other general comments on the value of storage to

 9 Centra Gas?

10   MR. NEIL KOSTICK: Yes. More than

11 perhaps any other market, the Manitoba natural gas load

12 is heavily weighted to winter demand, and summer

13 purchases -- summer purchases for injection into

14 storage help provide more balanced annual purchasing.

15 This also contributes to rate stabilization for

16 customers, as gas purchased throughout the summer at

17 varying prices is later withdrawn in winter at a single

18 weighted average price.

19   ARM and Great Lakes storage and

20 transportation arrangements also provide diversity to

21 Centra's portfolio. This diversity includes supply

22 access at the Chicago and Michigan markets and

23 transportation diversity by providing a second

24 transportation path to Manitoba. Transportation

25 diversity is both a cost and a reliability

1 consideration.

2   MR. DOUG BEDFORD: Please comment on

3 the seven (7) year term of the ANR Pipeline Company and

4 Great Lakes Gas Transmission LP arrangements.

5   MR. NEIL KOSTICK: Centra is very

6 pleased to have secured these discounted storage and

7 transportation arrangements for an intermediate term of

8 seven (7) years. The discounted rates obtained by

9 Centra cannot increase over the seven (7) term and

10 secure as cost-effective access to the US market for

11 reliability and supply diversity.

12   MR. DOUG BEDFORD: What would have been

13 the risks associated with a shorter term?

14   MR. NEIL KOSTICK: In light of the

15 discounted rates secured by Centra, a shorter term

16 places Centra at risk of having to recontract for

17 similar services at higher rates sooner than it would

18 under a seven (7) year term. In some cases, such as

19 the Great Lakes winter transportation to Manitoba,

20 rates that are closer to the maximum tariff rate could

21 add millions of dollars to the cost of Centra's

22 portfolio annually.

23   Also, at the end of any contract term

24 Centra could be required to match a competing bid to

25 maintain its ANR and Great Lakes capacity which could

1 include having to match a longer term than desired.

2   MR. DOUG BEDFORD: Does a seven (7)

3 year term mean that Centra Gas cannot respond to

4 changing market conditions?

5   MR. NEIL KOSTICK: Not at all. This

6 premise assumes that if a particular market or

7 regulatory outcome appears to increase the

8 attractiveness of an alternative portfolio, that Centra

9 should respond by making radical portfolio changes -

10 for example, abandoning storage and transportation in

11 the US. This would basically require a conscious

12 decision to abandon any element of portfolio diversity,

13 when everything we know about energy markets suggests

14 that ongoing change will continuously impact the val --

15 the relative values of alternative portfolios.

16   Within the term of the proposed ANR and

17 Great Lakes arrangements, Centra can respond

18 appropriately to changes in market conditions.

19   MR. DOUG BEDFORD: And are there

20 particular ways that Centra Gas can respond to changes?

21   MR. NEIL KOSTICK: Absolutely. The

22 proposed storage and transportation arrangements

23 provide for supply diversity and the flexibility to

24 adjust supply acquisition among different sources of

25 supply. Centra can also release capacity and adjust

1 its TransCanada contract levels in response to changing

2 market conditions.

3   MR. DOUG BEDFORD: Mr. Kostick, before

4 we move to Mr. Sanderson, do you have any other general

5 comments about the proposed transportation and storage

6 contracts with ANR and Great Lakes?

7   MR. NEIL KOSTICK: Yes. I would simply

8 like to observe that Centra has secured a number of

9 beneficial outcomes in the proposed arrangements that,

10 in aggregate, can be quite difficult to achieve.

11   These include fixed discounted rates on

12 all contracts, renewal rights on all contracts,

13 increased operational flexibility, improved access to

14 liquid supply at Chicago, no reduction in reliability

15 or security of supply, and an 18 percent reduction in

16 costs amounting to savings of 3 million US dollars per

17 year.

18   MR. DOUG BEDFORD: Thank you, Mr.

19 Kostick. Mr. Sanderson, would you tell us please what

20 topics are your responsibility on this panel this week?

21   MR. BRENT SANDERSON: Good morning, Mr.

22 Chairman, members of the Public Utilities Board, ladies

23 and gentlemen. In my testimony I will be providing

24 evidence relating to the North American natural gas

25 markets, market pricing data, modelling and forecasting

1 methodologies.

2   MR. DOUG BEDFORD: And, Mr. Sanderson,

3 before we move to some more detailed questions, would

4 you please tell the Board what your job title at Centra

5 Gas is?

6   MR. BRENT SANDERSON: I am the manager

7 of the gas market analysis and administration

8 department.

9   MR. DOUG BEDFORD: What, then, will be

10 your role in implementing the contracts that are the

11 subject of this application?

12   MR. BRENT SANDERSON: My staff and I

13 will be responsible for working with Ms. Stewart's

14 area, in order to model the planned operation of the

15 new portfolio and serving our customers' requirements

16 in the development of Centra's annual purchased gas

17 cost budget.

18   MR. DOUG BEDFORD: In developing and

19 negotiating the proposed portfolio what, from your

20 perspective, were Centra's key considerations?

21   MR. BRENT SANDERSON: As covered

22 earlier by both Mr. Warden and Mr. Kostick, Centra's

23 key considerations were the maintenance of reliable

24 service to customers, an increase in operational

25 flexibility, diversification of sources of natural gas

1 supply, and reduction in our costs to the extent

2 possible.

3   MR. DOUG BEDFORD: Tell us, please,

4 what has happened in the North American natural gas

5 market in the recent past that is of relevance to those

6 objectives?

7   MR. BRENT SANDERSON: The most notable

8 development has been the rapid commercialization of

9 previously uneconomic sources of unconventional natural

10 gas. This has led to the opening of numerous new

11 production basins throughout North America, many of

12 which are adjacent to major demand centres that

13 previously had to import their entire natural gas

14 requirement from basins on the other side of the

15 continent.

16   This has led to dramatic shifts in

17 natural gas transportation patterns that has

18 increasingly left some established pipelines with

19 rapidly deteriorating business models, as their former

20 shippers source their natural gas supply from basins

21 much closer to their own market centres.

22   MR. DOUG BEDFORD: Would you explain

23 for us, please, your reference to "unconventional gas"?

24   MR. BRENT SANDERSON: "Unconventional

25 gas" is a blanket term used to describe sources of

 1 natural gas that until recently were thought to be too

 2 technologically challenging to produce with today's

 3 technology, at prevailing market prices.

 4   Unconventional natural gas can take a

 5 number of different forms. Coalbed methane is one (1)

 6 source whose production has grown significantly over

 7 the past fifteen (15) years. Shale gas is the most

 8 notable example in the past five (5) years. And, in

 9 addition, given recent research breakthroughs, methane

10 hydrates promise to be the next frontier source of

11 unconventional gas that we can expect to achieve

12 commercialization within the next ten (10) to twenty

13 (20) years. With applied learning and improvements in

14 exploration and production technologies, over time

15 unconventional gas becomes conventional gas.

16   MR. DOUG BEDFORD: And is this growth

17 confined to regions where natural gas has been

18 traditionally found?

19   MR. BRENT SANDERSON: No, it has not.

20 While traditional conventional natural gas basins are

21 often rich in some of the previously mentioned sources

22 of unconventional supply -- both the Western Canadian

23 Sedimentary Basin in Alberta and the Texas, Oklahoma,

24 and Louisiana production regions come to mind, large

25 reserves of unconventional gas are now being developed

 1 in areas that previously had no natural gas production

 2 to speak of.

 3   Such areas include the high-demand

 4 centres of the US northeast underlaid by the Marcellus

 5 shale as well as the Antrim shale in Michigan and the

 6 Utica shale in Quebec.

 7   MR. DOUG BEDFORD: Tell us, please,

 8 about the cost structure that producers are expecting

 9 to achieve with the application of new production

10 technologies.

11   MR. BRENT SANDERSON: The use of

12 advanced new technologies, such as four (4) dimensional

13 seismic imaging over the four (4) dimensions of length,

14 height, width, and time, along with preproduction

15 supercomputer modelling of hydrocarbon-bearing geologic

16 formations has served to reduce exploration and

17 production -- production risk such that producers now

18 routinely refer to unconventional natural gas

19 production as gas manufacturing.

20   In addition, combining the use of long-

21 standing oil and gas drilling and production and

22 techniques, such as multiple directional horizontal

23 drilling and hydraulic fracturing, has increased

24 efficiency and brought down the cost structure of the

25 natural gas industry dramatically in recent years.

 1   A typic -- typical example is Apache's

 2 announcements last week of its confirmation of 48

 3 trillion cubic feet of marketable gas with the

 4 potential for as much as 210 trillion cubic feet in the

 5 Liard basin in northern British Columbia.

 6   Apache expects production from the basin

 7 to be profitable at market prices of approximately two

 8 dollars and fifty cents ($2.50) per gigajoule over the

 9 long term. By comparison, natural gas market prices

10 average closer to seven dollars ($7) a gigajoule for

11 most of the first decade of the 21st Century with

12 prices spiking to well in excess of ten dollars ($10)

13 per gigajoule on a number of occasions.

14   MR. DOUG BEDFORD: And before I ask Ms.

15 Stewart a few questions, can you tell us, please, Mr.

16 Sanderson, in light of the changes that you've just

17 described for us that are taking place in the world of

18 natural gas, should Centra Gas be seeking more or less

19 diversity in its planning?

20   MR. BRENT SANDERSON: More diversity,

21 Mr. Bedford. By developing a storage and

22 transportation portfolio that allows Centra to

23 diversify its natural gas purchases amongst a variety

24 of very liquid hubs, Centra can reduce the volatility

25 of its costs while in no way inhibiting its ability to

 1 achieve the lowest long-run costs for its upstream

 2 supply, storage, and transportation, that being the

 3 broad average market price for those products and

 4 services over time.

 5   MR. DOUG BEDFORD: Thank you. Ms.

 6 Stewart, what topics are your responsibilities on this

 7 panel this week?

 8   MS. LORI STEWART: Good morning, Mr.

 9 Chairman, members of the Board, ladies and gentlemen.

10 In my testimony I will be providing evidence related to

11 the operation of the proposed portfolio of

12 transportation and storage assets and TransCanada

13 mainline matters.

14   MR. DOUG BEDFORD: What is it that you

15 do at Centra Gas?

16   MS. LORI STEWART: My team and I

17 operate and optimize our portfolio of gas supply,

18 transportation, and storage assets. This includes

19 portfolio planning on a daily, weekly, monthly,

20 seasonal, and annual basis to serve the requirements of

21 the Manitoba market by arranging and scheduling gas

22 supplies and performing these functions from the

23 perspective of optimizing the portfolio for the benefit

24 of Manitoba natural gas ratepayers. I also manage

25 Centra's relationship with TransCanada Pipeline.

 1   MR. DOUG BEDFORD: And what will you do

 2   to implement the contracts that are the subject of this

 3   application?

 4   MS. LORI STEWART: The proposed

 5   contracts will be turned over to my team to operate and

 6   optimize. We will be closing out our use of the

 7   existing US asset portfolio this winter of 2012/'13 and

 8   preparing for the transition to the new portfolio,

 9   which will provide us with more operating flexibility.

10   MR. DOUG BEDFORD: What do you mean by

11   "more operating flexibility"?

12   MS. LORI STEWART: The ability to cycle

13   storage should provide Centra with a significant

14   advantage over the previous arrangements. The proposed

15   portfolio includes annual storage capacity, which

16   effectively provides Centra with the ability to cycle

17   an additional 3.1 million GJs, or 3.1 petajoules,

18   through storage annually.

19   This flexibility will allow Centra to

20   reduce its TransCanada mainline capacity to Manitoba in

21   the winter and to reduce the associated costs.

22   Additionally, there is a greater opportunity to

23   diversify our gas purchases. We can adjust our gas

24   purchases to acquire either more or less US supplies

25   from Chicago and Michigan, relative to the Western

 1 Canadian Sedimentary Basin, in response to changing

 2 market circumstances.

 3   MR. DOUG BEDFORD: Mr. Sanderson told

 4 us about the changes in the natural gas market in North

 5 America. Can you tell us what these changes mean with

 6 regard to North American natural gas pipelines?

 7   MS. LORI STEWART: Yes. Traditional

 8 flow patterns across the North American pipeline grid

 9 are changing as a result of the natural gas market

10 evolution. Transportation infrastructure is being

11 built out to facilitate areas of significant market

12 demand, like the US northeast, in accessing natural gas

13 from basins closer to home. Traditional export points

14 on the TransCanada mainline, such as Niagara and

15 Chippewa are being reconfigured to allow physical

16 import of US gas to Canadian markets.

17   Closer to home, TransCanada reconfigured

18 its meter station at Emerson recently, to facilitate

19 bi-directional flow and the null point on Great Lakes,

20 which is the point at which physical flows intersect,

21 continues to shift west on a pipeline that has

22 historically moved gas from west to east. In the case

23 of the TransCanada mainline, this is driving

24 reassessment of the use of existing assets and

25 TransCanada itself is discussing the re-purposing of

 1 some portion of these assets.

 2   MR. DOUG BEDFORD: The National Energy

 3 Board, Ms. Stewart, is currently holding public

 4 hearings with regards to the TransCanada mainline

 5 system. Why is Centra Gas intervening in that

 6 proceeding?

 7   MS. LORI STEWART: Centra is

 8 intervening in that proceeding because the TransCanada

 9 mainline physically transports all natural gas supplies

10 that are consumed in Centra's service territory. As a

11 result, the services provided by the mainline and their

12 associated tolls are very important to Centra's

13 operations.

14   MR. DOUG BEDFORD: And can you please

15 provide us with an update on the current National

16 Energy Board hearing on the TransCanada pipeline?

17   MS. LORI STEWART: The NEB hearing

18 commenced on June the 4th in Calgary. A key

19 development at that time was TransCanada's announcement

20 that it was going to restate its throughput and related

21 assumptions contained in its application.

22   On June the 13th, TransCanada offered

23 some high level comments about its revised forecast.

24 Firstly, TransCanada has lowered its 2012 North

25 American natural gas price forecast, relative to its

1 2011 forecast, for the remainder of this decade, by

2 approximately a dollar forty ($1.40) US per million

3 BTUs, in 2010 dollars, on an annual average basis.

4   Secondly, receipt volumes are now

5 expected

6 to be, on average, approximately 1 billion cubic feet

7 per day lower, or 1 Bcf, for the 2013 to 2020 forecast

8 period. This is in part as a result of the lower gas

9 price forecast contributing to a lower western Canadian

10 supply basin supply forecast, and in part due to

11 TransCanada now factoring in the commencement of west

12 coast liquified natural gas, or LNG, exports towards

13 the end of this decade.

14   The third important point is that the

15 tolls originally proposed by TransCanada last fall in

16 its application are no longer valid and, in fact, are

17 too low. It would appear now that the tolls for 2013

18 will be at least 30 percent higher than those

19 originally presented in the application.

20   MR. DOUG BEDFORD: And before we turn

21 to Mr. Barnlund do you have any closing comments, Ms.

22 Stewart, that you would like to make with respect to

23 the proposed portfolio?

24   MS. LORI STEWART: Yes, I would like to

25 say that we are pleased to be continuing to work with

 1 ANR and Great Lakes Gas Transmission, given our

 2 positive experience with them over the past twenty (20)

 3 years as service providers. The proposed portfolio

 4 will maintain the high reliability standard we have met

 5 for many years now, while providing the flexibility to

 6 adapt to changing market conditions, improved supply

 7 diversity, and access to liquid sources of physical

 8 natural gas supplies, and reduced portfolio costs.

 9   MR. DOUG BEDFORD: Thank you. Mr.

10 Barnlund, would you please introduce yourself to the

11 panel.

12   MR. GREG BARNLUND: Good morning, Mr.

13 Chairman, members of the Public Utilities Board, ladies

14 and gentlemen. I am the manager of the regulatory

15 services department and I'm here to testify on behalf

16 of this application and the regulatory process

17 associated with this application.

18   MR. DOUG BEDFORD: Mr. Barnlund, Mr.

19 Warden has already described the approvals that Centra

20 Gas is seeking. Can you briefly touch on the steps

21 that have brought us here to this point today?

22   MR. GREG BARNLUND: Yes. Tab 4 of our

23 application provides the chronology of the events that

24 have transpired since 2010 with regard to this matter,

25 and I would like to summarize them.

1   In 2010 Centra proposed a process for

2 the replacement of its storage and transportation

3 contracts that we know are set to expire on March 31st,

4 2013. That process included public engagement with

5 interested parties on the matter prior to advancing a

6 proposal to the Public Utilities Board for approval.

7 In order to provide for this public consultation Centra

8 proposed to distribute a discussion paper on the state

9 of the natural gas energy market in North America and

10 the alternatives that Centra could consider in

11 replacement of its storage and transportation

12 arrangements.

13   The process envisioned that a public

14 technical conference would be held in 2011, after the

15 distribution of the discussion paper, to provide an

16 opportunity for Centra and interested parties to

17 discuss the issues in as an open a manner as possible.

18   MR. DOUG BEDFORD: Were there any

19 changes made to that process?

20   MR. GREG BARNLUND: Yes, there were.

21 As noted in Public Utilities Board Order 65 of '11

22 additional steps were added to the process. Interested

23 parties were given the opportunity to ask information

24 requests of Centra after the close of the technical

25 conference. Furthermore, stakeholders were then

 1 invited to provide Centra and the Public Utilities

 2 Board with written submissions giving their positions

 3 on the matters at hand.

 4   MR. DOUG BEDFORD: And was this process

 5 followed?

 6   MR. GREG BARNLUND: Yes. On June 27th,

 7 2011, almost a year ago to the day, Centra provided a

 8 comprehensive discussion paper which included a report

 9 known as "The Review of Natural Gas Portfolio Options

10 for Centra Gas." This report was authored by ICF

11 Consulting International.

12   MR. DOUG BEDFORD: And what happened

13 thereafter?

14   MR. GREG BARNLUND: Following the

15 distribution of the discussion paper, on July 8th,

16 2011, Centra hosted a one (1) day technical conference

17 that included a discussion of the natural gas market in

18 North America, the storage and transportation options

19 that may be available for consideration, and background

20 information regarding the TransCanada pipeline's

21 mainline situation.

22   MR. DOUG BEDFORD: Who was invited to

23 attend this technical conference?

24   MR. GREG BARNLUND: Centra provided

25 notice and an invitation to attend this technical

1 conference to all Intervenors of record from past

2 Centra rate hearings, all registered natural gas

3 marketers in Manitoba, and all large volume industrial

4 and commercial customers in Manitoba.

5   MR. DOUG BEDFORD: And who actually

6 responded to that invitation and attended the

7 conference?

8   MR. GREG BARNLUND: In addition to PUB

9 staff and advisors there was representation from the

10 Consumers Association of Canada, Manitoba Inc., the

11 Green Action Centre, as well as five (5) large volume

12 customer representatives and representatives from three

13 (3) natural gas marketers.

14   MR. DOUG BEDFORD: And from your

15 perception, how was the technical conference received

16 by the parties who attended it?

17   MR. GREG BARNLUND: I believe that it

18 was well-received by the participants and that it

19 enabled good communication of the issues and

20 opportunities, and provided for a good exchange of

21 ideas and discussion of the matters at hand.

22   MR. DOUG BEDFORD: And thereafter, were

23 interested parties given an opportunity to seek further

24 clarification by way of information requests?

25   MR. GREG BARNLUND: Yes, all attendees

1 were afforded that opportunity. And while Centra only

2 received information requests from one (1) party, the

3 Public Utilities Board, Centra's responses were

4 circulated to all participants on August 15th, 2011.

5   MR. DOUG BEDFORD: And in addition,

6 were interested parties invited to provide their views

7 to Centra in the form of written submissions?

8   MR. GREG BARNLUND: Yes, all interested

9 parties were invited to make their views and positions

10 on these matters known, by way of written submissions,

11 by August 29th, 2011. Between August 29th and

12 September 2nd, Centra received comments from four (4)

13 parties.

14   MR. DOUG BEDFORD: And did any or all

15 of those parties make specific recommendations or

16 suggestions to Centra Gas as to the design of the

17 portfolio?

18   MR. GREG BARNLUND: While Centra had

19 anticipated that parties would provide specific

20 comments on the issues around transportation and

21 storage, the submissions spoke more to procedural

22 matters.

23   MR. DOUG BEDFORD: And in terms of the

24 continuing process, was there any suggestion that

25 another technical conference be held before Centra

 1 entered into contractual arrangements?

 2   MR. GREG BARNLUND: There was a

 3 suggestion that another technical conference ought to

 4 be considered prior to Centra advancing the proposed

 5 option to Centra's Board of Directors for their

 6 approval.

 7   MR. DOUG BEDFORD: And tell us, please,

 8 what was Centra Gas' view in response to that

 9 particular suggestion?

10   MR. GREG BARNLUND: There are

11 significant challenges to effectively and meaningfully

12 engaging stakeholders at that later stage in the

13 evaluation and negotiation process. We did not believe

14 that we could engage in a further conference that

15 focussed on the final options without prejudicing our

16 ongoing negotiations with storage providers.

17   Centra needed to fully pursue the

18 negotiations with storage proponents to meaningfully

19 evaluate the costs of the respective proposals. And

20 such negotiations and the contents of their proposals

21 are clearly commercially sensitive. Further public

22 consultation at that stage would expose commercially

23 sensitive information and jeopardize our efforts to

24 negotiate the most favourable contract at the best

25 price.

1   MR. DOUG BEDFORD: And did Centra Gas

2 host a further technical conference after the filing of

3 the application that is before this Board?

4   MR. GREG BARNLUND: Yes, we did. This

5 application was filed on March 23rd and a technical

6 conference was held on April 18th. The purpose of that

7 technical conference was to assist the interested

8 parties and Intervenors in obtaining a better

9 understanding of the very technical nature of this

10 evidence. In this way, we believe that Intervenors and

11 interested parties would be better able to formulate

12 their information requests of Centra.

13   MR. DOUG BEDFORD: Mr. Barnlund, does

14 Centra Gas propose any changes to the western

15 transportation service, commodity rate design, or the

16 interruptible class with respect to billing percentages

17 in this particular application?

18   MR. GREG BARNLUND: No, not at this

19 time. If you refer to the response to PUB/CENTRA-18-B,

20 we indicate that the adoption of the new portfolio

21 might not result in a substantial change to the

22 proportions of primary gas and supplemental gas that

23 would be billed to customers on a normal-weather basis.

24   MR. DOUG BEDFORD: And finally, what is

25 the status of Directive 14 from this Board's Order

1 65/11?

2   MR. GREG BARNLUND: Directive 14

3 instructs Centra to propose a process to review

4 Centra's rate and service structure, particularly the

5 distinction between primary gas and supplemental gas.

6   We have been examining this issue and

7 expect to advance this discussion through Centra's next

8 general rate application.

9   MR. DOUG BEDFORD: Thank you, Mr.

10 Barnlund. Mr. Chair and panel members, that concludes

11 the direct-evidence of Centra Gas' witnesses. We can

12 turn them over for cross-examination.

13   THE CHAIRPERSON: Thank you all.

14 Given the time, I suggest we take ten (10) minutes or

15 so. Be back in this room by 11:00, please, and we'll

16 start the cross-examination.

17

18 --- Upon recessing at 10:52 a.m.

19 --- Upon resuming at 11:02 a.m.

20

21   THE CHAIRPERSON: I think everybody's

22 here. Let's resume the deliberations. Mr. Peters?

23   MR. BOB PETERS: Yes, thank you, Mr.

24 Chairman. Good morning to Centra's panel of witnesses

25 and their counsel.

1 CROSS-EXAMINATION BY MR. BOB PETERS:

2   MR. BOB PETERS: Mr. Warden, to start

3 things off, you are the senior Centra Gas executive on

4 the witness panel and if not by age, certainly by

5 corporate job title?

6   MR. VINCE WARDEN: You had to bring up

7 that age thing again.

8   MR. BOB PETERS: But you are the senior

9 representative?

10   MR. VINCE WARDEN: I am.

11   MR. BOB PETERS: Policy questions

12 should be directed to you, sir?

13   MR. VINCE WARDEN: Yes.

14   MR. BOB PETERS: And I apologize to

15 you, Mr. Warden, and also to your counsel. I neglected

16 to mention in my opening comments that your schedule

17 has you pulled between a number of matters and you

18 won't be available, I believe it's tomorrow morning and

19 also another partial day?

20   MR. VINCE WARDEN: Yes, part of the

21 time tomorrow morning and all morning on Thursday

22 morning.

23   MR. BOB PETERS: All right. Thank you.

24 Mr. Warden, by way of some preliminary points to just

25 make sure that we're clear on, my questions will be

1 directed to the witness panel, even if I mention a

2 name, and they're open for a response by any witness,

3 as I'm seeking the complete corporate answers for the

4 Board.

5   Would that be acceptable and understood?

6   MR. VINCE WARDEN: Yes, that's

7 acceptable and understood. Thank you.

8   MR. BOB PETERS: And another matter,

9 Mr. Warden, when I read the transcript I sometimes have

10 a -- a bad habit of using the word "you", Y-O-U, when I

11 ask questions. And if I relapse into that mode, I'm

12 actually wanting to refer the witness to answer on

13 behalf of Centra and my questions seek a response on

14 behalf of the Corporation. I'm not looking for any

15 personal positions or viewpoints of any specific

16 witnesses, only that of the Corporation.

17   Would that also be acceptable?

18   MR. VINCE WARDEN: Yes.

19   MR. BOB PETERS: Lastly, I think, Mr.

20 Warden, in terms of confidentiality to you and your

21 witnesses, my questions are not intended to elicit

22 information that Centra considers confidential be

23 placed on the public record.

24   If any witnesses consider their direct

25 answer to my questions may disclose confidential

 1 information, the witness should advise me and the

 2 Board, either directly or through Mr. Bedford, that

 3 they decline to answer, as the conf -- as the answer

 4 would be confidential.

 5   Then based on the question, I'll either

 6 rephrase my question, or if the information is

 7 considered relevant and required by the Board, then we

 8 can work with Mr. Bedford as well as Messrs. Meronek

 9 and Masi, as well as the PUB's Rule 13 to see if we can

10 address any confidentiality concerns, and we can report

11 that back to the Board.

12   Would that be acceptable?

13   MR. VINCE WARDEN: Yes, that's fine,

14 thank you.

15   MR. BOB PETERS: All right. All right.

16 And speaking of confidential information, am I correct

17 in understanding that due to Centra's concerns that

18 certain responses to requests for proposals from the

19 various proponents contain commercially sensitive

20 information, the proponents not selected by Centra are

21 identified as parties B, 'C', and, 'D' throughout these

22 proceedings, rather than by their business name?

23   MR. VINCE WARDEN: Correct.

24   MR. BOB PETERS: However, Centra does

25 file ANR's and Great Lakes Gas Transmission, or GLGT's,

1 term sheet that underpins Centra's eight (8) contracts

2 if the fixed prices and the fixed costs are approved by

3 this Board?

4   MR. VINCE WARDEN: Yes.

5   MR. BOB PETERS: And, Mr. Warden, it's

6 customary for Centra's board of directors to endorse

7 the applications before they're filed with the Public

8 Utilities Board. Is that correct?

9   MR. VINCE WARDEN: It is.

10   MR. BOB PETERS: And when did -- well,

11 I -- I -- maybe I can ask it this way. I think from

12 one (1) of the IR responses, I have February 28th of

13 2012, as the date that Centra's board of directors

14 approved moving this matter forward to the Public

15 Utilities Board?

16   MR. VINCE WARDEN: Yes, that's correct.

17   MR. BOB PETERS: I guess, still by way

18 of some introductory questions, Mr. Warden, for you and

19 your witness panel, the witnesses have all been

20 provided with a copy of a book of documents that I've

21 now marked as PUB Exhibit 7. And I'll refer to that

22 exhibit throughout my questions.

23   But if there is any additional

24 information any witness wants to bring to the Board's

25 attention, they should feel free to do so. This is

 1 certainly not a closed-book exam, and all material

 2 should be brought to the Board's attention as your

 3 witnesses decide.

 4   That's also acceptable, sir?

 5   MR. VINCE WARDEN: Yes, thank you.

 6   MR. BOB PETERS: So in terms of

 7 starting with the overview, Mr. Warden, and perhaps Mr.

 8 Barnlund, I believe you've indicated that this

 9 application is pursuant to what's come out of Order

10 number 65 of '11?

11   MR. GREG BARNLUND: I believe that in

12 Order 65/11 there was direction that we would bring

13 forth an application for full public review of the

14 proposed arrangements. And, indeed, this is -- is the

15 process that was described.

16   MR. BOB PETERS: All right. And at Tab

17 1 of the book of documents is Order 65/11, if we need

18 to refer back to it. But at this point in time, Centra

19 is seeking fin -- final approval of fixed costs for US

20 storage and transportation arrangements?

21   In short, that would be what we're

22 asking for today on behalf of Centra?

23   MR. GREG BARNLUND: Yes, sir.

24   MR. BOB PETERS: And when the Board

25 looks at it, that number that I take from, I think, Tab

 1 13 of the book of documents, the specific number that

 2 the Board is putting forward is fourteen million,

 3 forty-nine thousand, three hundred and forty-four

 4 dollars ($14,049,344)? Mr. Barnlund, would you accept

 5 that?

 6   MR. GREG BARNLUND: I would.

 7   MR. BOB PETERS: And that fourteen (14)

 8 -- we'll -- we'll round it off to 14 million, but the

 9 specific amount that I've just mentioned is the amount

10 that Centra intends to incur if its proposal is

11 approved by this Board each and every year for the next

12 seven (7) years, starting on April 1st of 2013?

13   MR. GREG BARNLUND: Yes, sir.

14   MR. BOB PETERS: And this is

15 denominated, Mr. Barnlund, in US dollars?

16   MR. GREG BARNLUND: It is.

17   MR. BOB PETERS: And Centra won't hedge

18 its -- its US currency related to this transaction,

19 will it?

20   MR. GREG BARNLUND: It has no intention

21 to.

22   MR. BOB PETERS: But should there be a

23 foreign exchange fluctuation, that fluctuation would

24 add or subtract approximately a hundred and forty

25 thousand dollars ($140,000) a year based on one (1)

 1 percentage point, or a hundred (100) basis points move

 2 of the foreign exchange rate?

 3   MR. GREG BARNLUND: Should I ask you

 4 for a reference?

 5   MR. BOB PETERS: I knew you --

 6   MR. GREG BARNLUND: I'll take it

 7 subject to check. I think that's the number, yes. I

 8 think that's what it is.

 9   MR. BOB PETERS: I do recall reading

10 one (1) of the responses being closer to a hundred and

11 fifty thousand dollars ($150,000) a year, but that

12 included the variable costs, just to be fair to you,

13 Mr. Barnlund.

14   MR. GREG BARNLUND: Fair enough.

15   MR. BOB PETERS: All right. Now in

16 terms of the $14 million, that amount has not yet been

17 -- been denominated to any calendar year's exchange

18 rate? It will float, depending on what the exchange

19 rate is at the time that you're invoiced?

20   MR. GREG BARNLUND: Well, we will be

21 paying $14 million to the counter-parties for these

22 arrangements. Given those payments are being made in

23 US dollars, they will be subject ultimately to some

24 effect, in terms of the actual foreign exchange we

25 would experience throughout that period of time, across

1 a seven (7) year period, yes.

2   MR. BOB PETERS: But maybe I -- I --

3 maybe I'll word it this way. The 14 million is not

4 denominated in a foreign exchange rate as of a specific

5 date at this point in time?

6   MR. GREG BARNLUND: No, it's not.

7   MR. BOB PETERS: And these fixed costs

8 that relate to your application, Mr. Barnlund, those

9 would be recovered in the transportation rate that this

10 Board will ultimately approve to all of Centra's

11 customers except for the transportation customers and

12 perhaps some interruptible customers?

13   MR. GREG BARNLUND: It would only be

14 the transportation customers that would not be -- not

15 face these costs. But all other customers, including

16 interruptible customers, would see these costs

17 reflected in the transportation rate, yes.

18

19   (BRIEF PAUSE)

20

21   MR. BOB PETERS: In the specific

22 application by the Company found at Tab 2 of the book

23 of documents, Mr. Barnlund, it references that the

24 contractual relations for storage is with a company

25 called ANR Transport Storage.

 1   And I have that correct?

 2   MR. GREG BARNLUND: I'm advised that

 3 may be a typographic error.

 4   MR. BOB PETERS: Okay, well let's

 5 approach it this way. How many counter-parties will be

 6 involved in these eight (8) contracts that I believe,

 7 if we look at the last page of the term sheet found at

 8 Tab 3 of the book of documents -- and, Mr. Chairman and

 9 Board members, in the top right-hand corner it's marked

10 as page 20 of Exhibit 7, but it's found as the last

11 page in -- under Tab 3 -- you've listed a number of

12 specific services in the term sheet.

13   Have I got that correct, Mr. Barnlund?

14   MR. GREG BARNLUND: Yes, that's

15 correct.

16   MR. BOB PETERS: And if I go down and

17 number out, there's eight (8) different services. I

18 take it those will translate into eight (8) different

19 contracts?

20   MR. GREG BARNLUND: Yes.

21   MR. BOB PETERS: And in terms of the

22 number of counter-parties that you'll be entering into

23 these with, can you just explain to the Board how many

24 different counter-parties there will be?

25   MR. GREG BARNLUND: There would be two

 1 (2). One (1) of them would be the ANR Pipeline

 2 Company, and the other would be Great Lakes Gas

 3 Transmission Limited Partnership.

 4   MR. BOB PETERS: All right. And so the

 5 storage is coming from the ANR arrangements. And

 6 there's also a little bit of storage transportation

 7 through ANR. But the balance of the transportation

 8 comes through Great Lakes?

 9   MR. GREG BARNLUND: Yes.

10   MR. BOB PETERS: And when you say that

11 there's two (2) separate counter-parties, these

12 counter-parties are affiliated.

13   Am I correct in that?

14   MR. GREG BARNLUND: Yes.

15   MR. BOB PETERS: What's your

16 understanding of their affiliation?

17   MR. GREG BARNLUND: We would understand

18 them both to be ultimately owned by the TransCanada

19 Corporation.

20   MR. BOB PETERS: And this is the same

21 TransCanada Corporation that Ms. Stewart spoke about

22 when she talked about the mainline operation in her

23 direct evidence to the Board?

24   MR. GREG BARNLUND: It would be a

25 related company. I'm not sure if it's actually the

1 parent or not, but...

2   MR. BOB PETERS: And in -- in arranging

3 these contracts, are there any corporate guarantees

4 either given or sought by Centra?

5   MR. GREG BARNLUND: No, there were none

6 required.

7   MR. BOB PETERS: None requested by

8 Centra?

9   MR. GREG BARNLUND: No.

10   MR. BOB PETERS: And that would be

11 based on your previous twenty (20) years of

12 relationship with ANR and Great Lakes?

13   MR. GREG BARNLUND: Yes.

14   MR. BOB PETERS: And likewise, none

15 were sought from Centra?

16   MR. GREG BARNLUND: Correct.

17   MR. BOB PETERS: The seven (7) year

18 term, Mr. Barnlund, will -- will commence on April 1st,

19 2013?

20   MR. GREG BARNLUND: That's correct.

21   MR. BOB PETERS: And run forward to

22 March 31 then of 2020?

23   MR. GREG BARNLUND: Yes.

24   MR. BOB PETERS: You're asking this

25 Board to provide its approval by August 31 of 2012?

 1   MR. GREG BARNLUND: I believe the term

 2 sheet references a date of August 31, 2012, as the

 3 target that we would be expected or required by the

 4 counter-parties to obtain some form of approval in this

 5 regard. Of course, we would appreciate if that could

 6 be done as early as convenient, as early as practically

 7 possible for this Board.

 8   MR. BOB PETERS: And likewise, that's

 9 seven (7) months before the expiry of the existing

10 arrangements?

11   MR. GREG BARNLUND: It is, but there

12 are steps that need to be undertaken between the

13 conclusion or the receipt of that -- of a Board order

14 and the approval of these costs and ultimately putting

15 these contracts into effect for August -- or, sorry,

16 excuse me, for April 1 of 2013.

17   MR. BOB PETERS: And from an

18 operational perspective, Ms. Stewart testified to that

19 in her direct evidence?

20   MR. GREG BARNLUND: Yes, she did.

21   MR. BOB PETERS: But also in the seven

22 (7) months before the expiry of the existing

23 arrangements there may be a requirement, depending on

24 the outcome of this hearing, for Centra to go back to

25 some of the counter-parties to -- to alter the

1 arrangement, correct?

2   MR. GREG BARNLUND: We're hoping not,

3 but we have to wait and see what a Board order would

4 direct us.

5   MR. BOB PETERS: Fair -- fair answer,

6 Mr. Barnlund. But does the seven (7) months provide

7 sufficient timing for there to be further discussions

8 or negotiations for revised term sheets if that is

9 ultimately the decision of this Board?

10   MR. GREG BARNLUND: Unfortunately, the

11 seven (7) months is a very tight timeline as it stands,

12 given that the counter-parties have -- have things they

13 have to undertake on their own behalf and given that we

14 have to, obviously, operationalize these contracts.

15 The timing in that seven (7) months is extremely tight.

16   MR. BOB PETERS: Well, accepting that

17 it's tight, it still does permit an opportunity, should

18 it be directed by this Board and a requirement by this

19 Board to go back and consider further options?

20   MR. GREG BARNLUND: Well, ultimately,

21 we would pursue whatever avenues we need to pursue in

22 terms of addressing any concerns the Board may have in

23 this regard.

24   MR. BOB PETERS: And it's fair to say

25 that your two (2) counter-parties are all aware that

1 the approval of the Public Utilities Board is required

2 before these contracts can be finalized?

3   MR. GREG BARNLUND: That's correct,

4 yes.

5

6   (BRIEF PAUSE)

7

8   MR. BOB PETERS: While you say, Mr.

9 Barnlund, that you'll certainly follow the decisions

10 and directives from this Board, but can this Board take

11 it that in the time from when this hearing concludes to

12 March 31 of 2013, there will be sufficient time, if

13 required, to renegotiate aspects if so directed and to

14 bring it back before this Board?

15   MR. GREG BARNLUND: We would undertake

16 our best efforts to conclude whatever negotiations or

17 whatever activities we would need to. Given that the

18 existing contracts expire March 31 of 2013, we have,

19 obviously, an imminent and pressing deadline in that

20 regard. And we would be undertaking every effort that

21 we could to be able to satisfactorily conclude

22 arrangements so that we, on April 1st of 2013, would

23 have new storage and transportation arrangements in

24 place.

25   MR. BOB PETERS: Thank you, sir. In

1 addition to the fixed costs that are the subject matter

2 of your application and to be paid to ANR and to GLGT -

3 - that's the $14 million you've told me about, Mr.

4 Barnlund -- Centra will also at some point seek

5 recovery of some other costs related to transportation,

6 including TransCanada Pipeline costs, correct?

7   MR. GREG BARNLUND: Yes. And there

8 would also be variable costs associated with operating

9 these arrangements in that there are fuel-related costs

10 and other variable components of the toll that we would

11 need to -- need to be paying, and obviously would need

12 to incorporate those into our rate filings in terms of

13 recovery of those costs.

14   MR. BOB PETERS: All right, but let's

15 just talk about the TransCanada Pipeline, because even

16 if the Board does approve the application that's before

17 them, there is a requirement for TransCanada Pipeline

18 tolls related to US storage, correct?

19   MR. GREG BARNLUND: Yes, insofar as all

20 of our gas supply is -- that is sourced in Alberta is

21 being moved on the TransCanada Pipeline and that a

22 portion of that gas is then delivered into storage and

23 is returned from storage to our market. So the

24 TransCanada Pipeline does have a significant

25 involvement in that regard.

 1   MR. BOB PETERS: And in the proceedings

 2 -- not to complicate it too much, but it's -- one (1)

 3 of its major TransCanada tolls is the STS toll or the

 4 storage transportation service toll.

 5   MR. GREG BARNLUND: That is one (1)

 6 contract that we have with TransCanada, correct.

 7   MR. BOB PETERS: And that relates

 8 directly to your storage arrangements?

 9   MR. GREG BARNLUND: That it does, yes.

10   MR. BOB PETERS: And that refers to

11 your indicating to get gas that is in storage back to

12 the Manitoba marketplace you -- you need that

13 arrangement with TransCanada?

14   MR. GREG BARNLUND: Yes, we do.

15   MR. BOB PETERS: And the TransCanada

16 tolls, we heard from Ms. Stewart, those are tolls set

17 by the National Energy Board?

18   MR. GREG BARNLUND: Yes, they are.

19   MR. BOB PETERS: And when it comes time

20 to seek recovery of the TransCanada pipeline tolls,

21 that would be included in Centra's next cost of gas

22 filing?

23   MR. GREG BARNLUND: We would be

24 including forecast costs for the upcoming gas year in

25 our next filing. And given the nature of the recovery

 1 of gas costs, we deal with costs on a forecast basis.

 2 And we also deal with costs on a retrospective basis

 3 where we have the presence of deferral accounts where

 4 we record and true-up the differences between our

 5 previous forecasts and the actual cost for that period.

 6   MR. BOB PETERS: To be clear for the

 7 Board, those TCPL tolls and costs are not part of

 8 Centra's request before them in this application?

 9   MR. GREG BARNLUND: That's correct.

10   MR. BOB PETERS: And when you talk

11 about your gas year, the -- the gas year commences, I

12 believe, on November 1 of a particular calendar and

13 goes to October 31 of the following calender year?

14   MR. GREG BARNLUND: Yes, Mr. Peters.

15   MR. BOB PETERS: And so we are

16 presently then in the midst of the 2011/'12 gas year?

17   MR. GREG BARNLUND: Yes, sir.

18   MR. BOB PETERS: And those costs, you

19 say, would be forecast and brought to the Board for

20 approval as a forecast. And you may also seek final

21 approval of previous years' gas costs, if I understood

22 your answer?

23   MR. GREG BARNLUND: Yes, that's

24 generally the approach taken.

25   MR. BOB PETERS: And are you able to

1 give the Board any indication as to when Centra expects

2 to be in a position to file for approval of those other

3 gas costs?

4   MR. VINCE WARDEN: Mr. Peters, at this

5 time, our expectation is that we will be filing our

6 general rate application in September for our November

7 1st implementation, for rate change November the 1st.

8   MR. BOB PETERS: And, Mr. Warden and

9 Mr. Barnlund, that general rate application would

10 include a cost of gas component then to deal with the

11 specifics of cost of gas issues, not just the

12 distribution costs?

13   MR. GREG BARNLUND: Yes, that's

14 correct.

15   MR. BOB PETERS: Mr. Barnlund, you told

16 the Board a few answers ago that in addition to the

17 fixed costs with ANR and with Great Lakes gas

18 transmission there will also be variable costs, if I

19 heard you correctly?

20   MR. GREG BARNLUND: Yes, that's

21 correct.

22   MR. BOB PETERS: And variable costs are

23 dependent largely on the volumes that are going through

24 the pipelines?

25   MR. GREG BARNLUND: That would be one

 1 (1) of the factors, yes.

 2   MR. BOB PETERS: And those variable

 3 costs, I believe, in this filing have been estimated at

 4 approximately a million dollars. Do you agree with

 5 that?

 6   MR. GREG BARNLUND: Yes, we have said

 7 that.

 8   MR. BOB PETERS: And mostly related to

 9 fuel gas to run the compressors in the pipelines to

10 keep the gas moving?

11   MR. GREG BARNLUND: That would be the

12 major component, yes.

13   MR. BOB PETERS: And approval of those

14 variable costs would likewise come in the cost of gas

15 portion of Centra's intended general rate application?

16   MR. GREG BARNLUND: Yes. We file for

17 gas cost adjustments every year that'll reflect actuals

18 and forecasts for those.

19   MR. BOB PETERS: Mr. Barnlund, Mr.

20 Warden, the application speaks to fixed costs. And it

21 is okay if the Board interprets those to be the

22 reservation costs for storage and transportation?

23   MR. GREG BARNLUND: I believe that's

24 fair.

25   MR. BOB PETERS: And is it also fair

1 that Centra is going to have to pay these fixed costs

2 even if Centra doesn't physically need the service?

3   MR. GREG BARNLUND: That would be the

4 case, yes.

5   MR. BOB PETERS: So under Centra's

6 proposal Centra will pay for 15 1/2 petajoules of

7 storage even if Centra only uses say 10 petajoules per

8 year?

9   MR. GREG BARNLUND: On the face of it,

10 yes. Yeah.

11   MR. BOB PETERS: In terms of helping

12 the Board understand the relative size of the storage,

13 Mr. Barnlund, Mr. Warden, is 15 1/2 petajoules

14 approximately a quarter of the total annual throughput

15 excluding the transportation volumes?

16   MR. GREG BARNLUND: Including

17 transportation volumes --

18   MR. BOB PETERS: No, ex -- excluding is

19 what I asked.

20   MR. GREG BARNLUND: Excluding?

21   MR. BOB PETERS: Yeah.

22   MR. GREG BARNLUND: I think that our

23 sales volumes would be in the neighbourhood of 55

24 petajoules, and so 15 1/2, proportion of 55.

25   MR. BOB PETERS: Okay. So my estimate

1 of 60 petajoules is not too far off?

2   MR. GREG BARNLUND: For legal counsel

3 that was pretty close.

4   MR. BOB PETERS: Yeah. Point noted.

5 We -- we talked earlier about excluding transportation

6 service customers, Mr. Barnlund, and can you explain to

7 the Board why these customers are not part of the

8 services that you're now trying to arrange?

9   MR. GREG BARNLUND: Yes, Mr. Peters.

10 We have a small number of very large industrial

11 customers that some time ago arranged for their own

12 upstream gas supply, transportation, and storage

13 services, and simply contract with Centra for the

14 delivery of that -- of their gas supply from -- on our

15 system from the interconnection with TransCanada

16 pipelines to their plant gate. And I guess further to

17 that then, given that they are not users of our

18 upstream storage and transportation contracts or

19 assets, they bear no cost of those.

20   MR. BOB PETERS: Are you able to give

21 the Board an estimate of the volumes from the

22 transportation customers that flows through Centra's

23 system?

24   MR. GREG BARNLUND: I don't have the

25 information right at my fingertips but I'm thinking it

 1 would probably be in the neighbourhood of 20 petajoules

 2 in aggregate. Roughly speaking.

 3   MR. BOB PETERS: Mr. Barnlund, perhaps

 4 through your counsel I could ask you to provide an

 5 undertaking to the Board as to the throughput back in

 6 1993 compared to the throughput most currently, and

 7 break out transportation service as a separate amount?

 8   MR. GREG BARNLUND: We will endeavour

 9 to do that possibly by looking at some regulatory

10 filings we may have on-hand from that period of time.

11 But bearing in mind that that information back to '93

12 is not readily available to us.

13   MR. BOB PETERS: All right, that's a

14 fair comment. You're indicating if it's not in a Board

15 order or in the regulatory records you'll have a hard

16 time finding that? Well --

17   MR. GREG BARNLUND: Yes.

18   MR. BOB PETERS: -- in general terms,

19 can you tell the Board whether the throughput of

20 natural gas in the last twenty (20) years has increased

21 or decreased if we exclude the transportation

22 customers?

23   MR. GREG BARNLUND: Excluding the

24 transportation customers I would expect that we have

25 had a -- a decrease in throughput over a long period of

1 time, related to the advancement of energy conservation

2 and changes in behaviour of end-use customers, in terms

3 of reducing their energy usage and taking advantage of

4 more energy conservation opportunities. So I think the

5 general trend has been to lower consumption on an

6 individual basis over a longer period of time, yes.

7   MR. BOB PETERS: So while you estimate

8 that current throughput excluding transportation

9 service could be around 55 Bcf or -- you're not sure

10 how much -- how much it would have been twenty (20)

11 years ago?

12   MR. GREG BARNLUND: I can't say at this

13 point, no.

14   MR. BOB PETERS: All right. If it's

15 something that we want to pursue further I'll get back

16 to Mr. Bedford on that, but you can cross that off your

17 list of undertakings at this time. Yes, just for the

18 record, I was thinking that Centra could provide an

19 undertaking but I'll withdraw that request at this

20 time.

21   Mr. Barnlund, you've told the Board that

22 the $14,049,344 -- US dollars a year is the maximum sum

23 that will be paid to ANR and Great Lakes Gas

24 Transmission for the US storage and transportation

25 assets?

 1   MR. GREG BARNLUND: Yes, it's fixed for

 2 the seven (7) year period.

 3   MR. BOB PETERS: And "fixed" meaning, as

 4 you've said, it's take or pay? You're -- you're taking

 5 it so you're going to pay for it regardless of whether

 6 you use it?

 7   MR. GREG BARNLUND: Essentially that's

 8 correct, yes.

 9   MR. BOB PETERS: If Centra determines

10 that it's not going to need that capacity, did I

11 understand from the direct evidence of your colleagues

12 that once Centra determines it has surplus capacity it

13 will try to sell that capacity to some other third

14 party?

15   MS. LORI STEWART: Yes, That's correct,

16 Mr. Peters.

17   MR. BOB PETERS: And, Ms. Stewart, how

18 is it that Centra's going to know whether it needs or

19 does not need the total portfolio that's before this

20 Board for approval in terms of costs?

21   MS. LORI STEWART: Mr. Peters, that's

22 something that Centra determines as each day of a

23 season proceeds over time. For example, it may be

24 known at the commencement of the storage refill season

25 that not all of our assets will be required to top

 1 storage up. And in that situation we would then

 2 calculate what portion of our capacity could be

 3 released over that seasonal period and put that out to

 4 market and gain the value -- the value that we can on

 5 behalf of ratepayers for that portion of the assets

 6 that will be unutilized.

 7   MR. BOB PETERS: What you're telling

 8 the Board, Ms. Stewart, is that you try to sell the acc

 9 -- the excess capacity that you don't need, and you

10 apply that revenue as a credit to the consumers who are

11 -- whose rates are already paying the $14 million?

12   MS. LORI STEWART: Yes, that's correct.

13   MR. BOB PETERS: And those sales, Ms.

14 Stewart, the materials have reference to the secondary

15 market. And that's what it's generically known as, in

16 terms of selling it to third parties that are not

17 involved in your contracts?

18   MS. LORI STEWART: Yes, that's correct.

19   MR. BOB PETERS: And in the secondary

20 market, you could be selling to another gas local

21 distribution company? You could be selling to a

22 marketer? You may not know to whom you're selling?

23   MS. LORI STEWART: Well, I need to know

24 to whom I'm selling because I have to collect the money

25 from them. But -- but, yes, your characterization of

 1 who might be a buyer in that market, it could be an

 2 LDC, it could be a marketer.

 3   MR. BOB PETERS: And, Ms. Stewart, when

 4 we come to the cost of gas portions of a general rate

 5 application, Centra usually has a five (5) year average

 6 of their capacity release revenues. Are you familiar

 7 with that?

 8   MS. LORI STEWART: Yes, I'm familiar

 9 with the capacity management program, which consists of

10 more than simply our capacity release revenues.

11   MR. BOB PETERS: Does Centra track its

12 capacity release revenues for only its US assets,

13 compared to other assets it has?

14   MS. LORI STEWART: We track our release

15 revenues for both our Canadian and our US assets. And,

16 yes, they are tracked discretely.

17   MR. BOB PETERS: Are you able to

18 indicate to the Board, Ms. Stewart, what an average

19 annual capacity release revenue has been from the

20 existing portfolio that Centra has, in terms of how

21 much money Centra's been able to realize from unused

22 assets?

23   MS. LORI STEWART: I'm sure those

24 results are on the various regulatory records in terms

25 of our annual capacity management revenues, yes.

 1   MR. BOB PETERS: Can you indicate

 2 whether, percentage-wise, is Centra selling off and

 3 recovering at least 50 percent of unutilized demand

 4 charges, or less than fifty (50)? Or do you know?

 5   MS. LORI STEWART: That would vary from

 6 season to season, and I think the most important thing

 7 to understand is that our capacity management revenues

 8 are largely driven by weather. If it is a cold winter,

 9 we will be more fully utilizing our asset suite, and as

10 a result will not have the opportunity to release those

11 assets into the secondary market and earn revenues.

12 The -- those assets are being used by Manitoba

13 ratepayers in that circumstance.

14   MR. BOB PETERS: Ms. Stewart, the Board

15 will note that the tolls that are being proposed, as

16 well as the tolls that are -- some of the tolls that

17 are being currently paid, are discounted from the FERC

18 approved maximum rate. Would that be correct?

19   MS. LORI STEWART: Yes, that's correct.

20   MR. BOB PETERS: Is Centra able, under

21 its contractual terms, to sell off excess capacity at

22 rates higher than what it is paying to ANR and Great

23 Lakes?

24   MS. LORI STEWART: Yes, it is able to

25 do that.

 1   MR. BOB PETERS: Can you sell them at

 2 rates above the FERC tariff?

 3   MS. LORI STEWART: No, we may not.

 4   MR. BOB PETERS: Does Centra typically

 5 get reimbursed its full cost of the capacity it seeks

 6 to release?

 7   MS. LORI STEWART: That varies by every

 8 single release we do, Mr. Peters.

 9   MR. BOB PETERS: So while -- while

10 Centra may not get paid the full cost, would it be

11 correct for the Board to understand that Centra does

12 not enter into capacity release and capacity management

13 arrangements unless there is some profit in it for the

14 ratepayers of Manitoba?

15   MS. LORI STEWART: Yes, our objective

16 is to recover whatever portion of our fixed costs we

17 can by way of our capacity management transactions.

18

19   (BRIEF PAUSE)

20

21   MR. BOB PETERS: Ms. Stewart, in one

22 (1) of the responses that Centra gave as to an

23 Information Request from my friends at CAC. Centra

24 gave the load factors on ANR southwest and southeast,

25 but after capacity management. And that was Centra --

1 sorry, that was CAC/CENTRA-13-C.

2

3   (BRIEF PAUSE)

4

5   MS. LORI STEWART: Will I need to -- to

6 bring that up, Mr. Peters?

7   MR. BOB PETERS: I think so. Yes, I

8 think so. I -- I wanted to find out what -- what

9 you're telling the Board, and I'm looking at the chart

10 for CENTRA/CAC-13-C, small Roman Numeral i, and small

11 Roman Numeral ii. Have you managed to locate that

12 chart, Ms. Stewart?

13   MS. LORI STEWART: Yes, I have it.

14   MR. BOB PETERS: And what I'd like you

15 to explain to the Board is that the load factor shows

16 at 100 percent, and that shows at 100 percent even

17 though Centra may not have used 100 percent of the

18 service for themselves?

19   MS. LORI STEWART: Yes, that's correct.

20   MR. BOB PETERS: Are you able to

21 provide the Board with what the load factors would have

22 been prior to the capacity management activities?

23

24   (BRIEF PAUSE)

25

 1   MS. LORI STEWART: Not readily, Mr.

 2 Peters. That would involve a deal-by-deal review and

 3 quite a bit of -- of analysis.

 4   MR. BOB PETERS: At the bottom of that

 5 chart, Ms. Stewart, are some -- some annual costs on

 6 the ANR southeast and southwest. Let's maybe just

 7 start off by saying in the -- while those are currently

 8 in the port -- portfolio, those southeast and southwest

 9 arrangements are not going to be continued forward if

10 your proposal is approved as filed?

11   MS. LORI STEWART: Yes, that's correct.

12   MR. BOB PETERS: And are the costs

13 shown, Ms. Stewart, net of capacity management

14 revenues?

15

16   (BRIEF PAUSE)

17

18   MS. LORI STEWART: I would want to

19 confirm that with someone back at the office, Mr.

20 Peters, and I'm certainly willing to undertake to do

21 that.

22   MR. BOB PETERS: If you could, please,

23 and thank you, Ms. Stewart, to determine whether or not

24 the costs shown are net of capacity management

25 revenues, and if they're not determine if that can also

1 be provided.

2

3   (BRIEF PAUSE)

4

5   MS. LORI STEWART: Yes.

6

7 --- UNDERTAKING NO. 1:   Centra to determine whether

8   or not the costs shown are

9   net of capacity management

10   revenues; and if they're

11   not, determine if that can

12   also be provided

13

14 CONTINUED BY MR. BOB PETERS:

15   MR. BOB PETERS: Okay. Thank you.

16 And, Ms. Stewart, in addition to Centra trying to sell

17 its unutilized surplus capacity, there are companies

18 that would offer to do that for Centra. Is that

19 correct?

20   MS. LORI STEWART: Yes, I think I would

21 characterize it as there are companies that would seek

22 to manage Centra's assets, not strictly the capacity

23 release, but also the capacity optimization.

24   MR. BOB PETERS: And these companies

25 that would seek to manage Centra's assets do so because

 1 they may hold other assets from other companies, and

 2 they can find an optimal way that they can accomplish

 3 Centra's goals as well as make some money for

 4 themselves?

 5   MS. LORI STEWART: There is the

 6 potential for that outcome, yes.

 7   MR. BOB PETERS: And I believe Mr.

 8 Stauft, in his pre-filed evidence, lists about thirty

 9 (30) of such asset management companies.

10   And most of those you'd be familiar

11 with, would you not, Ms. Stewart?

12   MS. LORI STEWART: Yes, I am.

13   MR. BOB PETERS: Actually, I think the

14 reference was PUB/CEN -- CAC-16, not his pre-filed

15 evidence, that he provided those companies, just to

16 clear up that point.

17   Has Centra determined whether it will

18 issue a request for a proposal to -- to an asset

19 management company to try to reduce the storage and

20 transportation fixed costs for Manitobans, more than

21 what Centra can propose?

22

23   (BRIEF PAUSE)

24

25   MS. LORI STEWART: We have not

 1 determined that as yet, Mr. Peters.

 2   MR. BOB PETERS: Does that answer

 3 imply, Ms. Stewart, that that may be a matter that the

 4 Corporation will look into?

 5   MS. LORI STEWART: Well, I'd like to

 6 say that we are always open to solicitations from

 7 marketers, in terms of them providing us with asset-

 8 management arrangements. That happens periodically,

 9 and when that happens we assess the value that we may

10 see in the proposal relative to the risks that would be

11 incurred as a result of executing such an arrangement.

12   MR. BOB PETERS: Has Centra determined

13 whether it will seek out such marketers or managers of

14 capacity?

15   MS. LORI STEWART: We have not

16 determined that yet.

17   MR. BOB PETERS: Can you advise the

18 Board as to when Centra may avert its mind to that

19 consideration, Ms. Stewart?

20   MS. LORI STEWART: Certainly we need to

21 know that we have assets -- contractual assets in -- in

22 place, so that would be a first step, is that we

23 actually understand what assets we will be managing.

24   MR. BOB PETERS: Does Centra need a

25 year's experience or two (2) of its own before it can

1 enter into any asset-management arrangements?

2   MS. LORI STEWART: That would certainly

3 make it easier to benchmark any proposals that we do

4 receive from the market. In the absence of

5 understanding what types of capacity management

6 revenues we, ourselves, may be able to generate with

7 the proposed portfolio, we would be in somewhat of a

8 vacuum as it relates to what value we -- we may

9 ascertain as offsetting the risks associated with an

10 asset-management arrangement.

11   MR. BOB PETERS: All right.

12   MR. VINCE WARDEN: Mr. Peters, I might

13 just add that in looking at any kind of management of

14 those assets by a third party, we have to be very

15 clear, first of all, in defining which assets we want

16 to consider outsourcing and the risks associated with -

17 - with so doing.

18   Any time we have looked at this in the

19 past, we always come to the conclusion that the risk

20 are not worth the -- perhaps the cost advantage that

21 could be achieved through that -- through that process.

22

23   So we'd want -- we would want to assess

24 this very, very carefully before we made any -- any

25 moves in that direction that might impose risks on the

 1 consumers in Manitoba.

 2   MR. BOB PETERS: When you refer to

 3 risks, Mr. Warden, what risks are you referring to?

 4   MR. VINCE WARDEN: Well, we would, in -

 5 - in effect, be turning over assets over to a third

 6 party that, of course, has a profit motive and that by

 7 using those assets they can -- they can optimize their

 8 total portfolio. However, you may recall, when we were

 9 close to doing this -- the closest we came to doing

10 this was with a company named Enron. And we all know

11 what happened there. And so the ri -- those are the

12 kinds of risks that we would be very -- very concerned

13 about.

14

15   (BRIEF PAUSE)

16

17   MR. BOB PETERS: Mr. Warden, maybe

18 standing back from the details of the specific

19 application that will be reviewed with your witness

20 colleagues, I had understood from the direct evidence -

21 - I believe from yourself -- that the objective was to

22 arrange, I think, reliable and cost-effective services,

23 sir?

24   MR. VINCE WARDEN: Yes, absolutely.

25   MR. BOB PETERS: And when you -- when

1 that answer was given, the answer wasn't looking for

2 the cheapest storage and transportation arrangement.

3 Is that correct?

4   MR. VINCE WARDEN: Well, it is the

5 cheapest, provided that we can provide security of

6 supply. We can guarantee security of supply. And so,

7 yes, we want the lowest cost with that provision.

8   MR. BOB PETERS: When you say "security

9 of supply," can we, as a default, accept what was

10 stated by one (1) of your colleagues that if at any

11 time Centra needs gas, natural gas for Manitobans, it

12 will be available to Centra Gas?

13   MR. VINCE WARDEN: Yes.

14   MR. BOB PETERS: And the -- the only

15 variable is the price?

16   MR. VINCE WARDEN: That's right. And -

17 - and that's where the balance has to be achieved. So

18 if we look at the fallback position, just taking the

19 gas from -- from TransCanada and we're prepared to pay

20 the penalties associated with that, that has to be

21 taken into consideration into the -- the overall

22 equation when we're looking at the options.

23   MR. BOB PETERS: Of the $14 million

24 approximately, Mr. Warden, that is part of the fixed-

25 cost recovery request by Centra, there is no markup

 1 included in that amount that goes to Centra's bottom

 2 line, is there?

 3   MR. VINCE WARDEN: That's correct.

 4   MR. BOB PETERS: There's no margin for

 5 Centra, or no profit?

 6   MR. VINCE WARDEN: That's right.

 7   MR. BOB PETERS: And would it also be

 8 correct for the Board to understand that related to the

 9 cost of gas matters which includes the molecules

10 themselves, the storage, and the transportation, that

11 there is zero profit in that for Centra?

12   MR. VINCE WARDEN: Yes.

13   MR. BOB PETERS: And so when you told

14 the Board in your opening comments that Centra will be

15 coming forward with a general rate application in which

16 it will seek to recover a -- I'm not sure you used the

17 word "modest", but net income, that net income would be

18 the profit or the contribution to reserves that the

19 utility seeks.

20   And that would be built into the

21 distribution rate?

22   MR. VINCE WARDEN: Yes, that's right.

23 And, yes, I did use the word "modest". And, yes, the

24 application will be requesting a modest rate increase.

25   MR. BOB PETERS: And the contribution

1 to reserves or the profit margin, Mr. Warden, has that

2 been in the range of $3 million on an annual basis?

3   MR. VINCE WARDEN: Yes, we -- we target

4 $3 million on an annual basis. But as I mentioned, the

5 -- the weather variability is such that it can swing

6 ten (10) to $12 million in any given year, depending on

7 the weather.

8   MR. BOB PETERS: And the rates that

9 Centra sets are based on what is statistically

10 determined as normal weather?

11   MR. VINCE WARDEN: Yes, that's right.

12   MR. BOB PETERS: And the numbers you

13 reported to the Board, in terms of your profitability

14 last year and this year, those would be actual as

15 opposed to weather-normal numbers?

16   MR. VINCE WARDEN: That's right.

17   MR. BOB PETERS: Are you -- I think

18 we're probably getting a little off speed here, and --

19 but, on a weather-normal basis, are you able to

20 indicate what the $6 million actual loss would

21 translate to?

22   MR. VINCE WARDEN: It would be in the

23 range of $3 million, bottom line.

24   MR. BOB PETERS: Okay. And, Mr.

25 Warden, in Board Order 65/11, which we know is at the -

1   - one (1) of the first tabs in the book of document, I

2   believe Tab number 1, the Board wanted the contracts

3   that you entered into to have what amounts to a

4   condition precedent that they receive Board approval

5   before any contracts are formed, correct?

6   MR. VINCE WARDEN: Correct.

7   MR. BOB PETERS: And while, from Mr.

8   Bedford's approach, I appreciate this is a bit

9   hypothetical, but would that have normally been the

10   route the company would have followed, or would you

11   have brought to the Board contracts that are already

12   signed, sealed, and delivered, and already working into

13   operational changes?

14

15   (BRIEF PAUSE)

16

17   MR. VINCE WARDEN: Mr. Peters, the last

18   storage transportation contract was entered into in

19   1993, before the acquisition by Manitoba Hydro. I

20   believe at that time, and subject to -- as a matter

21   fact, maybe I'll just turn this question over to Mr.

22   Barnlund who was around at that time.

23   MR. GREG BARNLUND: Thank you, or not,

24   for that. In 1991 the predecessor company was

25   exploring options for the acquisition of access to

1 storage. Given that the supply arrangements that it

2 was -- that it had -- it had entered into in the late

3 1980s after the deregulation of -- of production

4 pricing had occurred, Centra had essentially a five (5)

5 year period where they were enjoying the benefit of a

6 favourable pricing arrangement from their supplier

7 without using storage.

8 So Centra was receiving gas at a 30

9 percent load factor, but paying for gas as though they

10 were essentially taking gas at a 100 percent load

11 factor. Those arrangements contractually were to end

12 in 1993. And in the time period leading up to 1993

13 Centra was involved in the evaluation of storage

14 alternatives as a way to mitigate the -- the impending

15 cost increase that they would have seen in 1993 had

16 they not been able to address an improvement in their

17 load factor.

18 At that point in time in 19 -- it was

19 actually in 1991 when some contractual arrangements had

20 been notionally entered into by the predecessor

21 company. The Public Utilities Board requested that a

22 hearing be called to discuss those arrangements. And

23 in the fall of 1991 such a hearing was held.

24 Clearly we're under much different

25 circumstances here and I think that the circumstances

1 that we've experienced in the last two (2) years are

2 reflective of the fact that we have worked to

3 collaborate with the Public Utilities Board and

4 Intervenors and interested parties in a much more

5 evolved process leading up to the replacement of these

6 contracts.

7   MR. BOB PETERS: Thank you, Mr.

8 Barnlund. My point, coming back to it, Mr. Warden, is

9 that without prior Board approval, Centra would run the

10 annual risk of a disallowance in costs if the Board

11 determined that Centra's actions, including its

12 contractual actions, were not necessarily prudent?

13   MR. VINCE WARDEN: Yes, and I don't

14 think we've ever come to grips. I know we've talked

15 about disallowance in the past, but we've never really

16 defined exactly what that means to a Crown corporation,

17 if there's a disallowance what happens to that

18 disallowance. Does it go to retained earnings and how

19 are those retained earnings rebuilt in that

20 circumstance. It would have to be through increased

21 rates to consumers. So it's kind of a circular type of

22 a -- an argument, really.

23   There -- there's no recourse to another

24 shareholder or a stakeholder other than government, and

25 I don't think they'd be too willing to cough up any

1 monies. So, yeah, the disallowance question is a bit

2 of a question mark with -- with Centra Gas as -- as

3 it's currently structured.

4   MR. BOB PETERS: But you'd agree with -

5 - with me, sir, that by seeking approval at this time

6 you're taking away any risks related to disallowance

7 provided the Board approves what you're asking for?

8   MR. VINCE WARDEN: I agree with that,

9 yes.

10   MR. BOB PETERS: And in fact, you've

11 told the Board there's no profit margin in it for

12 Centra, per se. So again, it protects Centra with

13 prior approval?

14   MR. VINCE WARDEN: Yes.

15   MR. BOB PETERS: And staying at that

16 policy level, Mr. Warden, would Centra acknowledge that

17 at the end of its analysis, including those that used

18 computer models, Centra's preferred and proposed

19 portfolio recommendation contains subjective

20 considerations?

21   MR. VINCE WARDEN: I wonder if you

22 could be more specific with your question, Mr. Peters.

23   MR. BOB PETERS: Cer -- certainly, sir.

24 There's a number of factors that Centra has considered

25 and the witnesses have testified, including rel --

1 reliability and flexibility, this overall size of

2 storage, the length of the contract. I'm suggesting

3 that when it all boils out at the end Centra has had to

4 make some, admittedly educated, from their perspective,

5 subjective considerations on what the portfolio should

6 -- would be optimal?

7   MR. VINCE WARDEN: Yeah, I think that's

8 always the case in a situation like this, Mr. Peters.

9 You use the best information available, the best advice

10 you can get from consultants, the best models that are

11 out there. But at the end of all that, you have to

12 make a decision. And that's the decision that's before

13 this Board.

14   MR. BOB PETERS: Well, I think the

15 point that -- you've reached the point I've come to,

16 Mr. Warden, is that Centra's proposed portfolio can

17 only be based on what amounts to maybe a subjective

18 recommendation because the inputs that Centra would

19 like to know, are in fact unknown at this point in

20 time, such as the weather, the prices, market

21 conditions, and TCPL situations.

22   MR. VINCE WARDEN: Well, the weather we

23 expect to be normal over the long-term, so I don't

24 think there's much subjectivity there. There's

25 certainly variability from year to year. But as far as

1 TCPL, yes, that's a very open question at this point in

2 time, price likewise.

3   MR. BOB PETERS: And so Centra is here

4 today to explain what underpins their recommendations,

5 whether they're considered subjective or not?

6   MR. VINCE WARDEN: Yes, we're putting

7 forward our best case based on the best information we

8 have available. And we're here to support that.

9   MR. BOB PETERS: And is it correct, Mr.

10 Warden, that while Centra has used computer modelling,

11 the results should be considered by Centra, as well as

12 this Board, to be directional only and not dispositive

13 or absolutely determinative of what an optimal

14 portfolio would be?

15   MR. VINCE WARDEN: Yes, I think we've

16 used the word "directional" in our filing. So, yes, I

17 would agree with your statement.

18   MR. BOB PETERS: And does Centra

19 concede that with hindsight its preferred portfolio

20 today may not, in fact, after the fact, be optimal for

21 any specific given future year?

22   MR. VINCE WARDEN: Yes, I think any

23 forecast is subject to hindsight review. And with that

24 perfect knowledge you would do things differently than

25 you might have with that uncertain information.

 1   MR. BOB PETERS: And then does it stand

 2   to reason, Mr. Warden, that should this Board direct

 3   Centra to develop a different portfolio than what's

 4   proposed, that portfolio may or may not be optimal in

 5   any future year likewise?

 6   MR. VINCE WARDEN: Yes, I agree with

 7   that.

 8   MR. BOB PETERS: All right. Mr.

 9   Chairman, in light of the hour, I'm going to move to a

10   new area. But if you wish to recess for the lunch hour

11   now, that would be appropriate in -- where I am in my

12   questions, or I'll continue if you wanted to continue

13   for a bit further.

14   THE CHAIRPERSON: I suggest we adjourn

15   right now and resume at say 1:25.

16   MR. BOB PETERS: Thank you.

17   THE CHAIRPERSON: Thank you.

18

19   --- Upon recessing at 11:59 a.m.

20   --- Upon resuming at 1:27 p.m.

21

22   THE CHAIRPERSON: Good afternoon,

23   everyone. I believe we are ready to proceed. Over to

24   you, Mr. Peters.

25   MR. BOB PETERS: Yes, thank you and

1 good afternoon.

2

3 CONTINUED BY MR. BOB PETERS:

4   MR. BOB PETERS: Mr. Warden, I want to

5 just tidy up one (1) line of questioning I had with you

6 this morning, sir, if I could. You'll recall that in

7 your opening comments you reported to the Board that

8 the last fiscal year ending March 31 of 2012 there was

9 an estimate of Centra's net income as being negative $6

10 million approximately. And I appreciate it's not a

11 final number but an approximate number.

12   MR. VINCE WARDEN: Yes.

13   MR. BOB PETERS: And then I went on at

14 some point to ask you about whether the company has

15 recalculated that net income based on a weather-normal

16 basis. Do you recall that?

17   MR. VINCE WARDEN: Yes, I do.

18   MR. BOB PETERS: And you provided an

19 answer. And I wonder if you could just tell me whether

20 the answer was a further loss, or was it a positive or

21 a negative number?

22   MR. VINCE WARDEN: Yes, just for

23 clarification, I -- I did say appro -- I think I said

24 approximately $3 million. And I was intending to say

25 $3 million net income, so a positive net income. In

1 our financial forecast, however, we do target between 3

2 and $5 million per year as the bottom line net income

3 each -- each and every year based on normalized

4 weather. And then for purposes of the forecast, we --

5 we plug in the amount of rate increases that is

6 necessary to achieve that amount of a bottom line.

7   MR. BOB PETERS: Thanks for the

8 clarification. Ms. Stewart, likewise, this morning you

9 had introduced me to a new word. And I wonder if you

10 could explain to the Board the concept of a "null

11 point" that you mentioned. And I believe it was

12 referenced on the Great Lakes Gas Transmission line.

13   MS. LORI STEWART: Yes, that's correct,

14 Mr. Peters. My definition of a "null point," or

15 perhaps another way to think about it would be as the

16 balance point on a pipeline. This is not a physical

17 point. It's a notional point on any pipeline. And

18 it's the point at which physical flows are intersecting

19 at any minute, hour, day. So it's changing on a -- on

20 a very -- on a real-time basis.

21   And if I -- I described Great Lakes Gas

22 Transmission as historically having flows that moved

23 from the western terminus of the pipeline at Emerson,

24 to St. Clair, which is the eastern terminus of that

25 pipeline. And if all flows and all movement on that

 1 pipeline was on a forward-haul basis, then the null

 2 point, theoretically, would be at the eastern terminus

 3 of that.

 4   However, on most pipelines, you have a

 5 combination of forward-haul flows and notional back-

 6 haul flows. And that point at which -- when I net the

 7 two (2) of them, that balance point is -- is sometimes

 8 referred to as a null point on the pipe. I hope that

 9 helps, Mr. Peters.

10   MR. BOB PETERS: It's helping. The --

11 you said the physical flows are then netted against the

12 notional back-haul to find the null point. Would that

13 be correct?

14   MS. LORI STEWART: Well, my definition

15 of it was the point at which the physical flows are

16 intersecting on a pipeline. And I'm -- I'm trying to

17 describe the situation where that null point could

18 theoretically be at -- at one (1) terminus of the pipe.

19 However, that's not the case on -- on most pipelines.

20 There is a combination of both forward-haul flows and

21 back-haul flows. And as a result, you have this

22 concept of a null point or a balance point on a

23 pipeline.

24   MR. BOB PETERS: All right. Thank you.

25 The point the Board should get from your point, or your

 1 evidence on that point, Ms. Stewart, is that there is

 2 more gas that is either physically or notionally

 3 flowing from east to west, than there ever used to be.

 4   MS. LORI STEWART: Yes, that's correct.

 5   MR. BOB PETERS: And would that be

 6 correct for the Board to understand that contributing

 7 to that is -- is the -- the back-haul concept that

 8 you've called a notional back-haul?

 9   MS. LORI STEWART: Yes, that's correct.

10   MR. BOB PETERS: And someone also this

11 morning -- and I'm not sure if it was you, Ms. Stewart,

12 indicated that TransCanada pipeline at Emerson was

13 changing the direction or installing bidirectional

14 compressors or pumps related to their TransCanada

15 pipeline?

16   MS. LORI STEWART: Yes, the meter

17 station that is located at Emerson, Manitoba, has been

18 reconfigured by TransCanada recently, I believe in 2009

19 or 2010, to accommodate physical bidirectional flow.

20   MR. BOB PETERS: What you're telling

21 the Board is that TCPL is anticipating or getting ready

22 to have the capabilities to physically move molecules

23 from the United States back up north into Canada?

24   MS. LORI STEWART: Yes, that's correct.

25 And I believe that there is actual experience with that

 1 now on the record in terms of TransCanada actually

 2 executing the transaction in reverse of how we would

 3 typically think about it.

 4   MR. BOB PETERS: Does that answer

 5 include, Ms. Stewart, that they've reversed the flow on

 6 -- on their pipeline?

 7   MS. LORI STEWART: That's my

 8 understanding, yes.

 9   MR. BOB PETERS: All right. And -- and

10 can you remind the Board, or in -- indicate, does Great

11 Lakes Gas Transmission have the physical capability to

12 reverse the flows on its pipeline, or a portion of it?

13   MS. LORI STEWART: Yes, it does.

14   MR. BOB PETERS: And it's had that for

15 some period of time?

16   MS. LORI STEWART: Yes. I couldn't

17 confirm at -- at what point they put into place the

18 facilities to accommodate that, but yes, they do.

19   MR. BOB PETERS: Is -- is it your

20 understanding, Ms. Stewart, that Great Lakes Gas

21 Transmissions can physically flow gas from Crystal

22 Falls all the way through to Emerson now?

23   MS. LORI STEWART: Yes, that's correct.

24   MR. BOB PETERS: Okay. Ms. Stewart, I

25 had it in my notes for later, I hope, but while we're

1 on some tr -- some pipeline issues, and we're talking

2 specifically TransCanada, we mentioned a number of

3 different services that they provide. And one (1) of

4 the services they provide that I'd just like you to

5 explain or define for the Board, is the -- is what has

6 been called FTRAM service.

7   Are you familiar with that?

8   MS. LORI STEWART: Yes, I am, Mr.

9 Peters. FTRAM, first of all, what does that stand for?

10 And it stands for firm transportation risk alleviation

11 mechanism. So it is a service attribute of firm

12 transportation service on the Canadian mainline. And

13 it was designed, and is provided by the pipeline

14 currently, to allow firm transportation shippers the

15 opportunity to mitigate their unutilized demand

16 charges, sometimes referred to as UDCs.

17   MR. BOB PETERS: Can you explain to the

18 Board how Centra would use FTRAM?

19   MS. LORI STEWART: Certainly. On any

20 given day Centra holds a firm transportation contract

21 at present to the Manitoba delivery -- delivery area,

22 or the MDA, of 110,000 GJs per day. So, for example,

23 on a day like today where it is warm at the load, and

24 we've already accommodated for the gas that is flowing

25 by Manitoba and into our storage facility in Michigan,

 1 at the -- when I sum our storage injection requirements

 2 and the requirements of the Manitoba load today there

 3 will be remaining GJs that are unutilized on a day like

 4 today.

 5   So for each of those GJs of -- of

 6 unutilized demand, you take the rate charged for -- for

 7 that service, and we earn a dollar credit associated

 8 with that, that we must use for transportation -- for

 9 interruptible transportation within the month. So I

10 would need to use it by June 30th. And typically

11 Centra is not a shipper using interruptible

12 transportation but we have the opportunity to sell

13 those credits into the secondary market and recoup some

14 of the value of the fixed demand charge that we are

15 paying in a month like -- like June.

16   MR. BOB PETERS: Could you also, Ms.

17 Stewart, use those credits the last couple of days of

18 June if heaven forbid the weather turned colder and you

19 found yourself needing volume to Manitoba?

20   MS. LORI STEWART: That is not the

21 current forecast, however, yes, we could in a

22 circumstance like that.

23   MR. BOB PETERS: Thank you.

24

25   (BRIEF PAUSE)

 1   MR. BOB PETERS: Ms. Stewart, the FTRAM

 2 that you spoke of is currently a service offered by

 3 TransCanada Pipeline. Is that correct?

 4   MS. LORI STEWART: Yes, that's correct.

 5   MR. BOB PETERS: Is that embedded in

 6 the FT, or the firm transportation toll that Centra now

 7 pays? That -- that RAM capability?

 8   MS. LORI STEWART: It's embedded in the

 9 -- in TransCanada's tariff, and as a firm shipper I'm

10 entitled to access that service if I have UDCs.

11   MR. BOB PETERS: Is there an additional

12 cost to Centra to do that?

13   MS. LORI STEWART: There is not.

14   MR. BOB PETERS: My point is it's

15 included in the existing firm transportation tariff.

16 You'd agree with that?

17   MS. LORI STEWART: Yes, I would.

18   MR. BOB PETERS: And is it your

19 understanding, Ms. Stewart, from your following of the

20 TransCanada case before the National Energy Board

21 that's currently ongoing that TransCanada has taken a

22 position as to the future of FTRAM?

23   MS. LORI STEWART: Yes. As part of

24 TransCanada's services and pricing proposal, in its

25 business and services restructuring proposal, or

 1 application, it is TransCanada's proposition that FTRAM

 2 be eliminated as a service attribute of firm

 3 transportation service.

 4   MR. BOB PETERS: And that risk-

 5 alleviation mechanism that you indicated exists on the

 6 firm transportation, and in the firm transportation

 7 toll, Ms. Stewart, does that RAM service also exist in

 8 what has been called the short-term firm service, or

 9 the STFT?

10   MS. LORI STEWART: No. RAM credits

11 cannot currently be earned, and thus used, with either

12 short term firm transportation, also known as STFT, or

13 interruptible transportation, or IT.

14   MR. BOB PETERS: And would it also be

15 correct at this point on the record, Ms. Stewart, to

16 indicate that one (1) of the parties, at least before

17 the National Energy Board, is asking that the STFT

18 service be included -- include a RAM mechanism?

19   MS. LORI STEWART: Yes.

20   MR. BOB PETERS: And just to be more

21 transparent, that would -- one (1) of the parties, at

22 least, is a company that Mr. Stauft has identified

23 acting as counsel for?

24   MS. LORI STEWART: Yes, that's correct.

25 It is Tenaska's proposal to the National Energy Board

1 that the right to earn RAM credits be extended to one's

2 short-term firm transportation contracts.

3   MR. BOB PETERS: But as you've

4 indicated, that's -- that's a point that is opposed at

5 this point in time by TCPL?

6   MS. LORI STEWART: Yes, that's correct.

7   MR. BOB PETERS: Thank you. Now

8 turning back to our storage and transportation

9 arrangements, Ms. Stewart, or perhaps Mr. Kostick, it's

10 clear that you've told the Board that the existing

11 relationship and contracts ex -- sorry, the existing

12 contracts expire March 31 of 2013, correct?

13   MS. LORI STEWART: Yes, that's correct.

14   MR. BOB PETERS: Does Centra Gas hold a

15 right of first refusal on the current arrangements?

16   MR. NEIL KOSTICK: Centra has a right

17 of first refusal on all of the existing contracts with

18 the exception of the Great Lakes winter transportation

19 from winter back to Emerson.

20   MR. BOB PETERS: And would it be

21 correct, Mr. Kostick, that Centra has determined that

22 there was a better deal out there than exercising a

23 right of first refusal?

24   MR. NEIL KOSTICK: We did not have to

25 enter into the right of first refusal or ROFR process

1 given the results of the negotiations that we undertook

2 with ANR and Great Lakes.

3   MR. BOB PETERS: But how do you know,

4 Mr. Kostick, that somebody's not going to come along

5 and make an offer on the transportation and storage

6 that Centra now holds at a price less than what you

7 currently have negotiated?

8

9   (BRIEF PAUSE)

10

11   MR. NEIL KOSTICK: Mr. Peters, could I

12 ask you to just repeat the question. I'm not sure I

13 quite got the gist of it.

14   MR. BOB PETERS: Apparently there was

15 someone else who didn't get the gist of it. My -- my

16 thought process, Mr. Kostick, to be transparent, is

17 that under a right of first refusal if ANR and Great

18 Lakes has an offer from a third party that -- that you

19 don't need to identify or we don't even know today,

20 Centra has the ability to match that offer and get the

21 services rather than let the third party take the

22 services?

23   MR. NEIL KOSTICK: That's my

24 understanding.

25   MR. BOB PETERS: Does it have to be

 1 that the offer from the third party is greater than, in

 2 cost, than what Centra currently has, or could it be

 3 less than what Centra currently has?

 4   MR. NEIL KOSTICK: I believe it could

 5 be less for what Centra currently has, subject to

 6 check.

 7   MR. BOB PETERS: So my -- my -- where

 8 I'm going with the question then, Mr. Kostick, is let's

 9 suppose a third party is interested in some of the ANR

10 storage, some of the Great Lakes gas transmission

11 pipeline services. Can Centra get the services back at

12 a lower price than what they're currently paying by

13 matching someone else's offer?

14   MR. NEIL KOSTICK: I believe it's a

15 possibility. But you would also have the potential for

16 getting a -- having to pay a higher price through the

17 ROFR process depending on what another shipper may be

18 willing to offer for that service.

19   MR. BOB PETERS: Has Centra given up

20 its right of first refusal on its existing arrangement

21 in exchange for negotiating the new provisions that are

22 before the Board?

23   MR. NEIL KOSTICK: There are some

24 timing considerations. There are different ROFR

25 periods for the ANR and Great Lakes contracts. The

1 fact that we have forwarded a request for new services

2 to ANR and Great Lakes has basically taken the ROFR,

3 the occurrence of ROFR out of the picture.

4   If we were to -- I'd have to check on

5 the exact timelines to see whether the ROFR period has

6 essentially elapsed or whether there is still an

7 existing ROFR period, but the ROFR period is not being

8 invoked by ourselves or ANR, given that we have

9 submitted requests -- new requests for services.

10   MR. BOB PETERS: This may be more --

11 Mr. Kostick, this may be more by accident than design,

12 but at tab 4 of the book of documents is a --

13 equivalent to a Gantt chart that Centra, I believe,

14 prepared. Have you seen that before, sir?

15   MR. NEIL KOSTICK: Yes.

16   MR. BOB PETERS: When the -- when the

17 Board looks at the -- down towards the bottom, the

18 third line from the bottom is the earliest possible

19 commencement of ANR ROFR process. Do you see that

20 line?

21   MR. NEIL KOSTICK: Yes.

22   MR. BOB PETERS: And likewise, below

23 that is the commencement of the Great Lakes Gas

24 Transmission ROFE process -- sorry, ROFR process?

25   MR. NEIL KOSTICK: Yes.

 1   MR. BOB PETERS: And recognizing those

 2 timelines, would it be correct to say that Centra could

 3 have availed itself of that process but for entering

 4 into the negotiations?

 5   MR. NEIL KOSTICK: Yes.

 6   MR. BOB PETERS: And Centra made a

 7 decision not to enter into the right of first refusal

 8 process because it felt it had a better financial

 9 arrangement for Manitobans?

10   MR. NEIL KOSTICK: Yes.

11   MR. BOB PETERS: Are you able to

12 quantify how much better the proposal that is before

13 the Board today is then what it would be if you just

14 exercised a right of first refusal on the existing

15 arrangements?

16

17   (BRIEF PAUSE)

18

19   MR. NEIL KOSTICK: The package of

20 services that Centra has negotiated, we believe, is at

21 a lower price than could have been secured through the

22 ROFR process. We do understand that ANR continues to

23 sell storage at its tariff rate since the time that

24 Centra entered into the term sheet with ANR and Great

25 Lakes. But we're not able to quantify the -- any --

1 any difference in result that may have resulted from

2 going through the ROFR process.

3

4   (BRIEF PAUSE)

5

6   MR. NEIL KOSTICK: Another point that

7 is important to raise in this regard is that a lot of

8 the features that we have obtained with the new

9 portfolio were the result of a specific negotiation and

10 would not be obtainable through -- or likely to be

11 obtainable through the ROFR process as -- as the

12 services were negotiated as a large package of

13 services. We believe we have obtained certain features

14 that would not be available were pieces of the

15 portfolio put through the ROFR process.

16   MR. BOB PETERS: Would it be correct,

17 Mr. Kostick, and maybe Mr. Warden might need to think

18 about this too, is Centra could have lived with the

19 existing arrangement that it has with ANR and Great

20 Lakes longer than twenty (20) years if it had to?

21   MR. NEIL KOSTICK: If the contract term

22 were for longer than twenty (20) years we could manage

23 with that portfolio.

24   MR. BOB PETERS: And so if -- if the

25 portfolio could have been managed for more years, then

1 it would probably become a question of whether it was

2 cost effective compared to any alternatives. Would

3 that be a fair test?

4   MR. NEIL KOSTICK: It could be compared

5 to other alternatives.

6   MR. BOB PETERS: But in this case you -

7 - you weren't able to compare it to a right of first

8 refusal because you don't have details of that from ANR

9 or Great Lakes?

10   MR. NEIL KOSTICK: We did not go

11 through the

12 ROFR process, so we do not -- do not have that as a

13 point of comparison.

14   MR. BOB PETERS: Maybe just let me

15 wander seven (7) years from today when you and I are

16 next talking, and you're -- you're saying that one (1)

17 of the things that you were able to negotiate in that

18 new portfolio that you brought before the Board in June

19 of 2012, was a right of first refusal, because that's

20 one (1) of your points that you say is advantageous to

21 what you have negotiated. Correct?

22   MR. NEIL KOSTICK: Yes.

23   MR. BOB PETERS: And, again, we are

24 getting into the depths of hypothetical, but at that

25 time, again, you won't be able to tell the Board what

1 value that right of first refusal is, unless you

2 actually got a -- a cost number from your counter-

3 parties, ANR and GLGT. Would that be correct?

4   MR. NEIL KOSTICK: Centra views the

5 value of the right of first refusal is in being able to

6 continue to hold the services, not necessarily as a

7 comparator of costs or theoretical costs. It basically

8 gives Centra the right to match an existing -- or a

9 proposal on its existing services, to ensure that it

10 can maintain those services. Therefore, the right of

11 first refusal has value to Centra under any

12 circumstances.

13   In this particular case, with this

14 portfolio, we did not have to go that route because we

15 negotiated in advance, and ANR and Great Lakes were

16 amenable to reaching agreement on a suite of services

17 that has been identified in this application.

18   MR. BOB PETERS: And, likewise, party

19 B, who is unnamed, was also amenable to entering into

20 contractual relations with Centra to optimize its

21 portfolio, without any right of first refusal

22 considerations?

23   MR. NEIL KOSTICK: That's correct.

24   MR. GREG BARNLUND: Mr. Peters, before

25 we leave this line of questioning, I just want to make

 1 sure the record is clear that we don't view that there

 2 is any deficiencies with regards to our existing

 3 assets, and the contracts that have served us very well

 4 for the last twenty (20) years. If anything, the thing

 5 that's wrong with them is that they are coming to an

 6 end, and we have to do something to replace them.

 7   So I just didn't want to leave any

 8 impression here that we're, you know, that there's any

 9 dissatisfaction with the existing arrangements and that

10 -- that, you know, there was a need to dispose of them

11 and move on to something else. But it's really the end

12 of the contract term that we're involved with here.

13   MR. BOB PETERS: I wasn't suspecting

14 you were getting a divorce. You're actually just

15 renewing your vows here, it looks like. Isn't that the

16 analogy, Mr. Barnlund?

17   MR. GREG BARNLUND: That's a good

18 analogy.

19   MR. BOB PETERS: And if -- if there

20 weren't any deficiencies in what you have, you perhaps

21 could have kept what you have at a lower price if you

22 did exercise the right of first refusal process?

23   MR. NEIL KOSTICK: We don't know

24 whether it would ultimately be for a higher or a lower

25 price, through the ROFR process.

 1   MR. BOB PETERS: Would that answer also

 2   apply, Mr. Kostick, if the Board looked down the road

 3   seven (7) years to the end of what's proposed before

 4   them? Is that -- the Board -- you wouldn't be in a

 5   position to tell whether the proposed portfolio is

 6   going to be cheaper or more expensive if you -- if you

 7   exercised a right of first refusal?

 8   MR. NEIL KOSTICK: There would be no

 9   way to say with certainty, but again we felt it was

10   advantageous to negotiate a package of services as

11   opposed to putting individual pieces of the portfolio

12   up to bid, so to speak. Correct.

13   MR. BOB PETERS: And that's a portfolio

14   of services, the price of which will -- will be unknown

15   in the future?

16   MR. NEIL KOSTICK: It would be unknown,

17   but it would not exceed the tariff rate. And that's

18   one (1) of the advantages of the AN -- ANR and Great

19   Lakes services, is that the rates are capped at a FERC-

20   regulated tariff rate.

21   MR. BOB PETERS: Just like your current

22   arrangement is with ANR and Great Lakes. It's capped

23   at a -- at a tariff rate.

24   MR. NEIL KOSTICK: That's correct.

25   MR. BOB PETERS: All right. Moving --

 1 moving along, then. I think you've agreed with me, Mr.

 2 Kostick, that the gas storage is really a strategy to

 3 reduce the pipeline capacity charges or demand charges

 4 that would otherwise be incurred?

 5   MR. NEIL KOSTICK: That is one (1) of

 6 the benefits of holding storage, yes.

 7   MR. BOB PETERS: And if we flip to tab

 8 5 of the book of documents and look at the April to

 9 October, 2011, summer operations. And there'll be two

10 (2) pages, if it was put together properly, that face

11 each other. And I'm looking at the page numbered in

12 the top right-hand corner, number 24.

13   MR. NEIL KOSTICK: Yes, I'm there.

14   MR. BOB PETERS: And I want to -- the

15 volumes and the deliverability numbers are all

16 contained in the rectangular boxes that -- that have

17 been put into the chart, sir, or the map?

18   MR. NEIL KOSTICK: That's right.

19   MR. BOB PETERS: And so leaving aside

20 the volumes for now, this is the summer operation which

21 is between -- which is what Ms. Stewart has as -- as

22 constraints on her operation between April and October

23 of twe -- of -- of any given year?

24   MR. NEIL KOSTICK: Yes.

25   MR. BOB PETERS: And in those summer

1 months, what you've shown here is that the gas is

2 coming from Western Canada by the Saskatchewan/Alberta

3 border, flowing through to Winnipeg, and then south

4 along the GLGT line. And at Crystal Falls it makes a

5 loop underneath Lake Michigan, and it goes up an ANR

6 storage point.

7   Have I got that right?

8   MR. NEIL KOSTICK: Yes, that's correct.

9   MR. BOB PETERS: And what this is

10 telling the Board in light of Ms. Stewart's comments

11 after lunch, whatever gas we don't need in Winnipeg she

12 will send on through into Great Lakes Gas transmission

13 line to end up in storage?

14   MR. NEIL KOSTICK: Yes.

15   MR. BOB PETERS: And the physical

16 molecules are actually in the pipelines, following

17 those blue arrows, sir?

18   MR. NEIL KOSTICK: Yes.

19   MR. BOB PETERS: And on this particular

20 map, Mr. Kostick, there is -- in the bottom -- excuse

21 me, the bottom left there's an Oklahoma supply. And

22 then from the bottom right there's a Louisiana supply

23 that are also under current arrangements to provide gas

24 to Centra into storage?

25   MR. NEIL KOSTICK: That's correct.

 1   MR. BOB PETERS: And is it correct that

 2 the Oklahoma and the Louisiana supply was utilized if

 3 the volumes from Western Canada were not sufficient to

 4 fill up the 15 1/2 petajoules of storage?

 5   MR. NEIL KOSTICK: Yes.

 6   MR. BOB PETERS: And that would most

 7 likely occur after a cold winter?

 8   MR. NEIL KOSTICK: That's correct.

 9   MR. BOB PETERS: And to repeat a point

10 earlier, when we come to looking at the current

11 operations, the Oklahoma and Louisiana supply is no

12 longer part of the portfolio proposed?

13   MR. NEIL KOSTICK: That's right.

14   MR. BOB PETERS: If we flip to Tab 6 of

15 the book of documents and look at the top of page 27 --

16 sorry, look at page 27, which is marked in the top

17 right-hand corner, this is the current winter

18 operations that Ms. Stewart and her department work

19 with in -- in meeting the load and getting gas to flow

20 to Winnipeg in the winter months.

21   Is that correct?

22   MR. NEIL KOSTICK: Yes.

23   MR. BOB PETERS: And Ms. Stewart was

24 careful in her answer to me after lunch to be clear of

25 two (2) concepts. One (1) was the forward haul. And

1   that's shown by the blue arrows on -- on the map of the

2   winter operations, sir?

3   MR. NEIL KOSTICK: Yes.

4   MR. BOB PETERS: And then the back

5   haul, which is shown in -- by red arrows, correct?

6   MR. NEIL KOSTICK: Correct.

7   MR. BOB PETERS: And the phys -- the --

8   the forward haul designated by the blue arrows would be

9   the direction of the physical flow of the molecules.

10 Is that correct?

11   MR. NEIL KOSTICK: Yes.

12   MR. BOB PETERS: And the back haul is

13 the concept where there's an interception of natural

14 gas molecules upstream of a certain point, and Centra

15 injects the same volume downstream of a certain point?

16   MR. NEIL KOSTICK: Yes.

17   MR. BOB PETERS: And if I'm getting

18 this correct, the molecules from storage that Centra

19 actually physically ships into storage are never burned

20 in the furnaces in Manitoba?

21   MR. NEIL KOSTICK: That is historically

22 correct, although Ms. Stewart has noted that Great

23 Lakes and TransCanada do have the potential to

24 physically move gas north to the Manitoba market. And

25 our understanding is that that has occurred at least

1 once in the past winter.

2   MR. BOB PETERS: But your proposed

3 portfolio doesn't include any forward haul of gas from

4 storage back to Manitoba, does it?

5   MR. NEIL KOSTICK: The arrangements

6 don't specify forward haul or back haul. They simply

7 specify a receipt point, where the gas is put onto the

8 pipeline, and a delivery point, where the gas is taken

9 off the pipeline.

10   So the contracts don't specify whether

11 it's physical movement of gas or notional movement of

12 gas. It's simply receipt and delivery points.

13   MR. BOB PETERS: And the discounted

14 toll is the same whether it's forward or back haul?

15   MR. NEIL KOSTICK: That's correct.

16   MR. BOB PETERS: Thank you. Just while

17 I'm on that, is it now contemplated, Ms. Stewart, that

18 in your operations of the need for gas in the winter

19 months, that you will physically flow the gas back from

20 ANR storage in Northern Michigan back to Emerson and

21 north to Winnipeg, or the Manitoba delivery zone?

22   MS. LORI STEWART: As -- as Mr. Kostick

23 outlined, in our -- in our nomination process which is

24 linked to the contracts that underpin our capabilities

25 with this portfolio, on any given day I'm not aware of

 1 whether or not the gas is physically moving one (1) way

 2 or the other. That is all being managed by -- by the

 3 pipelines, in terms of whether it's by displacement or

 4 whether those volumes are physically moving backwards

 5 contrary to the historical flow pattern.

 6   We just nom the gas from the receipt

 7 point to the delivery point. Whether it's physically

 8 flowing in that direction or notionally flowing in that

 9 direction is something that I don't need to be aware of

10 on a daily basis.

11   MR. BOB PETERS: And when is it that

12 you became aware that -- or, when is it that Centra

13 became aware that gas could physically flow in a

14 forward haul direction on Great Lakes back to Manitoba?

15

16   How long ago was that?

17

18   (BRIEF PAUSE)

19

20   MS. LORI STEWART: In terms of being

21 positioned to actually flow gas physically all the way

22 back to the Manitoba delivery area, or the load centre

23 there, I mentioned that the Emerson meter station on

24 TransCanada was reconfigured to permit that, I believe,

25 in 2009 or 2010, subject to check. And I would have to

1 go and talk to our customer service rep on Great Lakes

2 to confirm at what point in time Great Lakes has become

3 physically enabled to flow gas bidirectionally. But it

4 was earlier than that point.

5   MR. BOB PETERS: Thank you, Ms.

6 Stewart. So not every molecule of natural gas burned

7 in Manitoba necessarily now comes from Western Canada?

8

9   (BRIEF PAUSE)

10

11   MS. LORI STEWART: The best way for me

12 to characterize it right now, Mr. Peters, is that there

13 is the potential for not every molecule burned in -- in

14 the Manitoba delivery area to be coming from the WCSB.

15   MR. BOB PETERS: And you use the word

16 "potential" because Centra doesn't, as you said

17 earlier, have any knowledge, and nor need you know,

18 which way the -- the pipelines are physically flowing?

19   MS. LORI STEWART: I'm using that to

20 describe how, on a daily basis, I don't need to be

21 aware of which way -- which way the molecules are

22 flowing, although clearly for my portfolio management,

23 from a portfolio management perspective, I need to be

24 aware of the changes that are being made on the

25 pipelines and why that might be happening, because it -

 1   - it could impact future contracting decisions.

 2   MR. BOB PETERS: And, Ms. Stewart, when

 3   we -- when you mentioned notional back haul, that's the

 4   -- the term to describe Centra releasing gas from its

 5   storage facility in Michigan in exchange for Centra

 6   taking additional quantities of gas off of presumably

 7   the TCPL?

 8   MS. LORI STEWART: Yes, the process of

 9   displacement is how it's generally characterized.

10   MR. BOB PETERS: And when gas is

11   released or -- downstream, and we're looking still on

12   the map on page 27, it appears that you mentioned -- as

13   you mentioned the Great Lakes gas transmission

14   terminates in a place called St. Clair? Is that a

15   Canadian point, or an American point?

16

17   (BRIEF PAUSE)

18

19   MS. LORI STEWART: I'm not sure whether

20   the facilities actually reside in the US or Canada, but

21   it is right at the -- at the border.

22   MR. BOB PETERS: And just across the

23   international border, that's a large storage hub for

24   Ontario local distribution companies of natural gas?

25   MS. LORI STEWART: The Dawn Hub is

1 located close to St. Clair, and yeah.

2   MR. BOB PETERS: So if -- if the

3 notional back haul arrangement, Ms. Stewart, was being

4 utilized in exchange for taking volumes off the

5 TransCanada pipeline at Winnipeg, Centra would release

6 storage gas through the Great Lakes gas transmission,

7 through St. Clair, and into -- into the party from whom

8 Centra borrowed the gas or displaced the gas?

9   MS. LORI STEWART: If we held Dawn

10 storage, is that your question?

11   MR. BOB PETERS: No, it's just in

12 exchange for taking gas off the TransCanada pipeline

13 that would exceed -- I think your number after lunch

14 here was 110 gigajoules a day.

15   MS. LORI STEWART: One hundred and ten

16 thousand (110,000) GJs --

17   MR. BOB PETERS: Sorry.

18   MS. LORI STEWART: -- per day, yeah.

19   MR. BOB PETERS: Tara -- oh, 110,000

20 gigajoules a day, Centra would release from storage to

21 the counter-party...

22   MS. LORI STEWART: I'll jump in.

23   MR. BOB PETERS: Please.

24   MS. LORI STEWART: It isn't at St.

25 Clair. We don't hold any transportation capacity all

 1 the way to the Great Lakes terminus. So when our gas

 2 is swapped, so to speak, gas delivered to the MDA, that

 3 amount minus fuel taken out of the storage facility,

 4 and that would move to other counter-parties, most

 5 likely at Dew -- Deward or Farwell, on our -- on the

 6 ANR system.

 7   MR. BOB PETERS: Thank you. Ms.

 8 Stewart, you mentioned, I think before lunch,

 9 nominations. And after lunch you already abbreviated

10 that to "nom". But that's your -- that's Centra's

11 process for telling the molecule provider and the

12 transportation provider as to how much gas Centra

13 Manitoba needs in its delivery -- in its service

14 territory?

15   MS. LORI STEWART: Yes. We enter

16 nominations, or in essence we're ordering up the amount

17 of gas that we need and communicating that with the

18 service provider, always relative, however, to our

19 contractual limits.

20   So, you know, the decatherm or GJ limits

21 that we have embedded within our contracts, obviously

22 we don't have the luxury of exceeding those contractual

23 limits when we nominate the gas.

24   MR. BOB PETERS: You also made mention

25 in the opening comments from Mr. Bedford that the

1 storage allows Centra to adjust its nominations, either

2 intra-day, or I think even the late-night window was

3 open, if that's my understanding of the evidence?

4   MS. LORI STEWART: Sort of like a

5 drive-in, but not quite. And, yes, we do have access

6 to a late-night nomination window as a result of our

7 storage and transportation contract with TransCanada,

8 and it is then coordinated with both Great Lakes and

9 ANR.

10   And why that late-night nomination

11 window is so important to Centra is because at the time

12 that we make our intra-day to nomination, it's at 5:00

13 p.m. for -- effective for 9:00 p.m.

14   We're only twelve (12) hours into the

15 gas day. So we've got some history under our belt, but

16 we still have twelve (12) hours of load and consumer

17 behaviour to attempt to respond to, such that by 9:00

18 a.m., those two (2) things have come into balance as

19 closely as possible, so supply and demand.

20   So the ability to log on in the middle

21 of the night -- which is what our schedulers do.

22 They're on shift for three (3) hours in the middle of

23 the night. They log on, start monitoring the loads,

24 and they're able to submit an nomination in advance of

25 3:00 a.m. that will become effective for 5:00 a.m.

 1   So if indeed the temp -- the weather

 2   forecasters have been inaccurate, one way or the other,

 3   which is not uncommon, then we can adjust or nominate

 4   down our takes from storage in that last window.

 5   And it's very helpful to us, in terms of

 6   mitigating the balancing fees that we pay on the

 7   TransCanada pipeline.

 8   MR. BOB PETERS: And while it may

 9   mitigate the fees you pay on the TransCanada pipeline,

10   it also exposes Centra to unutilized demand charges on

11   its US assets.

12   Would that be correct?

13

14   (BRIEF PAUSE)

15

16   MS. LORI STEWART: From my perspective,

17   those assets are there to allow us to swing. That's

18   why we have them put in place, and they are a very cost

19   effective swing service, given the type of flexibility

20   that we have associated with it.

21   MR. BOB PETERS: And my point, Ms.

22   Stewart, is that by exercising storage to help you with

23   your swing service, Centra is being exposed to greater

24   unutilized demand charges, because it isn't using,

25   maybe, the full amount of its reservation.

 1   MS. LORI STEWART: Yes, that's right.

 2 We don't have the luxury of flowing at 100 percent load

 3 factor, given the weather variation and consumer --

 4 consumer adjustments to that.

 5   MR. BOB PETERS: And would it follow,

 6 Ms. Stewart, that depending on how much lead time

 7 Centra has of its -- of its exact needs, that would be

 8 the time period in which Centra would have to see if

 9 they could sell that unutilized capacity or any

10 unutilized capacity on a secondary market?

11   MS. LORI STEWART: I guess I think

12 that's why I'm struggling with your characterization of

13 it as UDCs, because at that -- at that time there is no

14 market. The market has closed and, as a result, there

15 -- there is no opportunity to sell excess assets at

16 2:00 in the morning. The market will reopen in the

17 morning, and at that point, the day is closing out.

18   So those cycles are not in sync and, as

19 a result, I don't -- I think as an operator, I view

20 that capacity a little differently, because it's there

21 to allow us that opportunity to range up and down and

22 to mitigate balancing fees.

23   MR. BOB PETERS: It's a spent cost that

24 you say is a cost of -- of optimizing the portfolio and

25 doing business?

 1   MS. LORI STEWART: Yes.

 2   MR. BOB PETERS: And in exchange for

 3 exposing the Company and exposing Centra to greater

 4 balancing penalties or balancing fees, you're using the

 5 nominations process to avoid that?

 6   MS. LORI STEWART: That's right.

 7 That's -- that's precisely what we're doing. We're

 8 optimizing our costs.

 9

10   (BRIEF PAUSE)

11

12   MR. BOB PETERS: Ms. Stewart or Mr.

13 Kostick, at Tab 7 of the book of documents, if you

14 could turn there with me, albeit briefly. You'll see

15 on the top of page 31, this is in response, Mr.

16 Chairman and Board members, to a pre-asked question

17 that was posed through Mr. Bedford's office and -- and

18 others at Centra to update an information request that

19 had been provided. And we thank them for that.

20   On page 31 should be a chart that

21 contains red lines, blue lines, and green lines all the

22 way through to February of 2012. Do you have that, Ms.

23 Stewart? And if not you, Mr. Kostick or others?

24   MS. LORI STEWART: Yes, we have the

25 reference.

1   MR. BOB PETERS: All right. And the

2 red line is to show the sum of the blue lines and the

3 green lines, correct?

4   MS. LORI STEWART: Yes, that's correct.

5   MR. BOB PETERS: And the red line shows

6 the storage volumes that have come from either Western

7 Canadian sources or US sources. Would that be fair?

8   MS. LORI STEWART: Yes, confirming that

9 it is all still storage gas.

10   MR. BOB PETERS: And the storage gas

11 tops out at around 15 1/2 petajoules; that's the -- the

12 intent of this chart, is to show the maximum there?

13   MS. LORI STEWART: Yes, that's correct.

14   MR. BOB PETERS: And then when the

15 Board looks at the blue line -- which is not the

16 highest, not the lowest, but the one (1) in the middle

17 -- these represent molecules from Western Canada that

18 have flowed past Winnipeg, through Emerson on GLGT, and

19 into ANR storage?

20   MS. LORI STEWART: Yes, that's correct.

21   MR. BOB PETERS: And the blue line tops

22 out at about 10 petajoules a year, correct?

23   MS. LORI STEWART: That's correct.

24 That's correct.

25   MR. BOB PETERS: And there's a few

 1 years, it's either the -- the graph may be inaccurate,

 2 or in some years you put in more storage from Western

 3 Canada than in -- than in other years.

 4   But in any event, that's the Western

 5 Canadian component to storage?

 6   MS. LORI STEWART: That's correct.

 7   MR. BOB PETERS: And that leaves the

 8 green line to be what are the US supplies into storage,

 9 correct?

10   MS. LORI STEWART: That's correct.

11   MR. BOB PETERS: And the US supplies

12 into storage are also known as "supplemental gas"?

13   MS. LORI STEWART: Yes.

14   MR. BOB PETERS: And this chart shows

15 that on an annual basis Centra draws down certain

16 levels from storage, correct?

17   MS. LORI STEWART: That's correct.

18   MR. BOB PETERS: And in approximately

19 seven (7) of the ten (10) years that are shown, the

20 blue line will intercept the -- the x-axis at the zero

21 volume level, meaning that all of the western Canadian

22 gas that was put into storage was withdrawn from

23 storage?

24   MS. LORI STEWART: That's correct.

25   MR. BOB PETERS: And in a cold year the

 1 US supply of supplemental gas is also drawn down,

 2 although never down to zero?

 3   MS. LORI STEWART: Yes, that's correct,

 4 for the time frame shown on this graph.

 5   MR. BOB PETERS: All right. Does that

 6 answer suggest that there have been other times when it

 7 was drawn down to zero?

 8   MR. BRENT SANDERSON: Following the

 9 winter of 1995/'96, which was not the coldest winter in

10 our records but was very cold, our storage inventories,

11 both western Canadian and US supplies, were drawn down

12 effectively to zero for all intents and purposes at the

13 end of that winter.

14   MR. BOB PETERS: And in a warm year,

15 Mr. Sanderson, Centra does not use all of the primary

16 gas in storage, as can be seen in the February of 2006

17 and the February 2012 years?

18   MR. BRENT SANDERSON: Both of which

19 were extraordinarily warm winters. That's an usual

20 event, has been historically, that we wouldn't use all

21 of our primary gas storage inventory.

22   MR. BOB PETERS: Not as unusual, Mr.

23 Sanderson, that Centra doesn't use all of its

24 supplemental gas in years such as, I guess, 2006, '07,

25 2010, or 2012. In those years, Centra hasn't drawn

1 down all of its supplemental gas from storage?

2   MR. BRENT SANDERSON: As Mr. Kostick

3 mentioned earlier, it's our responsibility to plan to

4 be able to serve our load in extraordinarily cold

5 winter conditions. So it follow that it wouldn't be a

6 frequent event that we would be historically drawing

7 down our storage inventory to zero be -- because we

8 need to use those assets in order to maintain our

9 reliability in the coldest weather conditions that we

10 might experience, which are outside our control.

11   MR. BOB PETERS: And but for the -- the

12 year that I think you mentioned was '95/'96, and

13 including the ten (10) years that's shown on page 31 at

14 Tab 7 of the book of documents, Centra never needed 15

15 1/2 petajoules of storage?

16   MR. BRENT SANDERSON: I wouldn't agree

17 with that characterization. Maybe with the benefit of

18 20/20 hindsight it may appear that way. But if we take

19 ourselves back to the commencement of that arrangement,

20 we had no idea at that point in time whether we would

21 have five (5) or six (6) 1995/'96 equivalent winters.

22 And, in fact, we have colder winters than that in the

23 historical record that occurred prior to the

24 commencement of the twenty (20) year agreement that

25 we're looking at right here. So that would be how I

 1 would respond to that characterization.

 2   MR. BOB PETERS: And would you respond

 3 to that characterization, Mr. Sanderson, that in the --

 4 the cold year you mentioned, of 1995/'96, Centra could

 5 have used more than 15 1/2 petajoules of storage?

 6   MR. BRENT SANDERSON: Again, I guess --

 7 I guess the characterization is in the eye of the

 8 beholder. That 15 1/2 petajoules allowed us to serve

 9 our market requirement. And whatever excess we needed

10 we managed to purchase that cost-effectively and the

11 load was met when it was required without any

12 interruption to our firm customers' requirement in a

13 cost-effective way. So I wouldn't say that we could

14 have used more. We managed through that winter very

15 effectively with the storage inventory we had at the

16 time.

17   MR. BOB PETERS: Well -- well, I don't

18 have the numbers in front of me, Mr. Sanderson. Did

19 Centra get gas in 1995/'96 on the market to meet the

20 load that was cheaper than the gas it was taking out of

21 storage, or can you answer that from -- from your

22 information?

23

24   (BRIEF PAUSE)

25

 1   MR. BRENT SANDERSON: Subject to check,

 2 there -- the prices that would have been paid for

 3 market gas, if you will, during the course of that

 4 winter in order to manage through that -- that very

 5 cold winter weather, some would have been at lower

 6 prices, some would have been at higher prices.

 7   But there were instances of small

 8 amounts of gas purchased that were for -- relative to

 9 our storage inventory, were at higher prices, which

10 again just points to the value of having inventoried

11 storage the summer before we get into a condition like

12 that.

13   MR. BOB PETERS: But it also

14 demonstrates that, in -- in terms of saying that Centra

15 was able to meet the load.

16   That's almost a given, is it not, Mr.

17 Sanderson, that Ms. Stewart is always going to find gas

18 for Manitobans; it's only a question of price?

19   MR. BRENT SANDERSON: I wouldn't

20 necessarily agree with that, depending on the

21 configuration of assets that you hold.

22

23   (BRIEF PAUSE)

24

25   MS. LORI STEWART: If you're talking

 1 about a one (1) day occurrence, then, yes, we would

 2 clearly take from the pipe what we need on a single day

 3 if there was some type of circumstance, a disruption of

 4 the pipeline system, and -- but we do have to be

 5 cognizant that there are other users downstream of us,

 6 LDCs in the Eastern Canadian market, who are reliant on

 7 -- on receiving their requirements from the pipeline.

 8   So, you know, this -- this -- we have to

 9 be very careful about walking away with the impression

10 that you can just take what you need, because you would

11 be causing harm potentially to another party further

12 down the pipeline. And that's why parties work hard to

13 ensure that they have the deliverability that is

14 required in order to meet the needs of their

15 marketplace.

16   And I -- I also want to -- to help the

17 Board with a detail, perhaps. But from an operator's

18 perspective, once we've drawn down storage levels to 20

19 percent, so there's only 3.1 PJs in our facility again,

20 I'm into ratchets, which means that now I can't pull

21 the same amount of gas out of storage as what I've been

22 relying on from a planning perspective. And that's

23 that daily deliverability number.

24   So once I've drawn down the capacity to

25 20 percent, then I start to lose deliverability, and

1 that means that then I'm exposed to buying in the day

2 market and moving gas potentially on an interruptible

3 transportation path, which makes me feel pretty

4 uncomfortable in February and March.

5   So when we are talking about the notion

6 of storage, you've heard my colleagues suggest that the

7 objective is not to draw down storage to zero, because

8 I will have blown through all of my ratchets, and I'm

9 out scrambling to find gas in the latter part of the

10 winter, which is not the modus operandi that a utility

11 should be in.

12   It -- rather, if we're ending the winter

13 at storage in at about 20 percent, then that's where we

14 should have ended up, and then move forward to refill

15 the storage facility after that, recognizing that all

16 of this is completely dependent on weather.

17   MR. BOB PETERS: Ms. Stewart, thank you

18 for that. And maybe what we should do is just take a

19 minute or two (2) to -- to flip back to Tab 6 of the

20 book of documents for the winter operations.

21   And in terms of your current

22 deliverability, we see for example that on Great Lakes

23 you're showing 237,388 gigajoules a day of back haul

24 capability on Great Lakes? And I'm looking on page 27,

25 almost right in the middle of the page.

 1   MS. LORI STEWART: Yes, that's correct.

 2   MR. BOB PETERS: And what you're

 3 telling the Board is that if your storage volumes get

 4 down below, I think your number was, 20 percent of what

 5 you've contracted, you then have an obligation with ANR

 6 that you can't withdraw your maximum amounts that you

 7 entered into the contract. Your -- your deliverability

 8 suffers.

 9   MS. LORI STEWART: That's correct. My

10 daily deliverability out of storage would be -- would

11 be impacted, and that number is actually the two-o-

12 eight, five-ninety-one (208,591). So that's not our

13 Great Lakes capacity. It's the ANR pipeline --

14   MR. BOB PETERS: Sorry, I --

15   MS. LORI STEWART: -- capacity out of

16 storage.

17   MR. BOB PETERS: And how many -- it

18 ratchets down, I believe that was either in the

19 rebuttal or in one (1) of the IRs. There was an

20 indication of -- of the ratcheting process. But that

21 ratcheting process exists currently as well, correct?

22   MS. LORI STEWART: It does.

23   MR. BOB PETERS: And it'll exist in the

24 future portfolio as well?

25   MS. LORI STEWART: That's correct.

 1   MR. BOB PETERS: When we look back at

 2 the -- the chart on page -- at Tab 7 of the book of

 3 documents, pre-ask PUB/CENTRA-1, page 31, in the top

 4 right-hand corner. In a warm year such as 2006, would

 5 it be correct to say that Centra only needed 4

 6 petajoules of storage? And we can get that by the --

 7 the drop in the red line on that year?

 8   MS. LORI STEWART: Given the context of

 9 everything that has gone before us, yes, that's

10 correct.

11   MR. BOB PETERS: And we see that the US

12 storage, the green line, of supplemental gas, wasn't

13 called upon at all in terms of draw-downs during that

14 winter?

15   MS. LORI STEWART: That's correct.

16   MR. BOB PETERS: And to a similar

17 extent, I suppose, we're going to see that in the year

18 Mr. Warden has alerted us to, and that is 2012, where

19 only 6 petajoules of storage, it looks like, was -- was

20 actually needed if we -- if we assume the red line is

21 bottoming out where it leaves off?

22   MS. LORI STEWART: On a -- on a

23 hindsight basis, yes, that's correct.

24   MR. BOB PETERS: And whether or not the

25 volumes were 6 petajoules or 4 petajoules from storage,

 1 the costs were still based on 15 petajoules. Correct?

 2   MS. LORI STEWART: That's correct.

 3   MR. BOB PETERS: I don't want to dwell

 4 on this, but I'm going to ask, through Mr. Bedford, if

 5 you could perhaps take an undertaking, Ms. Stewart and

 6 Mr. Sanderson, that in the -- on the graph on page 31

 7 of the book of documents, for the 2005/'06 year, it

 8 looks like storage volumes, as I said, were drawn down

 9 in '04 to 4 1/2 petajoules. Do you see the point I'm

10 referencing?

11   MS. LORI STEWART: I'm sorry. Are you

12 referencing the 2005/2006 winter?

13   MR. BOB PETERS: Yes. February '06

14 would be the -- the point on the graph that would best

15 demonstrate my point.

16   MS. LORI STEWART: And your request

17 is...?

18   MR. BOB PETERS: No, my -- my point is

19 that 4 1/2, or 4 -- 4 1/2 petajoules of storage gas was

20 used that winter?

21   MS. LORI STEWART: That looks about

22 right.

23   MR. BOB PETERS: All right. And here's

24 -- here comes the question, Ms. Stewart. At

25 CAC/CENTRA-18-E, there's a table that provides the

1 storage withdrawal, and shows it at 7.4 petajoules.

2   And I'm not sure it can be something

3 that you can identify on the -- while on the

4 microphone, but I'd like you to maybe reconcile those

5 two (2) for the Board at some point by way of an

6 undertaking, unless it's something that you can readily

7 respond to at this time.

8   MS. LORI STEWART: Can you provide that

9 reference again?

10   MR. BRENT SANDERSON: I'm sorry, did

11 you say CAC/CENTRA-18-E?

12   MR. BOB PETERS: I think I said 17-E,

13 but I'm just now checking to see if that's correct, or

14 I meant to say 17-E if I didn't. You've got that, Mr.

15 Sanderson?

16   MR. BRENT SANDERSON: Yes, I do.

17   MR. BOB PETERS: And by way of

18 undertaking, would you be amenable to reconciling

19 those, if you can?

20   MR. BRENT SANDERSON: Yes, I'll look

21 into that for you, sir.

22   MR. BOB PETERS: All right. The

23 request for undertaking was for Centra to reconcile the

24 chart included with pre-ask PUB/CENTRA-1 for the

25 February 2006 point, with the indication in CAC/CENTRA-

 1 17-E which provides the 2005/'06 storage withdrawal

 2 volumes.

 3

 4 --- UNDERTAKING NO. 2:   Centra to reconcile the

 5   chart included with pre-ask

 6   PUB/CENTRA-1 for the

 7   February 2006 point, with

 8   the indication in

 9   CAC/CENTRA-17-E which

10   provides the 2005/'06

11   storage withdrawal volumes

12

13 CONTINUED BY MR. BOB PETERS:

14   MR. BOB PETERS: Ms. Stewart, we're on

15 a roll, so let's keep going. Let's explain to the

16 Board how Centra ensures there's natural gas to burn in

17 the furnaces of Manitobans even on that coldest day.

18 And if we can go to Tab 8 of the bok of documents,

19 we'll see some supply stacks and some peak day

20 requirements.

21   And, Mr. Sanderson, just by way of

22 curiosity, what is the coldest day on record that

23 Centra has for Manitoba?

24   MR. BRENT SANDERSON: February 1, 1996,

25 where the average daily temperature was minus 38

1 degrees Celsius.

2   MR. BOB PETERS: And that date is

3 burned into your mind, probably not because you had to

4 go to work that day, but also because that's the day

5 that you use for planning purposes in terms of what a -

6 - what a maximum day could like for the utility?

7   MR. BRENT SANDERSON: Yes, that

8 constitutes what we refer to as our design peak day, so

9 the worst-case experience conditions historically.

10   MR. BOB PETERS: And on page 36, found

11 at Tab 8 of the book of documents, the annual peak day

12 that's shown, is that for the 2010/11 year, to the best

13 of your knowledge?

14   MR. BRENT SANDERSON: Yes, that's

15 correct, Mr. Peters.

16   MR. BOB PETERS: And the left-hand

17 column in the chart shows that the peak day firm load

18 was 481.3 terajoules?

19   MR. BRENT SANDERSON: By way of minor

20 correction, it shows what our firm designed peak-day

21 load would be, given our current market and a

22 reoccurrence of the weather experienced on February

23 1st, 1996.

24   MR. BOB PETERS: All right. As opposed

25 to an actual date, it's recreated based on the design

 1 load?

 2   MR. BRENT SANDERSON: It's a

 3 theoretical calculation, and it's a forecast estimate.

 4   MR. BOB PETERS: And what you show at

 5 the top of that peak-day firm load is that the

 6 interruptible customers are shown separately, correct?

 7   MR. BRENT SANDERSON: Yes, sir, that's

 8 correct.

 9   MR. BOB PETERS: And that's because on

10 the coldest day of the year, if Centra needs to --

11 doesn't have the gas readily available, the

12 interruptible customers will be the first customers to

13 be told to interrupt their service and either shut down

14 or find alternate means?

15   MR. BRENT SANDERSON: They're one (1)

16 of the tools in our toolbox to deal with peak-day

17 management. But under most anticipated conditions,

18 they would be offered what we refer to as alternate

19 service in lieu of regular interruptible service in

20 order to replace that regular interruptible service.

21 And they basically would pay their way on the day at

22 current prevailing market prices.

23   We would line up incremental supply at

24 prevailing market prices. And they have the choice

25 whether to take that or to go to an alternate fuel

1 source under those curtailment conditions.

2   MR. BOB PETERS: Have you included

3 interruptible customers under your portfolio design

4 that you're pu -- putting -- putting before the Board?

5   MR. NEIL KOSTICK: For the design of

6 the peak-day requirements, interruptible customers are

7 excluded. But interruptible load is included for the

8 seasonal load, as interruptible customers could

9 transition between -- or, could transition to firm at

10 any time.

11   So that load was considered for -- on a

12 seasonal basis but not for the peak day.

13   MR. BOB PETERS: Thank you. And then

14 in terms of meeting those requirements, Ms. Stewart,

15 there's a supply stack on the right-hand side of the

16 chart shown on this document.

17   And the first -- it looks like the first

18 building block would be your TransCanada firm service

19 that you would -- you would get and you told the Board

20 about, coming from Alberta?

21   MS. LORI STEWART: Yes, that's correct.

22   MR. BOB PETERS: And this would be gas

23 that is under contract pursuant to Centra's long-term

24 primary gas contract?

25   MS. LORI STEWART: That's correct.

 1   MR. BOB PETERS: And you would

 2 essentially take the maximum amount that you could

 3 under that contract on this day?

 4   MS. LORI STEWART: I would take the

 5 maximum amount that I can move on my transportation

 6 contract on that day.

 7   MR. BOB PETERS: And the second supply

 8 source to serve the Manitoba load on this day that

 9 we've notionally depicted here was the US storage and

10 transportation shown in red.

11   And that would have been primarily, we

12 think, by way of back haul, most likely notional back

13 haul?

14   MS. LORI STEWART: Yes, that component

15 of the supply stack is made up of our withdrawal -- our

16 withdrawal capability from storage, so our daily

17 deliverability as well as the ANR southwest piece that

18 allows us to move gas to the market in the winter.

19   MR. BOB PETERS: All right. That's a

20 new wrinkle, your last comment. And that was an

21 ability that you could take some gas and move it

22 directly to market, rather than have to rely on storage

23 gas.

24   MS. LORI STEWART: That's correct.

25   MR. BOB PETERS: And then peaking

1 demand service is shown in green. That's correct?

2   MS. LORI STEWART: Peaking delivered

3 service, yes.

4   MR. BOB PETERS: And the peaking

5 delivered service was by way of a contractual

6 arrangement that Centra would have entered into prior

7 to the winter season?

8   MS. LORI STEWART: Yes, prior to the

9 winter season, or prior to the likelihood of any

10 incurrence of our peak day. So, for example, it may

11 not get put in place until November the 15th, but I

12 don't have any risk until January or February of

13 incurring that peak day.

14   MR. BOB PETERS: And in terms of this

15 peaking delivered service, Ms. Stewart, this would be

16 with a counter-party that would provide Centra with a

17 certain volume of gas when you called on it?

18   MS. LORI STEWART: Yes. In essence, it

19 represents a call option for gas on a specific day for

20 a specific amount.

21   MR. BOB PETERS: Do you pay cash for

22 that, or do you pay in kind with -- with gas at a later

23 time?

24   MS. LORI STEWART: Typically neither.

25 Typically we have been able to avoid the incurrence of

1 demand charges associated with our peaking services.

2 And payment is not in kind with gas, again, typically.

3   Rather, the counter-party would -- would

4 gain their value in the event that I call on that

5 service. So the premium above market for gas on the

6 day on which I might be calling on a peaking service,

7 you know, there could be a thirty (30) cent, or a fifty

8 (50) cent per GJ premium, if I call on it on that day.

9   MR. BOB PETERS: But you -- you have to

10 pay the counter-party for the service they provide and

11 the molecules they provided?

12   MS. LORI STEWART: Only if I call on

13 it.

14   MR. BOB PETERS: Correct.

15   MS. LORI STEWART: Correct.

16   MR. BOB PETERS: Yeah. And so that's

17 paid in cash. Do they send an invoice or do you offset

18 that by way of returning gas to that counter-party?

19   MS. LORI STEWART: No, they would

20 invoice us for it.

21   MR. BOB PETERS: And the last brick in

22 the wall is the purple one (1), the delivered service?

23 That's uncontracted delivered service at the start of

24 the year, Ms. Stewart?

25

 1   (BRIEF PAUSE)

 2

 3   MS. LORI STEWART: Yeah, that swath of

 4 delivered service, Mr. Peters, is pre-contracted.

 5   MR. BOB PETERS: It's what you'd call

 6 seasonal delivered service?

 7   MS. LORI STEWART: Yes, it has been

 8 characterized as seasonal delivered service. We've

 9 made a shift in terms of referring to it as primary gas

10 transported by others, because it represents Western

11 Canadian supplies as opposed to US supplies. But, yes,

12 seasonal delivered services is what we have referred to

13 it as historically.

14   MR. BOB PETERS: But it also

15 represents, Ms. Stewart, an amount by which Centra

16 exposes Manitobans to not having gas in the preferred

17 portfolio?

18   That's something that Centra has to

19 source outside your portfolio?

20   MS. LORI STEWART: That swath of -- of

21 delivered service was contracted because it was a more

22 economic alternative, relative to holding TransCanada

23 mainline capacity at a time when tolls are at an all-

24 time high.

25   MR. BOB PETERS: And so it's gas that's

1 not coming under your primary gas contract or from your

2 American sources?

3   MS. LORI STEWART: That's correct.

4   MR. BOB PETERS: And if what we're

5 looking at, Ms. Stewart, on page 36 of the book of

6 documents found at tab ni -- 8, is the 2010/11 year

7 peak-day supply stack. If we turn the page, I think

8 we're looking there at a different year, probably 2011

9 and '12.

10   Do you accept that, subject to check?

11   MS. LORI STEWART: Actually, what is

12 represented on page 37 of -- of the book of documents

13 is what we know about how -- what the peak-day supply

14 stack would look like, given the proposed portfolio

15 being implemented. So it would actually be 2013/14.

16 Well, it's a combination of -- of two (2) gas years,

17 actually. It would be a combination of 2012/13 and

18 2013/14.

19   MR. BOB PETERS: And that's because,

20 Ms. Stewart, your storage portfolio commences April 1,

21 when your gas year and your supply contracts start

22 November 1?

23   MS. LORI STEWART: Yes, that's correct.

24   MR. BOB PETERS: And what you're

25 showing the Board, Ms. Stewart, is that Centra expects

 1 its supply of the peak-day needs to change, or at least

 2 relative proportions change, in that the Western

 3 Canadian supply here includes what you had previously

 4 called delivered service and compares that with what

 5 would be made up from the US or supplemental gas?

 6   MS. LORI STEWART: Yes, if I can use

 7 the colour blocks on both pages. On page 36 of the

 8 book of documents, the blue, the purple, and the green

 9 would all represent gas coming from Western Canada,

10 while the red is gas notionally sourced in the US.

11   Of -- of course, it's coming out of

12 storage, so -- and storage was filled primarily with

13 Canadian gas, so putting all of that together.

14   And on page 37 then we have the same red

15 block of -- of deliverability associated with our US

16 storage and transportation assets. And we've combined

17 all of those other blocks into Western Canadian

18 deliverability.

19   MR. BOB PETERS: One (1) of the points

20 of distinction, Ms. Stewart, when you juxtapose those

21 two (2) graphs, is that the TCPL firm service provided

22 on the -- page 36 of the book of documents, that

23 represents Centra's primary gas under its long-term

24 storage contract as limited by its transportation

25 capability?

 1   MS. LORI STEWART: Under its long-term

 2 supply contract. You said "storage contract," but...

 3   MR. BOB PETERS: All right. Sorry if I

 4 misspoke, but it's under the long-term primary gas

 5 supply contract as limited by TCPL firm transportation?

 6   MS. LORI STEWART: Yes, that's correct.

 7   MR. BOB PETERS: Whereas on page 37

 8 you've combined a number of the ingredients, including

 9 the gas that is to be supplied and delivered through

10 the services of others other than your long-term

11 primary gas contract and your -- and Centra's TCPL firm

12 contract?

13   MS. LORI STEWART: Yes, we were looking

14 to simplify and distinguish between deliverability from

15 our US assets and deliverability from Western Canada.

16   THE CHAIRPERSON: Can I ask a

17 question? In respect to the -- the new table, or at

18 least the looking-forward table, you're combining three

19 (3) elements: the -- the delivered service, peaking

20 delivered service, and TCPL.

21   If you were to ventilate the new

22 looking-forward table, would you get the same three (3)

23 factors? In other words, delivered service, peaking

24 service, and the TCPL regular fixed service?

25   I mean, if you ventilate the blue, are

 1 you getting the same components?

 2   MS. LORI STEWART: Yes.

 3   THE CHAIRPERSON: Okay.

 4   MS. LORI STEWART: The same components

 5 would be there. The relative percentages may be

 6 different.

 7   THE CHAIRPERSON: Okay.

 8

 9 CONTINUED BY MR. BOB PETERS:

10   MR. BOB PETERS: And just a point, Ms.

11 Stewart, on that is that when you look at the forward-

12 looking one (1) on page 37, even though it's cau --

13 it's -- there's a red block indicating US

14 deliverability, some of that gas is -- is Western

15 Canadian gas?

16   MS. LORI STEWART: Yes. I should have

17 -- to be precise, the blue block represents Western

18 Canadian gas delivered to the load or direct to the

19 load, as opposed to some of what's in the red block is

20 Western Canadian gas that has flowed by us and into

21 storage as opposed to direct to load.

22   MR. BOB PETERS: Let's take a quick

23 review of the current gas market, if we could. And

24 would Centra agree that some of the same factors that

25 have reduced the cost of natural gas have also impacted

 1 on the transportation costs, Mr. Sanderson?

 2   MR. BRENT SANDERSON: Could you restate

 3 the question, Mr. Peters? I'm sorry.

 4   MR. BOB PETERS: Yes, certainly. You

 5 in your direct evidence to Mr. Bedford told the Board

 6 that presently known unconventional gas has caused some

 7 changes in the -- in the gas market.

 8   MR. BRENT SANDERSON: Yes, that's

 9 correct.

10   MR. BOB PETERS: And as an example, one

11 (1) of those unconventional sources of gas was shale

12 gas, which is now being produced in locations that are

13 closer to their marketplace, and that will impact

14 transportation requirements.

15   MR. BRENT SANDERSON: Yes, to the

16 extent that eastern markets that previously shipped

17 large amounts of natural gas in the TransCanada

18 mainline from western Canada, to the extent that those

19 US northeastern markets, and now increasingly eastern

20 Canadian markets, can access gas closer to home and pay

21 much lar -- much lower shipping costs because of its

22 proximity, lesser volume shipped westward on the

23 TransCanada mainline, which results in a fixed cost of

24 service that is being divided by an ever-shrinking

25 volume of gas being shipped on the mainline, which has

1 been the model that has been adhered to thus far, which

2 results in continued escalating unit tolls for the

3 shippers remaining on that system.

4   MR. BOB PETERS: Putting a name to it,

5 Mr. Sanderson, shale gas is displacing western Canadian

6 gas, which leaves, for example, TransCanada pipeline

7 with extra capacity.

8   MR. BRENT SANDERSON: That's an

9 accurate characterization.

10   MR. BOB PETERS: And you see that

11 happening not necessarily only for TCPL, but for other

12 shippers as well. There's been an adjustment of

13 transportation arrangements.

14   MR. BRENT SANDERSON: There's differing

15 degrees in terms of the pain that's being inflicted on

16 certain mark -- prior market participants, but this is

17 wide-ranging. And TCPL is by no means the only example

18 of a pipeline that is encountering difficulties because

19 of the wholesale shift in transport -- in production

20 and natural gas transportation patterns in North

21 America.

22   MR. BOB PETERS: Mr. Sanderson, you'd

23 agree that shale gas is also affecting the market price

24 of natural gas?

25   MR. BRENT SANDERSON: In terms of the

 1 law of supply and demand, the more supply that there is

 2 in the marketplace, the usual outcome is that prices

 3 fall. And that has been the case as a result of the

 4 explosive growth in shale ba -- gas production in North

 5 America.

 6   MR. BOB PETERS: And at Tab 9 of the

 7 book of documents, we see from one (1) of the previous

 8 Public Utilities Board Orders 54 of '12, a depiction of

 9 the primary gas billed rate by Centra, shown on the red

10 line that is characterized by being stepped, compared

11 to the dotted line of the AECO C monthly prices,

12 correct?

13   MR. BRENT SANDERSON: Correct.

14   MR. BOB PETERS: And AECO C monthly was

15 a -- it's a demarcation for the Alberta Energy Company?

16   MR. BRENT SANDERSON: AECO C, as noted

17 here, the AECO acronym stands for the Alberta Energy

18 Company. And the AECO C delivery hub is a notional

19 storage point just inside the Alberta border, just west

20 of the Saskatchewan-Alberta border. And it's the

21 predominant price benchmark for western Canadian gas.

22 And it's the underlying price indi -- index by which

23 the prices of our western Canadian purchases are set.

24   MR. BOB PETERS: Is AECO C a legacy

25 name, Mr. Sanderson, now known as Nova Inventory

1 Transit, or Transfer?

2   MR. BRENT SANDERSON: Well, to be more

3 specific the -- without wanting to get into too much of

4 the -- the details of the names of these points, the

5 proper industry name for this AECO C hub is the AECO C

6 and Nova Inventory Transport price index hub. So it's

7 an inventory transfer point on the Nova system, which

8 is today referred to as the intra-Alberta system, which

9 is the pipelines within the province of Alberta.

10   And so basically it's the terminus of a

11 large gathering and processing system which collects

12 the gas from all of the production region in Alberta.

13 And it generally flows into a large storage facility

14 within Alberta, and that's the natural point because

15 there's so much takeaway capacity from that point

16 physically that it's a natural gathering place for

17 buyers and sellers to congregate and determine the

18 price for the commodity. And there is a number of

19 pipeline systems that take that gas away to the

20 northwestern US east across the TransCanada mainline,

21 and so forth.

22   MR. BOB PETERS: Mr. Sanderson, the --

23 the graph on -- at Tab 9 of Board Counsel's book of

24 documents, Exhibit PUB 7, compares the billed rate that

25 consumers of Centra are paying to -- to the monthly

1 index price at AECO.

2   MR. BRENT SANDERSON: Yes.

3   MR. BOB PETERS: And you said the law

4 of supply and demand. It looks like there's lots of

5 supply. And whatever the demand is, the price is

6 falling?

7   MR. BRENT SANDERSON: That's correct.

8   MR. BOB PETERS: At a ten (10) year low

9 at least?

10   MR. BRENT SANDERSON: We've -- we've

11 been at thirteen (13) and fourteen (14) year lows at

12 certain points in the -- the current year.

13   MR. BOB PETERS: And the forecast is

14 for low prices to continue at least for the foreseeable

15 future?

16   MR. BRENT SANDERSON: If one were to

17 want to go out and fix, financially, a five (5) year

18 average purchase price as of the close of the market on

19 Friday, one could do that at a price of three dollars

20 and forty ($3.40) cents per gigajoule for the coming

21 five (5) years.

22   MR. BOB PETERS: Again, a relative low

23 price in terms of the historic prices?

24   MR. BRENT SANDERSON: Given that, as we

25 described, over most of the first decade of the 21st

 1 century prices averaged much closer to seven dollars

 2 ($7) a gigajoule and spiked to prices well in excess of

 3 ten dollars ($10), as high as thirteen (13), fourteen

 4 dollars ($14) during that period.

 5   MR. BOB PETERS: And Centra looks at

 6 the futures market as an indicator of the likely prices

 7 going forward. Would that be fair?

 8   MR. BRENT SANDERSON: It's our position

 9 that it's the best forecast of prices for the commodity

10 for future delivery periods.

11   MR. BOB PETERS: For the general reason

12 that the market knows what the market knows and the

13 market sets the price that it thinks is -- is going to

14 be extracted at that point in time?

15   MR. BRENT SANDERSON: Actual market

16 transactions act as a great information filter, in our

17 opinion. Proprietary forecasts, just to express an

18 opinion, is a very low-risk endeavour. But market

19 prices in the futures market are set on the basis of

20 counter-parties each taking risk in the marketplace and

21 backing up their respective forecasts with the dollars

22 and cents that they're exchanging for those

23 transactions. And the equilibrium the prices reach in

24 terms of executed transactions should represent the

25 consensus opinion of the marketplace as to the value of

 1 natural gas for future delivery periods.

 2   MR. BOB PETERS: Mr. Sanderson, in the

 3 direct evidence I heard today -- I actually thought it

 4 was in Mr. Bedford's opening comments so I won't take

 5 it as sworn testimony, but I also thought Ms. Stewart

 6 may have repeated it. But there's a -- there was an

 7 indication that Centra believes that gas purchased in

 8 the summer season will be generally cheaper than gas

 9 purchased in the winter season. Is that accurate?

10   MR. BRENT SANDERSON: Like so many

11 things with the natural gas industry, generally that is

12 true, but there is a lot of exceptions underlying that

13 general tendency. On average over the past eleven (11)

14 years, if you take on-average winter gas, prices for

15 gas in the winter months have averaged approximately 10

16 percent higher prices than those in the summer months.

17   But within that eleven (11) year period

18 pro -- about half the time winter prices end up being

19 cheaper than summer prices and the converse. So on

20 average, when you take the whole sum total of what goes

21 on on average, winter prices are a bit more expensive,

22 on average 10 percent in the winter months. But each

23 individual -- each individual year it's anyone's guess

24 how each individual year will turn out summer relative

25 to winter.

 1   MR. BOB PETERS: All right. I raise

 2 that because Mr. Stauft, in his pre-filed evidence --

 3 and we'll certainly speak to him about that, indicated

 4 that he was going to notionally credit a calculation of

 5 Centra's portfolio and their ability to access summer

 6 supply as costing perhaps $4 million less than if they

 7 had to buy that gas in the winter. Do you recall that

 8 at all in his evidence?

 9   MR. BRENT SANDERSON: I do recall the

10 reference you're speaking of, but I have no particular

11 point of view as to the accuracy of his $4 million

12 figure.

13   MR. BOB PETERS: Now, Mr. Stauft was

14 quick to agree with Centra. And you're now not quick

15 to agree with him?

16   MR. BRENT SANDERSON: I'm not

17 disagreeing with him either.

18   MR. BOB PETERS: That was an attempt at

19 humour, Mr. Sanderson. But if you could turn to Tab 23

20 of the book of documents. And we look to an

21 Information Request that was pulled from a cost of gas

22 application in 2010 and '11. You'll see PUB/CENTRA-4.

23 You've located that?

24   MR. BRENT SANDERSON: Yes, I have.

25   MR. BOB PETERS: And the -- the second-

 1 last page at Tab 23 of that book of documents contains

 2 a chart. It's probably a chart that you helped

 3 prepare, Mr. Sanderson. And that's on page 98 of the

 4 book of documents.

 5   MR. BRENT SANDERSON: The staff in my

 6 area prepared that, yes, sir.

 7   MR. BOB PETERS: All right. And back

 8 to page 90, which was the first page, under "Question

 9 B," starting on line 12. On behalf of the Board you

10 were asked to explain whether a summer-winter price

11 differential exists at the AECO Hub and, if possible,

12 demonstrate graphically.

13   And the answer that came back was:

14   "No systemic summer-winter price

15   differential exists at the AECO Hub."

16   And then you provided the -- the graph.

17 And then you went further and provided the data points

18 in the page following the graph. Correct?

19   MR. BRENT SANDERSON: Correct.

20   MR. BOB PETERS: And now you just told

21 the Board, in the last eleven (11) years, on average,

22 winter has been -- winter prices have been 10 percent

23 higher than the summer prices have been. Correct?

24   MR. BRENT SANDERSON: By approximately

25 a 10 percent margin, on average.

 1   MR. BOB PETERS: And just to understand

 2   your graph, there's a zero point in the middle of the

 3   page. If buying gas in the summer is more expensive

 4   than buying gas in the winter, the data points would be

 5   above that zero line. Would that be correct?

 6   MR. BRENT SANDERSON: Can you restrate

 7   -- restate the price relationship you just described?

 8   One (1) of the difficulties here is depending on what

 9   annual period we're talking to, so I just want to make

10   sure that I respond accurately to your question in the

11   way you described it.

12   MR. BOB PETERS: All right. Let me

13   step back. You're showing two (2) lines on the -- on

14   the graph, one (1) depicting spot prices, monthly spot

15   prices, and the other is a daily spot price. Correct?

16   MR. BRENT SANDERSON: Yes.

17   MR. BOB PETERS: But they relatively

18   move in lock-step, or relatively parallel to each

19   other?

20   MR. BRENT SANDERSON: Over -- yes.

21   They do.

22   MR. BOB PETERS: And -- and I'm

23   suggesting that for the Board to interpret this chart,

24   they would look at the middle of the chart and see the

25   zero dollars in the middle of the chart where the

 1 seasonal price differential is plotted. You've got

 2 that?

 3   MR. BRENT SANDERSON: Yes, I do.

 4   MR. BOB PETERS: And I'm suggesting to

 5 you that in any year, if the actual summer prices are

 6 lower than the winter prices, the data points would be

 7 all above that zero point on the --

 8   MR. BRENT SANDERSON: No, actually --

 9 actually the opposite would be true in the case of this

10 chart, where the prices are, in the winter period, are

11 below zero, that would indicate that summer prices were

12 lower on average than the following winter's prices.

13   MR. BOB PETERS: I think we're saying

14 the same things, but I'm suggesting the bottom part of

15 the chart shows gas in the summer is less expensive

16 than gas in the winter.

17   MR. BRENT SANDERSON: Okay, yes. I

18 would agree with you.

19   MR. BOB PETERS: And then, conversely,

20 if it's above the zero, buying gas in the summer is

21 more expensive than buying gas in the winter in those

22 periods?

23   MR. BRENT SANDERSON: Yes, sir.

24   MR. BOB PETERS: And so when we look at

25 that chart, we're looking for some kind of a -- a ra --

 1 conclusion to reach from it, the Board wouldn't readily

 2 determine that winter was necessarily cheaper than

 3 summer by, on average, 10 percent unless it actually

 4 did the actual mathematical calculations?

 5   MR. BRENT SANDERSON: Not wanting to

 6 quibble on details, but the opposite of what you

 7 described. They wouldn't readily be able to determine

 8 that summer gas was cheaper by 10 percent, on average,

 9 compared to winter gas. You stated the converse.

10   MR. BOB PETERS: I apologize.

11   MR. BRENT SANDERSON: They might not

12 readily be able to discern that from the chart. With

13 my educated eye, when I look at this, I would be able

14 to see that relationship that I just described start

15 forming by virtue of the fact that when the price

16 differential dips below zero -- meaning summer gas is

17 cheaper than winter gas, it dips further below zero in

18 those cases than the extent to which it rises above

19 zero in the cases where winter gas would have been

20 cheaper than summer gas.

21   MR. BOB PETERS: All right. That's a

22 fair answer and I apologize if I misspoke. But the --

23 the suggestion you made was the gas purchased in the

24 winter could be 10 percent more expensive than gas

25 purchased in summer, in a particular year?

1   MR. BRENT SANDERSON: The last eleven

2 (11) years of historical experience indicates that, on

3 average, winter -- the purchase of winter gas, on

4 average, would have been approximately 10 percent

5 higher-priced than purchases in the previous summer.

6 But within any individual year, what's going to happen

7 in terms of that relationship, it's anyone's guess.

8   MR. BOB PETERS: And was this

9 relationship built into the computer models that Centra

10 ran?

11   MR. BRENT SANDERSON: Well, while we

12 didn't build in the historical experience, our futures

13 price curves that Centra developed, employing futures

14 market prices in their send-out modelling, inherently

15 incorporated the market's assumption about a forward

16 winter-summer price differential.

17   And, as so many of these things work out

18 sometimes, it -- it almost seems more than a

19 coincidence. The average premium of winter prices

20 versus summer prices in those futures price curves, as

21 determined by participants transacting in the market

22 place, was the same 10 percent that we've experienced

23 and seen in the market over the past eleven (11) years

24 in actual fact.

25

 1   (BRIEF PAUSE)

 2

 3   MR. BOB PETERS: I'll come back to

 4 that, Mr. Sanderson, in a few minutes. Perhaps in five

 5 (5) minutes or less I can get you to turn to Tab 10 of

 6 the book of documents and when Centra is designing its

 7 storage and transportation portfolio, Centra has to be

 8 aware that the price of natural gas is different in

 9 different supply hubs across North America. Would that

10 be correct?

11   MR. BRENT SANDERSON: Yes, that's

12 correct.

13   MR. BOB PETERS: And that's information

14 that the computer model needs to know if it's going to

15 run iterations of what an optimal portfolio would be?

16   MR. BRENT SANDERSON: To the extent

17 that the portfolio developer has the opportunity to

18 purchase gas from those different basins, yes, that

19 would be part of the parameters embedded in the model.

20   MR. BOB PETERS: And what you're saying

21 to the Board, Mr. Sanderson, is that it may be

22 advantageous for Centra to be able to purchase the gas

23 molecules from places other than AECO on occasion?

24   MR. BRENT SANDERSON: That very may --

25 they -- may very well be the case, Mr. Peters.

 1   MR. BOB PETERS: But not only do you --

 2 does Centra have to consider the cost of the molecules,

 3 it then has to also take into account the

 4 transportation needed to get it to market?

 5   MR. BRENT SANDERSON: It's always the

 6 case that there would be ancillary costs involved in

 7 trying to exploit an attractive market price

 8 differential between basins.

 9   MR. BOB PETERS: And so we see on Tab

10 10 of the book of documents, on page number 41, we see

11 that the basis differential as between a number of

12 supply hubs is plotted always in comparison to the AECO

13 hub. Is that correct?

14   MR. BRENT SANDERSON: Yes, that's

15 correct.

16   MR. BOB PETERS: And in this particular

17 instance, the Henry Hub is located in, is it Louisiana?

18   MR. BRENT SANDERSON: Yes, it's

19 located, again, at the intersection of a number of

20 inter and intra-state pipeline systems in Louisiana.

21 And as the AECO C Nova Inventory Transfer point

22 functions as the benchmark hub for the price of

23 Canadian natural gas, the Henry Hub is the US

24 equivalent for the benchmark price -- or the benchmark

25 market value of gas in the United States.

 1   MR. BOB PETERS: And not only Henry

 2 Hub, but there are some other hubs that you've listed

 3 here that -- that are purchase options for the

 4 Corporation?

 5   MR. BRENT SANDERSON: Yes, just being

 6 clear that Henry Hub, for example, wouldn't be a

 7 purchase option for Centra itself. So there is some

 8 that are options. There's other benchmark hubs in here

 9 that wouldn't necessarily be physical supply hub

10 options for us. The cost of taking advantage of those

11 hubs would far outweigh any possible benefit in terms

12 of a differential.

13   MR. BOB PETERS: All right. But gas

14 may be priced based on those hubs is what you're

15 telling the Board, and that may be gas your purchase?

16   MR. BRENT SANDERSON: Yes.

17   MR. BOB PETERS: And when we talk about

18 the basis differential would it be correct, or would it

19 be too simplistic, to suggest that the basis

20 differential is really the relative costs of gas as

21 between those -- those two (2) hubs. So it would take

22 into account such things as transportation?

23   MR. BRENT SANDERSON: Yes, "basis

24 differential," you'll hear that terminology used in

25 different context. There can be different -- basis

1 differentials can take on different forms. There can

2 be basis differentials through time, basis

3 differentials between different commodities. In the

4 case of this chart, these are what we'd refer to as

5 locational basis differentials. And they're simply

6 nothing more than the market price differential, one

7 (1) point relative to another as specified in the

8 chart.

9   MR. BOB PETERS: Would the Board be

10 correct in interpreting that chart as saying that AECO-

11 indexed gas has generally been the cheapest index of

12 gas over those last fifteen (15), seventeen (17) years?

13   MR. BRENT SANDERSON: Generally

14 speaking, yes.

15   MR. BOB PETERS: And that's but for

16 Louisiana, mid-continent dipping down between '07 and

17 '09 -- I'm sorry, Oklahoma.

18   MR. BRENT SANDERSON: Correct.

19   MR. BOB PETERS: Maybe -- maybe your

20 memory will allow the Board the anecdotal comment, Mr.

21 Sanderson, as to what happened in Oklahoma or mid-

22 continent that its gas was significantly cheaper than

23 others at that point in time.

24   MR. BRENT SANDERSON: Subject to check,

25 without knowing all of the explicit details of it, it

1 was a physical -- a physical phenomena of gas having

2 backed up in that basin. I remember -- to the best of

3 my recollection, it had to do with operational

4 phenomena and the -- such that there was an excess

5 supply accumulated for a short period of time at that

6 hub, which would have, again, the -- the tendency to

7 drive down price when that supply exceeds the regional

8 demand. But as you can see, it was very short-lived

9 and the phenomena that gave rise to it was resolved.

10   MR. BOB PETERS: Mr. Sanderson,

11 Centra's long-term primary gas contract is indexed to

12 AECO?

13   MR. BRENT SANDERSON: Yes.

14   MR. BOB PETERS: And the one (1) -- you

15 also told the Board, or was told to the Board in direct

16 evidence, that Centra is currently considering a new

17 long-term primary gas contract that would be effective

18 on November 1st of 2012?

19   MS. LORI STEWART: Yes, that's correct.

20   MR. BOB PETERS: And, Ms. Stewart, are

21 you able to indicate to the Board whether it's a

22 requirement of that contract to also be priced on the

23 in -- the AECO index?

24   MS. LORI STEWART: Yes, I can confirm

25 that.

 1   MR. BOB PETERS: And is that because,

 2 Ms. Stewart, that Centra's empirical evidence is that

 3 AECO-priced gas is cheaper than any other place?

 4   MR. BRENT SANDERSON: Not explicitly,

 5 Mr. Peters. It's more a function of the liquidity at

 6 the AECO -- AECO C Nova Inventan - Inventory Transfer

 7 point delivery hub. One (1) of the benefits of a

 8 liquid trading hub is the liquidity, the ease of buying

 9 and selling, and the transparency and price discovery

10 that accrue from that. The greater liquidity and the

11 more activity that takes place at a particular point,

12 the more confident that a buyer can be that they're

13 paying what would -- one would characterize as the fair

14 market price for the commodity.

15   MR. BOB PETERS: Couldn't that same

16 answer apply to the Henry Hub, Mr. Sanderson?

17   MR. BRENT SANDERSON: If the attendant

18 transportation costs and the geographic pri --

19 positioning of the buyer made that a logical physical

20 point at which to buy, yes. If you had your choice

21 among hubs in the US, Henry Hub would be the one (1)

22 you would pick, all other things being equal.

23   MR. BOB PETERS: All right. And if

24 Centra were to buy gas elsewhere, then it would need to

25 factor in the transportation costs and this basis

188

1 differential that you've now told the Board about?

2   MS. LORI STEWART: Yes, that's correct.

3

4   MR. BOB PETERS: And that was an input

5 into the computer mo -- computer modelling that was

6 done?

7   MS. LORI STEWART: Yes. It's a

8 function of the price curves at the various points that

9 were embedded in send out (phonetic).

10   MR. BOB PETERS: All right. At that

11 point, Mr. Chairman, if the Board was interested in an

12 afternoon recess this might be an appropriate time.

13   THE CHAIRPERSON: Let's take ten (10)

14 minutes, please.

15   MR. BOB PETERS: Thank you.

16

17 --- Upon recessing at 3:08 p.m.

18 --- Upon resuming at 3.22 p.m.

19

20   MR. BOB PETERS: Yes. Thank you. If I

21 can continue. And Mr. Warden is not the target of my

22 next questions, although he's always welcome to -- to

23 provide his information.

24

25 CONTINUED BY MR. BOB PETERS:

1   MR. BOB PETERS: I'd like to turn with

2 the witness panel to the TCPL tolling situation. And

3 this was mentioned by the Board in Order 65 of '11 that

4 was included in Tab 1 of the book of documents.

5   But in consideration of the tolling, Ms.

6 Stewart, you are the witness most closely aligned to

7 the TransCanada pipeline contractual relations as well

8 as the National Energy Board hearing that it's

9 presently having?

10   MS. LORI STEWART: Yes, that's correct.

11   MR. BOB PETERS: And what we've talked

12 about earlier is that, in essence, storage is a proxy

13 for pipeline capacity, albeit supposedly at a cheaper

14 cost? Correct?

15   MS. LORI STEWART: Yes, that's correct.

16 And as well we've talked about the benefits of

17 diversity of transportation paths as well.

18   MR. BOB PETERS: And one (1) of the

19 options for Centra would be, to meet the Manitoba load,

20 is to buy its -- all of its capacity on TransCanada

21 pipeline, sufficient to meet that 100 percent load.

22 Correct?

23   MS. LORI STEWART: We could do that,

24 but I think you appreciate that that would be a very

25 expensive option.

1   MR. BOB PETERS: And Mr. Stauft, in his

2   evidence, quantified that as if Centra was to contract

3   with TransCanada pipeline for 100 percent of its needs

4   on a firm basis, the price tag is in the range of $50

5   million, five-zero (50)?

6   MS. LORI STEWART: I -- I didn't myself

7   do that calculation, however, it sounds in the

8   ballpark, Mr. Peters.

9   MR. BOB PETERS: So it was probably

10   prohibitively too high to even put it on the list as an

11   option. Would that be fair? Like, Centra's knowledge

12   just made that not even a worthwhile calculation to

13   work through?

14   MS. LORI STEWART: Yes, that's correct.

15   MR. BOB PETERS: And would it be

16   correct that, while Mr. Sanderson has told the Board

17   that pre-1993, when apparently only Mr. Barnlund knew

18   about it, the -- the company did get all of its gas

19   shipped on TransCanada pipeline?

20   MS. LORI STEWART: That's my

21   understanding.

22   MR. BOB PETERS: One (1) of the points

23   that Mr. Stauft made, and was addressed by Centra in

24   their rebuttal, was that for TCPL to be a viable

25   option, there would need to be some assumptions made

1 with the service offerings by TransCanada pipeline as

2 wall -- as well as the tolling levels that TransCanada

3 pipeline would charge going forward. Do you recall

4 that?

5   MS. LORI STEWART: I recall Mr.

6 Stauft's evidence, yes.

7   MR. BOB PETERS: And in many regards,

8 Centra wasn't prepared to agree with the assumptions

9 that Mr. Stauft was making to make TransCanada pipeline

10 a competitive offering in -- in the future?

11   MS. LORI STEWART: My recollection of

12 Mr. Stauft's evidence is that he was building a premise

13 based upon a number of assumptions that -- that are not

14 in place today. And so whether or not they come to be

15 in the future, of course, neither Mr. Stauft or I are -

16 - are aware of that. But that's what he was -- I think

17 he was trying to paint a picture of what-ifs, built

18 upon another what-if.

19   MR. BOB PETERS: And what we do know

20 from a factual basis, Ms. Stewart, is that Centra has

21 been reducing its firm service capacity on TransCanada

22 over the past several years?

23   MS. LORI STEWART: Yes, that's correct.

24   MR. BOB PETERS: And one (1) of the

25 reasons Centra has been reducing its TCPL capacity is

1 that the tolls have been increasing, and Centra has

2 determined there are economic alternatives to TCPL

3 providing all of the transportation?

4   MS. LORI STEWART: Yes, that's correct.

5 To date, when we've been evaluating our contracting on

6 the TransCanada mainline and comparing them to other

7 alternatives available in the marketplace, there has

8 been sufficient value in those other alternatives to --

9 to result in us making the decision to reduce our

10 contract demand on TransCanada.

11   MR. BOB PETERS: And the general issue

12 -- and not to -- not to get in it too deeply, Ms.

13 Stewart, is that because the volumes shipped on

14 TransCanada have been decreasing, and the fixed costs

15 have not been decreasing in lock-step, there's been

16 increases in the unit costs including the unit tolls

17 that go along with the services offered by TCPL.

18   MS. LORI STEWART: Yes, that's correct.

19   MR. BOB PETERS: And to illustrate the

20 tolls issue, at least in approximate terms, if we could

21 turn to the book of documents Tab 12, Ms. Stewart, this

22 is a document, if I recall correctly, it was from a

23 presentation you made?

24   MS. LORI STEWART: Yes, that's correct,

25 at the first technical conference back in July of 2011.

 1   MR. BOB PETERS: And while I may not

 2 have been there, the -- the illustrative Empress to

 3 eastern zone dollars per gigajoule column was

 4 representative of what TransCanada was indicating back

 5 in 2007 when it looked into its -- into its future.

 6   MS. LORI STEWART: Yes, that's correct.

 7   MR. BOB PETERS: And so that first

 8 column starts off at a dollar two ($1.02), goes down to

 9 a dollar six ($1.06). That was illustrative of what

10 they thought might be the toll going forward from

11 Empress to the eastern zone.

12   MS. LORI STEWART: Yes, that's correct.

13   MR. BOB PETERS: And when we talk the

14 eastern zone -- and although I did skip over the map in

15 the book of documents found at Tab 11, the eastern

16 zone, all we need to know about that is it's east of

17 Manitoba and it goes all the way out to Quebec.

18   MS. LORI STEWART: That's correct.

19   MR. BOB PETERS: And when we look at

20 the eastern zone relative to the Manitoba delivery

21 zone, or Manitoba delivery area, the Manitoba tolls are

22 approximately one-third (1/3) of the eastern zone toll.

23 Would that be fair?

24   MS. LORI STEWART: Yes, it is.

25   MR. BOB PETERS: And the middle -- or

1 the next column is called "Actual Empress to Eastern

2 Zone Prices." And what this shows is what has, in

3 fact, transpired since 2007 on the TCPL tolling

4 structure for their mainline service?

5   MS. LORI STEWART: That's correct.

6   MR. BOB PETERS: And so if we -- if we

7 jump down to test year of 2010, and test years 2011, we

8 see prices that were not previously envisioned by

9 TransCanada in their early years.

10   MS. LORI STEWART: That's correct.

11   MR. BOB PETERS: And just to bring to

12 the Board's attention the test year 2012, that would be

13 the year in which we are currently in for TransCanada?

14 Would that be correct?

15   MS. LORI STEWART: Yes, that's correct.

16 TransCanada tolls are set on a calendar year basis.

17   MR. BOB PETERS: And the toll that is

18 presently being charged through to Centra by TCPL is

19 the 2011 toll, although it's being charged on an

20 interim basis going forward?

21   MS. LORI STEWART: Yes, that's correct.

22 The 2012 interim toll is the two dollars and twenty-

23 four cent ($2.24) to the eastern zone which is the

24 benchmark toll. And the toll that we pay to move the

25 gas to Manitoba is sixty-eight-decimal-zero-two cents

1 (68.02).

2   MR. BOB PETERS: And is there a test

3 year 2013 number that you can provide us with, Ms.

4 Stewart, based on the -- based on the initial filing of

5 TCPL?

6   MS. LORI STEWART: The restructuring

7 proposal presented by TransCanada has embedded, or

8 there is embedded in it, tolls associated with complete

9 implementation of the restructuring proposal relative

10 to what TransCanada refers to as the "status quo," so

11 if everything was going to remain as is without its

12 proposed changes.

13   And as I spoke to in my direct evidence

14 this morning, the basis of all of those numbers has

15 significantly changed as a result of TransCanada's

16 advice that it would be re -- restating its throughput

17 and related assumptions. There are more detail --

18 there's more detailed information becoming available on

19 June the 29th, associated with that restatement. And I

20 -- I'm not sure whether or not you would -- I -- I

21 certainly can go and get you the old number but we're

22 probably all more interested in the restated numbers.

23   MR. BOB PETERS: Well, I won't speak on

24 behalf of the Board, Ms. Stewart. But would you be

25 amenable to undertaking, after June 29th and before

1 closing argument, coming back to this Board with an

2 indication of what the restructured proposal is from

3 TransCanada for tolls in the 2013 calender year?

4   MS. LORI STEWART: Yes. Just to be

5 clear, it will be tolls for the 2013 calender year,

6 assuming the restructuring proposal is implemented but

7 taking into account the updated throughput study and

8 related assumptions.

9   MR. BOB PETERS: That would be

10 acceptable. And if you could also provide the status

11 quo number that the TCPL is using as perhaps the other

12 end of the calculation.

13   MS. LORI STEWART: I'm trying to

14 recall, Mr. Peters, because clearly TransCanada will

15 not be updating all of its schedules. There is almost

16 -- there are almost ten thousand (10,000) pages of

17 evidence already on the record with this proceeding.

18   So my only caution is that to the extent

19 that that information is provided by TransCanada, then

20 certainly I will ensure that this Board receives it

21 prior to closing submissions for this proceeding. I

22 just cannot recall at this moment whether or not they

23 will be updating for status quo as well.

24   MR. BOB PETERS: All right. We'll --

25 maybe you can indicate that in your undertaking

 1 response then, Ms. Stewart.

 2   MS. LORI STEWART: I will.

 3

 4 --- UNDERTAKING NO. 3:   Centra to indicate what the

 5   restructured proposal is

 6   from TransCanada for tolls

 7   in the 2013 calender year,

 8   assuming the restructuring

 9   proposal is implemented but

10   taking into account the

11   updated throughput study

12   and related assumptions,

13   and provide the status quo

14   number that the TCPL is

15   using as the other end of

16   the calculation

17

18 CONTINUED BY MR. BOB PETERS:

19   MR. BOB PETERS: Thank you. Ms.

20 Stewart, while we're still on Tab 12 of the book of

21 documents, the calender year 2012 toll for Manitoba

22 you've quantified at approximately sixty-nine (69) or

23 sixty-eight (68) cents?

24   MS. LORI STEWART: Yes, that's correct.

25   MR. BOB PETERS: And, in fact, that's -

 1 - that's called an interim toll, would that be correct,

 2 by TCPL?

 3   MS. LORI STEWART: That's correct.

 4   MR. BOB PETERS: Is it also correct

 5 that TCP -- I'm sorry, that the National Energy Board

 6 does not establish rate riders for its -- for its

 7 tolling? Ms. Stewart, I'll rephrase that.

 8   I was suggesting to you that the

 9 National Energy Board does not establish a rate rider

10 relative to this interim toll but would take any

11 revenue deficiency or sufficiency into consideration in

12 setting the next year's toll?

13   MS. LORI STEWART: Yes, that's correct.

14   MR. BOB PETERS: And so while Centra is

15 currently paying sixty-nine (69) cents a gigajoule to

16 get gas from Empress on the TransCanada mainline under

17 firm transportation, that's by way of an interim toll.

18   And if it's under-recovering the costs

19 that are approved by the National Energy Board, Centra

20 would expect that toll to increase for 2013?

21   MS. LORI STEWART: Well, the toll

22 proposal is to fix tolls for the 2012 and 2013 time

23 frames. So the proposal -- and this is the awkwardness

24 of it, is of course we're well into 2012. But the

25 proposal at the time that it was filed by TransCanada

 1 in September of 2011 was to fix the tolls for the

 2 2012/2013 time frame such that there was toll certainty

 3 over that two (2) year horizon.

 4   MR. BOB PETERS: All right. So what

 5 you're telling the Board is that the 2012 toll looks to

 6 be sixty-eight (68), sixty-nine (69) cents a gigajoule,

 7 and any revenue deficiency or sufficiency would be

 8 reflected in the 2013 rates that would be charged by

 9 TCPL?

10   MS. LORI STEWART: My understanding is

11 that any revenue deficiency associated with --

12 associated with the proposal will move into something

13 referred to as a short-term adjustment account which

14 will de -- be depreciated over a five (5) year window.

15   MR. BOB PETERS: All right. Thank you.

16 Thank you for that. The indication in your direct

17 evidence this morning, Ms. Stewart, was that if the

18 toll for calendar 2012 has been set as an interim toll

19 based on the 2011 toll, that number is likely to be 30

20 percent lower than what TCPL will be proposing under

21 its restructured application?

22   MS. LORI STEWART: I -- I suggested the

23 opposite in my direct evidence, that as a result of

24 TransCanada's advice that it would be restating its

25 throughput and related assumptions, that the toll that

1 it has communicated to the National Energy Board and

2 stakeholders as a result of the restructuring proposal

3 would be moving up by at least 30 percent.

4   MR. BOB PETERS: I apologize, Ms.

5 Stewart. I intended to perhaps put that same

6 proposition to you, is that the tolls that you're now

7 telling the Board are set for 2012 are too low by

8 approximately 30 percent, according to the latest

9 information from TCPL.

10   MS. LORI STEWART: You're trying to

11 reference the 30 percent to the current tolls, but

12 that's not what they're advising will be changing.

13 They're advising that the tolls that could be achieved

14 if the restructuring proposal is implemented, and that

15 were conveyed in its application, now are not

16 achievable and will be increasing as a result by 30

17 percent. So those two (2) are not the same thing.

18   MR. BOB PETERS: All right. Thank you

19 for that -- for that correction. And so mindful of

20 these TCPL tolling issues and if we flip ahead in the

21 book to Tab 22, we see that Ms. Foulkes has been in

22 communication with TCPL and that, going forward,

23 looking at the bottom row in the chart or the table,

24 Centra plans on reducing its current contract demand of

25 110 gigajoules a day down to 90,000 gigajoules a day,

1 correct?

2   MS. LORI STEWART: It is correct that

3 we have, at this point in time in our planning horizon

4 in advance of November the 1st, 2012, reduced our

5 contract demand to the Manitoba delivery area by 20,000

6 GJs per day.

7   However, our evidence at our response to

8 PUB/CENTRA-5 is that we will and are continuing to

9 evaluate our contract demand for TransCanada firm

10 service to the MDA and the SSDA for the 2012/13 gas

11 year.

12   So I -- I would like to put more weight

13 on our response into the Information Request, which is

14 basically we're in the midst of a planning horizon

15 here. If indeed we require or it is economic for us to

16 go and get more firm service, we're all aware that

17 there is a lot of available capacity on the TransCanada

18 mainline. And we have the opportunity to go and -- and

19 contract for that demand in advance of November the

20 1st.

21   MR. BOB PETERS: That would be by way

22 of a separate contract?

23   MS. LORI STEWART: It would be by way

24 of a separate contract, but then they blend them for

25 nomination purposes such that our schedulers only have

1 to nominate one (1) -- one (1) number.

2   MR. BOB PETERS: But for renewal

3 purposes, they would be treated as two (2) contracts?

4   MS. LORI STEWART: Yes, that's correct.

5   MR. BOB PETERS: And you have up until

6 the night before to subscribe for additional volumes if

7 that's what Centra determines?

8   MS. LORI STEWART: I'm not sure I have

9 quite up to the night before, but I certainly have a

10 number of months ahead of us in order to make that

11 determination and -- and contractually put it into

12 place.

13   MR. BOB PETERS: So you expect, Ms.

14 Stewart, that Centra will make that final determination

15 well in advance of October 31 of 2012?

16   MS. LORI STEWART: Yes.

17

18   (BRIEF PAUSE)

19

20   MR. BOB PETERS: In terms of the

21 consideration of the storage options as opposed to the

22 TCPL-only option, the evidence that the Board heard

23 today was that last summer, Centra advised the Board

24 and stakeholders of various options it had been

25 exploring. Is that correct?

 1   MR. NEIL KOSTICK: That's correct.

 2   MR. BOB PETERS: And, Mr. Kostick, some

 3   of those storage options included storage in Western

 4   Canada. There was an eastern option. There was a

 5   Manitoba storage option talked about. There was an

 6   upper midwest storage option, and even a virtual

 7   storage option.

 8   MR. NEIL KOSTICK: Correct.

 9   MR. BOB PETERS: And when -- and all --

10   all of those options were presented to the Board and

11   stakeholders at the technical conference a year ago?

12   MR. NEIL KOSTICK: Yes.

13   MR. BOB PETERS: And following that

14   technical conference, Centra eliminated some of those

15   options from further consideration?

16   MR. NEIL KOSTICK: That's correct.

17   MR. BOB PETERS: And would it be fair

18   to say, Mr. Kostick and Mr. Barnlund, that the

19   elimination of those options wasn't the subject of a

20   consultation process with the stakeholders?

21   That was something that Centra

22   determined based on the recognizance it had done?

23   MR. GREG BARNLUND: That's correct.

24   MR. BOB PETERS: And so when Centra

25   eliminated some of the options -- for example the upper

1 midwest and North Dakota options I understand were

2 eliminated partly because some of those pipeline

3 capacities were already sold out?

4   MR. NEIL KOSTICK: In some cases they

5 were sold out, or in other cases the transportation

6 path for stor -- withdrawals would be very expensive

7 and very cumbersome, and it would clearly be uneconomic

8 and potentially unreliable in comparison to the options

9 that we had not, at that point, eliminated.

10   MR. BOB PETERS: Thank you, Mr.

11 Kostick. Could I just ask you to -- if you could move

12 that mic a little closer, just to assist me?

13   The last part of your answer was not

14 only were they not available, but there was another

15 reason?

16   MR. NEIL KOSTICK: Either pipeline

17 capacity was sold out; or the pipeline capacity would

18 be very expensive; or in the case of the North Dakota

19 option, the deliverability from that storage facility

20 was not sufficient to meet our swing requirements.

21   So it was a combination of being

22 potentially unreliable as well as being a high cost

23 with respect to the cost of transportation from those

24 storage facilities to Manitoba.

25   MR. BOB PETERS: Thank you, sir. The

1 Western Canadian storage options included storage

2 upstream of Manitoba, meaning between Manitoba and the

3 wellhead, or Empress?

4   MR. NEIL KOSTICK: In Alberta, the

5 storage is generally located around AECO, and there are

6 also upstream options in Saskatchewan.

7   MR. BOB PETERS: And in both of those

8 instances, if Centra did buy storage, they would still

9 need to have transportation to get it to Winnipeg?

10   MR. NEIL KOSTICK: That's correct.

11   MR. BOB PETERS: And that brings up the

12 TransCanada pipeline tolling situation again?

13   MR. NEIL KOSTICK: Yes.

14   MR. BOB PETERS: And that was one (1)

15 of the reasons that upstream, or Western Canadian,

16 storage was removed from the short list.

17   MR. NEIL KOSTICK: Yes, due to

18 prohibitively costly transportation costs for storage

19 withdrawals.

20   MR. BOB PETERS: I suppose in an ideal

21 world, Mr. Kostick, you'd have storage right here in

22 Manitoba. That would be the best of all worlds you

23 could envision.

24   MR. NEIL KOSTICK: If it were economic,

25 then absolutely.

 1   MR. BOB PETERS: And not only is it not

 2 economic, but we don't have it.

 3   MR. NEIL KOSTICK: We don't have it,

 4 and depending on market circumstances, I don't think we

 5 can quite prejudge at this point that it wouldn't be

 6 economic in the future.

 7   MR. BOB PETERS: We don't have it now,

 8 sir, and you're not aware of anybody developing storage

 9 fields. Would that be fair?

10   MR. NEIL KOSTICK: That's correct.

11   MR. BOB PETERS: And Centra can't make

12 a business case to develop storage fields on its own?

13   MR. NEIL KOSTICK: Centra can

14 ultimately make a business case for it, which would

15 either support moving forward with it or not, and that

16 would likely include the assistance of parties or

17 consultants that have previously been involved in

18 storage development.

19   MR. BOB PETERS: Thank you for that. I

20 -- I meant by my question, sir, that presently there's

21 no business case that can be made to develop storage in

22 Manitoba, whether Centra makes the business case or

23 some third party. It's just not available because it

24 doesn't appear to be economic.

25   MR. NEIL KOSTICK: Given the economic

1 terms agreed to for ANR storage, Manitoba storage would

2 appear to be a higher-cost option at this time.

3   MR. BOB PETERS: When physically they -

4 - you -- you think of Manitoba storage, Mr. Kostick,

5 are you thinking of underground storage in the western

6 part of the province, or in oil and gas fields, or --

7 or what does it physically look like?

8   MR. NEIL KOSTICK: It would most likely

9 be located in the southwest corner of the province. So

10 it would be in the vicinity of existing oil -- oil

11 production.

12   MR. BOB PETERS: One (1) of the

13 proposals I recall reading that Centra had on its list

14 but crossed off was virtual storage. Is that correct?

15   MR. NEIL KOSTICK: Yes, that's correct.

16   MR. BOB PETERS: And virtual storage is

17 in fact no storage, but it's relying on a third party

18 to deliver the volumes if and when Centra needs them?

19   MR. NEIL KOSTICK: Yes.

20   MR. BOB PETERS: And would this be

21 somewhat equivalent to engaging a company that's in the

22 market to make sure Centra has gas on a certain day

23 regardless of how that company aligns the storage or

24 where it gets it from?

25   MR. NEIL KOSTICK: It would basically

 1 involve engaging with a gas marketer to essentially

 2 provide a storage service at a point where there may

 3 not be actual physical storage and for the service to

 4 essentially mimic a storage service.

 5   So it would be, indeed, a service where

 6 another party would agree to provide volumes of gas

 7 similar to deliveries from storage.

 8   MR. BOB PETERS: Is it your

 9 understanding, Mr. Kostick, that Mr. Stauft, in his

10 evidence, has been generally supportive in an agreement

11 with Centra to eliminate those storage options that

12 we've just talked about?

13   MR. NEIL KOSTICK: That's what I

14 understand from his evidence, yes.

15   MR. BOB PETERS: All right. We'll hear

16 from him. But then you were still left to consider

17 some eastern options, correct?

18   MR. NEIL KOSTICK: Yes.

19   MR. BOB PETERS: And eastern options

20 mean not only Eastern Canada; it means Eastern United

21 States?

22   MR. NEIL KOSTICK: Yes.

23   MR. BOB PETERS: And would I also be

24 correct that Centra is not inclined to disclose how

25 many of these eastern options are situated in Canada

1   and how many are situated in the States?

2

3   (BRIEF PAUSE)

4

5   MR. NEIL KOSTICK: As indicated in one

6   (1) of IR responses, one (1) of the parties did present

7   the option of being able to provide the storage service

8   in either Canadian units or US units. And I think

9   we'll stick with that amount of information, with all

10 due respect.

11   MR. BOB PETERS: I -- I was just

12 asking, Mr. Kostick. And from what you've told the

13 Board here and also at your technical conference, it's

14 possible one can conclude that that -- that may have

15 been a Canadian party, as -- as far as you want to go?

16   MR. NEIL KOSTICK: It -- it could be a

17 Canadian party.

18   MR. BOB PETERS: All right. What you

19 did identify was that there were eastern options that

20 had the most promise, and you found five (5) of them.

21 Is that right?

22   MR. NEIL KOSTICK: That's correct.

23   MR. BOB PETERS: And you sent out

24 requests for proposal to all five (5)?

25   MR. NEIL KOSTICK: We did not utilize a

1 request for a proposal process.

2   MR. BOB PETERS: You picked up the

3 phone?

4   MR. NEIL KOSTICK: Essentially, yes.

5 The storage operators within various regions are fairly

6 well known. And Centra's confident that it

7 communicated with all potential storage operators that

8 could provide the required service for Centra in that

9 region.

10   MR. BOB PETERS: And from those, I'll

11 call them, introductory inquiries, your list of five

12 (5) was narrowed to a list of four (4)?

13   MR. NEIL KOSTICK: Ultimately, yes.

14   MR. BOB PETERS: Was it li -- limited

15 to four (4) because one (1) of the parties had no

16 interest, or was it that Centra had no interest in that

17 party?

18   MR. NEIL KOSTICK: It was more a case

19 of that storage operator indicating that due to a lack

20 of sufficient capacity availability and also challenges

21 in connecting that storage capacity to regional

22 pipelines that could move the gas back to Manitoba, it

23 was acknowledged through our discussion with that party

24 that it wasn't really a viable option at this time.

25   MR. BOB PETERS: And when you entered

 1 into those discussions -- and I accept that it's not a

 2 request for a proposal, but those direct discussions

 3 with the four (4) or five (5) eastern storage operators

 4 -- Centra would have requested some specific

 5 confidential information from each of those storage

 6 providers?

 7   MR. NEIL KOSTICK: Yes, you could

 8 characterize a lot of the information communicated to

 9 us by those storage operators as being commercially

10 sensitive. A number of the storage operators offer

11 market-based rates which are not -- which are not

12 provided under a FERC tariff. So any rates they would

13 have provided to Centra would have been commercially

14 sensitive that they would not want shared in a public

15 forum.

16   MR. BOB PETERS: Just so the Board is

17 clear, Mr. Kostick and Ms. Stewart, under -- under

18 National Energy Board regulation of TransCanada

19 pipeline, the toll is the toll is the toll, as I

20 understand it, whereas, in the States, FERC sets a

21 maximum and maybe even a minimum toll and there's some

22 room for movement by the storage provider in between

23 those numbers.

24   MR. NEIL KOSTICK: That's correct.

25   MR. BOB PETERS: And when Centra

 1 determined that there were four (4) parties that

 2 appeared most viable of the five (5) eastern options

 3 that it had explored, that information wasn't shared

 4 with any of the stakeholders, in terms of who the

 5 parties were or how Centra had got it down to the four

 6 (4) of them?

 7   MR. NEIL KOSTICK: That's correct.

 8   MR. BOB PETERS: And once Centra got it

 9 down to four (4) of them, they started looking at the

10 dollars and cents of it more closely, and Centra was

11 able to eliminate what we'll call option C and option

12 D.

13   Would that be fair?

14   MR. NEIL KOSTICK: Yes, that's fair.

15   MR. BOB PETERS: Both of those were

16 more expensive than option B?

17   MR. NEIL KOSTICK: Yes.

18   MR. BOB PETERS: And what, I think, the

19 Board has been told today is that option B was just

20 about the same price as option A?

21   MR. NEIL KOSTICK: On a model basis,

22 yes. They were very close.

23   MR. BOB PETERS: And option A, the

24 company has disclosed, that's the preferred option, ANR

25 and Great Lakes Gas distribution?

1   MR. NEIL KOSTICK: Yes.

2   MR. BOB PETERS: The transmission.

3 And, in addition to eliminating those options C and

4 'D', Centra leased software called SENDOUT to run model

5 runs of that?

6   MR. NEIL KOSTICK: That's correct.

7   MR. BOB PETERS: And does Centra

8 currently lease that? Is that an annual lease, or is

9 that a -- is that something you purchased, or how --

10 how was that understood by the Board?

11   MR. NEIL KOSTICK: It's an annual

12 lease.

13   MR. BOB PETERS: And I recall somewhere

14 in the materials, it's about twenty-eight thousand

15 dollars ($28,000) a year, plus there was five (5) or

16 six thousand dollars ($6,000) of training costs?

17   MR. NEIL KOSTICK: Yes.

18   MR. BOB PETERS: Is it Centra's

19 intention to hang on to the SENDOUT model long term?

20   MR. NEIL KOSTICK: Yes.

21   MR. BOB PETERS: At least for the next

22 seven (7) years?

23   MR. NEIL KOSTICK: We think it will be

24 useful going forward, and we don't have a particular

25 time frame on the number of years that we would

 1 necessarily employ it in the event there are any other

 2 better tools out there ultimately.

 3   MR. BOB PETERS: All right. This is

 4 another tool for Mr. Sanderson's tool box? Would you -

 5 - would you agree with me, Mr. Kostick, that the

 6 results from your SENDOUT computer model are taken by

 7 Centra to be directional only, as opposed to

 8 dispositive or absolutely providing certainty?

 9   MR. NEIL KOSTICK: That's correct. We

10 view the model results as supporting the decision-

11 making process.

12

13   (BRIEF PAUSE)

14

15   MR. BOB PETERS: Would it be fair to

16 say, Mr. Kostick, that the results from SENDOUT are

17 such that Centra doesn't know that they are absolutely

18 correct, but they are supportive of the decisions that

19 the Corporation is able to make through other

20 considerations?

21   MR. NEIL KOSTICK: I think the best way

22 to characterize it is that the SENDOUT model results

23 are input into the decision-making process as opposed

24 to, for example, running the model after the fact just

25 to see if it supports a decision that was made. It is

 1 part of the information that is used in the decision-

 2 making process.

 3   MR. BOB PETERS: And the other

 4 considerations in that decision-making process include

 5 what the -- your panel-mates have testified today, in

 6 terms of things like reliability, flexibility, those

 7 considerations?

 8   MR. NEIL KOSTICK: Yes.

 9   MR. BOB PETERS: Did any independent

10 party also run the SENDOUT model for Centra?

11   MR. NEIL KOSTICK: No.

12   MR. BOB PETERS: Centra didn't ask the

13 vendor of the software or the landlord of the software,

14 before they leased it, whether they could run model out

15 -- outputs for Centra?

16   MR. NEIL KOSTICK: We worked with the

17 vendor on model setup and to ensure that the model was

18 working appropriately. But once we were confident that

19 the model was functional, there was not a further need

20 to involve the vendor when it was a matter of adjusting

21 variables within the model.

22   So the -- the vendor supported the setup

23 and functionalization of the model but did not, in

24 effect, run it for us.

25   MR. BOB PETERS: We heard this morning

1 that a consulting firm called ICF also was engaged by

2 Centra?

3   MR. NEIL KOSTICK: Yes, that's correct.

4   MR. BOB PETERS: And from the

5 Information Requests we know that ICF was approximately

6 a quarter of a million dollars, in terms of their

7 assignment?

8   MR. NEIL KOSTICK: Yes, that's correct.

9

10   MR. BOB PETERS: And their assignment

11 was to provide Centra with some background information

12 about the natural gas market and also to come forward

13 with their own recommendations for an optimal

14 portfolio.

15   Would that be correct?

16   MR. NEIL KOSTICK: They indeed provided

17 natural gas market information, and they conducted an

18 analysis of their own related to the short-listed

19 parties in order to provide a -- a second independent

20 check, if you will, on the modelling that Centra

21 performed.

22   MR. BOB PETERS: And their -- their

23 market information is found at Tab 4 of the book of

24 document -- sorry, of the application. It's a hundred

25 and seventeen (117) pages in length and mercifully

1 wasn't included in the book of documents.

2   But that -- that was the summon -- that

3 was the bulk of the report provided, correct?

4   MR. NEIL KOSTICK: That was the largest

5 report out of the engagement.

6   MR. BOB PETERS: And when ICF was

7 engaged, Mr. Kostick, would it be correct to say that

8 Centra, at that point in time, hadn't planned on using

9 the SENDOUT model?

10   MR. NEIL KOSTICK: We had anticipated

11 using the SENDOUT model at that time.

12   MR. BOB PETERS: You -- so Centra knew

13 before it engaged ICF that it was going to use the

14 SENDOUT model?

15   MR. NEIL KOSTICK: We anticipated using

16 it, subject to ensuring that we were able to get the

17 model to the level of functionality that we needed,

18 that we felt very confident in the model results.

19   So that included the activities that

20 we've already discussed, where Centra worked with the

21 vendor and ensured that the model was working

22 appropriately at such time we had full confidence that

23 use of the SENDOUT model for our own modelling purposes

24 for portfolio decision-making would be appropriate.

25   MR. BOB PETERS: ICF did not run the

1 SENDOUT model, did they?

2   MR. NEIL KOSTICK: No.

3   MR. BOB PETERS: Only Centra ran the

4 SENDOUT model?

5   MR. NEIL KOSTICK: That's correct.

6   MR. BOB PETERS: ICF has proprietary

7 models, I suppose, of their own that they would use?

8   MR. NEIL KOSTICK: Yes, they do.

9   MR. BOB PETERS: And one (1) of the

10 terms of this optional portfolio that we'll talk about

11 is the -- the seven (7) year duration, correct?

12   MR. NEIL KOSTICK: Yes.

13   MR. BOB PETERS: And that seven (7)

14 year duration didn't you -- or, the model that gave

15 rise to -- to Centra's determination didn't use seven

16 (7) year data, did it, price data?

17   MR. NEIL KOSTICK: With respect to gas

18 market price curves, it used a five (5) year series of

19 futures prices and a five (5) year series provided by

20 ICF.

21   MR. BOB PETERS: It also used a one (1)

22 year series provided by both?

23   MR. NEIL KOSTICK: Yes. I guess to

24 clarify, a five (5) year series of futures and a five

25 (5) year series of ICF price forecasts were -- were

 1 obtained. And it was determined that the use of years

 2 1 and year 5 of those price curves would be sufficient

 3 in looking at the nature of the variability between

 4 years 1 to 5.

 5   They essentially appeared to represent

 6 appropriate bookends within the five (5) year price

 7 series whereby years 1 and year 5 would provide

 8 sufficient variability to test the -- the -- the

 9 portfolio under those different price scenarios.

10   MR. BOB PETERS: Mr. Kostick, not

11 having used the SENDOUT model, would it be reasonable

12 to understand that if two (2) different parties used

13 the model seeking to come up with the same answer, that

14 they may -- that they may come up with different

15 answers?

16   MR. NEIL KOSTICK: The model results

17 are subject to whatever inputs are put into the model.

18 But assuming the same inputs are used, the model should

19 produce the same output.

20   MR. BOB PETERS: And in terms of the

21 inputs, that was something that Centra had to consider

22 as to what should be included, and you worked with the

23 vendor of the software to -- to figure out how to get

24 that information into the model?

25   MR. NEIL KOSTICK: Yes.

 1   MR. BOB PETERS: Did the vendor of the

 2 model tell you what inputs should be used?

 3   MR. NEIL KOSTICK: No.

 4

 5   (BRIEF PAUSE)

 6

 7   MR. BOB PETERS: And just a point on

 8 clarification. We -- we also will talk about the 15

 9 1/2 petajoules of storage that's being proposed by

10 Centra, and that incidentally is exactly the same as

11 the storage currently held, correct?

12   MR. NEIL KOSTICK: That is correct.

13   MR. BOB PETERS: Would you agree that

14 that's coincidental?

15   MR. NEIL KOSTICK: It's coincidental

16 that in the year 1 and year 5 of the futures curves,

17 that year 1 of the futures curves produce -- produced a

18 best-fit storage capacity of 15.6 petajoules, and year

19 5 of the futures curves produced a best-fit storage

20 capacity of 15.4 petajoules.

21   So clearly the average between fifteen

22 point six (15.6) and fifteen point four (15.4) is

23 fifteen point five (15.5), recognizing that those two

24 (2) numbers, fifteen point six (15.6) and fifteen point

25 four (15.4), were both derived from twenty (20) years

1 of weather.

2   So twenty (20) years of weather, using

3 year 1 of the futures curves, produced 15.6 petajoules

4 as optimal, and twenty (20) years of weather over year

5 5 of the futures curve produced 15.4 petajoules as the

6 best-fit capacity over the twenty (20) years of

7 weather. And obviously the average of those two (2)

8 results is 15.5 petajoules.

9   Using the ICF price forecasts, years 1

10 and years 5 produced, on average, slightly higher

11 storage capacity as an optimal result.

12   MR. BOB PETERS: Did the SENDOUT model

13 take into account the cyclability that the witnesses

14 have told the Board about?

15   MR. NEIL KOSTICK: Yes, it did.

16   MR. BOB PETERS: And by that, there's

17 an extra 3.1 petajoules of capacity gained because the

18 storage contract was broken between annual and seasonal

19 storage?

20   MR. NEIL KOSTICK: It's not gained in

21 the sense that you have an additional 3.1 petajoules in

22 addition to the fifteen point five (15.5). You have to

23 first withdraw 3.1 petajoules in order to reinject

24 anoth -- another three point one (3.1), and then you

25 would be limited to ultimately withdrawing in the

1 course of any one (1) gas year a total of approximately

2 18.6 petajoules.

3   MR. BOB PETERS: So Centra effectively

4 has 18.6 petajoules of storage even though its contract

5 says it has fifteen point five (15.5) that its paying

6 for.

7   MR. NEIL KOSTICK: In effect.

8   MR. BOB PETERS: So was that -- and

9 that cyclability was built into the -- into the SENDOUT

10 model?

11   MR. NEIL KOSTICK: That's correct.

12   MR. BOB PETERS: And so when the

13 SENDOUT model gives the fifteen point six (15.6) and

14 fifteen point four (15.4) numbers that you put on the

15 record a few minutes ago, Mr. Kostick, is that meaning

16 before or after considering the cyclability?

17   MR. NEIL KOSTICK: That would be after

18 adding the cyclability feature into the SENDOUT model.

19 So the model results that you're referring to that are

20 reported in Tab 7 of the application take into account

21 the annual storage that was negotiated with ANR at the

22 negotiated rates.

23   MR. BOB PETERS: Well, you don't

24 necessarily have to turn back to Tab 7 of the book of

25 documents, but you'll remember that chart with the --

1 the EKG of Mr. Meronek, the red lines, the green lines,

2 and the blue lines.

3   Nowhere on that chart is it shown that

4 you need 18.6 petajoules, is there?

5   MR. NEIL KOSTICK: No. Under the way

6 that the current portfolio is operated, that particular

7 ten (10) year of time frame does not indicate that 18.6

8 petajoules of storage is required, bearing in mind that

9 it is a different portfolio with a different set of

10 assumptions, as far as how it would be operated.

11   MR. BOB PETERS: The existing

12 arrangement that Centra has with ANR and Great Lakes

13 has no cyclability. Is that also correct?

14   MR. NEIL KOSTICK: You could say that's

15 correct, or you could say it has a cyclability of one

16 point zero (1.0), which means you can inject 15.5

17 petajoules and withdraw -- withdraw 15.5 petajoules.

18   MR. BOB PETERS: Okay. So the ratio of

19 one point zero (1.0), or I guess a hundred percent, of

20 15.5 is the maximum amount currently?

21   MR. NEIL KOSTICK: Yes.

22   MR. BOB PETERS: And when Ms. Stewart

23 told the Board earlier today about the ratchet problems

24 that she would have if she drew down -- if Ma -- if

25 Centra drew down storage below 20 percent, were those

1 ratchets also built into the SENDOUT model?

2   MR. NEIL KOSTICK: Yes, they were.

3

4   (BRIEF PAUSE)

5

6   MR. BOB PETERS: Now, Mr. Kostick,

7 let's move quickly to Tab 15 of the book of documents.

8 And what we show on Tab 15 is a chart dealing with

9 Centra's seasonal average forecast of commodity unit

10 costs. That's another way of saying this is the

11 forward price curves that Centra uses.

12   Is that correct?

13   MR. NEIL KOSTICK: Yes, these were the

14 forward price curves that were derived from futures

15 prices.

16   MR. BOB PETERS: And what this chart

17 shows is that the gas in different locations is

18 forecast to be at different prices?

19   MR. NEIL KOSTICK: Yes, that's correct.

20   MR. BOB PETERS: And while this price

21 curve is for a five (5) year period, you say that

22 Centra used year 1 and year 5 as the bookends for the

23 prices in the -- in the model?

24   MR. NEIL KOSTICK: Yes, that's correct.

25   MR. BOB PETERS: And you ran those

 1 against twenty (20) different weather scenarios?

 2   MR. NEIL KOSTICK: Yes.

 3   MR. BOB PETERS: That was twenty (20)

 4 years of the past -- the past twenty (20) years of

 5 actual weather?

 6   MR. NEIL KOSTICK: Yes.

 7   MR. BOB PETERS: And at Tab 16 we see

 8 the ICF price curves. This was also an input into the

 9 model for -- for ICF's five (5) year forecast, correct?

10   MR. NEIL KOSTICK: Yes, that's correct.

11   MR. BOB PETERS: This isn't ba -- this

12 isn't a run of the futures prices. This is ICF's

13 proprietary forecast to Centra?

14   MR. NEIL KOSTICK: That's correct.

15 This is ICF's own forecast of natural gas prices.

16   MR. BOB PETERS: And what both of these

17 price curves do, Mr. Kostick, is they put into the

18 computer model the expected prices at the different

19 hubs at different times of the year?

20   MR. NEIL KOSTICK: Essentially, yes,

21 that's correct.

22   MR. BOB PETERS: One (1) of the -- and

23 one (1) of the clarifications that Centra had to make

24 was so that the computer didn't know with precision

25 what the price tomorrow was going to be with these

1 price curves, Centra put in some seasonal average

2 pricing?

3   MR. NEIL KOSTICK: Yes, that is

4 correct.

5   MR. BOB PETERS: And that takes away

6 what -- what, in computer modelling, is called "perfect

7 foresight"?

8   MR. NEIL KOSTICK: It doesn't

9 completely deal with the issue of perfect foresight,

10 but it avoids having the model make unique month-to-

11 month decisions based on its perfect foresight of pri -

12 - different prices month to month. It made more sense,

13 to produce seasonal averages, to take away that -- that

14 element of the perfect foresight.

15   It, nonetheless, has perfect foresight

16 of weather, which of course, and LDC in reality does

17 not have.

18   MR. BOB PETERS: Correct me, Ms.

19 Stewart, if I'm wrong, but TransCanada doesn't use

20 forward market prices in its corporate gas price

21 forecast, does it?

22   MS. LORI STEWART: No, it does not.

23   MR. BOB PETERS: So why does Centra

24 feel it's appropriate to rely on forward market prices

25 in SENDOUT marketing when other forecasters are using

1 different measures?

2

3   (BRIEF PAUSE)

4

5   MR. BRENT SANDERSON: Maybe I'll just

6 jump in here and respond to that. It's a matter of

7 opinion. I guess there is certain parties in the

8 marketplace that will insist that they can generate a

9 product that's superior to the prices reflected in

10 futures markets. And those parties are typically

11 parties with a product to sell, that being the price

12 forecast itself.

13   History shows that, by far, the most

14 stable and most accurate forecast over time most

15 consistently is the futures market price, given that

16 circumstances change and the information available to

17 the market change. The forecasts are dynamic and

18 change on a day-by-day basis.

19   As it relates to TransCanada's use of

20 its own proprietary price forecast, given what Ms.

21 Stewart just told us about where it's left them in --

22 in terms of their rate case, it's -- it's clear that it

23 wasn't -- it was less than correct. And they're in the

24 position of having to continually update their

25 assumptions. And their assumptions are converging with

 1 what future markets were telling us months or years

 2 ago.

 3   MR. BOB PETERS: And does Centra think

 4 its price forecast is any better than the one (1) that

 5 ICF provides as well, by way of an opinion?

 6   MR. BRENT SANDERSON: Not wanting to

 7 take anything away from ICF, but they -- they sell a

 8 product that purports to forecast prices on a daily

 9 basis out a number of years. Given our experiences in

10 the marketplace over the past ten (10) years, that's

11 quite a hurdle to try and clear with any consistency.

12 And there's no evidence in the marketplace that anyone

13 has been successful in doing that over time.

14   MR. VINCE WARDEN: Mr. Peters, I might

15 just add, we have to be somewhat cautious with this

16 because Manitoba Hydro does rely on price forecasts

17 obtained from independent forecasters for purposes of

18 planning its future generation/transmission

19 requirements.

20   I know this is a gas hearing, but I -- I

21 don't want to suggest in any way that we don't use

22 those external forecasters for purp -- for many

23 purposes in our business. And a lot of big decisions

24 are made based on consensus foreca -- forecasts from

25 those independent forecasters.

 1   So, yes, the forward price is -- is a

 2 good indicator and one (1) that's appropriate for us to

 3 use for certain circumstances. It's not the only one

 4 (1) we use.

 5   MR. BOB PETERS: Mr. Warden, would it

 6 also be correct that even with those forecasts of

 7 various prices that you talked about that are used in

 8 Centra's planning proce -- or, sorry, in Manitoba

 9 Hydro's planning processes, that there's also an

10 overlay of, I'll call it "corporate judgment"?

11   MR. VINCE WARDEN: No. No, there isn't

12 actually. We -- we -- for purposes of -- of

13 forecasting future electricity and natural gas prices,

14 we maintain our independence. That is, we respect the

15 consensus forecast of five (5) independent forecasters

16 that we engage for that very purpose, ICF being one (1)

17 of them.

18   MR. BOB PETERS: And then Centra -- or,

19 sorry, then Manitoba Hydro averages the five (5), Mr.

20 Warden? Or does it truncate them?

21   MR. VINCE WARDEN: It -- it averages

22 the five (5), yes.

23   MR. BOB PETERS: Maybe we can talk

24 about that another day.

25   MR. VINCE WARDEN: Probably a good

 1 idea.

 2   MR. BOB PETERS: Okay. Let's turn to

 3 Tab 18 of the book of documents and look at the

 4 results, Mr. Kostick and Ms. Stewart. Does Tab 17 of

 5 the book of documents found on page 61 -- it represents

 6 the numerical output of the SENDOUT model?

 7   MR. NEIL KOSTICK: That would be Tab

 8 18? Yes, those are the SENDOUT model results.

 9   MR. BOB PETERS: Yes, thank you for

10 correcting me. Tab 18, sorry. Page 61 of the book of

11 documents, it will contain a chart with numbers?

12   MR. NEIL KOSTICK: Yes, it does.

13   MR. BOB PETERS: And the left-hand part

14 of the chart deals with the future curves that compare

15 the fir -- the one (1) and the five (5) year of ANR,

16 which is your option A, to option B? Correct?

17   MR. NEIL KOSTICK: Yes, that's correct.

18   MR. BOB PETERS: And the right-hand

19 side uses the price curves that come from ICF that

20 Centra ran through the SENDOUT model?

21   MR. NEIL KOSTICK: Yes, that's correct.

22   MR. BOB PETERS: These ICF curves give

23 results that are different from what ICF results were

24 when they ran their proprietary models. Is that

25 correct?

 1   MR. NEIL KOSTICK: Yes.

 2   MR. BOB PETERS: All right. And I just

 3 want the Board to be aware that if we go down to

 4 approximately the middle of the chart under "Storage" -

 5 - well, first of all, this -- this -- all the numbers

 6 on here are what SENDOUT says is the optimum portfolio

 7 in terms of supply and storage and transportation,

 8 correct?

 9   MR. NEIL KOSTICK: Yes, it's the best

10 fit portfolio over twenty (20) weather scenarios for a

11 particular price curve.

12   MR. BOB PETERS: And will it tell you

13 where the supply should come from, for example?

14   MR. NEIL KOSTICK: Yes, that would be

15 in the lower third section of that chart.

16   MR. BOB PETERS: And what the lower

17 third section is doing is really just coming up with

18 information that'll support what's on the top part of

19 the -- of the chart that's quantified in dollars and

20 cents?

21   MR. NEIL KOSTICK: Yes, it ultimately

22 drives out the costs reflected in the top third of the

23 chart and it reflects also the -- the storage and --

24 the storage capacity and deliverability results in the

25 middle third of the chart as well.

 1   MR. BOB PETERS: All right. Let's

 2 focus on the middle third then, Mr. Kostick, just to

 3 come back to the answers you put on the record about

 4 five (5) minutes ago. The capacity and petajoules when

 5 Cent -- when Centra ran SENDOUT using case 1, which was

 6 Centra's five (5) year -- sorry, which was Centra's one

 7 (1) year futures price, it yielded a storage capacity

 8 that would be optimum of 15.6 petajoules. Am I reading

 9 that correctly?

10   MR. NEIL KOSTICK: Yes, you are.

11   MR. BOB PETERS: And likewise, when

12 Centra ran SENDOUT using the five (5) year futures

13 prices, the SENDOUT model came back with an optimal

14 storage capacity of 15.4 petajoules?

15   MR. NEIL KOSTICK: Yes, using the fifth

16 year of that price curve, the optimal storage capacity

17 over twenty (20) weather scenarios was 15.4 petajoules.

18   MR. BOB PETERS: And running it through

19 the information provided to Centra by proponent number

20 B -- or letter 'B', it came up with slightly different

21 optimum storage values, correct?

22   MR. NEIL KOSTICK: Yes, that is

23 correct.

24   MR. BOB PETERS: And then on the right-

25 hand side of the page Centra ran its SENDOUT model

1 using the ICF assumed prices. And in fact was --

2 didn't ICF have -- I'm sorry, these are just their

3 price curves, right, that's --

4   MR. NEIL KOSTICK: These are just their

5 price curves that we utilized in the SENDOUT model.

6   MR. BOB PETERS: Correct.

7   MR. NEIL KOSTICK: And then for storage

8 capacity they came up with different answers based --

9 or SENDOUT gives out different optimum capacities

10 ranging from 5.2 to 19.4 petajoules, depending on

11 whether you want to put weight on the year 1 futures

12 price or the year 5?

13   MR. NEIL KOSTICK: It gave -- for ANR

14 it gave 15.2 petajoules and 19.9 petajoules as the

15 optimum capacity over twenty (20) years of weather for

16 the particular price curve.

17   MR. BOB PETERS: Thank you. I believe

18 I misspoke on that number. And then lastly, if we

19 follow that capacity line over to the far right-hand

20 side, again, using the ICF price curves and running it

21 through the information provided by proponent B -- or

22 option B, the capacity came back at 13.9 petajoules

23 with the one (1) year data, and 16.5 petajoules for the

24 five (5) year price data?

25   MR. NEIL KOSTICK: Yes, that's correct.

 1   MR. BOB PETERS: All right. And now

 2 that we can interpret that level, Mr. Kostick, one (1)

 3 of the other things that we see directly underneath

 4 that is the deliverability line?

 5   MR. NEIL KOSTICK: Yes, that's right.

 6   MR. BOB PETERS: Deliverability, as I

 7 understood from Ms. Stewart's evidence is the amount or

 8 the capacity that can be taken out of storage on any

 9 particular day, at least up to -- for the top 80

10 percent of the storage capacity?

11   MR. NEIL KOSTICK: Yes, as long as you

12 have at least -- in the case of ANR, as long as you

13 have at least 20 percent inventory relative to the

14 total storage capacity you can take your contract

15 deliverability.

16   MR. BOB PETERS: Just on that point,

17 can you tell the Board whether proponent B also used

18 ratchets when their -- when -- when the volume of

19 storage was reduced?

20   MR. NEIL KOSTICK: Yes, vol -- option B

21 also had storage ratchets.

22

23   (BRIEF PAUSE)

24

25   MR. BOB PETERS: When we look at this

1 deliverability, Mr. Kostick, does it not appear to the

2 Board that the deliverability that is recommended for

3 an optimum portfolio is less than the deliverability

4 that's being embedded into the proposal by Centra?

5   MR. NEIL KOSTICK: With respect to the

6 ANR results, the deliverability produced by the model

7 results appears to be slightly less in the -- by in

8 some cases 1 or 2 or 3 terajoules per day, or say 1 to

9 3,000 gigajoules per day.

10

11   (BRIEF PAUSE)

12

13   MR. BOB PETERS: And based on the

14 deliverability, Mr. Kostick, that's really a function

15 of deciding how many days Centra will draw down on it's

16 storage? Or put another way, how many days does Centra

17 want to be able to withdraw before it depletes its

18 storage.

19   MR. NEIL KOSTICK: It's really a

20 function of how big is Centra's winter swing

21 requirement. Storage deliverability is the primary

22 means by which Centra responds to weather-driven load

23 volatility, and the storage deliverability accounts for

24 a very large portion of being able to serve that.

25   It's -- it's really a function of -- of

 1 serving the load in a cost-effective way and also

 2 making sure that you can actually successfully nominate

 3 gas at, for example, the intra-day two (2) cycle or the

 4 late night nomination cycle for the last four (4) hours

 5 of the gas day. So there are a couple of aspects to,

 6 in Centra's case, determining the optimal storage

 7 deliverability.

 8   MR. BOB PETERS: Am I correct that ICF

 9 was suggesting that a -- a shorter withdrawal window

10 would provide a cheaper arrangement to Centra? That

11 is, maybe a fifty-one (51) day withdrawal ability as

12 opposed to seventy (70) or seventy-one (71) days?

13   MR. NEIL KOSTICK: I believe their

14 report identified that "lower days of service," as its

15 referred to -- when you take the storage capacity

16 divided by the daily deliverability, that there was a

17 small price advantage in their model results for a

18 fifty (50) day service relative to a seventy (70) day

19 service.

20   MR. BOB PETERS: But Centra disagrees

21 with that because it's going to be saving balancing

22 fees?

23   MR. NEIL KOSTICK: It's not necessarily

24 a matter of disagreeing, it's taking into account the

25 different modelling approaches taken by Centra versus

1 ICF.

2   ICF's modelling approach took into

3 account daily price volatility, and the ability under -

4 - under a storage service that has the greater ability

5 to more quickly deplete storage that that storage facil

6 -- or that storage option could take greater advantage

7 of day-to-day volatility and gas prices by depleting

8 storage quickly and filling it back up again.

9   So a higher deliverability relative to

10 the total storage capacity was found to have a very

11 slight advantage in the ICF model, taking into account

12 the model's perfect foresight, which Centra sought to

13 invoid -- avoid in the SENDOUT model results, as we've

14 talked about, to minimize the impact of the models

15 perfect foresight.

16   MR. BOB PETERS: Mr. Chairman, I'm

17 proposing to move to a different topic that would take

18 more than five (5) minutes to conclude. And I wondered

19 in light of the hour whether this would be an

20 appropriate time to adjourn for the day and reconvene

21 tomorrow morning at 9:30?

22   MR. RAYMOND LAFOND: If I can ask a

23 question maybe before. Or -- or a couple. One (1) of

24 the things that has never been discussed in -- in the

25 materials that I have read, at least, and -- and

1 hearing today is a forecast and demand we're alwing --

2 always looking at the weather patterns of the past and

3 past consumption, et cetera.

4   But with lower gas prices are we not

5 also considering the potential of customers using more,

6 or more customers coming -- changing their -- their

7 source of energy and moving to natural gas?

8   MR. BRENT SANDERSON: I'd like to

9 respond to that if I may. While we always would design

10 a portfolio that would allow us to accommodate

11 additional unexpected demand in our system, we're what

12 would be characterized, from a forecasting perspective,

13 as a mature market here in Manitoba, such that any

14 likely increases in demand are likely to be equally if

15 not more than offset with increases in the efficiency

16 in the way in which natural gas is used in Manitoba.

17   So our -- all things being equal, our

18 planning assumption is for very slightly declining load

19 over time, a very small marginal net decline. We're --

20 we plan to be adding customers each and every year in

21 all the various classes. That's all part of our

22 assumptions in our forecast. There's some econometric

23 modelling involved. Our larger volume industrial and

24 commercial customers, we look at each one (1) of those

25 customers' business situation individually, and their

 1 plans, for example, for adding shifts served, doubling

 2 their production capacity.

 3   But for -- the expectation would be is

 4 that we have a quite stable market demand here. And

 5 the -- the single biggest factor affecting the load

 6 that we have to serve would be weather and spacing

 7 requirements.

 8   MR. RAYMOND LAFOND: Thank you. When -

 9 - sorry. My next question was in regards to a comment

10 made by Mr. Warden this morning in terms of the

11 returned earnings moving from $34 million to a negative

12 position based on IFRS.

13   What would be the one (1) or two (2) or

14 three (3) main factors why this would occur? What

15 would be so different under one (1) scenario or the

16 other?

17   MR. VINCE WARDEN: Yes, under the --

18 the current environment we do have, within both Centra

19 Gas and Manitoba Hydro, what we call "regulated assets"

20 and "regulated li -- liabilities." Under IFRS,

21 regulated assets and -- and liabilities are not

22 recognized at this time. We recently got a one (1)

23 year deferral in terms of implementing IFRS. And this

24 issue is still under review by the International

25 Standards Board. We are hopeful that they'll

1 ultimately recognize regulated assets and liabilities,

2 but it may very well be in a different form from what

3 it is today.

4   The -- the largest single cost, or at

5 least regulated asset, that we have today that would

6 put our retained earnings into a negative position on

7 the gas side of the business is our Power Smart

8 programs. So we've been capitalizing our Power Smart

9 programs and amortizing those over ten (10) years.

10 Under IFRS, those Power Smart programs are not eligible

11 for capitalization. We would have to write those off

12 to retained earnings.

13   MR. RAYMOND LAFOND: Thank you.

14   THE CHAIRPERSON: Appropriate time to

15 adjourn. So let's adjourn immediately and resume the

16 proceedings tomorrow morning at 9:30. Thank you all.

17

18   (PANEL RETIRES)

19

20 --- Upon adjourning at 4:32 p.m.

21

22 Certified Correct,

23

24 _____

25 Ms. Cheryl Lavigne

27 133:15,16
   138:12
   152:24

27th 61:6

28th 70:12

29th 63:11
   195:19,25

2nd 63:12

————————

————— 3 —————

3 6:14 14:3
   16:25 17:1
   24:20 27:1
   48:16
   62:13
   75:8,11
   113:1
   141:22
   167:19,22
   197:4
   235:8
   239:14

3,000 235:9

3.1 55:17
   151:19
   221:17,21,
   23,24

3.22 188:18

3:00 141:25

3:08 188:17

30 58:18
   98:9 106:8
   163:7
   199:19
   200:3,8,11
   ,16

30th 118:10

31 77:22,25
   78:2
   80:12,18
   83:13
   112:8
   121:12
   144:15,20
   148:13
   154:3
   155:6

202:15

31st 8:5
   27:2,9,12,
   18 28:23
   30:4 33:25
   60:3

328 27:1

330 1:21

36 158:10
   165:5
   166:7,22

37 165:12
   166:14
   167:7
   168:12

38 157:25

————— 4 —————

4 3:3 7:8
   9:10 22:13
   25:1 34:17
   38:7
   52:12,13
   59:22
   63:12
   124:12
   154:5,25
   155:9,19
   210:12,15
   211:3
   212:1,6,9
   216:23
   236:4

4:32 240:20

400 1:21

41 183:10

48 53:2

481.3 158:18

49 13:2

49/12 4:10
   9:5 14:5,7

4th 13:5
   57:18

————— 5 —————

5 3:4 12:12
   17:3 51:8
   62:11 92:5
   106:4
   131:8
   148:21
   173:17,21
   182:5
   199:14
   209:20,24
   210:12
   211:3
   212:2
   213:15
   218:18,19,
   24,25
   219:2,4,6,
   7
   220:16,19
   221:5,10
   224:21,22
   225:9
   229:15,19,
   22 230:15
   232:4,6,12
   233:12,24
   237:18

5.2 233:10

5:00
   141:12,25

50 40:12
   93:3,4
   163:8
   190:5
   236:18

51 236:11

5-1 14:11

5-24 4:12
   14:11,15

54 171:8

55 86:23,24
   89:9

————— 6 —————

6 3:6 27:15
   133:14
   148:21
   152:19

154:19,25

60 87:1

61 230:5,10

6-1 4:16

6-16 4:16
   14:21,25

65 9:21
   60:21
   71:10
   189:3

65/11 8:7,13
   66:1
   71:12,17
   104:25

67 3:18

68 197:23
   199:6

68.02 195:1

69 197:22
   198:15
   199:6

————— 7 —————

7 10:6 15:8
   17:18
   29:20 36:2
   38:6
   46:3,8,9,1
   8 47:2
   70:21
   72:12 74:1
   75:10
   77:17
   78:9,22
   79:6,11,15
   90:2
   127:15
   130:3
   144:13
   146:19
   148:14
   154:2
   172:24
   213:22
   218:11,13,
   16
   222:20,24

7,000 33:1

7.4 32:18
   156:1

70 236:12,18

71 236:12

————— 8 —————

8 23:19,24
   24:13,20
   25:1 70:1
   75:6,17,18
   157:18
   158:11
   165:6

80 234:9

8th 61:15

————— 9 —————

9 171:6
   172:23

9:00
   141:13,17

9:30 7:1
   237:21
   240:16

90 29:22
   177:8

90,000
   200:25

91 26:16

93 88:11

95/'96
   148:12

97 6:7

98 177:3

————— A —————

a.m 7:1
   66:18,19
   111:19
   141:18,25

abandon
   47:12

abandoning

47:10

abbreviated
11:4 140:9

abbreviations 10:11
16:13,18

ability
36:17,20
42:5,24
43:19
44:9,21
45:5 53:25
55:12,16
122:20
141:20
161:21
176:5
236:11
237:3,4

able 33:14
36:6 65:11
80:21
83:25
87:20
92:17,21
93:20,24
95:20
100:6
104:19
106:16
125:11,25
127:7,17,25 128:5
141:24
148:4
150:15
162:25
180:7,12,13 182:22
186:21
209:7
212:11
214:19
217:16
235:17,24

absence
100:4

absolutely
47:21
101:24

110:13
205:25
214:8,17

acc 91:8

accept 72:4
102:9
165:10
211:1

acceptable
68:5,7,17
69:12 71:4
196:10

accepting
79:16

access 29:14
32:8 35:1
37:1 41:19
42:12
44:13
45:22
46:10
48:13 59:7
105:25
119:10
141:5
169:20
176:5

accessed
34:4

accessing
56:12

accident
124:11

accommodate
37:24 40:8
115:19
116:18
238:10

accommodated
117:24

accommodation 36:13

accomplish
37:14 98:2

accomplished
33:7

according
200:8

accordingly
40:25

account 6:19
38:24
44:22
183:3
184:22
196:7
197:10
199:13
221:13
222:20
236:24
237:3,11

accounting
7:22

accounts
83:3
235:23

accrue
187:10

accumulated
186:5

accuracy
176:11

accurate
170:9
175:9
227:14

accurately
178:10

achievable
200:16

achieve
48:10
51:11 52:9
54:1 113:6

achieved
100:21
102:17
200:13

acknowledge
108:16

acknowledged

210:23

acquire
24:16,18
30:7 42:13
55:24

acquired
30:6

acquisition
26:10 28:9
47:24
105:19,25

acronym
171:17

acronyms
10:10
16:17

across 11:4
56:8 73:25
138:22
172:20
182:9

act 174:16

acting 7:17
20:17
120:23

Action 62:11

actions
107:11,12

active 11:8

activities
80:17
95:22
217:19

activity
187:11

actual 73:24
83:5
104:14,20
115:25
158:25
174:15
179:5
180:4
181:24
194:1
208:3

225:5

actually
27:22 62:5
68:12
76:25
98:13
99:23
106:19
116:1
128:2
129:14
132:16
134:19
136:21
138:20
153:11
154:20
165:11,15,17 175:3
179:8,9
180:3
229:12
236:2

actuals
85:17

adapt 59:6

add 46:21
72:24
100:13
228:15

added 60:22

adding
222:18
238:20
239:1

addition
32:25 51:9
52:20 62:8
63:5 81:1
84:16
97:16
213:3
221:22

additional
55:17
60:22
70:23
119:11
138:6

202:6
221:21
238:11

Additionally
55:22

address 9:10
10:19
16:10
17:19
69:10
106:16

addressed
190:23

addressing
79:22

adhered
170:1

adjacent
50:12

adjourn
111:14
237:20
240:15

adjourning
240:20

adjourns
13:6

adjust
47:24,25
55:23
141:1
142:3

adjusting
215:20

adjustment
170:12
199:13

adjustments
85:17
143:4

**administrati
on** 23:2
49:7

admittedly
109:4

adopt 30:19

adoption
65:20

advance
13:20
37:23 66:7
128:15
141:24
201:4,19
202:15

advanced
52:12

advancement
89:1

advancing
60:5 64:4

advantage
36:1 40:1
55:14 89:3
100:20
184:10
236:17
237:6,11

advantageous
127:20
130:10
182:22

advantages
130:18

advice 109:9
195:16
199:24

advise 7:22
13:13 69:1
99:17

advised 8:9
75:2
202:23

advising
200:12,13

advisor
7:20,22
9:17

advisors
62:9

AECO

171:11,14,
16,17,18,2
4 172:5
173:1
177:11,15
182:23
183:12,21
185:10
186:12,23
187:6
205:5

AECO-priced
187:3

affecting
170:23
239:5

affidavit
4:7 14:3,4

affiliated
76:12

affiliation
76:16

afforded
63:1

afternoon
111:22
112:1
188:12

against
44:24
114:11
225:1

age 67:4,7

aggregate
39:24
48:10 88:2

ago 8:4 61:7
84:16
87:11
89:11
136:16
203:11
222:15
228:2
232:4

agreed 131:1
207:1

agreeing
7:16

agreement
21:8 31:20
128:16
148:24
208:10

ahead 200:20
202:10

alarming
43:7

albeit
144:14
189:13

Alberta
24:25
51:23
81:20
160:20
171:15,17,
19
172:9,12,1
4 205:4

alerted
154:18

aligned
189:6

aligns
207:23

alleviation
117:10
120:5

allow 12:9
24:7,10,16
,18 44:17
55:19
56:15
117:14
142:17
143:21
185:20
238:10

allowed
34:18,25
149:8

allows 32:19
53:22

141:1
161:18

already
10:23
16:21
17:18
43:16
59:19
91:11
105:11,12
117:24
140:9
196:17
204:3
217:20

alter 78:25

alternate
159:14,18,
25

alternative
37:2
47:8,15
164:22

alternatives
8:10 9:24
31:19
60:10
106:14
127:2,5
192:2,7,8

alwing 238:1

am 49:6
59:14
67:10
69:16
76:13
98:12
111:11
117:8
232:8
236:8

amenable
128:16,19
156:18
195:25

America
11:11
36:25 42:3
50:11 56:5

appointed
  7:11

appreciate
  78:5 105:8
  112:10
  189:24

appreciated
  17:14

appro 112:23

approach
  39:17,23
  44:11 75:5
  83:24
  105:8
  237:2

approaches
  236:25

appropriate
  12:8
  21:11,21
  45:3
  111:11
  188:12
  217:24
  219:6
  226:24
  229:2
  237:20
  240:14

appropriatel
  y 47:18
  215:18
  217:22

approv 29:7

approval
  8:17,22
  10:2
  23:19,25
  24:14,21
  25:2 26:4
  28:21
  29:4,7,25
  30:16 60:6
  64:6 71:19
  77:25
  78:4,14
  80:1
  83:20,21

84:2 85:13
  90:20
  105:4
  107:9
  108:5,13

approvals
  59:19

approve
  74:10
  81:16

approved
  10:25
  13:25
  70:2,14
  72:11
  93:18
  96:10
  198:19

approves
  108:7

approximate
  112:11
  192:20

approximatel
  y 7:8
  26:11,14,1
  5,17,21
  27:3,18
  29:19,23
  30:2 31:16
  53:7
  58:2,6
  72:24 85:4
  86:14
  102:24
  112:10,24
  146:18
  175:15
  177:24
  181:4
  193:22
  197:22
  200:8
  216:5
  222:1
  231:4

April 4:10
  7:11 9:3
  14:8 29:20

65:6 72:12
  77:18
  78:16
  80:22
  131:8,22
  165:20

ar 22:2

area 49:14
  111:10
  117:21
  136:22
  137:14
  177:6
  193:21
  201:5

areas 21:23
  30:24
  31:17
  52:1,3
  56:11

argument
  22:2
  107:22
  196:1

ARM 45:19

arrange 87:8
  101:22

arranged
  87:11

arrangement
  9:24 10:3
  20:15 79:1
  82:13
  99:11
  100:10
  102:2
  106:6
  123:20
  125:9
  126:19
  130:22
  139:3
  148:19
  162:6
  223:12
  236:10

arrangements
  8:3,12,17,
  24 10:4,5

29:18,22
  31:8 33:24
  34:5 45:20
  46:4,7
  47:17,22
  48:9 55:14
  60:12 64:1
  71:14,20
  73:22 76:5
  78:10,23
  80:22,23
  81:9 82:8
  94:13 96:9
  99:8 100:1
  106:1,11,1
  9,22
  121:9,15
  125:15
  129:9
  132:23
  135:5
  170:13

arranging
  54:21 77:2

array 34:6

arrows
  132:17
  134:1,5,8

ascertain
  100:9

aside 131:19

aspects
  80:13
  236:5

assembled
  15:13

assess 99:9
  100:23

assessed
  43:21

asset 55:7
  93:9
  98:9,18
  99:7 240:5

asset-
  management
  100:1,10

assets 26:19
  40:24
  54:12,18
  56:24 57:1
  87:19
  89:25
  90:25 91:5
  92:12,13,1
  5,22
  93:11,12
  97:22,25
  98:1
  99:21,23
  100:14,15
  101:5,7
  129:3
  142:11,17
  143:15
  148:8
  150:21
  166:16
  167:15
  239:19,21
  240:1

assignment
  216:7,10

assist 7:23
  21:5 38:1
  65:7
  204:12

assistance
  206:16

assisted
  7:17 9:17

assisting
  10:15 22:4

associated
  8:23 26:5
  34:8 44:2
  46:13
  55:21
  57:12
  59:17 81:8
  100:9,16
  102:20
  118:7
  142:20
  163:1
  166:15
  195:8,19

199:11,12

Association
4:19
5:8,13
11:3 15:3
17:22
18:2,9,14
20:8 62:10

assume
154:20

assumed
233:1

assumes 47:6

assuming
6:17 21:23
27:19
196:6
197:8
219:18

assumption
181:15
238:18

assumptions
6:21 57:21
190:25
191:8,13
195:17
196:8
197:12
199:25
223:10
227:25
238:22

assurance
36:16
44:12

attempt
141:17
176:18

attend
61:23,25

attendance
11:9,16,23

attendant
187:17

attended

62:6,16

attendees
62:25

attending
33:23

attention
70:25 71:2
194:12

attractive
183:7

**attractivene
ss** 47:8

attribute
117:11
120:2

attributes
26:1 34:15

August
63:4,11
77:25
78:2,15

authored 8:7
16:9 61:10

availability
210:20

available
7:23 61:19
67:18
88:12
102:12
109:9
110:8
126:14
159:11
192:7
195:18
201:17
204:14
206:23
227:16

availed
125:3

Avenue 1:21

avenues
79:21

average

38:13,15
45:18
53:10 54:3
58:3,6
92:5,18
157:25
173:18
175:13,20,
21,22
177:21,25
179:12
180:3,8
181:3,4,19
220:21
221:7,10
224:9
226:1

averaged
174:1
175:15

averages
226:13
229:19,21

avert 99:18

avoid 144:5
162:25
237:13

avoids
226:10

aware 9:6
16:9 27:25
33:23
79:25
135:25
136:9,12,1
3
137:21,24
182:8
191:16
201:16
206:8
231:3

away 108:6
151:9
172:19
226:5,13
228:7

awkwardness
198:23

B

ba 171:4
225:11

backed 186:2

background
61:19
216:11

back-haul
114:12,21
115:7,8

backing
174:21

backwards
136:4

bad 20:18
68:10

balance
26:17
43:11 76:7
102:17
113:16
114:7,22
141:18

balanced
45:14

balancing
42:17 43:7
142:6
143:22
144:4
236:21

ballpark
190:8

Barnlund
3:13 5:5
17:8
23:6,7,9
25:11
58:21
59:10,12,1
8,22 60:20
61:6,14,24
62:8,17,25
63:8,18
64:2,10
65:4,13,18

66:2,10
71:8,11,23
72:4,6,13,
15,16,20
73:3,6,13,
14,20
74:6,8,13,
23
75:2,13,14
,20,25
76:9,14,17
,24
77:5,9,13,
16,18,20,2
3
78:1,11,20
79:2,6,10,
20
80:3,9,15
81:4,7,19
82:5,9,14,
18,23
83:9,14,17
,23
84:9,13,15
,20,25
85:6,11,16
,19,23
86:3,9,13,
16,20,22
87:2,6,9,2
4
88:3,8,17,
23
89:12,21
90:1,7
105:22,23
107:8
128:24
129:16,17
190:17
203:18,23

based 34:19
41:3 69:5
72:25
77:11
104:9
109:17
110:7
112:15
113:3
155:1

158:25
184:14
191:13
195:4
199:19
203:22
226:11
228:24
233:8
235:13
239:12

basically
47:11
124:2
128:7
159:21
172:10
201:14
207:25

basin 51:23
53:5,6
56:1 58:10
186:2

basins
50:11,14,20 51:20
56:13
182:18
183:8

basis
35:18,23
37:9,10
38:24
40:22
42:6,7
54:20 58:3
65:23 73:1
83:1,2
89:6
104:2,4,19
112:16
113:20
114:1
136:10
137:20
146:15
154:23
160:12
174:19
183:11
184:18,19,

23,25
185:2,5
187:25
190:4
191:20
194:16,20
195:14
212:21
227:18
228:9

Bcf 58:7
89:9

bear 87:19

bearing
88:11
223:8

became
136:12,13

become 18:8
40:14
127:1
137:2
141:25

becomes
51:15

becoming
20:21
195:18

Bedford 2:4
3:17
12:5,11,14
19:12 20:5
22:6,9,11
25:16,17
30:18,23
31:9,22
33:16 35:3
36:4 37:4
38:2 39:10
40:6 41:16
42:21
43:25
44:15 45:7
46:2,12
47:2,19
48:3,18
49:2,9,18
50:3,22
51:16 52:7

53:14,21
54:5,14
55:1,10
56:3
57:2,14
58:20
59:9,18
60:18
61:4,12,22
62:5,14,22
63:5,14,23
64:7
65:1,13,24
66:9
69:2,8
89:16
140:25
155:4
169:5

Bedford's
105:8
144:17
175:4

begs 21:19

behalf 5:12
18:9,13
19:10,22
20:14,17
30:19
59:15
68:13,14
71:22
79:13 91:5
177:9
195:24

behaviour
89:2
141:17

Behind 23:12

beholder
149:8

believe
15:15
23:23
24:13,20
25:1 62:17
64:13
65:10
67:18

71:8,11
75:6 78:1
83:12
85:3,23
98:7
101:21
105:2,20
111:23
113:11
115:18,25
123:4,14
124:13
125:20
126:13
136:24
153:18
233:17
236:13

believes
175:7

belt 141:15

benchmark
100:3
171:21
183:22,24
184:8
194:24

beneficial
48:9

benefit 28:8
54:23
106:5
148:17
184:11

benefits
31:7 131:6
187:7
189:16

Bercier
23:12

best 36:6
38:13
64:24
80:16
109:9,10
110:7
137:11
155:14
158:12

174:9
186:2
205:22
214:21
231:9

best-fit
37:11
38:9,16
39:19
220:18,19
221:6

better 20:5
65:8,11
121:22
125:8,12
214:2
228:4

beyond 36:10

bid 46:24
130:12

bidirectional
115:13,19

bi-directional 56:19

bidirectionally 137:3

biggest
239:5

billed 65:23
171:9
172:24

billing
65:16

billion 58:6

Bipole 20:6
22:15

bit 22:21
76:6 96:3
105:8
108:1
111:13
175:21

blanket
50:25

blend 201:24

block 160:18
166:15
168:13,17,
19

blocks
166:7,17

blown 152:8

blue 132:17
134:1,8
144:21
145:2,15,2
1 146:20
166:8
167:25
168:17
223:2

board
1:3,12,13,
14,15,20
2:2 4:10
7:12,14,17
,18,24
8:7,9,13,1
5,16,18
9:3,9,15,1
7,21
10:7,16
12:2
13:14,15,1
8 14:1,7
15:19
16:4,14,16
,24 17:4
19:9,12,19
20:3,10
21:6,8
22:4
25:22,24
26:4,8
27:24
28:15 29:2
30:5
31:3,11,12
44:4 48:22
49:4 54:9
57:3,16
59:13
60:6,21
61:2 63:3

64:5 65:3
68:4
69:2,7,11
70:3,6,8,1
3,15 71:24
72:2,11
74:10
75:9,23
76:23
77:25
78:7,13
79:3,9,18,
19,22
80:1,10,14
81:16
82:17
83:7,19
84:1,16
85:21
86:12
87:7,21
88:5,14,19
89:21
90:20 91:8
92:18
93:14
94:11
95:9,15,21
99:18
103:8,14
104:13,25
105:2,4,11
106:21
107:3,9,10
108:7,11
109:13
110:12
111:2
112:7
113:10
114:25
115:6,21
116:10
117:5,18
119:20
120:17,25
121:10
123:22
124:17
125:13
127:18,25
130:2,4

132:10
144:16
145:15
151:17
153:3
156:5
157:16
160:4,19
165:25
169:5
171:8
172:23
177:9,21
178:23
180:1
182:21
184:15
185:9,20
186:15,21
188:1,11
189:3,8
190:16
195:24
196:1,20
198:5,9,19
199:5
200:1,7
202:22,23
203:10
209:13
211:16,18
212:19
213:10
221:14
223:23
231:3
234:17
235:2
239:25

Board's
4:13,17
7:21 8:22
10:2
14:11,16,2
1 15:1,23
65:25
70:24 71:2
194:12

Bob 2:2 3:18
7:18
9:9,12,14
14:10,20

15:5,12
17:12
18:7,17
19:3 66:23
67:1,2,8,1
1,14,23
68:8,19
69:15,24
70:5,10,17
71:6,16,24
72:7,14,17
,22
73:5,9,15
74:2,7,21
75:4,16,21
76:4,10,15
,20
77:2,7,10,
14,17,21,2
4
78:8,17,21
79:5,16,24
80:8,25
81:14
82:1,7,10,
15,19
83:6,10,15
,18,25
84:8,15,22
85:2,8,13,
19,25
86:5,11,18
,21,25
87:4,20
88:3,13,18
89:7,14
90:3,9,17
91:7,13,19
92:3,11,17
93:1,14,20
94:1,4,9,2
1
95:7,14,20
96:4,12,22
97:14,15,2
4 98:7,13
99:2,12,17
,24 100:11
101:2,17,2
5
102:8,14,2
3

103:4,7,13
,25
104:8,12,1
7,24 105:7
107:7
108:4,10,1
5,23
109:14
110:3,9,18
111:1,8,16
,25
112:3,4,13
,18 113:7
114:10,24
115:5,10,2
0
116:4,9,14
,19,24
117:17
118:16,23
119:1,5,11
,14,18
120:4,14,2
0
121:3,7,14
,20
122:3,14,2
5 123:7,19
124:10,16,
22
125:1,6,11
126:16,24
127:6,14,2
3 128:18
129:13,19
130:1,13,2
1,25
131:7,14,1
9,25
132:9,15,1
9
133:1,6,9,
14,23
134:4,7,12
,17
135:2,13,1
6 136:11
137:5,15
138:2,10,2
2
139:2,11,1
7,19,23

140:7,24	7,22	4,25	124:12	13:9 19:5
142:8,21	179:4,13,1	211:16,25	131:8	**Brady** 7:19
143:5,23	9,24	212:8,15,1	133:15	9:18
144:2,12	180:10,21	8,23	144:13	
145:1,5,10	181:8	213:2,7,13	148:14	**break** 88:7
,14,21,25	182:3,13,2	,18,21	152:20	**breakthrough**
146:7,11,1	0	214:3,15	154:2	**s** 51:9
4,18,25	183:1,9,16	215:3,9,12	155:7	
147:5,14,2	184:1,13,1	,25	158:11	**Brent** 3:16
2 148:11	7	216:4,10,2	165:5,12	5:6 17:10
149:2,17	185:9,15,1	2	166:8,22	23:11
150:13	9	217:6,12,2	171:7	25:14
152:17	186:10,14,	5	172:23	48:21
153:2,14,1	20	218:3,6,9,	176:20	49:6,12,21
7,23	187:1,15,2	13,21	177:1,4	50:7,24
154:1,11,1	3	219:10,20	182:6	51:19
6,24	188:4,10,1	220:1,7,13	183:10	52:11
155:3,13,1	5,20,25	221:12,16	189:4	53:20
8,23	189:1,11,1	222:3,8,12	192:21	147:8,18
156:12,17,	8	,23	193:15	148:2,16
22	190:1,9,15	223:11,18,	197:20	149:6
157:13,14	,22	22	200:21	150:1,19
158:2,10,1	191:7,19,2	224:6,16,2	216:23	156:10,16,
6,24	4	0,25	217:1	20 157:24
159:4,9	192:11,19	225:3,7,11	222:24	158:7,14,1
160:2,13,2	193:1,7,13	,16,22	224:7	9
2	,19,25	226:5,18,2	230:3,5,10	159:2,7,15
161:1,7,19	194:6,11,1	3 228:3	**bookends**	169:2,8,15
,25	7 195:2,23	229:5,18,2	219:6	170:8,14,2
162:4,14,2	196:9,24	3	224:22	5
1	197:18,19,	230:2,9,13		171:13,16
163:9,14,1	25	,18,22	**border** 132:3	172:2
6,21	198:4,14	231:2,12,1	138:21,23	173:2,7,10
164:5,14,2	199:4,15	6	171:19,20	,16,24
5	200:4,18	232:1,11,1	**borrowed**	174:8,15
165:4,19,2	201:21	8,24	139:8	175:10
4 166:19	202:2,5,13	233:6,17		176:9,16,2
167:3,7	,20	234:1,6,16	**bottom** 96:4	4
168:9,10,2	203:2,9,13	,25 235:13	103:1	177:5,19,2
2 169:4,10	,17,24	236:8,20	104:23	4
170:4,10,2	204:10,25	237:16	113:2,6	178:6,16,2
2	205:7,11,1	**boils** 109:3	124:17,18	0
171:6,14,2	4,20		132:20,21,	179:3,8,17
4 172:22	206:1,7,11	**bok** 157:18	22 179:14	,23
173:3,8,13	,19	**book** 4:21	200:23	180:5,11
,22	207:3,12,1	15:7,10,12	**bottoming**	181:1,11
174:5,11	6,20	,21 16:12	154:21	182:11,16,
175:2	208:8,15,1	17:13		24
176:1,13,1	9,23	70:20	**box** 214:4	183:5,14,1
8,25	209:11,18,	71:17 72:1	**boxes** 131:16	8
177:7,20	23	74:22 75:8	**BP** 2:14	184:5,16,2
178:1,12,1	210:2,10,1	105:1	11:18,22	3
				185:13,18,

24 186:13
187:4,17
227:5
228:6
238:8

Brian 2:7
11:5 20:2

brick 163:21

brief 22:18
26:8 74:19
80:6 94:19
95:3,24
96:16 97:3
98:23
101:15
105:15
118:25
122:9
125:17
126:4
136:18
137:9
138:17
142:14
144:10
149:24
150:23
164:1
182:1
202:18
209:3
214:13
220:5
224:4
227:3
234:23
235:11

briefly
59:20
144:14

bring 67:6
70:24
71:12
80:14 95:6
194:11

bringing
12:20

brings 10:1
205:11

British 53:5

broad 54:3

broken
221:18

broker 11:12

brought
52:24
59:21 71:2
83:19
105:11
127:18

BTUs 58:3

budget 49:17

build 181:12

building
160:18
191:12

built 56:11
103:20
181:9
191:17
222:9
224:1

bulk 217:3

burn 157:16

burned
134:19
137:6,13
158:3

business
23:5 50:19
69:22
119:25
143:25
206:12,14,
21,22
228:23
238:25
240:7

busy 7:15

buy 24:10,23
41:3 176:7
187:20,24
189:20
205:8

buyer 92:1
187:12,19

buyers
172:17

buying 24:25
152:1
178:3,4
179:20,21
187:8

_____

C
_____

CAC 2:7 3:8
11:4 12:19
14:22
17:24 18:7
19:9
20:1,22
21:1 94:23

CAC/CENTRA
156:25

CAC/
  CENTRA-1-1
5:7 17:23
18:1

CAC/
  CENTRA-13-
  C 95:1

CAC/
  CENTRA-17-
  E 6:11
157:9

CAC/
  CENTRA-18-
  E 155:25
156:11

CAC-16 98:14

CAC-2 5:12
18:12

CAC-6-1
14:20

calculate
91:2

calculation
6:23 159:3
176:4
190:7,12

196:12
197:16

calculations
180:4

calendar
73:17
83:12
194:16
199:18

calender
6:17 83:13
196:3,5
197:7,21

Calgary
57:18

Canada 4:19
5:8,13
11:3,12,14
13:9 15:3
17:22
18:2,9,14
19:5 20:8
62:10
115:23
132:2
133:3
137:7
138:20
145:17
146:3
166:9
167:15
169:18
203:4
208:20,25

Canadian
33:7 36:20
37:3 40:2
44:8 51:22
56:1,16
58:9 92:15
117:12
138:15
145:7
146:5,21
147:11
151:6
164:11
166:3,13,1
7

168:15,18,
20 169:20
170:5
171:21,23
183:23
205:1,15
209:8,15,1
7

candidates
35:21,24
39:15

capabilities
115:22
135:24

capability
116:11
119:7
152:24
161:16
166:25

capacities
204:3
233:9

capacity 6:4
7:13 29:12
32:16,17,2
2 33:4
38:4,9,14,
16,19,22,2
5 39:2,9
40:3,8
41:3,7,14
43:17
44:17,24
45:3 46:25
47:25
55:15,20
90:10,12,1
3 91:2,9
92:6,9,10,
12,19,25
93:7,21
94:5,12,17
,25 95:22
96:13,24
97:9,17,22
,23 99:14
100:5
131:3
139:25

143:9,10,20 151:24
153:13,15
164:23
170:7
172:15
189:13,20
191:21,25
201:17
204:17
210:20,21
220:18,20
221:6,11,17 231:24
232:4,7,14,16
233:8,15,19,22
234:8,10,14 236:15
237:10
239:2

capitalization 240:11

capitalizing 240:8

capped 130:19,22

careful 133:24 151:9

carefully 100:24

case 7:23,24 38:8 40:20 56:22 86:4 109:8 110:7 114:19 119:20 127:6 128:13 171:3 179:9 182:25 183:6 185:4 204:18 206:12,14, 21,22

210:18
227:22
232:5
234:12
236:6

cases 46:18 180:18,19 204:4,5 235:8

cash 162:21 163:17

Cathcart 7:23

cau 168:12

caused 169:6

causing 151:11

caution 196:18

cautious 228:15

Celsius 158:1

Cen 20:25

cent 163:7,8 194:23 232:5

Centra 1:6 3:9,11 4:15,22 5:10,18 6:3,8,14 7:5 8:9,14,16, 21 9:16,21 10:2,8 11:21 12:4,18,24 14:12,17 15:15 16:6,7,19, 20,22,25 17:1,2,13, 25 18:4,21,25 20:10,14,17,23,25

21:4,10,22
22:8,17,21
23:5,13,15,23 24:5
25:4,9,23
26:2,9,11
27:5,13,16
28:5,9,12, 14,18,24
29:1,3,6
30:6,7,21
31:12
32:4,22
33:14,17
34:2,9,13, 25 35:12
36:6,9
38:7,19
39:13
40:19,20
41:11
42:1,13,23
43:15
44:5,12,17, 21 45:9
46:5,9,15, 16,24
47:3,8,17, 20,25 48:8
49:4
53:18,22,24 54:15
55:13,16,19 57:5,7
59:19
60:1,7,10, 16,24
61:1,7,10, 16,24 62:2
63:1,7,12, 16,18,25
64:4,8,17
65:1,12,14
66:3,11
67:3
68:13,22
69:20,24
71:18,22
72:10,17
77:4,8,15
78:24 81:4
84:1

86:1,2,6,7
87:13
89:18
90:9,12,22
92:5,11,20
93:2,20
94:4,10,11, 22,23,25
95:17
97:7,16,18
98:17,21
99:12,18,24
102:11,12, 25
103:5,11,14 104:9
106:4,8,13
107:9
108:2,12,16,24
109:3,18
110:3,10,11,18 111:3
117:18,20
118:11
119:6,12
121:14,16, 21
122:6,20
123:2,3,5, 11,19
124:13
125:2,6,20,24 126:18
128:4,8,11,20 132:24
134:14,18
136:12
137:16
138:4,5
139:5,8,20
140:12
141:1,11
142:10,23
143:7,8
144:3,18
146:15
147:15,23, 25 148:14
149:4,19
150:14

154:5
156:23
157:4,16,23 159:10
162:6,16
164:15,18
165:25
168:24
171:9
172:25
174:5
175:7
176:14
181:9,13
182:6,7,22
183:2
184:7
186:16
187:24
189:19
190:2,23
191:8,20,25 192:1
194:18
197:4
198:14,19
200:24
202:7,14,23
203:14,21, 24 205:8
206:11,13, 22
207:13,18, 22
208:11,24
210:8,16
211:4,13,25
212:5,8,10
213:4,7
214:7,17
215:10,12, 15
216:2,11,20
217:8,12,20 218:3
219:21
220:10
222:3
223:12,25

224:11,22
225:13,23
226:1,23
228:3
229:18
230:20
232:5,12,1
9,25
235:4,15,1
6,22
236:10,20,
25 237:12
239:18

CENTRA/
  CAC-13-C
  95:10

CENTRA-1
  4:22

CENTRA-2
  4:24

CENTRA-3 5:3
  17:6

Centra's
  8:2,8 9:23
  10:3 14:12
  19:12,13
  25:25
  26:3,19
  27:1,6,7,1
  0,17,21
  29:21
  32:10
  33:23
  36:12,17
  37:6,18,23
  38:3
  39:11,15,1
  6,25
  42:9,10
  45:21
  46:21
  49:16,20,2
  2 54:25
  57:10,12
  63:3 64:5
  66:4,7,24
  69:17
  70:1,6,13
  74:10
  82:21 83:8

85:15 86:5
87:22
90:18
92:21
97:22,25
98:3 103:1
107:11
108:18
109:16
112:9
140:10
160:23
166:23
167:11
176:5
186:11
187:2
190:11
210:6
213:18
218:15
224:9
229:8
232:6
235:20
236:6

centre 62:11
  136:22

centres
  50:12,21
  52:4

cents 53:8
  173:20
  174:22
  194:25
  197:23
  198:15
  199:6
  212:10
  231:20

century
  53:11
  174:1

Cer 108:23

certain
  69:18
  126:13
  134:14,15
  146:15
  162:17

170:16
173:12
207:22
227:7
229:3

certainly
  32:1 42:16
  43:4 67:4
  71:1 80:9
  96:20
  99:20
  100:2
  108:23
  109:25
  117:19
  169:4
  176:3
  195:21
  196:20
  202:9

certainty
  130:9
  199:2
  214:8

Certificate
  3:20

Certified
  240:22

cetera 238:3

chair 7:12
  9:16 10:7
  66:10

chairing
  7:13

Chairman
  1:13 9:13
  10:19,22
  13:2,18
  15:6 16:3
  19:8,17
  20:3 25:21
  30:5 31:2
  48:22 54:9
  59:13
  66:24 75:8
  111:9
  144:16
  188:11
  237:16

CHAIRPERSON
  7:3 19:23
  22:5
  66:13,21
  111:14,17,
  22 167:16
  168:3,7
  188:13
  240:14

challenges
  26:2 64:11
  210:20

challenging
  51:2

change 47:14
  65:21 84:7
  166:1,2
  227:16,17,
  18

changed
  195:15

changes
  8:14,17
  44:1
  47:9,18,20
  53:16
  56:4,5
  60:19
  65:14 89:2
  105:13
  137:24
  169:7
  195:12

changing
  47:4 48:1
  56:1,9
  59:6
  113:19
  115:13
  200:12
  238:6

**characterist
  ics** 31:7
  34:20

**characteriza
  tion** 91:25
  143:12
  148:17
  149:1,3,7

170:9

characterize
  97:21
  137:12
  187:13
  211:8
  214:22

**characterize
  d** 41:24
  138:9
  164:8
  171:10
  238:12

charge
  118:14
  191:3

charged
  118:6
  194:18,19
  199:8

charges 93:4
  117:16
  131:3
  142:10,24
  163:1

chart 6:8
  17:17
  95:9,12
  96:5
  124:13
  131:17
  144:20
  145:12
  146:14
  154:2
  156:24
  157:5
  158:17
  160:16
  177:2
  178:23,24,
  25
  179:10,15,
  25 180:12
  185:4,8,10
  200:23
  222:25
  223:3
  224:8,16
  230:11,14

231:4,15,19,23,25

cheaper
130:6
149:20
175:8,19
180:2,8,17,20 185:22
187:3
189:13
236:10

cheapest
102:2,5
185:11

check 39:16
73:7 123:6
124:4
136:25
150:1
165:10
185:24
216:20

checking
156:13

Cheryl
240:25

Chicago
32:23 33:8
36:21,23
37:1 44:11
45:6,22
48:14
55:25

chief 23:3

Chippewa
56:15

choice 38:3
159:24
187:20

Christine
23:16

chronology
59:23

circular
107:21

circulated
10:19

13:19
15:7,15
63:4

circumstance
93:13
107:20
118:22
151:3

circumstances 36:7
56:2
106:25
128:12
206:4
227:16
229:3

Clair 113:24
138:14
139:1,7,25

clarification 10:15
16:16
62:24
112:23
113:8
220:8

clarifications 225:23

clarify
21:12
218:24

class 65:16

classes
238:21

clear 67:25
83:6 98:16
100:15
121:10
129:1
133:24
184:6
196:5
211:17
227:22
228:11

clearly
64:21
106:24

137:22
151:2
196:14
204:7
220:21

client
19:10,22

close 35:24
36:5 60:24
87:3 101:9
139:1
173:18
212:22

closed 24:17
42:8
143:14

closed-book
71:1

closely
141:19
189:6
212:10

closer 46:20
50:21
53:10
56:13,17
73:10
169:13,20
174:1
204:12

closest
101:9

closing
13:1,4,12,15,16
19:6,8
55:6 58:21
143:17
196:1,21

Coalbed 51:5

coast 58:12

cognizant
151:5

coincidence
181:19

coincidental

220:14,15

cold 37:22
38:18 39:8
43:15 93:8
133:7
146:25
147:10
148:4
149:4
150:5

colder 27:10
40:9,12
118:18
148:22

coldest 39:6
40:24
147:9
148:9
157:17,22
159:10

cold-weather
41:23

collaborate
107:3

colleague
8:6

colleagues
22:16
23:7,24
90:11
101:20
102:10
152:6

collect
91:24

collects
172:11

colour 166:7

Columbia
53:5

column
158:17
193:3,8
194:1

combination
33:7
114:5,20

165:16,17
204:21

combined
26:25 45:4
166:16
167:8

combining
52:20
167:18

comes 37:20
76:8 82:19
137:7
155:24

coming 76:5
103:15
107:8
129:5
132:2
137:14
160:20
165:1
166:9,11
173:20
196:1
231:17
238:6

commence
77:18

commenced
57:18

commencement
7:4 29:3
58:11
90:24
124:19,23
148:19,24

commences
83:11
165:20

commencing
7:1 29:20

comment 38:3
40:7 43:3
46:2 88:14
161:20
185:20
239:9

comments

3:8,9
10:22
12:1,4,6,7
19:10,11,1
2,22 20:1
22:8 37:5
45:8 48:5
57:23
58:21
63:12,20
67:16
103:14
112:7
132:10
140:25
175:4

commercial
26:18
41:25 62:4
238:24

**commercializ
ation** 50:8
51:12

commercially
64:21,22
69:19
211:9,13

commodities
185:3

commodity
65:15
172:18
174:9
187:14
224:9

communicated
200:1
210:7
211:8

**communicatin
g** 140:17

**communicatio
n** 62:19
200:22

**communicatio
ns** 13:10

companies
42:22

97:17,21,2
4
98:1,9,15
138:24

company 9:1
23:21 24:3
29:9 30:13
40:18 46:3
74:22,24
76:2,25
91:21
98:19
101:10
105:10,24
106:21
112:14
120:22
144:3
171:15,18
190:18
207:21,23
212:24

comparator
128:7

compare
127:7
230:14

compared
30:3 35:22
88:6 92:13
127:2,4
171:10
180:9

compares
166:4
172:24

comparing
192:6

comparison
36:25 53:9
127:13
183:12
204:8

competing
46:24

competitive
191:10

complete

68:3 195:8

completely
41:12
152:16
226:9

complicate
82:2

complicated
21:14

component
8:20 84:10
85:12
146:5
161:14

components
81:10
168:1,4

**comprehensiv
e** 61:8

compressors
85:9
115:14

computer
108:18
110:10
181:9
182:14
188:5
214:6
225:18,24
226:6

concede
110:19

conceivable
44:15

concept
113:10
114:22
115:7
134:13

concepts
133:25

concern 43:1

concerned
101:12

concerns

69:10,17
79:22

conclude
80:16,21
209:14
237:18

concludes
66:10
80:11

concluding
10:23
12:17
28:24

conclusion
78:13
100:19
180:1

condition
105:4
150:11

conditions
36:18
37:13
43:20
47:4,18
48:2 59:6
109:21
148:5,9
158:9
159:17
160:1

conducted
9:3
35:4,12
39:11
216:17

conf 69:3

conference
4:4 9:4
60:14,25
61:16,23
62:1,7,15
63:25
64:3,14
65:2,6,7
192:25
203:11,14
209:13

confidence
21:9 29:2
217:22

confident
187:12
210:6
215:18
217:18

confidential
68:22,25
69:4,16
211:5

**confidential
ity** 68:20
69:10

**configuratio
n** 150:21

confined
51:17

confirm 13:5
96:19
116:17
137:2
186:24

confirmation
53:2

confirming
145:8

congregate
172:17

conjunction
32:21

connect
29:15

connected
36:15

connecting
210:21

**ConocoPhilli
ps** 28:23

conscious
47:11

consecutive
43:15

consensus

13:4
174:25
228:24
229:15

consequence
42:16

consequences
29:4,8
30:16
41:17

conservation
89:1,4

consider
37:15
60:10
68:24
79:19
100:16
183:2
208:16
219:21

**consideratio
n** 34:3
38:17 40:9
46:1 61:19
99:19
102:21
189:5
198:11
202:21
203:15

**consideratio
ns** 34:8
35:1
49:20,23
108:20
109:5
123:24
128:22
214:20
215:4,7

considered
44:3 64:4
69:7
108:24
110:5,11
160:11

considering
41:8

186:16
222:16
238:5

considers
68:22

consistency
228:11

consistent
30:14

consistently
227:15

consists
92:9

constitutes
158:8

constrained
36:18

constraints
131:22

consultant
35:16
38:15
39:14,18

consultants
109:10
206:17

consultant's
39:21,24

consultation
60:7 64:22
203:20

consulting
7:20 61:11
216:1

consumed
57:10

consumer
141:16
143:3,4

consumers
4:19
5:8,13
11:2 15:2
17:21
18:2,9,13

20:8,14
30:2 62:10
91:10
101:1
107:21
172:25

consumption
89:5 238:3

Con't 5:1

contain
69:19
230:11

contained
57:21
131:16

contains
16:12
108:19
144:21
177:1

contemplated
135:17

contents 3:1
64:20

context
154:8
184:25

continent
50:15
185:22

continually
227:24

continue
111:12
128:6
173:14
188:21

continued
96:9 97:14
112:3
157:13
168:9
170:2
188:25
197:18

continues
56:21

125:22

continuing
58:25
63:24
201:8

continuously
47:14

contract
20:13
28:22,25
29:1,2,5,2
0 33:13
46:23 48:1
64:24 82:6
87:13
105:18
109:2
117:20
126:21
129:12
141:7
153:7
160:23,24
161:3,6
165:1
166:24
167:2,5,11
,12
186:11,17,
22 190:2
192:10
200:24
201:5,9,19
,22,24
221:18
222:4
234:14

contracted
153:5
164:21

contracting
138:1
192:5

contracts
8:18 9:20
23:20,24
24:7,10,14
,20 25:2
26:5
29:8,21

30:1,3,12,
17 31:5,10
33:11,15,2
1 34:2
48:6,12
49:10
55:2,5
60:3 70:1
75:6,19
77:3 78:15
79:14
80:2,18
87:18
91:17
105:2,5,11
107:6
121:2,11,1
2,17
123:25
129:3
135:10,24
140:21
165:21
202:3

contractual
8:3,24
64:1 74:24
93:21
99:21
106:19
107:12
128:20
140:19,22
162:5
189:7

**contractuall
y** 106:11
202:11

**contradictio
n** 20:9

contrary
136:5

contribute
21:6

contributes
45:15

contributing
58:9 115:6

contribution

103:18,25

control
34:22
148:10

**controversia
l** 22:14

convenes
13:16

convenience
15:13

convenient
25:6 78:6

conventional
51:15,20

converging
227:25

converse
175:19
180:9

conversely
179:19

conversions
16:13

conveyed
200:15

cooperated
17:13

coordinated
141:8

coordinator
23:13,15

copies
15:14,15

copy
15:19,22
16:24
70:20

corner 15:22
75:9
131:12
133:17
154:4
207:9

corporate
67:5 68:3

77:3
226:20
229:10

corporation
68:14,16
76:19,21
99:4
107:16
184:4
214:19

correct
69:16,23
70:8,16
75:1,13,15
76:13
77:16,20
79:1 80:3
81:6,18
82:6 83:9
84:14,21
90:8,15
91:12,18
93:18,19
94:11
95:19
96:11
97:19
102:3
103:3,8
105:5,6
110:9
113:13
114:13
115:4,6,9,
24 116:23
119:3,4
120:15,24
121:6,12,1
3,21 125:2
126:16
127:21
128:3,23
130:12,24
132:8,25
133:1,8,21
134:5,6,10
,18,22
135:15
142:12
145:3,4,13
,20,22,23,
24

146:6,9,10
,16,17,24
147:3
153:1,9,21
,25
154:5,10,1
5,23
155:1,2
156:13
158:15
159:6,8
160:21,25
161:24
162:1
163:14,15
165:3,23
167:6
169:9
171:12,13
173:7
177:18,19,
23
178:5,15
182:10,12
183:13,15
184:18
185:10,18
186:19
188:2
189:10,14,
15,22
190:14,16
191:23
192:4,18,2
4
193:6,12,1
8
194:5,10,1
4,15,21
197:24
198:1,3,4,
13 201:1,2
202:4,25
203:1,8,16
,23 205:10
206:10
207:14,15
208:17,24
209:22
211:24
212:7
213:6

214:9,18
216:3,8,15
217:3,7
218:5,11
220:11,12
222:11
223:13,15
224:12,19,
24
225:9,10,1
4,21
226:4,18
227:23
229:6
230:16,17,
21,25
231:8
232:21,23
233:6,25
236:8
240:22

correcting
230:10

correction
158:20
200:19

correctly
84:19
192:22
232:9

**correspondin
g** 44:10

**correspondin
gly** 24:10

cost 8:8
9:19 20:15
27:3,4
29:4,8
30:9,16
33:6
34:11,21,2
3 35:23
36:1,10
38:18,20,2
5 40:1
44:24,25
45:25
46:21
49:17
52:8,24

82:21 83:5
84:10,11
85:14,17
87:19 92:4
94:5,10
100:20
102:7,25
103:9
106:15
119:12
123:2
127:2
128:2
142:18
143:23,24
168:25
169:23
176:21
183:2
184:10
189:14
204:22,23
240:4

**cost-
effective**
37:25
46:10
101:22
149:13
236:1

**cost-
effectivel
y** 149:10

costing
176:6

costly 41:21
205:18

costs 6:4
8:23 10:3
23:19
25:2,3,4
26:4
29:17,23
32:12
34:7,21
37:9,12
38:10,23
45:4 48:16
50:1 53:25
54:1 55:21

59:8 64:19
70:2 71:19
73:12
74:7,15,16
78:14
81:1,5,6,8
,9,13
82:24
83:1,2,7,1
8,21
84:3,12,17
,18,22
85:3,14,20
,22 86:1
90:20
94:16
96:5,12,24
97:8 98:20
107:10
128:7
144:8
155:1
169:1,21
183:6
184:20
187:18,25
192:14,16
198:18
205:18
213:16
224:10
231:22

cough 107:25

counsel 2:2
7:18
9:9,15
10:11 12:5
19:9 66:25
67:15 87:2
88:4
120:23

Counsel's
172:23

counter
128:2

**counter-
parties**
73:21
75:5,22,24
76:11,12

78:4,25
79:12,25
140:4
174:20

**counter-
party**
139:21
162:16
163:3,10,1
8

couple
16:7,8
118:17
236:5
237:23

course 7:24
33:13
41:23 78:5
101:6
150:3
166:11
191:15
198:24
222:1
226:16

covered
28:19
49:21

created 16:4

credit 91:10
118:7
176:4

credits
118:13,17
120:10
121:1

critical
44:13

cross 12:23
89:16

crossed
207:14

**cross-
examinatio
n** 3:18
12:16
66:12,16

67:1

**cross-
examinatio
ns** 19:15

Crown 107:16

Crystal
116:21
132:4

cubic 53:3,4
58:6

cumbersome
204:7

cumulative
43:11,12

curiosity
157:22

currency
72:18

current 25:4
29:1,21
30:3 31:25
32:3 33:23
39:2 40:4
57:15 89:8
118:21
121:15
130:21
132:23
133:10,17
152:21
158:21
159:22
168:23
173:12
200:11,24
223:6
239:18

currently
10:5 26:11
28:24 57:3
88:6 93:17
96:7 108:3
117:14
119:2,21
120:11
122:7
123:2,3,5,
12 153:21

186:16
194:13
198:15
213:8
220:11
223:20

curtailment
160:1

curve 221:5
224:21
231:11
232:16
233:16

curves
35:13,15
38:8,13,15
181:13,20
188:8
218:18
219:2
220:16,17,
19 221:3
224:11,14
225:8,17
226:1
230:14,19,
22
233:3,5,20

customary
70:6

customer
62:12
137:1

customers
11:20,21
26:2,13,14
27:5 45:16
49:15,24
62:4 65:23
74:11,12,1
4,15,16
87:6,7,11,
22
88:22,24
89:2
149:12
159:6,12
160:3,6,8
238:5,6,20

,24,25

cyclability
221:13
222:9,16,1
8
223:13,15

cycle
55:12,16
236:3,4

cycles
143:18

cycling
32:19

—————
D
—————

daily
42:19,25
43:10
54:19
136:10
137:20
151:23
153:10
157:25
161:16
178:15
228:8
236:16
237:3

Dakota
204:1,18

data 35:11
48:25
177:17
178:4
179:6
218:16
233:23,24

date 13:7
36:11
70:13 74:5
78:2
158:2,25
192:5

dated
4:4,10,23
14:7 16:20

Dawn 138:25

139:9

day 13:15
27:23
29:13 33:2
42:7
43:12,24
58:7
61:7,16
67:19
90:22
113:19
117:20,22,
23 118:3
135:25
139:14,18,
20 141:15
143:17
151:1,2
152:1,23
157:17,19,
22
158:4,6,8,
11,17
159:10,21
160:12
161:3,6,8
162:10,13,
19 163:6,8
200:25
201:6
207:22
229:24
234:9
235:8,9
236:5,11,1
8 237:20

day-ahead
42:6

day-by-day
227:18

days 7:8
9:10 22:13
43:15
118:17
235:15,16
236:12,14

day-to-day
237:7

de 199:14

deadline
80:19

deal 9:4
83:1,2
84:10
121:22
159:16
226:9

deal-by-deal
96:2

dealing
224:8

deals 20:13
230:14

dealt
17:15,16

debt 28:3

decade 53:11
58:1,13
173:25

decatherm
140:20

decide 36:6
71:3

decided
31:21

deciding
235:15

decision
47:12 79:9
109:12
125:7
192:9
214:10,25
215:1

decision-
making
39:12
214:23
215:4
217:24

decisions
80:9 138:1
214:18
226:11
228:23

declare
43:20

decline 69:3
238:19

declining
238:18

decrease
88:25

decreased
88:21

decreasing
192:14,15

deem 21:20

deeply
192:12

default
102:9

deferral
83:3
239:23

deficiencies
129:2,20

deficiency
198:11
199:7,11

define 117:5

defined 30:7
107:16

defining
100:15

definition
113:14
114:14

degrees
158:1
170:15

deliberation
s 66:22

deliver
36:17
207:18

deliverabili
ty 29:14
33:1

131:15
151:13,23,
25 152:22
153:7,10
161:17
166:15,18
167:14,15
168:14
204:19
231:24
234:4,6,15
235:1,2,3,
6,14,21,23
236:7,16
237:9

delivered
36:12
81:22
105:12
140:2
162:2,5,15
163:22,23
164:4,6,8,
12,21
166:4
167:9,19,2
0,23
168:18

deliveries
43:14,16
208:7

delivery
87:14
117:21
135:8,12,2
1 136:7,22
137:14
140:13
171:18
174:10
175:1
187:7
193:20,21
201:5

demand 42:19
43:9 45:12
50:12
56:12 93:3
117:15
118:6,14
131:3

141:19
142:10,24
162:1
163:1
171:1
173:4,5
186:8
192:10
200:24
201:5,9,19
238:1,11,1
4 239:4

demarcation
171:15

demonstrate
155:15
177:12

demonstrates
150:14

denominated
72:15
73:17 74:4

department
22:11 49:8
59:15
133:18

dependent
84:23
152:16

depending
26:22
73:18
78:23
104:6
123:17
143:6
150:20
178:8
206:4
233:10

depicted
161:9

depicting
178:14

depiction
171:8

deplete

237:5

depletes
235:17

depleting
41:13
237:7

depreciated
199:14

depths
127:24

deregulation
106:3

derived
35:14
38:13
220:25
224:14

describe
31:23
33:16
50:25
114:17
137:20
138:4

described
31:6 38:5
53:17
59:19
71:15
113:21
173:25
178:7,11
180:7,14

Description
4:2 5:2
6:2

design 63:16
65:15
124:11
158:8,25
160:3,5
238:9

designated
134:8

designed
117:13
158:20

designing
182:6

desired 47:1

detail 33:19
151:17
195:17

detailed
34:13 49:3
195:18

details 26:7
31:10
101:18
127:8
172:4
180:6
185:25

**deterioratin
g** 50:19

**determinatio
n**
202:11,14
218:15

**determinativ
e** 110:13

determine
6:3,6
20:19
96:23,25
97:7,11
172:17
180:2,7

determined
34:9 98:17
99:1,12,16
104:10
107:11
121:21
181:21
192:2
203:22
212:1
219:1

determines
90:9,12,22
202:7

determining
236:6

develop
111:3
206:12,21

developed
51:25
181:13

developer
182:17

developing
49:18
53:21
206:8

development
49:16 50:8
57:19
206:18

Dew 140:5

Deward 140:5

differed
39:23

difference
126:1

differences
83:4

different
38:7 39:18
47:24 51:5
75:17,18,2
4 106:24
111:3
117:3
123:24
165:8
168:6
182:8,9,18
184:25
185:1,3
219:9,12,1
4 223:9
224:17,18
225:1,18,1
9 226:12
227:1
230:23
232:20
233:8,9
236:25
237:17

239:15
240:2

differential
177:11,15
179:1
180:16
181:16
183:8,11
184:12,18,
20,24
185:6
188:1

**differential
s** 41:5
185:1,2,3,
5

differently
110:24
143:20

differing
170:14

differs
31:25

difficult
41:20
42:18
48:10

difficulties
170:18
178:8

dimensional
52:12

dimensions
52:13

dipping
185:16

dips
180:16,17

direct
12:9,22
19:15
22:20,23
23:8 68:24
76:23
78:19 79:4
90:11
101:20

111:2
168:18,21
169:5
175:3
186:15
195:13
199:16,23
211:2

directed
8:13,18
9:21 67:12
68:1 79:18
80:13

**direct-
evidence**
66:11

direction
71:12
100:25
115:13
134:9
136:8,9,14

directional
52:22
110:12,16
214:7

**directionall
y** 39:24
40:3

Directive
65:25 66:2

directives
80:10

directly
69:2 82:8
161:22
234:3

directors
64:5
70:6,13

disagreeing
176:17
236:24

**disagreement
s** 20:25

disagrees
236:20

disallowance
  107:10,15,
  17,18
  108:1,6
discern
  180:12
disclose
  68:25
  208:24
disclosed
  212:24
discounted
  33:11,12
  46:6,8,15
  48:11
  93:17
  135:13
discovery
  187:9
discreet
  39:21
discretely
  92:16
discuss
  25:25
  60:17
  106:22
discussed
  217:20
  237:24
discussing
  56:25
discussion
  34:15 35:8
  60:8,15
  61:8,15,17
  62:21 66:7
  210:23
discussions
  34:13,25
  35:10 79:7
  211:1,2
dispersed
  34:7
displaced
  139:8

displacement
  136:3
  138:9
displacing
  170:5
dispose
  129:10
dispositive
  110:12
  214:8
disruption
  151:3
dissatisfact
  ion 129:9
distinction
  66:5
  166:20
distinguish
  167:14
distribute
  30:8 60:8
distributed
  15:14
distribution
  28:16
  40:18
  42:22
  60:15
  61:15
  84:12
  91:21
  103:21
  138:24
  212:25
diversificat
  ion 49:25
diversify
  36:20
  53:23
  55:23
diversity
  24:21 35:2
  45:20,21,2
  3,25 46:11
  47:12,23
  53:19,20
  59:7

189:17
divided
  169:24
  236:16
divorce
  129:14
document
  15:21
  105:1
  160:16
  192:22
  216:24
documents
  4:21 13:22
  15:7,10,12
  16:3,5,12
  17:13
  70:20
  71:17 72:1
  74:23 75:8
  124:12
  131:8
  133:15
  144:13
  148:14
  152:20
  154:3
  155:7
  157:18
  158:11
  165:6,12
  166:8,22
  171:7
  172:24
  176:20
  177:1,4
  182:6
  183:10
  189:4
  192:21
  193:15
  197:21
  217:1
  222:25
  224:7
  230:3,5,11
dollar 58:2
  118:7
  193:8,9
dollars

32:13
38:21
43:23
46:21
48:16
53:8,10,12
58:3
72:4,15,25
73:11,23
85:4 89:22
173:19
174:1,3,4,
21 178:25
193:3
194:22
212:10
213:15,16
216:6
231:19
done 21:4
  78:6 188:6
  203:22
dotted
  171:11
doubling
  239:1
doubt 22:14
Doug 2:4
  3:17
  22:9,10
  25:16,17
  30:18,23
  31:9,22
  33:16 35:3
  36:4 37:4
  38:2 39:10
  40:6 41:16
  42:21
  43:25
  44:15 45:7
  46:2,12
  47:2,19
  48:3,18
  49:2,9,18
  50:3,22
  51:16 52:7
  53:14
  54:5,14
  55:1,10
  56:3

57:2,14
58:20
59:9,18
60:18
61:4,12,22
62:5,14,22
63:5,14,23
64:7
65:1,13,24
66:9
downstream
  134:15
  138:11
  151:5
draft 4:6
  14:2
dramatic
  50:16
dramatically
  52:25
draw
  24:23,24
  152:7
  235:15
draw-downs
  154:13
drawing
  148:6
drawn
  147:1,7,11
  ,25
  151:18,24
  155:8
draws 146:15
drew
  223:24,25
drilling
  52:21,23
drive 186:7
drive-in
  141:5
driven 93:8
drives 42:4
  231:22
driving

56:23

drop 154:7

due 58:10
69:17
205:17
209:10
210:19

duration
9:19
218:11,14

during
11:9,16,23
16:14
19:18
40:14
43:15
44:14
150:3
154:13
174:4

dwell 155:3

dynamic
227:17

E
---

earlier
44:19
49:22 87:5
133:10
137:4,17
148:3
189:12
223:23

earliest
124:18

early 78:6
194:9

earn 93:11
118:7
121:1

earned
120:11

earnings
27:17,21
28:1,5,12
107:18,19
239:11

240:6,12

ease 187:8

easier 100:3

east 56:22
115:3
172:20
193:16

eastern
113:24
114:2
151:6
169:16,19
193:3,11,1
4,15,20,22
194:1,23
203:4
208:17,19,
20,25
209:19
211:3
212:2

ECI 7:20

econometric
238:22

economic
40:3
164:22
192:2
201:15
205:24
206:2,6,24
,25

educated
109:4
180:13

effect 73:24
78:15
101:5
215:24
222:7

effective
30:10
34:12
127:2
141:13,25
142:19
186:17

effectively

55:16
64:11
147:12
149:15
222:3

efficiency
52:24
238:15

effort 80:20

efforts
64:23
80:16

eight
23:19,24
24:13,20
25:1 70:1
75:6,17,18
153:12

eighty 38:21

either 55:24
69:2,5
77:4 115:2
120:11
141:1
145:6
146:1
153:18
159:13
176:17
204:16
206:15
209:8

EKG 223:1

elapsed
124:6

electric
28:7

electricity
28:13
229:13

electronic
15:14,19

element
47:12
226:14

elements

167:19

eleven
175:13,17
177:21
181:1,23

elicit 68:21

eligible
240:10

eliminate
208:11
212:11

eliminated
27:21
120:2
203:14,25
204:2,9

eliminating
213:3

elimination
203:19

else 122:15
129:11

else's
123:13

elsewhere
187:24

email 13:10

embedded
119:5,8
140:21
182:19
188:9
195:7,8
235:4

emergency
43:20

Emerson
29:16
56:18
113:23
115:12,17
116:22
121:19
135:20
136:23
145:18

emphasize
20:11

empirical
187:2

employ 214:1

employing
181:13

Empress
193:2,11
194:1
198:16
205:3

empty 41:14

enable 44:7

enabled
62:19
137:3

encountering
170:18

endeavour
13:14 88:8
174:18

endorse 70:6

end-use 89:2

energy
2:10,12,14
5:16
11:6,11,14
,19,22
13:9
18:17,20,2
4 19:4,5
47:13
57:2,16
60:9 82:17
89:1,3,4
119:20
120:17,25
171:15,17
189:8
198:5,9,19
200:1
211:18
238:7

engage 64:14
229:16

engaged
  31:18
  39:13
  216:1
  217:7,13

engagement
  60:4 217:5

engaging
  64:12
  207:21
  208:1

engineering
  7:19 9:17

enhancements
  32:10

enjoy 32:11

enjoying
  106:5

Enron 101:10

ensued
  35:8,17

ensure 15:22
  43:8 128:9
  151:13
  196:20
  215:17

ensured
  217:21

ensures
  157:16

ensuring
  217:16

enter 23:20
  94:12
  100:1
  121:25
  125:7
  140:15

entered 9:20
  29:22 64:1
  105:3,18
  106:2,20
  125:24
  153:7
  162:6
  210:25

entering
  29:8 75:22
  125:3
  128:19

entire 50:13

entitled
  119:10

environment
  30:10
  239:18

environmenta
  lly-
  responsibl
  e 30:11

envision
  205:23

envisioned
  60:13
  194:8

equal 187:22
  238:17

equally
  238:14

equation
  102:22

equilibrium
  174:23

equity 28:12

equivalent
  124:13
  148:21
  183:24
  207:21

erosion 32:8

error 75:3

escalating
  170:2

especially
  20:4

essence
  140:16
  162:18
  189:12

essentially

21:12,13
90:7
106:4,10
124:6
161:2
208:1,4
210:4
219:5
225:20

establish
  198:6,9

established
  8:3 50:18

estimate
  86:25
  87:21 89:7
  112:9
  159:3

estimated
  85:3

et 238:3

evaluate
  33:18 35:1
  64:19
  201:9

evaluated
  44:24

evaluating
  192:5

evaluation
  31:7,18
  34:20 37:5
  64:13
  106:13

event 40:15
  146:4
  147:20
  148:6
  163:4
  214:1

events 59:23

ever-
  shrinking
  169:24

everybody's
  66:21

everyone
  111:23

everything
  47:13
  154:9
  195:11

evide 9:7

evidence
  4:24 5:12
  10:17
  12:9,22
  16:23
  18:8,12
  19:15
  21:2,3
  22:1,20,23
  23:9 30:20
  31:4 48:24
  54:10
  65:10
  76:23
  78:19
  90:11
  98:8,15
  101:20
  115:1
  141:3
  169:5
  175:3
  176:2,8
  186:16
  187:2
  190:2
  191:6,12
  195:13
  196:17
  199:17,23
  201:7
  202:22
  208:10,14
  228:12
  234:7

evidentiary
  9:8
  11:10,16,2
  4

evolution
  56:10

evolved

107:5

ex 86:18
  121:11

exact 124:5
  143:7

exactly
  107:16
  220:10

exam 71:1

EXAMINATION-
  IN-CHEF
  25:16

Examination-
  in-chief
  3:17

examined
  12:24

examining
  34:6 66:6

example
  24:2,15,22
  27:8 47:10
  51:8 53:1
  90:23
  117:22
  152:22
  162:10
  169:10
  170:6,17
  184:6
  203:25
  214:24
  231:13
  236:3
  239:1

exceed
  130:17
  139:13

exceeding
  140:22

exceeds
  186:7

except 74:11

exception
  20:22
  121:18

exceptionally 26:25

exceptions 175:12

excess 43:17 53:12 91:9 93:21 143:15 149:9 174:2 186:4

exchange 62:20 72:23 73:2,17,18 ,24 74:4 123:21 138:5 139:4,12 144:2

exchanging 174:22

exclude 88:21

excluded 160:7

excluding 86:15,18,2 0 87:5 88:23 89:8

excuse 11:2 20:2 78:16 132:20

executed 174:24

executing 99:11 116:2

executive 67:3

exercise 129:22

exercised 125:14 130:7

exercising

121:22 142:22

exhibit 4:2 5:2 13:19,20 14:1,2,3,7 ,15,20,25 15:6,8,10 16:20,22,2 5 17:1,6,18, 19 18:1,7,12, 23 70:21,22 75:10 172:24

exhibits 3:3 4:1 5:1 13:24 14:10 16:19 17:22 18:18 19:4,5

exist 120:7 153:23

existing 8:17 28:22 55:7 56:24 78:9,22 80:18 92:20 119:15 121:10,11, 17 123:20 124:7 125:14 126:19 128:8,9 129:2,9 207:10 223:11

exists 120:5 153:21 177:11,15

expect 51:11 66:7 88:24 109:23 198:20

202:13

expectation 84:5 239:3

expected 40:12 58:5 78:3 225:18

expecting 52:8

expects 44:5 53:6 84:1 165:25

expensive 42:15 130:6 175:21 178:3 179:15,21 180:24 189:25 204:6,18 212:16

experience 24:5 59:2 73:25 99:25 115:25 148:10 158:9 181:2,12

experienced 27:10,13 107:1 158:22 181:22

experiences 228:9

expire 8:4 30:4 33:25 60:3 80:18 121:12

expires 28:23

expiry 34:1 78:9,22

explain 10:12

31:11 50:22 75:23 87:6 95:15 110:4 113:10 117:5,17 157:15 177:10

explanation 16:17

explicit 185:25

explicitly 187:4

exploit 183:7

exploiting 41:4

exploration 51:14 52:16

explore 9:23

explored 212:3

exploring 33:19 105:25 202:25

explosive 171:4

export 56:13

exports 58:12

expose 64:22

exposed 142:23 152:1

exposes 142:10 164:16

exposing 144:3

express 174:17

extend 10:6

extended 121:1

extensive 35:7

extensively 22:1

extent 35:3 50:1 154:17 169:16,18 180:18 182:16 196:18

external 228:22

extra 170:7 221:17

extracted 174:14

extraordinar ily 147:19 148:4

extreme 21:1

extremely 79:15

eye 149:7 180:13

_____
F

face 74:15 86:9 131:10

facil 237:5

facilitate 56:11,18

facilities 29:15 34:24 116:18 138:20 204:24

facility 117:25 138:5

140:3
151:19
152:15
172:13
204:19

fact 16:6
27:15
58:16
105:21
107:2
108:10
109:19
110:20
124:1
148:22
180:15
181:24
194:3
197:25
207:17
214:24
233:1

factor 95:15
106:9,11,1
7 143:3
187:25
239:5

factoring
58:11

factors
36:10
44:23 85:1
94:24
95:21
108:24
167:23
168:24
239:14

factual
191:20

fair
73:12,14
79:5,24
85:24,25
88:14
127:3
145:7
174:7
180:22
187:13

190:11
193:23
203:17
206:9
212:13,14
214:15

fairly 210:5

fall 58:15
106:23
171:3

fallback
102:18

falling
173:6

Falls 116:22
132:4

familiar
92:6,8
98:10
117:7

Farwell
140:5

favourable
64:24
106:6

fear 20:8

feature
32:17
222:18

features
31:23
32:3,7,15
126:8,13

February
6:10 70:12
144:22
147:16,17
152:4
155:13
156:25
157:7,24
158:22
162:12

feel 70:25
152:3
226:24

fees 42:17
43:2,11,12
142:6,9
143:22
144:4
236:22

feet 53:3,4
58:6

felt 125:8
130:9
217:18

FERC 93:17
94:2
130:19
211:12,20

fields
206:9,12
207:6

fifteen 51:7
185:12
220:21,22,
23,24
221:22
222:5,13,1
4

fifth 232:15

fifty 53:8
73:11 93:4
163:7
236:18

fifty-one
236:11

figure
176:12
219:23

file 29:1
69:25 84:2
85:16

filed
4:3,6,9,22
,24 8:1,21
13:15,22
16:21,23
17:2 18:9
30:20 65:5
70:7 96:10
198:25

filing 29:3
65:2
82:22,25
84:5 85:3
110:16
195:4

filings
81:12
88:10

fill 33:6
133:4

filled
166:12

filling
237:8

filter
174:16

fin 71:19

final 35:20
64:15
71:19
83:20
112:11
202:14

finalized
9:25 80:2

finalizing
8:18

finally
19:17
65:24

finance 23:2

financial
23:3 27:19
43:21
113:1
125:8

financially
173:17

finding
88:16

fine 69:13

fingertips
87:25

finished

12:1,19

fir 230:15

firm 44:10
117:10,11,
14,20
119:6,9,15
120:2,6,8,
12 121:2
149:12
158:17,20
159:5
160:9,18
166:21
167:5,11
190:4
191:21
198:17
201:9,16
216:1

first 53:11
99:22
100:15
105:1
117:9
121:15,17,
23,25
122:17
123:20
125:7,14
127:7,19
128:1,5,11
,21 129:22
130:7
159:12
160:17
173:25
177:8
192:25
193:7
221:23
231:5

firstly 11:2
12:16,24
57:24

fiscal 27:20
28:18
112:8

fit 38:14
231:10

five 12:12 17:3 51:8 62:11 92:5 106:4 148:21 173:17,21 182:4 199:14 209:20,24 210:11 211:3 212:2 213:15 218:18,19,24 219:6 220:23 221:22 222:5 224:21 225:9 229:15,19,22 230:15 232:4,6,12 233:24 237:18

five-ninety-one 153:12

five-zero 190:5

fix 173:17 198:22 199:1

fixed 8:22 10:3 23:19 25:3,4 29:17,23 32:11 33:6 48:11 70:2 71:19 74:7 81:1 84:17 85:20 86:1 90:1,3 94:16 98:20 102:24 118:14 167:24 169:23 192:14

flawlessly

36:12

flexibility 24:15 32:7 35:2 44:2,16 47:23 48:13 49:25 55:9,11,19 59:5 109:1 142:19 215:6

flexible 42:14

flip 131:7 133:14 152:19 200:20

float 73:18

flow 56:8,19 115:19 116:5,21 133:19 134:9 135:19 136:5,13,21 137:3

flowed 145:18 168:20

flowing 115:3 117:24 132:3 136:8 137:18,22 143:2

flows 56:20 87:22 113:18,22,25 114:5,6,11,15,20,21 116:12 172:13

flow-through 27:4

fluctuation

72:23

focus 232:2

focussed 64:15

forbid 118:18

foreca 228:24

forecast 35:15 57:23,25 58:1,7,9,10 82:24 83:1,19,20 110:23 113:1,4 118:21 159:3 173:13 174:9 224:9,18 225:9,13,15 226:21 227:12,14,20 228:4,8 229:15 238:1,22

forecasters 142:2 226:25 228:17,22,25 229:15

forecasting 48:25 229:13 238:12

forecasts 83:5 85:18 174:17,21 218:25 221:9 227:17 228:16,24 229:6

foreign 72:23 73:2,24 74:4

foreseeable 173:14

foresight 226:7,9,11,14,15 237:12,15

forewarned 10:9

form 21:2 35:18 63:7 78:4 240:2

formations 52:16

formed 105:5

former 50:19

forming 180:15

forms 51:5 185:1

formulate 65:11

forth 71:13 172:21

forty 58:2 72:24 173:20

forty-four 72:3

forty-nine 72:3

forty-three 26:15

forum 211:15

forward 35:13 70:14 72:2 77:21 96:9 103:15 110:7 133:25 134:8 135:3,6,14 136:14 152:14 168:11

174:7 181:15 191:3 193:10 194:20 200:22 206:15 213:24 216:12 224:11,14 226:20,24 229:1

forwarded 124:1

forward-haul 114:1,5,20

Foulkes 23:16 200:21

fourteen 72:2,7 173:11 174:3

fracturing 52:23

frame 147:4 199:2 213:25 223:7

frames 198:23

free 70:25

frequent 40:14 148:6

Friday 15:16 16:23 17:2 173:19

friend 17:19

friends 94:23

front 149:18

frontier 51:10

FT 119:6

236:3,5
237:7
238:4,7,16
239:19
240:7

gate 87:16

gathering
172:11,16

gener 44:6

general
28:14,20
45:8 48:4
66:8
84:6,9
85:15
88:18 89:5
92:4
103:15
174:11
175:13
192:11

generally
31:13 36:1
40:16 41:7
44:6 45:4
83:24
138:9
172:13
175:8,11
185:11,13
205:5
208:10

generate
41:4 100:6
227:8

**generation/
transmissi
on** 228:18

generically
91:15

gentlemen
7:4 25:23
31:3 48:23
54:9 59:14

geographic
187:18

geographical

ly 34:7

geologic
52:15

gets 207:24

getting
104:18
115:21
123:16
127:24
129:14
133:19
134:17
168:1

gigajoule
53:8,10,13
173:20
174:2
193:3
198:15
199:6

gigajoules
29:11,13
33:2
139:14,20
152:23
200:25
235:9

**Giraldo-
Gomez**
23:14

Girouard
1:14 7:14
8:6 9:13

gist
122:13,15

given 10:23
15:18 36:4
51:9 59:1
60:23
62:23
66:14
73:22 77:4
79:12,13
80:17
82:25
87:17
102:1
104:6

106:1
110:21
117:20
122:1
123:19
124:8
131:23
135:25
142:19
143:3
150:16
154:8
158:21
165:14
173:24
206:25
227:15,20
228:9

gives 128:8
222:13
233:9

giving 61:2

GJ 140:20
163:8

GJs 55:17
117:22
118:3,5
139:16
201:6

GLGT 81:2
128:3
132:4
145:18

GLGT's 69:25

goal 41:13

goals 98:3

gone 154:9

Gosselin
1:13 7:10

government
107:24

graph 146:1
147:4
155:6,14
172:23
177:16,18
178:2,14

graphically
177:12

graphs
166:21

Grass 9:1

great 9:1
23:21 24:3
29:9 30:13
31:5,21
33:12,20,2
4 35:25
36:9,11,16
,17,19
43:1 45:19
46:4,19,25
47:17 48:6
56:19 59:1
69:25
76:2,8
77:12
84:17
89:23
93:22
113:12,21
116:10,20
121:18
122:2,17
123:10,25
124:2,23
125:24
126:19
127:9
128:15
130:18,22
132:12
134:22
136:14
137:1,2
138:13
139:6
140:1
141:8
152:22,24
153:13
174:16
212:25
223:12

greater
24:14,21
36:16 37:2
55:22

123:1
142:23
144:3
187:10
237:4,6

green 62:11
144:21
145:3
146:8
154:12
162:1
166:8
223:1

Greg 3:13
5:5 17:8
23:6 25:11
59:12,22
60:20
61:6,14,24
62:8,17,25
63:8,18
64:2,10
65:4,18
66:2
71:11,23
72:6,13,16
,20
73:3,6,14,
20 74:6,13
75:2,14,20
,25
76:9,14,17
,24
77:5,9,13,
16,20,23
78:1,11,20
79:2,10,20
80:3,15
81:7,19
82:5,9,14,
18,23
83:9,14,17
,23
84:13,20,2
5
85:6,11,16
,23
86:3,9,16,
20,22
87:2,9,24
88:8,17,23
89:12

90:1,7
105:23
128:24
129:17
203:23

grid 56:8

grips 107:14

group 2:14
11:19,22

grown 51:6

growth 51:16
171:4

guarantee
28:3 102:6

guarantees
77:3

guess 16:1
70:17
87:16
143:11
147:24
149:6,7
175:23
181:7
218:23
223:19
227:7

―――――

H
―――――

habit 68:10

half 175:18

hand 41:1
61:3 62:21
232:25

hang 213:19

happen 181:6

happened
50:4 61:12
101:11
185:21

happens
99:8,9
107:17

happy 22:12

hard 88:15

151:12

harder 45:4

harm 151:11

haul 114:6
133:25
134:5,8,12
135:3,6,14
136:14
138:3
139:3
152:23
161:12,13

having 36:1
41:19
46:16 47:1
113:22
123:16
150:10
164:16
186:1
189:9
219:11
226:10
227:24

hear 13:17
184:24
208:15

heard 82:16
84:19
152:6
175:3
202:22
215:25

hearing
4:4,9
7:5,8,13
8:9,19
9:5,8 10:1
11:1,5,10,
17 13:6
15:24
16:15
19:18
22:13
27:24
28:17 29:6
33:23
57:16,17
78:24

80:11
106:22,23
189:8
228:20
238:1

hearings
11:24 57:4
62:2

heating
41:25

heaven
118:18

heavily 44:6
45:12

hedge 72:17

height 52:14

held 1:19
13:4 31:15
34:13
60:14
63:25 65:6
106:23
139:9
220:11

he'll 12:23

help 24:1
45:14
142:22
151:16

helped 177:2

helpful
142:5

helping
86:11
114:10

helps 114:9

Henry
183:17,23
184:1,6
187:16,21

here's
155:23

he's 23:3,4
188:22

high 57:23

59:4
164:24
174:3
190:10
204:22

high-demand
52:3

higher 42:17
43:2 46:17
58:18
93:22
123:16
129:24
150:6,9
175:16
177:23
221:10
237:9

higher-cost
207:2

**higher-
priced**
181:5

highest
145:16

highly 32:23
42:6

hindsight
110:19,23
148:18
154:23

historic
173:23

historical
136:5
148:23
181:2,12

historically
24:11
56:22
113:22
134:21
147:20
148:6
158:9
164:13

history 26:9
141:15

227:13

hold 32:22
98:1
121:14
128:6
139:25
150:21

holding 57:3
131:6
164:22

holds 117:20
122:6

home
56:13,17
169:20

hope 114:8
116:25

hopeful
239:25

hopefully
21:9

hoping 79:2

horizon
199:3
201:3,14

horizontal
52:22

host 65:2

hosted 61:16

hour 22:25
111:9,10
113:19
237:19

hours
141:14,16,
22 236:4

hub 36:24
37:2
138:23,25
171:18
172:5,6
177:11,15
183:13,17,
22,23
184:2,6,9
186:6

187:7,8,16,21

hubs 35:14
37:16
53:24
182:9
183:12
184:2,8,11,14,21
187:21
225:19

humour
176:19

hundred
26:12,15
29:12
38:20
72:3,24
73:1,10
139:15
216:24
223:19

hurdle
228:11

hydrates
51:10

hydraulic
52:23

Hydro 2:4
22:12,17
23:3 26:10
28:3,10
30:6
105:19
228:16
229:19
239:19

hydrocarbon-bearing
52:15

Hydro's
229:9

hypothetical
105:9
127:24

_____
_____I_____

ICF 61:10
216:1,5
217:6,13,25
218:6,20,25 221:9
225:8
228:5,7
229:16
230:19,22,23
233:1,2,20
236:8
237:1,11

ICF's
225:9,12,15 237:2

I'd 7:9
13:18
31:11
95:14 99:5
117:4
124:4
156:4
189:1
238:8

idea 148:20
230:1

ideal 205:20

ideally
36:15

ideas 62:21

identified
69:21
120:22
128:17
236:14

identify
21:7,8
122:19
156:3
209:19

IFRS 27:20
239:12,20,23 240:10

ii 95:11

III 20:6

22:15

I'll 7:13
10:20,23
13:22
22:6,19
69:5 70:21
73:6 74:3
89:15,19
105:21
111:12
139:22
156:20
182:3
198:7
210:10
227:5
229:10

illustrate
192:19

illustrative
193:2,9

I'm 9:14
12:1 16:1
22:12,16
59:15
68:3,11,14
75:2 76:25
87:25
91:24
92:8,23
95:9 96:20
103:16
109:2
111:9
114:16
115:11
119:9
122:12
123:8
131:11,13
134:17
135:17,25
137:19
138:19
143:12
151:20
152:1,8,24
155:4,9,11
156:2,10,13 169:3
176:16

178:22
179:4,14
185:17
195:20
196:13
198:5
202:8
226:19
233:2
237:16

imaging
52:13

immediate
23:1

immediately
240:15

imminent
80:19

impact 28:13
47:14
138:1
169:13
237:14

impacted
27:8
153:11
168:25

impending
106:14

implement
37:23 55:2

implementation 84:7
195:9

implemented
6:18 27:20
165:15
196:6
197:9
200:14

implementing
49:10
239:23

imply 99:3

import 50:13
56:16

important
28:11,18
37:7 57:12
58:14 93:6
126:7
141:11

impose
100:25

impression
129:8
151:9

improve 32:7

improved
48:13 59:6

improvement
106:16

improvements
51:13

inaccurate
142:2
146:1

inadequate
21:16

Inc 1:6 4:22
5:9
11:4,12
12:5 17:22
18:3,10
62:10

Inc.'s
5:11,18
7:5 18:5
19:1

incidentally
220:10

inclined
208:24

include 8:19
32:18
38:17 39:5
47:1 48:11
52:3 84:10
116:5
120:18
135:3
206:16

215:4

included 6:9
34:10,14
60:4
61:8,17
73:12
82:21
103:1
119:15
120:18
156:24
157:5
160:2,7
189:4
203:3
205:1
217:1,19
219:22

includes
40:22 42:7
43:10
45:21
54:18
55:15
103:9
166:3

including
13:10 31:6
34:3 36:13
37:15,18
40:25
74:15 81:6
82:24
86:16
107:11
108:17,25
148:13
167:8
192:16

income
27:7,11
103:17
112:9,15,2
5 113:2

incor 7:5

incorporate
81:12

incorporated
17:18

181:15

increase
28:16 33:1
46:9 47:7
49:24
103:24
106:15
198:20

increased
44:1,25
48:13
52:23
88:20
107:20

increases
113:5
192:16
238:14,15

increasing
192:1
200:16

increasingly
50:18
169:19

incremental
43:13
159:23

Inc's 4:15
14:18

incur 27:13
72:10

incurred
27:16
99:11
131:4

incurrence
162:10,25

incurring
162:13

inde 21:9

indeed 71:14
142:1
201:15
208:5
216:16

independence

229:14

independent
21:10
215:9
216:19
228:17,25
229:15

index 171:22
172:6
173:1
185:11
186:23

indexed
185:11
186:11

indi 171:22

indicate
6:14 13:8
19:3 65:20
92:18 93:1
104:20
116:10
120:16
179:11
186:21
196:25
197:4
223:7

indicated
13:11
19:6,16
23:7 71:8
115:12
120:5
121:4
176:3
209:5

indicates
181:2

indicating
82:11
88:14
168:13
193:4
210:19

indication
6:11 84:1
153:20
156:25

157:8
175:7
196:2
199:16

indicator
174:6
229:2

indifferent
20:18

individual
89:6
130:11
175:23,24
181:6

individually
238:25

industrial
26:18 62:3
87:10
238:23

industry
52:25
172:5
175:11

inflicted
170:15

influenced
39:7

information
4:14,18
5:10,17
14:12,17,2
2 15:2
17:24
18:4,19,25
21:17,19
60:23
61:20
62:24 63:2
64:23
65:12
68:22
69:1,6,16,
20 70:24
87:25
88:11
94:23
109:9
110:7,25

144:18
149:22
174:16
176:21
182:13
188:23
195:18
196:19
200:9
201:13
209:9
211:5,8
212:3
215:1
216:5,11,1
7,23
219:24
227:16
231:18
232:19
233:21

**infrastructu
re** 56:10

ingredients
167:8

inherently
181:14

inhibiting
53:25

initial
25:18
195:4

initiated
8:10

inject
223:16

injection
45:13
118:1

injections
32:19,25
40:2

injects
134:15

input 35:11
188:4
214:23

225:8

inputs 37:15
109:18
219:17,18,
21 220:2

inquiries
210:11

inside
171:19

insist 227:8

insofar
81:19

installing
115:13

instance
183:17

instances
150:7
205:8

instructs
66:3

integrated
28:7

intend 13:13

intended
68:21
85:15
200:5

intending
112:24

intends 29:1
72:10

intent
145:12

intention
8:16 72:20
213:19

intentions
13:12

intents
147:12

inter 183:20

intercept

146:20

interception
134:13

**interconnect
ion** 87:15

**interconnect
ions** 34:16

interest
210:16

interested
20:11,12
60:5,16,22
62:23
63:6,8
65:7,11
107:4
123:9
188:11
195:22

interim
194:20,22
198:1,10,1
7 199:18

intermediate
46:7

**internationa
l** 27:19
61:11
138:23
239:24

interpret
178:23
234:2

interpreting
185:10

interprets
85:21

interrupt
10:13
159:13

**interruptibl
e** 65:16
74:12,16
118:9,11
120:13
152:2
159:6,12,1

9,20
160:3,6,7,
8

interruption
149:12

intersect
56:20

intersecting
113:18
114:16

intersection
183:19

interstate
8:25

intervening
57:5,8

Intervenor
11:7

Intervenors
10:25
11:18,25
13:9 62:1
65:8,10
107:4

intervention
10:25
21:12

**intra-
Alberta**
172:8

intra-day
36:13 42:7
141:2,12
236:3

intra-state
183:20

introduce
7:9 22:16
59:10

introduced
12:13
113:9

introducing
21:2

introduction

22:25

**introduction
s** 19:13

introductory
70:18
210:11

Inventan
187:6

inventoried
150:10

inventories
147:10

inventory
32:20
147:21
148:7
149:15
150:9
171:25
172:6,7
183:21
187:6
234:13

investigate
8:10

investigated
34:2

invitation
61:25 62:6

invited
61:1,22
63:6,9

invoice
163:17,20

invoiced
73:19

invoid
237:13

invoked
124:8

involve 96:2
208:1
215:20

involved
11:13 35:8

75:6 91:17
106:13
129:12
183:6
206:17
238:23

involvement
81:25

IR 70:12
209:6

IRs 153:19

isn't 21:18
28:4
129:15
139:24
142:24
225:11,12
229:11

issue
27:23,24
28:17,19
66:6 98:18
192:11,20
226:9
239:24

issues 10:16
16:10
20:24 21:7
60:17
62:19
63:20
84:11
117:1
200:20

iterations
35:20
182:15

iterative
35:17

it'll 153:23

it's 19:14
20:20 25:6
28:11
37:23 39:3
41:14
67:18 70:5
74:6
75:9,10

76:25
79:17,24
82:2 88:14
89:14
90:1,4,10
91:15
107:21
108:3
112:10
113:17,18,
19 114:10
116:14
119:8,14
121:9
123:14
129:11
130:22
135:11,12,
14 136:3,7
138:9
139:11
141:12
142:5
143:20,23
146:1
148:3
150:18
153:13
156:6
158:25
159:2,3
164:5,25
165:16
166:11
167:4
168:12,13
171:15,20,
22
172:6,10,1
6 174:8,9
175:23
177:2
179:20
181:7
182:14
183:5,18
186:21
187:5
188:7
189:8
193:16
194:19

198:18
206:23
207:17
209:13
211:1
213:11,14
216:24
220:15
221:20
226:24
227:6,21,2
2 229:3
231:9
235:15,19,
25
236:21,23,
24

I've 10:19
12:13
13:9,11
15:7,18
19:6 70:20
72:9
109:15
151:21,24

___

J

January
162:12

**JEMLP/
CENTRA-1-1**
5:15
18:19,23

jeopardize
64:23

job 31:13,14
37:23 49:4
67:5

jobs 22:21

Johnston
2:14
11:22,23

judgment
229:10

July 13:5
61:15
192:25

jump 139:22

194:7
227:6

June 1:23
16:23
57:18,22
61:6
118:10,15,
18 127:18
195:19,25

juxtapose
166:20

___

K

Kerr 2:12
11:15

key 31:16,23
36:10
49:20,23
57:18

Kim 2:14
11:22,23

kinds 101:12

knew 73:5
190:17
217:12

knowledge
110:24
137:17
158:13
190:11

known 61:9
63:10
90:24
91:15
120:12
146:12
169:6
171:25
210:6

Kostick 3:14
5:5 17:9
23:9 25:12
30:23
31:1,9,14
32:1 33:22
35:5
36:4,8
37:7

38:2,6
39:13
40:6,11
41:16,19
42:21 43:4
44:5,20
45:10
46:5,14
47:5,21
48:3,7,19
49:22
121:9,16,2
1,24
122:4,11,1
6,23
123:4,8,14
,23
124:11,15,
21,25
125:5,10,1
9
126:6,17,2
1
127:4,10,2
2 128:4,23
129:23
130:2,8,16
,24
131:2,5,13
,18,24
132:8,14,1
8,20,25
133:5,8,13
,22
134:3,6,11
,16,21
135:5,15,2
2
144:13,23
148:2
160:5
203:1,2,8,
12,16,18
204:4,11,1
6
205:4,10,1
3,17,21,24
206:3,10,1
3,25
207:4,8,15
,19,25
208:9,13,1

8,22
209:5,12,1
6,22,25
210:4,13,1
8
211:7,17,2
4
212:7,14,1
7,21
213:1,6,11
,17,20,23
214:5,9,16
,21
215:8,11,1
6
216:3,8,16
217:4,7,10
,15
218:2,5,8,
12,17,23
219:10,16,
25
220:3,12,1
5
221:15,20
222:7,11,1
5,17
223:5,14,2
1
224:2,6,13
,19,24
225:2,6,10
,14,17,20
226:3,8
230:4,7,12
,17,21
231:1,9,14
,21
232:2,10,1
5,22
233:4,7,13
,25
234:2,5,11
,20
235:1,5,14
,19
236:13,23

Kurt 7:18

___

L

L.P.'s 5:16

18:24

lack 210:19

ladies 7:3
25:22 31:3
48:22 54:9
59:13

Lafond 1:15
7:15 9:14
10:7
237:22
239:8
240:13

Lake 132:5

Lakes 9:1
23:21 24:3
29:9 30:13
31:6,21
33:12,20,2
4 35:25
36:9,11,16
,18,19
45:19
46:4,19,25
47:17 48:6
56:19 59:1
69:25
76:2,8
77:12
84:17
89:23
93:23
113:12,21
116:11,20
121:18
122:2,18
123:10,25
124:2,23
125:25
126:20
127:9
128:15
130:19,22
132:12
134:23
136:14
137:1,2
138:13
139:6
140:1
141:8

152:22,24
153:13
212:25
223:12

landlord
215:13

language
10:9

lar 169:21

large 28:5
51:24
62:3,11
87:10
126:12
138:23
169:17
172:11,13
235:24

largely
41:24
84:23 93:8

larger
238:23

largest 42:9
217:4
240:4

last 12:25
15:15,16
16:11 24:6
53:2 58:15
75:7,10
88:20
104:14
105:17
107:1
112:8
118:17
129:4
142:4
161:20
163:21
177:1,21
181:1
185:12
202:23
204:13
236:4

lastly 11:18
68:19

233:18

late 106:2
236:4

late-night
36:13
141:2,6,10

later 28:16
45:17
64:12
116:25
162:22

latest 200:8

latter 152:9

Lavigne
240:25

law 171:1
173:3

LDC
40:18,20,2
1,24 41:11
92:2
226:16

LDCs 43:8
151:6

lead 22:24
143:6

Leader 31:15

leading
31:17
35:7,21
106:12
107:5

learned
22:10

learning
51:13

lease
213:8,12

leased 213:4
215:14

least 58:18
93:3
120:16,22
134:25
166:1

167:18
173:9,14
192:20
200:3
213:21
234:9,12,1
3 237:25
240:5

leave 128:25
129:7

leaves 146:7
154:21
170:6

leaving
131:19

led 50:10,16

left-hand
158:16
230:13

legacy
171:24

legal 22:11
87:2

length 52:13
109:2
216:25

less 20:22
22:14,24
25:3 35:24
42:14 44:8
45:1 53:18
55:24 93:4
122:6
123:3,5
176:6
179:15
182:5
227:23
235:3,7

lesser
169:22

let's 66:22
75:4 81:14
96:6 123:8
157:15
168:22
188:13
224:7

230:2
232:1
240:15

letter
232:20

level 32:16
57:23
108:16
146:21
217:17
234:2

levels 32:24
48:1
146:16
151:18
191:2

li 210:14
239:20

liabilities
239:20,21
240:1

Liard 53:5

liberty
13:23

licensed
11:12

lieu 159:19

light 46:14
53:16
111:9
132:10
237:19

likelihood
162:9

likely 41:12
126:10
133:7
140:5
161:12
174:6
199:19
206:16
207:8
238:14

likewise
77:14 78:8
85:14

175:12
201:17
211:8
228:23

lots 173:4

Louisiana
51:24
132:22
133:2,11
183:17,20
185:16

low 26:24
28:12
58:17
173:8,14,2
2 200:7

lower 24:12
58:7,8,9
89:5
123:12
125:21
129:21,24
150:5
169:21
179:6,12
199:20
231:15,16
236:14
238:4

lowered
57:24

lowest 54:1
102:7
145:16

low-risk
174:18

lows 173:11

LP 46:4

Ltd.'s 5:14
18:15

lunch 111:10
132:11
133:24
139:13
140:8,9

luxury
140:22

143:2

———————
M
———————
Ma 223:24

main 239:14

mainline
54:13
55:20
56:14,23
57:4,9,11
61:21
76:22
117:12
164:23
169:18,23,
25 172:20
192:6
194:4
198:16
201:18

maintain
24:1 46:25
59:4
128:10
148:8
229:14

maintenance
49:23

major 20:9
26:1 50:12
82:3 85:12

manage 30:8
32:24
54:24
97:22,25
126:22
150:4

managed
95:11
126:25
136:2
149:10,14

management
6:5
92:9,25
93:7
94:12,17,2
5 95:22

96:13,24
97:9
98:9,19
99:8
100:5,13
137:22,23
159:17

manager 49:6
59:14

managers
99:13

managing
99:23

mandate
30:7,15

Manito 11:3

Manitoba
1:3,6,22
2:4,10
4:15,22
5:9,11,14,
16,18 7:5
11:3,6,8,1
2 12:5
14:18
17:22
18:3,5,10,
15,18,24
19:1
22:11,17
23:3 26:10
28:2,4,10
29:16
30:2,6,9
36:12
37:13,20
41:9,21,23
42:1,11,19
43:16
45:11,24
46:19
54:21,24
55:20
62:3,4,10
82:12
93:12
94:14
101:1
105:19
115:17

117:21,25
118:2,19
134:20,24
135:4,21
136:14,22
137:7,14
140:13
157:23
161:8
189:19
193:17,20,
21 194:25
197:21
201:5
203:5
204:24
205:2,22
206:22
207:1,4
210:22
228:16
229:8,19
238:13,16
239:19

Manitobans
98:20
102:11
125:9
150:18
157:17
164:16

Manitoba's
42:25

manner 30:11
37:25
60:17

**manufacturin
g** 52:19

map 131:17
132:20
134:1
138:12
193:14

Marcellus
52:4

March 4:4,23
8:4,21
16:21
27:2,9,12,

18 30:4
33:25 60:3
65:5 77:22
80:12,18
112:8
121:12
152:4

margin 103:4
104:1
108:11
177:25

marginal
238:19

mark 5:12
12:19
18:12
108:2
170:16

marked 15:8
70:21 75:9
133:16

market 24:23
30:9 32:23
37:1 40:21
41:2,9,21,
24 42:2
44:11
45:11
46:10
47:4,6,18
48:2,25
49:7
50:5,21
51:3
53:7,9
54:3,21
56:2,4,9,1
1 59:6
60:9 61:17
81:23
91:4,15,20
92:1 93:11
100:4
109:20
118:13
134:24
143:10,14,
16
149:9,19
150:3

151:6
152:2
158:21
159:22,24
161:18,22
163:5
168:23
169:7
170:16,23
173:18
174:6,12,1
3,15,18,19
181:14,21,
23
183:4,7,25
185:6
187:14
206:4
207:22
216:12,17,
23 218:18
226:20,24
227:15,17
238:13
239:4

marketable
53:3

market-based
211:11

marketer
40:19
41:1,12
91:22 92:2
208:1

marketers
62:3,13
99:7,13

marketing
11:13
226:25

marketplace
82:12
151:15
169:13
171:2
174:20,25
192:7
227:8
228:10,12

markets
24:17 42:8
45:22
47:13
48:25
56:16
169:16,19,
20 227:10
228:1

market's
40:22
42:11
181:15

markup 27:5
102:25

Masi 2:8
11:5 12:23
15:16 20:7
69:9

match 42:19
46:24 47:1
122:20
128:8

matching
43:8
123:13

material 8:1
21:13 71:1

materials
91:14
213:14
237:25

mathematical
180:4

matter 12:25
22:13 43:2
59:24 60:5
68:8 70:14
81:1 99:3
105:20
215:20
227:6
236:24

matters 9:4
19:19
54:13 61:3
62:21
63:10,22

67:17
103:9

mature
238:13

maximizing
43:16

maximum
46:20
89:22
93:18
145:12
153:6
158:6
161:2,5
211:21
223:20

may 16:8,14
19:6,19
34:21
43:16
61:19
68:25 75:3
78:23
79:22
83:20
88:10
90:23
91:22
94:3,10
95:17 98:1
99:3,9,18
100:6,8
101:8
110:20
111:4
123:17
124:10,11
126:1
142:8
146:1
148:18
162:10
168:5
175:6
182:21,24,
25
184:14,15
193:1
208:2
209:14
219:14

238:9
240:2

maybe 70:11
74:2,3
96:6
101:17
105:21
109:17
126:17
127:14
142:25
148:17
152:18
156:4
185:19
196:25
211:21
227:5
229:23
236:11
237:23

MDA 117:22
140:2
201:10

mean
24:2,15,22
25:3 47:3
55:10 56:5
167:25
208:20

meaning 90:3
146:21
180:16
205:2
222:15

meaningful
9:22

meaningfully
64:11,18

means 107:16
151:20
152:1
159:14
170:17
208:20
223:16
235:22

meant 156:14
206:20

measure
10:10
16:13
17:16

measures
227:1

mechanism
117:11
120:5,18

meet 30:8
42:24
149:19
150:15
151:14
189:19,21
204:20

meeting
133:19
160:14

member
1:14,15
10:7

members
7:10,14
9:13 13:18
16:4,14
20:3
25:20,22
30:5 31:2
48:22 54:9
59:13
66:10 75:9
144:16

memory
185:20

mention
67:16 68:1
140:24

mentioned
51:21 72:9
104:4
113:11
117:2
136:23
138:3,12,1
3 140:8
148:3,12
149:4

189:3

mentioning
13:23

mercifully
216:25

merit 23:25
24:14,21
25:2

Meronek 2:7
11:5
12:2,17,23
15:16
19:9,21,24
20:2 22:6
69:8 223:1

Meronek's
12:3 19:11

Messrs 69:8

met 59:4
149:11

meter 56:18
115:16
136:23

methane
51:5,9

**methodologie
s** 49:1

mi 37:21

mic 204:12

Michigan
33:8 34:10
36:16,22
45:22 52:5
55:25
117:25
132:5
135:20
138:5

microphone
9:9 156:4

mid 185:21

**mid-
continent**
185:16

middle

141:20,22
145:16
152:25
178:2,24,2
5 193:25
231:4,25
232:2

midst 83:16
201:14

midwest
203:6
204:1

mild 26:25
27:13
37:21

million 25:3
26:20,21
27:1,3,11,
14,18
29:11,19,2
3 30:3
32:12,13
48:16
55:17 58:2
72:2,8
73:16,21
74:3 81:3
85:4 91:11
102:23
104:2,4,6,
20,23
112:10,24,
25 113:2
176:6,11
190:5
216:6
239:11

millions
43:23
46:21

mimic 208:4

mind 51:24
88:11
99:18
158:3
223:8

mindful
10:12
200:19

mine 10:23

minimize
45:3
237:14

minimizes
37:12
38:10,23

minimizing
37:9

minimum
211:21

minor 158:19

minus 140:3
157:25

minute
113:19
152:19

minutes
10:21
66:14
182:4,5
188:14
222:15
232:4
237:18

misspoke
167:4
180:22
233:18

mitigate
106:14
117:15
142:9
143:22

mitigating
142:6

mo 188:5

mode 68:11

model
35:18,20
36:2,5
37:8,10,14
,25
38:8,9,11,
23
39:4,6,7,2

1 44:23
45:1 49:14
170:1
182:14,19
212:21
213:4,19
214:6,10,2
2,24
215:10,14,
17,19,21,2
3
217:9,11,1
4,17,18,21
,23
218:1,4,14
219:11,13,
16,17,18,2
4 220:2
221:12
222:10,13,
18,19
224:1,23
225:9,18
226:10
230:6,8,20
232:13,25
233:5
235:6
236:17
237:11,13

modelling
35:12,13
37:6,8
38:5
39:15,16,1
7 44:20
48:25
52:15
110:10
181:14
188:5
216:20
217:23
226:6
236:25
237:2
238:23

models 50:19
108:18
109:10
181:9
218:7

230:24
237:14

model's
237:12

modest 28:16
103:17,23,
24

**modification
s** 36:14

modus 152:10

molecule
137:6,13
140:11

molecules
103:9
115:22
132:16
134:9,14,1
8 137:21
145:17
163:11
182:23
183:2

moment
196:22

money 91:24
92:21 98:3

Monica 1:14
7:14

monies 108:1

monitoring
141:23

month
118:9,15
226:11,12

monthly
54:19
171:11,14
172:25
178:14

months
78:9,22
79:6,11,15
132:1
133:20
135:19

175:15,16, 22 202:10 228:1

month-to 226:10

morning 7:3 9:13 15:14 20:3,4 22:10,25 25:23 31:2 48:21 54:8 59:12 66:24 67:18,21,22 112:6 113:8 115:11 143:16,17 195:14 199:17 215:25 237:21 239:10 240:16

mostly 85:8

motive 101:6

move 30:19 31:10 48:4 49:3 73:1 111:9 115:22 129:11 134:24 140:4 152:14 161:5,18,21 178:18 194:24 199:12 204:11 210:22 224:7 237:17

moved 56:22 81:21 113:22

movement 113:25 135:11

211:22

moves 100:25

moving 70:14 85:10 130:25 131:1 136:1,4 152:2 200:3 206:15 238:7 239:11

multiple 52:22

myself 7:9 12:17,24 13:14 190:6

───────
   N
───────
narrowed 210:12

Natalia 23:14

National 57:2,15 82:17 119:20 120:17,25 189:8 198:5,9,19 200:1 211:18

natural 8:24 11:19 26:5,24 27:3 30:2,8 34:4 36:23 38:8 40:17,19,23 41:10,22 42:1,8,19 45:11 48:24 49:25 50:4,9,13, 17,20 51:1,4,17,

20 52:1,18,25 53:9,18,23 54:24 56:4,6,9,12 57:9,25 58:12 59:8 60:9 61:9,17 62:2,13 88:20 102:11 134:13 137:6 138:24 157:16 168:25 169:17 170:20,24 172:14,16 175:1,11 182:8 183:23 216:12,17 225:15 229:13 238:7,16

nature 65:9 82:25 219:3

NEB 57:17

necessarily 16:4 107:12 128:6 137:7 150:20 170:11 180:2 184:9 214:1 222:24 236:23

necessary 45:1 113:6

negative 27:22 28:13 112:9,21 239:11

240:6

neglected 67:15

negotiate 64:24 127:17 130:10

negotiated 20:14 38:19 122:7 125:20 126:12 127:21 128:15 222:21,22

negotiating 31:19 49:19 123:21

negotiation 35:19 64:13 126:9

negotiations 28:25 33:19 35:8 37:19 64:16,18,20 79:8 80:16 122:1 125:4

neighbourhood 86:23 88:1

Neil 3:14 5:5 17:8 23:9 25:12 31:1,14 32:1 33:22 35:5 36:8 37:7 38:6 39:13 40:11 41:19 43:4 44:5,20 45:10 46:5,14

47:5,21 48:7 121:16,24 122:11,23 123:4,14,23 124:15,21,25 125:5,10,19 126:6,21 127:4,10,22 128:4,23 129:23 130:8,16,24 131:5,13,18,24 132:8,14,18,25 133:5,8,13,22 134:3,6,11,16,21 135:5,15 160:5 203:1,8,12,16 204:4,16 205:4,10,13,17,24 206:3,10,13,25 207:8,15,19,25 208:13,18,22 209:5,16,22,25 210:4,13,18 211:7,24 212:7,14,17,21 213:1,6,11,17,20,23 214:9,21 215:8,11,16 216:3,8,16 217:4,10,15 218:2,5,8,12,17,23

219:16,25
220:3,12,15
221:15,20
222:7,11,17
223:5,14,21
224:2,13,19,24
225:2,6,10,14,20
226:3,8
230:7,12,17,21
231:1,9,14,21
232:10,15,22
233:4,7,13,25
234:5,11,20 235:5,19
236:13,23

neither
162:24
191:15

net 6:4
27:7,11,14,16,17
96:13,24
97:9
103:17
112:9,15,25 113:2
114:6
238:19

netted
114:11

newcomers
10:8

newly 16:4

newspapers
13:25

ni 165:6

Niagara
56:14

night
141:21,23

202:6,9
236:4

Nola 2:10
11:8

nom 136:6
140:10

nominate
42:5
140:23
142:3
202:1
236:2

nomination
135:23
141:6,10,12,24
201:25
236:4

nominations
24:19
140:9,16
141:1
144:5

none
77:5,7,14

nonetheless
226:15

nor 137:17

norm 20:21

normal
40:8,9,12
104:10
109:23

normalized
113:3

normally
105:9

normal-weather
65:23

north 11:11
36:25 42:3
48:24
50:4,11
56:4,6,8
57:24 60:9

61:18
115:23
134:24
135:21
170:20
171:4
182:9
204:1,18

northeast
52:4 56:12

northeastern
169:19

northern
53:5
135:20

northwestern
172:20

notable
15:20 50:7
51:8

Notably 10:4

note 16:11
17:12
93:15

noted 9:16
60:21 87:4
134:22
171:16

notes 116:25

nothing 20:5
185:6

notice 4:3,8
13:24 14:4
61:25

noting 39:3

notion 152:5

notional
113:17
114:5,12
115:8
135:11
138:3
139:3
161:12
171:18

notionally

106:20
115:2
136:8
161:9
166:10
176:4

Nova 171:25
172:6,7
183:21
187:6

November
83:12
84:6,7
162:11
165:22
186:18
201:4,19

Nowhere
223:3

np
2:10,12,14

null 56:19
113:10,14
114:1,8,12,17,22

Numeral
95:10,11

numerical
230:6

numerous
50:10

─── O ───

objective
94:15
101:21
152:7

objectives
50:6

obligation
153:5

obtain 78:4

obtainable
126:10,11

obtained
21:18,19

35:21 46:8
126:8,13
219:1
228:17

obtaining
65:8

obviously
79:14
80:19
81:11
140:21
221:7

occasion
182:23

occasions
53:13

occur 40:12
133:7
239:14

occurred
106:4
134:25
148:23

occurrence
124:3
151:1

October
28:23
83:13
131:9,22
202:15

odds 20:23

offer 97:18
122:5,18,20
123:1,13,18 211:10

offered
57:22
119:2
159:18
192:17

offering
191:10

offerings
191:1

office 96:19
144:17

officer 23:3

offset
163:17
238:15

offsetting
100:9

oh 139:19

oil 52:21
207:6,10

okay 75:4
85:21
86:25
97:15
104:24
116:24
168:3,7
179:17
223:18
230:2

Oklahoma
51:23
132:21
133:2,11
185:17,21

old 195:21

on-average
175:14

one's 121:1

one-third
193:22

ongoing 35:8
47:14
64:16
119:21

on-hand
88:10

Ontario
34:11
138:24

onto 135:7

open 15:6
60:17 68:2
99:6 110:1

141:3

opening
3:6,8,9
10:22
12:1,3,6,7
19:9,11,12
,21 20:1
22:8 50:10
67:16
103:14
112:7
140:25
175:4

operandi
152:10

operate 43:8
54:17 55:5

operated
223:6,10

operating
7:21 36:18
43:20
55:9,11
81:8

operation
28:7 49:14
54:11
76:22
131:20,22

operational
24:15 34:8
44:1 48:13
49:24
78:18
105:13
186:3

operationali
ze 79:14

operations
25:25
27:16 33:3
57:13
131:9
133:11,18
134:2
135:18
152:20

operator

143:19
210:19

operators
34:14,18,1
9 35:7
210:5,7
211:3,9,10

operator's
34:22,24
151:17

opinion
174:17,18,
25 227:7
228:5

opportunitie
s 62:20
89:4

opportunity
9:22 22:3
25:24
55:22
60:16,23
62:23 63:1
79:17
93:10
117:15
118:12
143:15,21
182:17
201:18

opposed
20:11,21
104:15
121:4
130:11
158:24
164:11
168:19,21
202:21
214:7,23
236:12

opposite
179:9
180:6
199:23

optimal 98:2
109:6
110:13,20
111:4

182:15
216:13
221:4,11
232:13,16
236:6

optimization
35:12
97:23

optimize
54:17 55:6
101:7
128:20

optimizes
37:9

optimizing
54:23
143:24
144:8

optimum
231:6
232:8,21
233:9,15
235:3

option
24:22,24
34:12
36:9,25
40:1 64:5
162:19
184:7
189:25
190:11,25
202:22
203:4,5,6,
7 204:19
207:2
209:7
210:24
212:11,16,
19,20,23,2
4 230:16
233:22
234:20
237:6

optional
218:10

options 8:11
9:23 33:18
34:3,7,9

61:9,18
64:15
79:19
102:22
105:25
184:3,8,10
189:19
202:21,24
203:3,10,1
5,19,25
204:1,8
205:1,6
208:11,17,
19,25
209:19
212:2
213:3

oral 7:4
8:19 9:7
11:10,24
13:16 21:3
22:2

order 4:10
8:7,13
9:5,21
13:2,3
14:5,7
27:14
49:14
60:7,21
65:25
71:9,12,17
78:13 79:3
88:15
104:25
148:8
150:4
151:14
159:20
189:3
202:10
216:19
221:23

ordering
140:16

orders 16:8
171:8

originally
58:15,19

others 16:8

144:18,23
164:10
167:10
185:23

otherwise
24:8 131:4

ought 64:3

ourselves
100:6
124:8
148:19

outcome 47:7
78:24 98:6
171:2

outcomes
37:24 48:9

outline
10:20
12:13,25
19:16
30:24

outlined
135:23

output
219:19
230:6

outputs
215:15

outside
148:10
164:19

outsourcing
100:16

outweigh
184:11

overall
102:21
109:1

overlay
229:10

overview
25:25 26:9
71:7

owed
43:13,18

owned 76:18

───────
P
───────
p.m 111:20
141:13
188:17,18
240:20

package
125:19
126:12
130:10

page 3:2 4:2
5:2 6:2
15:21,25
16:2
75:7,10,11
131:11
133:15,16
138:12
144:15,20
148:13
152:24,25
154:2,3
155:6
158:10
165:5,7,12
166:7,14,2
2 167:7
168:12
177:1,3,8,
18 178:3
183:10
230:5,10
232:25

pages 1:24
131:10
166:7
196:16
216:25

paid 41:14
81:2 89:23
93:17
94:10
150:2
163:17

pain 170:15

paint 191:17

panel 1:12
3:11 5:3

7:10,16
8:7 9:13
12:18
17:3,6
19:14 20:4
22:19
25:7,9,20
30:20
48:20 54:7
59:11
66:10,24
67:4 68:1
70:19
189:2
240:18

panel-mates
215:5

paper 10:20
15:13
60:8,15
61:8,15

parallel
178:18

parameters
182:19

pardon 7:22

parent 77:1

partial
67:19

participants
9:6 62:18
63:4
170:16
181:21

**participatin
g** 22:1

particular
40:21 41:8
47:6,20
64:9 65:17
83:12
128:13
132:19
176:10
180:25
183:16
187:11
213:24

223:6
231:11
233:16
234:9

particularly
66:4

parties
13:20,23
20:12
33:22
60:5,16,23
62:16,23
63:6,9,13,
15,19
65:8,11
69:21
91:16
107:4
120:16,21
128:3
151:12
206:16
209:6
210:15
212:1,5
216:19
219:12
227:7,10,1
1

partly 204:2

Partnership
9:2 11:7
18:18
23:22 24:4
29:10
30:14 76:3

party 20:12
63:2 90:14
100:14
101:6
122:18,21
123:1,9
128:18
139:7
151:11
206:23
207:17
208:6
209:15,17
210:17,23

215:10

past
27:11,15
50:5
51:7,8
59:2 62:1
100:19
107:15
135:1
145:18
175:13
181:23
191:22
225:4
228:10
238:2,3

path 45:24
152:3
204:6

paths 189:17

pattern
136:5

patterns
50:17 56:8
170:20
238:2

Paul 2:12

PAUSE 74:19
80:6 94:19
95:3,24
96:16 97:3
98:23
101:15
105:15
118:25
122:9
125:17
126:4
136:18
137:9
138:17
142:14
144:10
149:24
150:23
164:1
182:1
202:18
209:3

214:13
220:5
224:4
227:3
234:23
235:11

pay 86:1,6
90:4,5
102:19
123:16
142:6,9
159:21
162:21,22
163:10
169:20
194:24

payers 32:11

paying
20:15,18
43:2 73:21
81:11
91:11
93:22
106:9
118:15
123:12
172:25
187:13
198:15
222:5

payment
163:2

payments
73:22

pays 25:5
119:7

PDF 15:22

peak 157:19
158:8,11,1
7 160:12
162:10,13

peak-day
158:20
159:5,16
160:6
165:7,13
166:1

peaking

161:25
162:2,4,15
163:1,6
167:19,23

penalties
43:7,21,24
102:20
144:4

penalty
43:2,10,11

people 7:15

per 25:4
29:11,13,2
4 30:3
32:13,20
33:2
38:21,22
43:24
48:16
53:8,13
58:2,7
86:7
108:12
113:2
117:22
139:18
163:8
173:20
193:3
201:6
235:8,9

percent
26:16 33:5
35:24
40:13
48:15
58:18 93:3
95:16,17
106:9,10
143:2
151:19,25
152:13
153:4
175:16,22
177:22,25
180:3,8,24
181:4,22
189:21
190:3
199:20

200:3,8,11
,17
223:19,25
234:10,13

percentage
73:1

percentages
65:16
168:5

**percentage-
wise** 93:2

perception
62:15

perfect
110:24
226:6,9,11
,14,15
237:12,15

perform
39:14

performed
44:21
216:21

performing
54:22

perhaps
45:11 71:7
74:12 88:3
100:20
113:15
121:9
129:20
151:17
155:5
176:6
182:4
196:11
200:5

period 10:5
58:8 73:25
74:1 83:5
88:10,25
89:6 90:2
91:3
106:5,12
116:15
124:5,7
143:8

174:4
175:17
178:9
179:10
186:5
224:21

periodically
99:8

periods
123:25
174:10
175:1
179:22

permit 79:17
136:24

person 23:4

personal
68:15

perspective
21:10
49:20
54:23
78:18
109:4
137:23
142:16
151:18,22
238:12

perspectives
40:17

petajoule
38:22

petajoules
29:11
32:17,18
38:3,14,16
39:2 40:5
44:18 45:2
55:17
86:6,7,13,
24 87:1
88:1 133:4
145:11,22
148:15
149:5,8
154:6,19,2
5
155:1,9,19
156:1

220:9,18,2
0
221:3,5,8,
17,21,23
222:2,4
223:4,8,17
232:4,8,14
,17
233:10,14,
22,23

Peters 2:2
3:18 7:19
9:9,11,12,
14
14:10,20
15:5,12
17:12
18:7,17
19:3,24
21:23
66:22,23
67:1,2,8,1
1,14,23
68:8,19
69:15,24
70:5,10,17
71:6,16,24
72:7,14,17
,22
73:5,9,15
74:2,7,21
75:4,16,21
76:4,10,15
,20
77:2,7,10,
14,17,21,2
4
78:8,17,21
79:5,16,24
80:8,25
81:14
82:1,7,10,
15,19
83:6,10,14
,15,18,25
84:4,8,15,
22
85:2,8,13,
19,25
86:5,11,18
,21,25
87:4,9,20

88:3,13,18
89:7,14
90:3,9,16,17,21
91:7,13,19
92:3,11,17
93:1,14,20
94:1,4,8,9,21
95:6,7,14,20
96:2,4,12,20,22
97:14,15,24 98:7,13
99:1,2,12,17,24
100:11,12
101:2,17,25
102:8,14,23
103:4,7,13,25
104:8,12,17,24
105:7,17
107:7
108:4,10,15,22,23
109:8,14
110:3,9,18
111:1,8,16,24,25
112:3,4,13,18
113:7,14
114:9,10,24
115:5,10,20
116:4,9,14,19,24
117:9,17
118:16,23
119:1,5,11,14,18
120:4,14,20
121:3,7,14,20
122:3,11,1

4,25
123:7,19
124:10,16,22
125:1,6,11
126:16,24
127:6,14,23
128:18,24
129:13,19
130:1,13,21,25
131:7,14,19,25
132:9,15,19
133:1,6,9,14,23
134:4,7,12,17
135:2,13,16 136:11
137:5,12,15
138:2,10,22
139:2,11,17,19,23
140:7,24
142:8,21
143:5,23
144:2,12
145:1,5,10,14,21,25
146:7,11,14,18,25
147:5,14,22 148:11
149:2,17
150:13
152:17
153:2,14,17,23
154:1,11,16,24
155:3,13,18,23
156:12,17,22
157:13,14
158:2,10,15,16,24

159:4,9
160:2,13,22
161:1,7,19,25
162:4,14,21
163:9,14,16,21
164:4,5,14,25
165:4,19,24 166:19
167:3,7
168:9,10,22
169:3,4,10
170:4,10,22
171:6,14,24 172:22
173:3,8,13,22
174:5,11
175:2
176:1,13,18,25
177:7,20
178:1,12,17,22
179:4,13,19,24
180:10,21
181:8
182:3,13,20,25
183:1,9,16
184:1,13,17
185:9,15,19
186:10,14,20
187:1,5,15,23
188:4,10,15,20,25
189:1,11,18
190:1,8,9,15,22
191:7,19,2

4
192:11,19
193:1,7,13,19,25
194:6,11,17 195:2,23
196:9,14,24
197:18,19,25
198:4,14
199:4,15
200:4,18
201:21
202:2,5,13,20
203:2,9,13,17,24
204:10,25
205:7,11,14,20
206:1,7,11,19
207:3,12,16,20
208:8,15,19,23
209:11,18,23
210:2,10,14,25
211:16,25
212:8,15,18,23
213:2,7,13,18,21
214:3,15
215:3,9,12,25
216:4,10,22
217:6,12,25
218:3,6,9,13,21
219:10,20
220:1,7,13
221:12,16
222:3,8,12,23
223:11,18,22

224:6,16,20,25
225:3,7,11,16,22
226:5,18,23 228:3,14
229:5,18,23
230:2,9,13,18,22
231:2,12,16
232:1,11,18,24
233:6,17
234:1,6,16,25 235:13
236:8,20
237:16

PHC
4:5,6,9,23,24

phenomena
186:1,4,9

phone 210:3

phonetic
188:9

phys 134:7

physical
56:15,20
59:7
113:16,18
114:11,15
115:19
116:11
132:15
134:9
135:11
184:9
186:1
187:19
208:3

physically
57:9 86:2
115:2,22
116:21
134:19,24
135:19
136:1,4,7,

13,21
137:3,18
172:16
207:3,7

pick 187:22

picked 210:2

picture
124:3
191:17

piece 161:17

pieces
126:14
130:11

pipe 43:6
114:8,18
151:2

pipeline
8:25 23:20
24:3 29:9
30:13
42:17,24
43:3,5,22
46:3 54:25
56:8,21
57:16 76:1
81:6,15,17
,21,24
82:20
113:16,17,
23,25
114:1,16,2
3
115:12,15
116:6,12
117:1,13
119:3
123:11
131:3
135:8,9
139:5,12
142:7,9
151:4,7,12
153:13
170:6,18
172:19
183:20
189:7,13,2
1 190:3,19
191:1,3,9

204:2,16,1
7 205:12
211:19

pipelines
34:16
50:18 56:6
84:24 85:9
87:16
114:4,19
132:16
136:3
137:18,25
172:9
210:22

pipeline's
61:20

Pipelines
29:16

PJs 151:19

placed 37:1
68:23

places 46:16
182:23

plan 23:20
40:24
148:3
238:20

planned
49:14
217:8

planning
53:19
54:19
151:22
158:5
201:3,14
228:18
229:8,9
238:18

plans 200:24
239:1

plant 87:16

please 10:13
16:18
19:17
30:24
31:22

33:17 38:2
40:7 43:3
46:2 48:19
49:4
50:3,23
52:7 53:15
57:14
59:10 64:7
66:15
96:22
139:23
188:14

pleased
25:24 46:6
58:25

plotted
179:1
183:12

plug 113:5

plus 213:15

point 6:10
15:20
32:20 37:7
56:19,20
58:14
59:21
71:18 73:1
74:5 81:4
87:4 89:13
98:16
106:18
107:8
109:15,19
110:1
112:14
113:11,14,
16,17,18
114:2,6,7,
8,12,15,17
,22,25
115:1
116:17
119:14
120:15
121:4,5
126:6
127:13
132:6
133:9
134:14,15

135:7,8
136:7
137:2,4
138:15
142:21
143:17
148:20
155:9,14,1
5,18
156:5,25
157:7
168:10
171:19
172:7,14,1
5 174:14
176:11
178:2
179:7
183:21
185:7,23
187:7,11,2
0 188:11
201:3
204:9
206:5
208:2
217:8
220:7,22,2
3,24
221:22,24
222:5,13,1
4
223:16,19
234:16

points 56:13
67:24 73:1
127:20
135:12
150:10
166:19
172:4
173:12
177:17
178:4
179:6
188:8
190:22

policy 67:11
108:16

port 96:8

Portage 1:21

portfolio
1:7 7:6
8:2,14
23:25
31:18,24
32:2,4,6,1
2,15 34:9
35:2
36:1,7,9,1
9,25
37:8,10,12
,23
38:4,24
39:11,20,2
5 44:3,7
45:3,21
46:22
47:8,9,12
49:15,19
53:22
54:11,17,1
9,23
55:7,8,15
58:23
59:3,8
61:9 63:17
65:20
90:19
92:20 96:8
100:7
101:8
108:19
109:5,16
110:14,19
111:3,4
126:9,15,2
3,25
127:18
128:14,21
130:5,11,1
3 133:12
135:3,25
137:22,23
143:24
153:24
160:3
164:17,19
165:14,20
176:5
182:7,15,1
7 216:14

217:24
218:10
219:9
223:6,9
231:6,10
235:3
238:10

portfolios
39:22
47:15

portion 9:8
11:10,16,2
4 57:1
81:22
85:15
91:2,5
94:16
116:12
235:24

portions
92:4

posed 17:24
18:20
21:16
144:17

position
27:22
31:15 84:2
102:18
119:22
130:5
174:8
227:24
239:12
240:6

positioned
136:21

positioning
187:19

positions
61:2 63:9
68:15

positive
59:2
112:20,25

possibility
123:15

possible

50:2 60:17
78:7
124:18
141:19
177:11
184:11
209:14

possibly
88:9

post 15:19

posted 15:23

potential
53:4 98:6
123:15
134:23
137:13,16
210:7
238:5

potentially
40:13
42:14
43:23
151:11
152:2
204:8,22

Power
240:7,8,10

practically
78:6

Pre 4:3

pre-1993
190:17

pre-ask 6:9
154:3
156:24
157:5

pre-asked
17:15,17
144:16

precedent
105:4

precise
168:17

precisely
144:7

precision

225:24

pre-contracted
164:4

predecessor
105:24
106:20

predict
22:12

predicted
37:22

predominant
171:21

preferred
10:3
108:18
110:19
164:16
212:24

pre-filed
18:8
98:8,14
176:2

pre-hearing
9:4

prejudge
206:5

prejudicing
64:15

preliminary
67:24

premise 47:6
191:12

premium
163:5,8
181:19

prepare
177:3

prepared
16:7
102:19
124:14
177:6
191:8

preparing

17:13 55:8

preproduction 52:14

presence
83:3

present
117:21
209:6

presentation
192:23

presented
58:19
195:7
203:10

presently
13:7 83:16
169:6
189:9
194:18
206:20

pressing
80:19

presumably
138:6

pretty 87:3
152:3

prevailing
51:3
159:22,24

previous
55:14
77:11
83:5,21
171:7
181:5

previously
50:9,13
51:21 52:1
166:3
169:16
194:8
206:17

pri 187:18
226:11

price 26:22
35:13,15

37:15
38:8,12,15
41:5,6
45:18 54:3
57:25 58:9
64:25
102:15
110:2
122:6
123:12,16
125:21
129:21,25
130:14
150:18
170:23
171:21,22
172:6,18
173:1,5,18
,19,23
174:13
177:10,14
178:7,15
179:1
180:15
181:13,16,
20 182:8
183:7,22,2
4 185:6
186:7
187:9,14
188:8
190:4
212:20
218:16,18,
25
219:2,6,9
221:9
224:11,14,
20
225:8,17,2
5 226:1,20
227:11,15,
20
228:4,16
229:1
230:19
231:11
232:7,16
233:3,5,12
,16,20,24
236:17
237:3

priced
184:14
186:22

prices 24:11
26:25
35:14
38:13
45:17 51:3
53:7,9,12
70:2
109:20
150:2,6,9
159:22,24
171:2,11,2
3
173:14,23
174:1,2,6,
9,19,23
175:14,16,
18,19,21
177:22,23
178:14,15
179:5,6,10
,11,12
181:14,19,
20 194:2,8
218:19
224:15,18,
23
225:12,15,
18
226:12,20,
24 227:9
228:8
229:7,13
232:13
233:1
237:7
238:4

pricing
48:25
106:4,6
119:24
226:2

primarily
26:13
161:11
166:12

primary
42:10
65:22 66:5

147:15,21
160:24
164:9
165:1
166:23
167:4,11
171:9
186:11,17
235:21

prior 8:17
9:24 19:13
29:2 60:5
64:4 95:22
107:9
108:13
148:23
162:6,8,9
170:16
196:21

pro 175:18

probably
88:1
104:18
127:1
158:3
165:8
177:2
190:9
195:22
229:25

problem
43:14

problems
223:23

proce 229:8

procedural
9:4 13:3
14:5 19:19
63:21

procedure
12:14,21

procedures
9:10
10:18,20
13:1

proceed
19:16
25:18,19

111:23

proceeding
30:15
57:6,8
196:17,21

proceedings
13:21
15:18
69:22 82:1
240:16

proceeds
90:23

process
8:10,14,19
21:15 31:7
33:17
35:17,20
37:5 39:12
59:16
60:1,4,13,
19,22 61:4
63:24
64:13 66:3
71:15
100:21
107:5
121:25
122:16
123:17
124:19,24
125:3,8,22
126:2,11,1
5 127:12
129:22,25
135:23
138:8
140:11
144:5
153:20,21
203:20
210:1
214:11,23
215:2,4

processes
229:9

processing
172:11

produce 51:2
219:19

220:17
226:13

produced
39:21
169:12
220:17,19
221:3,5,10
235:6

producers
52:8,17

product
227:9,11
228:8

production
50:11
51:6,14,24
52:1,9,17,
19,21 53:6
106:3
170:19
171:4
172:12
207:11
239:2

products
54:3

profit 41:4
94:13
101:6
103:5,11,1
8 104:1
108:11

**profitabilit
y** 104:13

profitable
53:7

program 92:9

programs
240:8,9,10

**prohibitivel
y** 190:10
205:18

project
22:15
31:15,17

promise
51:10

209:20

proper 172:5

properly
131:10

proponent
232:19
233:21
234:17

proponents
64:18
69:19,20

proportion
86:24

proportions
65:22
166:2

proposal
6:15,18
60:6 72:10
86:6 96:10
98:18
99:10
119:24,25
120:25
125:12
128:9
195:7,9
196:2,6
197:5,9
198:22,23,
25 199:12
200:2,14
209:24
210:1
211:2
235:4

proposals
33:20
34:17
64:19,20
69:18
100:3
207:13

propose 15:6
16:25
17:23
65:14 66:3
98:21

proposed
8:15,23
10:5 26:5
29:17
30:1,12
31:4,8,24
32:2,6,15
33:1,10
38:4
44:2,7,16
47:16,22
48:5,9
49:19
54:11
55:4,14
58:15,23
59:3
60:1,8
64:4 71:14
93:15
100:7
108:18
109:16
111:4
130:3,5
133:12
135:2
165:14
195:12
220:9

proposes
32:22

proposing
21:11
199:20
237:17

proposition
120:1
200:6

proprietary
35:15
174:17
218:6
225:13
227:20
230:24

protects
108:12

proven 24:4

provide 6:21
12:6,9,22
13:12
25:24 26:8
29:10 33:5
37:1 41:15
45:14,20
47:23
55:9,13
57:15
60:7,15
61:1
63:6,19
77:25 79:6
88:4 89:18
95:21
102:5
117:3,4
132:23
156:8
162:16
163:10
188:23
195:3
196:10
197:13
208:2,6
209:7
210:8
216:11,19
219:7
236:10

provided 6:7
9:22 12:8
35:10,16
57:11
61:7,24
62:20
70:20
97:1,12
98:15
102:5
108:7
112:18
117:13
144:19
163:11
166:21
177:16,17
196:19
211:12,13
216:16

217:3
218:19,22
232:19
233:21

provider
140:11,12,
18 211:22

providers
59:3 64:16
211:6

provides
6:12 36:20
44:12
55:16
59:23
155:25
157:1,10
228:5

providing
17:14 22:2
31:4 32:23
36:16
45:23
48:23
54:10 59:5
99:7 192:3
214:8

province
26:14
28:4,9
172:9
207:6,9

provision
102:7

provisions
123:21

proximity
169:22

proxy 189:12

prudent
107:12

pu 160:4

PUB
14:1,10,20
15:8
16:7,19
17:18

28:21
29:7,25
62:8 70:21
172:24

PUB/CAC 4:16

PUB/CAC-6-1
14:25

PUB/CEN
98:14

PUB/CENTRA-1
6:9 154:3
156:24
157:6

**PUB/
CENTRA-18-
B** 65:19

PUB/CENTRA-4
176:22

PUB/CENTRA-5
201:8

**PUB/
CENTRA-5-1**
4:12 14:15

PUB-1 4:3

PUB-2 4:6

PUB-3 4:7

PUB-4 4:10
14:5,7

PUB-7 4:21
15:10

public
1:3,20
4:8,13,17
7:12 9:15
14:4,11,16
,21 15:1
25:22 26:4
28:15 31:2
48:22 57:3
59:13
60:4,6,7,1
3,21 61:1
63:3 64:21
68:23
70:7,14
71:13 80:1

106:21
107:3
171:8
211:14

publication
4:8 14:4

published
13:25

PUB's 13:24
69:9

pull 151:20

pulled 67:17
176:21

pulling 45:4

pumps 115:14

purchase
24:9
149:10
173:18
181:3
182:18,22
184:3,7,15

purchased
33:8 45:16
49:16
150:8
175:7,9
180:23,25
213:9

purchases
44:25
45:13
53:23
55:23,24
171:23
181:5

purchasing
45:14

purp 228:22

purple
163:22
166:8

purports
228:8

purpose
23:18 65:6

229:16

purposes
113:4
147:12
158:5
201:25
202:3
217:23
228:17,23
229:12

pursuant
71:9
160:23

pursue 64:17
79:21
89:15

putting 72:2
78:14
110:6
130:11
160:4
166:13
170:4

Q

**qualificatio
ns** 5:4
17:1,3,7

quantified
190:2
197:22
231:19

quantify
125:12,25

quantities
42:6 138:6

quarter
86:14
216:6

Quebec 52:6
193:17

question
10:14
21:17
25:19
69:5,6
105:21

108:1,2,22
110:1
122:12
123:8
127:1
139:10
144:16
150:18
155:24
167:17
169:3
177:8
178:10
206:20
237:23
239:9

questioning
112:5
128:25

questions
12:10,14,2
2 16:16
17:15,17
19:20
21:16,19,2
3 49:3
53:15
67:11,25
68:11,13,2
1,25
70:18,22
111:12
188:22

quibble
180:6

quick 168:22
176:14

quickly
16:11
224:7
237:5,8

quite 43:7
48:10 96:3
122:13
141:5
202:9
206:5
228:11
239:4

quo 6:22
195:10
196:11,23
197:13

R
---

ra 179:25

radical 47:9

raise 126:7
176:1

RAM 119:7
120:7,10,1
8 121:1

ran 38:7
181:10
218:3
224:25
230:20,24
232:5,12,2
5

range 26:20
34:2
37:13,24
39:20
104:2,23
143:21
190:4

ranging
41:10
233:10

rapid 50:8

rapidly
50:19

ratchet
223:23

ratcheting
153:20,21

ratchets
151:20
152:8
153:18
224:1
234:18,21

rate
28:14,16,2
0 32:11
45:15

46:20 62:2
65:15
66:4,8
73:2,18,19
74:4,9,17
81:12
84:6,7,9
85:15 92:4
93:18
103:15,21,
24 113:5
118:6
125:23
130:17,20,
23 171:9
172:24
198:6,9
227:22

ratepayers
28:8,13
54:24 91:5
93:13
94:14

rates 33:12
34:15
35:9,19
37:16,17,1
8
46:8,15,17
,20 48:11
91:11
93:22 94:2
104:8
107:21
130:19
199:8
211:11,12
222:22

rather 39:19
69:22
122:21
152:12
161:22
163:3

ratio 223:18

Raymond 1:15
7:14
237:22
239:8
240:13

re 1:6
195:16

reach 174:23
180:1

reached
109:15

reaching
31:19
128:16

readily
88:12 96:1
156:6
159:11
180:1,7,12

reading 73:9
207:13
232:8

ready 111:23
115:21

reality
226:16

realize
92:21

realized
28:6

really 35:5
43:1
107:15,22
129:11
131:2
184:20
210:24
231:17
235:14,19,
25

real-time
113:20

reason 28:14
111:2
174:11
204:15

reasonable
219:11

reasons
191:25
205:15

reassessment
  56:24

rebuilt
  107:19

rebuttal
  4:24 16:22
  153:19
  190:24

recalculated
  112:15

recall 73:9
  101:8
  112:6,16
  176:7,9
  191:3,5
  192:22
  196:14,22
  207:13
  213:13

receipt 58:4
  78:13
  135:7,12
  136:6

receive
  100:4
  105:4

received
  34:17
  62:15
  63:2,12

receives
  196:20

receiving
  106:8
  151:7

recent 39:5
  50:5 51:9
  52:25

recently
  13:11
  26:24 51:1
  56:18
  115:18
  239:22

recess
  111:10
  188:12

recessing
  66:18
  111:19
  188:17

recognizance
  203:22

recognize
  10:15
  240:1

recognized
  239:22

recognizing
  9:19 125:1
  152:15
  220:23

recollection
  186:3
  191:11

recommendati
  on 108:19
  109:18

recommendati
  ons 63:15
  110:4
  216:13

recommended
  235:2

reconcile
  6:8
  156:4,23
  157:4

reconciling
  156:18

reconfigured
  56:15,17
  115:18
  136:24

recontract
  46:16

reconvene
  237:20

record 9:14
  13:21 24:4
  39:6 62:1
  68:23 83:4
  89:18

116:1
120:15
129:1
148:23
157:22
196:17
222:15
232:3

records
  88:15
  92:24
  147:10

recoup
  118:13

recourse
  107:23

recover
  94:16
  103:16

recovered
  74:9

recovering
  93:3

recovery
  81:5,13
  82:20,25
  102:25

recreated
  158:25

rectangular
  131:16

red 134:5
  144:21
  145:2,5
  154:7,20
  161:10
  166:10,14
  168:13,19
  171:9
  223:1

reduce 24:7
  25:2 44:17
  52:16
  53:24
  55:20,21
  98:19
  131:3

192:9

reduced
  27:17 33:5
  42:24 59:8
  168:25
  201:4
  234:19

reducing
  89:3
  191:21,25
  200:24

reduction
  32:11,13
  39:1 40:4
  48:14,15
  50:1

refer 52:18
  65:19
  68:12
  70:21
  71:18
  101:2
  158:8
  159:18
  185:4

reference
  50:23 73:4
  91:14
  98:14
  144:25
  156:9
  176:10
  200:11

referenced
  13:2
  113:12

references
  74:23 78:2

referencing
  155:10,12

referred
  114:8
  117:16
  164:12
  172:8
  199:13
  236:15

referring

101:3
164:9
222:19

refers 82:10
  195:10

refill
  44:9,16,21
  45:5 90:24
  152:14

reflect
  85:17

reflected
  74:17
  199:8
  227:9
  231:22

reflective
  107:2

reflects
  231:23

refusal
  121:15,17,
  23,25
  122:17
  123:20
  125:7,14
  127:8,19
  128:1,5,11
  ,21 129:22
  130:7

regard 38:1
  56:6 59:24
  78:5 79:23
  80:20
  81:25
  126:7

regarding
  33:3 61:20

regardless
  90:5
  207:23

regards 57:4
  129:2
  191:7
  239:9

region
  34:11,14,1

8 36:24
172:12
210:9

regional
34:16
186:7
210:21

regions
51:17,24
210:5

Regis 1:13
7:10

registered
62:2

regular
159:19,20
167:24

regulated
23:13
130:20
239:19,20,
21 240:1,5

regulation
10:8
211:18

regulatory
23:13,15
47:7
59:14,16
88:9,15
92:24

reimbursed
94:5

reinject
221:23

reiterate
16:15

rejected
24:19

rel 108:25

relapse
68:11

relate 74:8

related 6:20
8:25 26:6

29:14 31:4
37:8 54:10
57:20
72:18
76:25
81:5,18
85:8 89:1
103:8
108:6
115:14
195:17
196:8
197:12
199:25
216:18

relates 82:7
100:8
227:19

relating
48:24

relation
37:5 38:4

relations
74:24
128:20
189:7

relationship
54:25
77:12
121:11
178:7
180:14
181:7,9

relative
10:8 47:15
55:25
57:25
86:12
99:10
140:18
150:8
164:22
166:2
168:5
173:22
175:24
184:20
185:7
193:20
195:9

198:10
234:13
236:18
237:9

relatively
178:17,18

release
47:25
92:6,10,12
,14,19
93:10
94:6,8,12
97:23
139:5,20

released
91:3
138:11

releasing
138:4

relevance
50:5

relevant
69:7

reliability
32:8 34:20
36:11
45:25
46:11
48:14 59:4
109:1
148:9
215:6

reliable
24:1 30:10
34:11
42:10,14
49:23
101:22

reliably
32:4

reliance
37:2 44:8

reliant
151:6

rely 44:6
161:22
226:24

228:16

relying
151:22
207:17

remain
195:11

remainder
58:1

remaining
25:20
118:3
170:3

remarks 3:6
22:18
25:18

remember
186:2
222:25

remind
116:10

removed
205:16

renegotiate
80:13

renewal
33:14
48:12
202:2

renewing
129:15

reoccurrence
158:22

reopen
143:16

rep 137:1

repeat
122:12
133:9

repeated
175:6

rephrase
69:6 198:7

replace
28:22
129:6

159:20

replacement
8:11,23
60:2,11
107:5

report
61:8,10
69:10
217:3,5
236:14

reported
36:2 38:6
104:13
112:7
222:20

Reporting
27:19

represent
20:7
145:17
166:9
174:24
219:5

**representati
on** 62:9

**representati
ve** 67:9
193:4

**representati
ves** 62:12

represented
11:4,8,15,
22 165:12

represents
162:19
164:10,15
166:23
168:17
230:5

re-purposing
56:25

request 83:8
89:19
94:23
98:18
102:25
124:1

144:18
155:16
156:23
176:21
201:13
210:1
211:2

requested
77:7
106:21
211:4

requesting
30:15
103:24

requests
4:14,18
5:10,17
14:12,17,22 15:2
17:24
18:4,20,25
21:17
60:24
62:24 63:2
65:12
69:18
124:9
209:24
216:5

require 8:16
47:11
201:15

required
24:8 46:24
69:7 77:6
78:3
80:1,13
90:25
149:11
151:14
210:8
223:8

requirement
41:21
42:25
50:14
78:23
79:18
81:17
149:9,12

186:22
235:21

requirements
30:9 40:23
41:10,25
42:12
49:15
54:20
118:1,2
151:7
157:20
160:6,14
169:14
204:20
228:19
239:7

research
51:9

reservation
85:22
142:25

reserves
51:25
103:18
104:1

reside
138:20

residential
26:16
41:24

resolved
186:9

respect 8:11
9:15 13:8
19:18 29:6
30:25 39:8
58:22
65:16
167:17
204:23
209:10
218:17
229:14
235:5

respective
64:19
174:21

respond

47:3,9,17,20 141:17
149:1,2
156:7
178:10
227:6
238:9

responded
18:20 62:6

responds
235:22

response
5:11,19
12:10 18:5
19:1 48:1
56:1 64:8
65:19
68:2,13
144:15
197:1
201:7,13

responses
4:15,20
14:13,18,23 15:3
17:14,25
63:3 69:18
70:12
73:10
94:22
209:6

responsibilities 31:12
54:6

responsibility 30:24
31:17
48:20
148:3

responsible
23:4 40:21
49:13

responsibly
43:8

rest 11:14

restate
57:20
169:2

178:7

restated
195:22

restatement
195:19

restating
195:16
199:24

restrate
178:6

restructured
6:15 196:2
197:5
199:21

restructuring 6:18
119:25
195:6,9
196:6
197:8
200:2,14

result 30:1
41:25 56:9
57:11 58:8
65:21
93:10
99:11
114:21
126:1,9
141:6
143:14,19
171:3
192:9
195:15
199:23
200:2,16
221:11

resulted
126:1

resulting
37:18 44:1

results
20:19
35:18,20
36:2,5
37:6
38:1,5,17
39:1,7,16,

24,25 45:2
92:24
110:11
122:1
169:23
170:2
214:6,10,16,22
217:18
219:16
221:8
222:19
230:4,8,23
231:24
235:6,7
236:17
237:13

resume 66:22
111:15
240:15

resuming
66:19
111:20
188:18

retailer
11:7

retained
27:17,21
28:1,5,12
107:18,19
240:6,12

RETIRES
240:18

retrospective 83:2

returned
81:23
239:11

returning
163:18

revenue
91:10
92:19
198:11
199:7,11

revenues 6:5
26:20
27:1,6

92:6,10,12
,15,25
93:7,11
96:14,25
97:10
100:6

reverse
116:2,12

reversed
116:5

review
8:14,19
10:21 61:9
66:3 71:13
96:2
110:23
168:23
239:24

reviewed
101:19

revised
57:23 79:8

revising
17:16

ri 101:11

rich 51:21

rider 198:9

riders 198:6

right-hand
15:22 75:9
131:12
133:17
154:4
160:15
230:18
233:19

rights 33:14
48:12

rise 9:5
33:13
186:9
218:15

rises 180:18

risk 46:16
52:17
100:19

107:10
117:10
120:4
162:12
174:20

risks 46:13
99:10
100:9,16,2
5 101:3,12
108:6

road 130:2

ROFE 124:24

ROFR 121:25
123:17,24
124:2,3,5,
7,19,24
125:22
126:2,11,1
5 127:12
129:25

Roger 7:22

role 21:5
31:12
49:10

roles 10:15
21:20

roll 157:15

Roman
95:10,11

room 7:9
11:5 15:24
66:15
211:22

Roughly 88:2

round 4:14
5:9,17
14:17
18:3,24
72:8

route 105:10
128:14

routinely
52:18

row 200:23

Rule 69:9

run 77:21
85:9 107:9
182:15
213:4
215:10,14,
24 217:25
225:12

running
40:13
41:17
214:24
232:18
233:20

runs 213:5

Ruzycki 2:10
11:9

Ryall 7:19
9:18

─────────
S
─────────
safe 30:9

sales 86:23
91:13

Sanderson
3:16 5:6
17:10
23:11
25:14
48:4,19,21
49:2,6,12,
21 50:7,24
51:19
52:11
53:16,20
56:3
147:8,15,1
8,23
148:2,16
149:3,6,18
150:1,17,1
9 155:6
156:10,15,
16,20
157:21,24
158:7,14,1
9
159:2,7,15
169:1,2,8,
15

170:5,8,14
,22,25
171:13,16,
25
172:2,22
173:2,7,10
,16,24
174:8,15
175:2,10
176:9,16,1
9,24
177:3,5,19
,24
178:6,16,2
0
179:3,8,17
,23
180:5,11
181:1,11
182:4,11,1
6,21,24
183:5,14,1
8
184:5,16,2
3
185:13,18,
21,24
186:10,13
187:4,16,1
7 190:16
227:5
228:6
238:8

Sanderson's
214:4

Saskatchewan
205:6

**Saskatchewan
/Alberta**
132:2

**Saskatchewan
-Alberta**
171:20

**satisfactori
ly** 80:21

saving
236:21

savings 30:1
33:6 48:16

scenario
39:22
239:15

scenarios
39:21
44:23
219:9
225:1
231:10
232:17

schedule
67:16

schedulers
141:21
201:25

schedules
196:15

scheduling
54:21

scrambling
152:9

se 108:12

sealed
105:12

season
90:23,24
93:6
162:7,9
175:8,9

seasonal
54:20 91:3
160:8,12
164:6,8,12
179:1
221:18
224:9
226:1,13

seated 9:18

second 45:23
161:7
176:25
216:19

secondary
91:14,19
93:11
118:13

143:10

secondly
11:6 12:24
58:4

secretary
7:18

section
231:15,17

secure 24:1
33:14
46:10

secured
46:6,15
48:8
125:21

security
32:9 48:15
102:5,6,8

Sedimentary
51:23 56:1

seek 8:16
23:18
62:23
68:13 81:4
82:20
83:20
97:21,25
99:13
103:16

seeking 8:22
10:2 29:3
53:18
59:20 68:3
71:19
108:5
219:13

seeks 94:5
103:19

seemed 13:3

seems 181:18

seen 16:6
106:15
124:14
147:16
181:23

seismic

52:13

select
41:2,7

selected
38:9 69:20

selecting
36:8 39:19

selects
37:11

sell 41:4
90:13 91:8
93:21 94:1
97:16
118:12
125:23
143:9,15
227:11
228:7

sellers
172:17

selling
91:16,20,2
1,22,24
93:2 187:9

send 132:12
163:17
188:9

send-out
181:14

SENDOUT
213:4,19
214:6,16,2
2 215:10
217:9,11,1
4,23
218:1,4
219:11
221:12
222:9,13,1
8 224:1
226:25
230:6,8,20
231:6
232:5,12,1
3,25
233:5,9
237:13

senior

23:2,4
67:3,8

sense
21:6,16
39:18
221:21
226:12

sensitive
27:7 41:9
64:21,23
69:19
211:10,14

sent 209:23

separate
76:11 88:7
201:22,24

separately
159:6

September
63:12 84:6
199:1

sequentially
15:25

series
218:18,19,
22,24,25
219:7

serious
20:24

serve
41:2,8,21
42:11
54:20
148:4
149:8
161:8
235:24
239:6

served 11:21
32:4 52:16
129:3
239:1

serves 26:11
42:1

service 4:7
11:20,21
14:3 24:2

34:15
49:24
57:10 59:3
65:15 66:4
82:4 86:2
87:6 88:7
89:9 95:18
117:6,11,1
2 118:7
119:2,10
120:2,3,7,
8,18
123:18
137:1
140:13,18
142:19,23
159:13,19,
20 160:18
162:1,3,5,
15
163:5,6,10
,22,23
164:4,6,8,
21
166:4,21
167:19,20,
23,24
169:24
191:1,21
194:4
201:10,16
208:2,3,4,
5 209:7
210:8
236:14,18,
19 237:4

services
7:25 31:20
34:21
35:9,19
37:17
39:14
46:17 54:4
57:11
59:15
75:12,17
87:8,13
101:22
117:3,4
119:24,25
122:21,22
123:11

124:1,9
125:20
126:12,13
128:6,9,10
,16
130:10,14,
19 163:1
164:12
167:10
192:17

serving 26:2
40:21,22
49:15
236:1

sets 104:9
174:13
211:20

setting
198:12

setup
215:17,22

seven 10:6
29:19
46:3,8,9,1
8 47:2
53:10
72:12 74:1
77:17
78:9,21
79:6,11,15
90:2
127:15
130:3
146:19
174:1
213:22
218:11,13,
15

**seven-sixty-
four** 29:13

seventeen
29:12
185:12
216:25

seventy
236:12,18

seventy-one
236:12

several
20:12
35:19
191:22

severe 43:21

severity
26:22

shale 51:7
52:5,6
169:11
170:5,23
171:4

shared
211:14
212:3

shareholder
107:24

sheet 70:1
75:7,12
78:2
125:24

sheets 79:8

Shell 2:12
11:11,14
13:9 19:4

shift 56:21
141:22
164:9
170:19

shifts 50:16
239:1

shipped
169:16,22,
25 190:19
192:13

shipper
118:11
119:9
123:17

shippers
43:5,21
50:20
117:14
170:3,12

shipping
169:21

ships 134:19

shor 41:5

short 34:19
71:21
120:12
186:5
205:16

shorter
46:13,15
236:9

short-listed
39:15
216:18

short-listing
34:19 35:6

short-lived
186:8

shortly
10:24

short-term
41:5 120:8
121:2
199:13

showing
152:23
165:25
178:13

shown 6:4
96:13,24
97:8 132:1
134:1,5
146:19
147:4
148:13
158:12
159:6
160:16
161:10
162:1
171:9
223:3

shows
95:15,16
145:5
146:14
156:1
158:17,20

179:15
194:2
224:17
227:13

shut 159:13

sic 15:21

signed
105:12

significant
28:8 42:4
55:13
56:11
64:11
81:24

significantly 27:8
51:6
185:22
195:15

similar
12:21
29:21
32:3,16
39:25 40:4
46:17
154:16
208:7

Simonsen
7:18

simplify
167:14

simplistic
184:19

simply 43:1
48:7 87:13
92:10
135:6,12
185:5

single 37:2
38:9
39:8,19
45:17 94:8
151:2
239:5
240:4

sir 67:12
71:4,23

72:13
80:25
83:17
101:23
108:5,23
112:6
124:14
131:17
132:17
134:2
156:21
159:7
177:6
179:23
204:25
206:8,20

sit 7:16

sitting
41:14

situated
36:15
208:25
209:1

situation
20:20
61:21 91:1
109:8
114:17
189:2
205:12
238:25

situations
109:21

six 27:15
148:21
193:9
213:16
220:22,24
222:13

sixty-eight
26:12
197:23
199:6

sixty-eight-decimal-zero-two
194:25

sixty-nine

197:22
198:15
199:6

size 40:25
86:12
109:1

sized 40:8

sizing 39:8

skip 193:14

slight 40:1
237:11

slightly
221:10
232:20
235:7
238:18

small 36:1
87:10
95:10
150:7
236:17
238:19

Smart
240:7,8,10

software
213:4
215:13
219:23

sold
204:3,5,17

solicitations 99:6

somebody's
122:4

someone
96:19
115:10
122:15
123:13

somewhat
39:18
100:7
207:21
228:15

somewhere

213:13

sooner 46:17

sorry 11:3
78:15 95:1
121:11
124:24
133:16
139:17
153:14
155:11
156:10
167:3
169:3
185:17
198:5
216:24
229:8,19
230:10
232:6
233:2
239:9

Sort 141:4

sought 21:18
28:21
77:4,15
237:12

sounds 190:7

source 32:24
42:10
50:20
51:6,10
160:1
161:8
164:19
238:7

sourced
81:20
166:10

sources 34:4
47:24
49:25
50:9,25
51:21 59:7
145:7
165:2
169:11

south 132:3

southeast

94:24
96:6,8

southern
26:13
34:10

southwest
94:24
96:6,8
161:17
207:9

space 41:25

spacing
239:6

speak 52:2
130:12
140:2
176:3
195:23

speaking
69:16 88:2
176:10
185:14

speaks 85:20

specialist
23:17

specific
63:15,19
68:15
72:1,9
74:4,21
75:12
101:18
108:22
110:21
126:9
162:19,20
172:3
211:4

specifically
117:2

specifics
84:11

specified
185:7

specify
135:6,7,10

speed 104:18

spending 7:7

spent 143:23

spiked 174:2

spiking
53:12

spoke 63:21
76:21
119:2
195:13

spot
178:14,15

SSDA 201:10

St 113:24
138:14
139:1,7,24

stability
28:18

**stabilizatio
n** 45:15

stable
227:14
239:4

stack 160:15
161:15
165:7,14

stacks
157:19

staff 49:12
62:9 177:5

stage
64:12,22

stakeholder
20:10,11
107:24

stakeholders
9:23 60:25
64:12
200:2
202:24
203:11,20
212:4

stand 111:1
117:9

standard
59:4

Standards
27:20
239:25

standing
52:21
101:18

stands 79:11
117:10
171:17

start 9:7
35:6 66:16
67:2 96:7
141:23
151:25
163:23
165:21
180:14

started
212:9

starters
40:11

starting
12:16
36:10 71:7
72:12
177:9

starts 193:8

state 60:8

stated 8:15
102:10
180:9

statement
110:17

States 24:24
115:23
183:25
208:21
209:1
211:20

station
56:18
115:17
136:23

statisticall

y 104:9

status 6:21
65:25
195:10
196:10,23
197:13

Stauft 5:12
12:19,21
18:8,12
21:3,25
98:8
120:22
176:2,13
190:1,23
191:9,15
208:9

Stauft's
191:6,12

staying
108:15

steal 21:24

step 99:22
178:13

stepped
171:10

steps 13:6
59:20
60:22
78:12

Stewart 3:15
5:6 17:9
23:10
25:13
53:15
54:6,8,16
55:4,12
56:7
57:3,7,17
58:22,24
76:21
78:18
82:16
90:15,17,2
1
91:8,12,14
,18,23
92:3,8,14,
18,23

237:4,5,6,8,10

strategy
131:2

strictly
97:22

structure
52:8,24
66:4 194:4

structured
108:3

struggling
143:12

STS 82:3

subject
19:20
22:12 28:1
29:25
49:11 55:2
73:7,23
81:1
105:20
110:23
123:5
136:25
150:1
165:10
185:24
203:19
217:16
219:17

subjective
108:19
109:5,17
110:5

subjectivity
109:24

submissions
13:1,4,12,
15,16 19:7
61:2
63:7,10,21
196:21

submit
141:24

submitted
124:9

submitting
28:14

subscribe
202:6

subsequent
8:7

substantial
65:21

subtract
72:24

successful
228:13

successfully
236:2

suffers
153:8

sufficiency
198:11
199:7

sufficient
79:7 80:12
133:3
189:21
192:8
204:20
210:20
219:2,8

suggest
10:24 12:1
19:8,11,21
45:2 66:14
111:14
147:6
152:6
184:19
228:21

suggested
19:15
42:22
199:22

suggesting
109:2
178:23
179:4,14
198:8
236:9

suggestion

40:7 63:24
64:3,9
180:23

suggestions
63:16

suggests
47:13

suite 31:20
93:9
128:16

sum 89:22
118:1
145:2
175:20

summarize
59:25

summer 24:11
33:3,4,6
45:12,13,1
6
131:9,20,2
5 150:11
175:8,16,1
9,24 176:5
177:23
178:3
179:5,11,1
5,20
180:3,8,16
,20,25
181:5,20
202:23

**summer/
winter**
41:5

**summer-
winter**
177:10,14

summon 217:2

**supercompute
r** 52:15

superior
227:9

supplemental
65:22 66:5
146:12
147:1,24

148:1
154:12
166:5

supplied
167:9

supplier
11:19
106:6

suppliers
24:25

supplies
30:8 54:22
55:24 57:9
59:8
146:8,11
147:11
164:11

supply
28:21,25
29:1,4
32:8,9,24
33:8 34:4
35:2,14
36:21,22
37:2,3
40:2
42:5,10,13
,19 43:9
44:8,13
45:6,21
46:11
47:23,24,2
5 48:14,15
50:1,20
51:22
54:2,17
58:10 59:6
81:20
87:12,14
102:6,9
106:1
132:21,22
133:2,11
141:19
147:1
157:19
159:23
160:15
161:7,15
165:7,13,2

1 166:1,3
167:2,5
171:1
173:4,5
176:6
182:9
183:12
184:9
186:5,7
231:7,13

support 28:3
39:1 110:8
206:15
231:18

supported
39:11
215:22

supporting
40:4
214:10

supportive
208:10
214:18

supports
214:25

suppose
123:9
154:17
205:20
218:7

supposedly
189:13

sure 67:25
76:25 89:9
92:23
103:16
115:11
122:12
129:1
138:19
156:2
178:10
195:20
202:8
207:22
236:2

surplus
90:12

97:17

suspecting
129:13

swapped
140:2

swath
164:3,20

swear 12:8

swearing
19:13

swing
42:4,10
44:13
104:5
142:17,19,
23 204:20
235:20

sworn
3:12,13,14
,15,16
19:14
22:19
25:7,10,11
,12,13,14
175:5

sync 143:18

synergies
28:6

system 57:5
87:15,23
140:6
151:4
170:3
172:7,8,11
238:11

systemic
177:14

systems
172:19
183:20

———————
T
———————
tab 16:12
36:2 38:6
59:22
71:16,25
74:22

75:8,11
105:2
124:12
131:7
133:14
144:13
148:14
152:19
154:2
157:18
158:11
165:6
171:6
172:23
176:19
177:1
182:5
183:9
189:4
192:21
193:15
197:20
200:21
216:23
222:20,24
224:7,8
225:7
230:3,4,7,
10

tabe 16:2

table 3:1
155:25
167:17,18,
22 200:23

tabs 16:1
105:1

tag 190:4

takeaway
172:15

taking 6:19
38:24
43:22
53:17 89:3
90:4
102:18
106:10
108:6
138:6
139:4,12
149:20

174:20
184:10
196:7
197:10
236:24
237:11

talk 81:15
83:10
137:1
184:17
193:13
218:10
220:8
229:23

talked 76:22
87:5
107:14
189:11,16
203:5
208:12
229:7
237:14

talking
117:1
127:16
150:25
152:5
178:9

Tan 9:1

Tara 139:19

target 78:3
104:3
113:1
188:21

targeted
13:7

tariff 33:12
46:20 94:2
119:9,15
125:23
130:17,20,
23 211:12

TCP 198:5

TCPL 6:22
83:7
109:21
110:1
115:21

121:5
138:7
166:21
167:5,11,2
0,24
170:11,17
189:2
190:24
191:25
192:2,17
194:3,18
195:5
196:11
197:14
198:2
199:9,20
200:9,20,2
2

TCPL-only
202:22

team 31:17
54:16 55:5

technical
60:14,24
61:16,23,2
5 62:15
63:25 64:3
65:2,5,7,9
192:25
203:11,14
209:13

techniques
52:22

**technologica
lly** 51:2

technologies
51:14
52:10,12

technology
51:3

temp 142:1

temperature
157:25

ten 27:15
51:12
53:12
66:14
104:6

139:15
146:19
148:13
173:8
174:3
188:13
196:16
223:7
228:10
240:9

Tenaska's
120:25

tendency
175:13
186:6

terajoules
158:18
235:8

Teri 23:12

term 31:8
33:13
46:3,7,9,1
3,15,18,23
47:1,3,16
50:25 53:9
70:1
75:7,12
77:18 78:1
79:8
120:12
125:24
126:21
129:12
138:4
213:19

terminates
138:14

terminology
184:24

terminus
113:23,24
114:2,18
140:1
172:10

terms 11:18
13:21
16:25
63:23
68:20 71:6

73:16,24
75:21
79:22
81:12
86:11
88:18 89:2
90:20
91:16
92:20,24
93:21 99:7
104:13
116:1
136:3,20
142:5
150:14
152:21
154:13
158:5
160:14
162:14
164:9
170:15,25
173:23
174:24
181:7
184:11
192:20
202:20
207:1
212:4
215:6
216:6
218:10
219:20
227:22
231:7
239:10,23

territory
57:10
140:14

test 127:3
194:7,12
195:2
219:8

testified
78:18
108:25
215:5

testify
12:20

59:15

testimony
31:3 48:23
54:10
175:5

Texas 51:23

thank 9:12
19:23
22:4,5,9
25:6 30:17
31:1 48:18
54:5 59:9
66:9,13,23
67:23 68:7
69:14 71:5
80:25
96:23
97:15
105:23
107:7
111:16,17,
25 114:24
118:23
121:7
135:16
137:5
140:7
144:19
152:17
160:13
188:15,20
197:19
199:15,16
200:18
204:10,25
206:19
230:9
233:17
239:8
240:13,16

thanks 7:16
113:7

that'll
85:17
231:18

that's 11:13
17:3 44:3
68:6 69:13
70:16 71:4
73:7,8

75:14
77:20 78:8
80:3
81:3,16
83:9,23
84:13,20
85:23
88:13
90:7,15,19
,21
91:12,15,1
8 93:19
95:19
96:11
102:16,17
103:3,6,22
104:11,16
109:7,12
110:1
113:13
114:19
115:4,9,24
116:7,23
119:4,21
120:24
121:4,6,13
122:23
127:19
128:23
129:5,17
130:13,17,
24 131:18
132:8,25
133:8,13
134:1
135:15
138:3,23
140:10
141:3
142:17
143:1,12
144:6,7
145:4,11,1
3,20,23,24
146:4,6,10
,17,24
147:3,19
148:13
150:16
151:12,22
152:13
153:1,9,12

,25
154:9,15,2
3 155:2
156:13
158:4,12,1
4 159:7,9
160:21,25
161:19,24
162:1
163:16,23
164:18,25
165:3,19,2
3 167:6
169:8
170:8,15
172:14
173:7
177:3
180:21
182:11,13
183:14
185:15
186:19
188:2
189:10,15
190:14,20
191:16,23
192:4,18,2
4
193:6,12,1
8
194:5,10,1
5,21
197:24,25
198:1,3,13
,17 200:12
202:4,7
203:1,16,2
3 205:10
206:10
207:15,21
208:13
209:22
211:24
212:7,14,2
4 213:6
214:9
216:3,8
218:5
220:9,14
222:11
223:14

224:10,19,
24
225:10,14,
21 227:9
228:10
229:2
230:17,21
231:19
233:3,25
234:5
235:4,14
238:21

theirs 43:22

themselves
16:1 95:18
98:4
103:10

theoretical
128:7
159:3

**theoreticall
y** 114:2,18

thereafter
25:19
61:13
62:22

therefore
24:9
128:10

there'll
131:9

there's
10:14 12:4
16:7,8,9,1
6 40:16
75:17
76:6,11
103:4
107:17,23
108:11,24
109:24
129:8
132:21,22
134:13
145:25
151:19
155:25
157:16
160:15

168:13
170:12,14
172:15
173:4
175:6
178:2
184:8
192:15
195:18
206:20
211:21
221:16
228:12
229:9
238:22

they'd
107:25

they'll
239:25

they're 6:5
11:7,8
16:9 68:2
70:7 96:25
97:10
110:5
123:12
141:22,24
159:15
174:22
185:5
187:12
200:12,13
227:23

they've
116:5

third 58:14
90:13
91:16
100:14
101:5
122:18,21
123:1,9
124:18
206:23
207:17
231:15,17,
22,25
232:2

Thirdly

11:11

thirteen
173:11
174:3

thirty 98:8
163:7

Thomas 2:8
11:5 20:7

thousand
26:12,15,1
7 29:12
38:21
72:3,25
73:11
139:16
196:16
213:14,16

throughout
11:14 22:2
45:16
50:11
69:21
70:22
73:25

throughput
6:20 57:20
86:14
88:5,6,19,
25 89:8
195:16
196:7
197:11
199:25

thrust 21:11

thunder
21:24

Thursday
67:21

thus 120:11
170:1

tidy 112:5

tight
79:11,15,1
7

timeline
79:11

timelines
124:5
125:2

timetable
4:6 14:2

title
31:13,14
49:4 67:5

today 9:7
10:20
13:20
59:21
71:22
110:4,20
117:23
118:2,4
122:19
125:13
127:15
172:8
175:3
191:14
202:23
212:19
215:5
223:23
238:1
240:3,5

today's 10:1
51:2

toll 81:10
82:3,4
119:6
120:7
135:14
193:10,22
194:17,19,
22,24
197:21
198:1,10,1
2,17,20,21
199:2,5,18
,19,25
211:19,21

tolling
189:2,5
191:2
194:3
198:7
200:20

205:12

tolls 6:16
57:12
58:15,17
81:18
82:3,16,20
83:7
93:15,16
164:23
170:2
192:1,16,2
0 193:21
194:16
195:8
196:3,5
197:6
198:22
199:1
200:6,11,1
3

tomorrow
67:18,21
225:25
237:21
240:16

tool 42:11
214:4

toolbox
159:16

tools 159:16
214:2

top 15:21
75:9 90:25
131:12
133:15,16
144:15
154:3
159:5
231:18,22
234:9

topic 237:17

topics 48:20
54:6

tops
145:11,21

total
26:14,19
27:1,2

29:17
32:16 33:3
35:23 37:9
38:23 40:1
45:3 86:14
90:19
101:8
175:20
222:1
234:14
237:10

totally
27:21
30:14

touch 59:20

towards
58:12
124:17

tr 117:1

track 13:21
24:4
92:11,14

tracked
92:16

trading
11:13
187:8

traditional
51:20
56:7,13

**traditionall
y** 51:18

training
213:16

transacting
181:21

transaction
72:18
116:2

transactions
94:17
174:16,23,
24

TransCanada
6:16 29:15
36:21

42:18,24
43:2,14,19
44:9 48:1
54:12,25
55:20
56:14,17,2
3,25
57:4,8,16,
22,24
58:11,15
61:20
76:18,21
81:6,15,17
,21,24
82:3,6,13,
15,20
87:15
102:19
115:12,14,
18 116:1
117:2
119:3,20,2
1 134:23
136:24
139:5,12
141:7
142:7,9
160:18
164:22
169:17,23
170:6
172:20
189:7,20
190:3,19
191:1,2,9,
21
192:6,10,1
4 193:4
194:9,13,1
6 195:7,10
196:3,14,1
9 197:6
198:16,25
201:9,17
205:12
211:18
226:19

**TransCanada'
s** 57:19
119:9,24
120:1
195:15

199:24
227:19

transcript
3:20 15:18
68:9

transfer
172:1,7
183:21
187:6

Transit
172:1

transition
55:8 160:9

translate
75:18
104:21

transmission
9:2
23:21,22
24:3 29:10
30:13 46:4
59:1 69:25
76:3 84:18
89:24
113:12,22
116:11
123:10
124:24
132:12
138:13
139:6
213:2

**Transmission
s** 116:21

transparency
187:9

transparent
120:21
122:16

transpired
59:24
194:3

transport
74:25
170:19
172:6

transportati

on 1:7 7:6
8:2,12,25
9:20
11:20,21
23:16 25:5
26:6 27:4
29:15,18,2
2 31:5,24
32:2,22
33:4,11,18
,24
34:3,23
35:11,25
36:7
37:12,17
39:20
44:3,10
45:20,23,2
4 46:7,19
47:10,22
48:5 50:17
53:22
54:2,12,18
56:10
60:2,11
61:18
63:20
65:15
71:20
74:9,11,14
,17 76:6,7
80:23 81:5
82:4 85:22
86:15,17
87:5,12,18
,22
88:7,21,24
89:8,24
98:20
102:2
103:10
105:18
117:10,12,
14,20
118:8,9,12
119:6,15
120:3,6,12
,13
121:2,8,18
122:5
139:25
140:12

141:7
152:3
161:5,10
166:16,24
167:5
169:1,14
170:13,20
182:7
183:4
184:22
187:18,25
189:17
192:3
198:17
204:5,23
205:9,18
231:7

transported
36:21 44:8
164:10

transports
57:9

treated
202:3

trend 89:5

trillion
53:3,4

true 175:12
179:9

true-up 83:4

truncate
229:20

try 90:13
91:8 98:19
228:11

trying 87:8
97:16
114:16
183:7
191:17
196:13
200:10

turn 9:8
10:24 12:2
13:19 22:6
58:20
66:12
105:21

144:14
165:7
175:24
176:19
182:5
189:1
192:21
222:24
230:2

turned 12:16
55:5
118:18

turning
10:18
17:21
101:5
121:8

twe 131:23

twelve
141:14,16

twenty 8:4
10:4 24:6
32:5 37:10
38:10,24
39:4,5
44:22
51:12 59:2
77:11
88:20
89:10
126:20,22
129:4
148:24
194:22
220:25
221:2,4,6
225:1,3,4
231:10
232:17
233:15

twenty-eight
213:14

twenty-five
26:17

two-o 153:11

type 107:21
142:19
151:3

types 100:5

typic 53:1

typical 53:1

typically
94:4 116:3
118:10
162:24,25
163:2
227:10

typographic
75:3

———— U ————

UDCs 117:16
119:10
143:13

ULC 11:19

ultimately
31:19,20
73:23
74:10
76:18
78:14
79:9,20
129:24
206:14
210:13
214:2
221:25
231:21
240:1

uncertain
110:25

uncomfortabl
e 152:4

uncommon
142:3

uncontracted
163:23

unconvention
al
50:9,23,24
51:4,11,15
,22,25
52:18
169:6,11

underground
207:5

underlaid
52:4

underlying
171:22
175:12

underneath
132:5
234:3

underpin
135:24

underpins
70:1 110:4

under-
recovering
198:18

understand
76:17
86:12
90:11 93:7
94:11
99:23
103:8
115:6
125:22
178:1
204:1
208:14
211:20
219:12

understandin
g 10:16
65:9 69:17
76:16
100:5
116:8,20
119:19
122:24
134:25
141:3
190:21
199:10
208:9

understood
68:5,7
83:21
101:20

213:10
234:7

undertake
79:13
80:15
96:20

undertaken
78:12

undertaking
80:20 88:5
89:19 97:7
155:5
156:6,18,2
3 157:4
195:25
196:25
197:4

undertakings
3:4 6:1
89:17

undertook
33:17
122:1

unduly 39:7

uneconomic
50:9 204:7

unexpected
238:11

unfolds
20:24

Unfortunatel
y 79:10

unique
226:10

unit 16:12
170:2
192:16
224:9

United 24:24
115:23
183:25
208:20

units 10:10
16:13,17
17:16
209:8

unknown
109:19
130:14,16

unless 94:13
128:1
156:6
180:3

unnamed
128:19

unreliable
204:8,22

unto 10:9

unused 92:21

unusual
147:22

unutilized
91:6 93:3
97:17
117:15
118:3,6
142:10,24
143:9,10

upcoming
82:24

update 57:15
144:18
227:24

updated 6:19
196:7
197:11

updating
196:15,23

upon 7:1
34:6 35:6
66:18,19
111:19,20
154:13
188:17,18
191:13,18
240:20

upper
203:6,25

upstream
42:17 43:5
54:1
87:12,18

134:14
205:2,6,15

usage 89:3

useful 16:14
26:8
213:24

users 87:17
151:5

usual 147:19
171:2

usually 92:5

Utica 52:6

Utilities
1:3,20
4:13,17
7:12 9:15
14:11,16,2
1 15:1
25:22 26:4
28:15 31:2
48:22
59:13
60:6,21
61:1 63:3
70:8,15
80:1
106:21
107:3
171:8

utility
28:2,7
103:19
152:10
158:6

utilize
209:25

utilized
133:2
139:4
233:5

utilizing
93:9

———— V ————

vacuum 100:8

val 47:14

232:17
233:15
238:2
239:6

weather-
driven
42:11
235:22

weather-
normal
104:15,19
112:15

website
15:20,23

we'd 100:23
185:4

Wednesday
13:5 15:16

week 20:24
48:20 53:2
54:7

weekly 54:19

weight
201:12
233:11

weighted
45:12,18

welcome
7:4,20
20:4 22:3
25:23
188:22

we'll 7:7
13:5 16:10
66:15 72:8
157:19
176:3
196:24
208:15
209:9
212:11
218:10

wellhead
205:3

well-
received

62:18

we're 15:24
20:17
22:24
67:25
71:21 79:2
102:19,22
104:18
106:24
110:6,8
116:25
117:1
125:25
129:8,12
138:11
140:16
141:14
144:7
148:25
152:12
154:17
157:14
165:4,8
178:9
179:13,25
195:21
197:20
198:24
201:14,16
238:1,11,1
9

west
56:21,22
58:11
115:3
171:19

western
11:20 33:7
36:20 37:3
40:2 44:8
51:22
55:25 58:9
65:14
113:23
132:2
133:3
137:7
145:6,17
146:2,4,21
147:11
164:10

166:2,9,17
167:15
168:14,17,
20 169:18
170:5
171:21,23
203:3
205:1,15
207:5

westward
169:22

we've
107:1,14,1
5 110:15
117:24
141:15
151:18
161:9
164:8
166:16
173:10
181:22
189:11,16
192:5
208:12
217:20
237:13
240:8

whatever
20:18
42:23 43:6
79:21
80:16,17
94:16
132:11
149:9
173:5
219:17

what-if
191:18

what-ifs
191:17

whereas
167:7
211:20

whereby
219:7

whether 6:3
13:17

88:19
90:5,18
93:2 96:23
97:7 98:17
99:13
110:5
112:14,19
124:5,6
127:1
129:24
130:5
135:10,14
136:1,3,4,
7 138:19
148:20
154:24
159:25
177:10
186:21
191:14
195:20
196:22
206:22
215:14
233:11
234:17
237:19

whole 175:20

wholesale
170:19

wholly-owned
28:2

whom
91:22,24
139:7

whose 51:6
91:11

wide 34:2
37:24
39:20 41:9

widely 26:20

wide-ranging
170:17

width 52:14

willing
96:20
107:25
123:18

window
141:2,6,11
142:4
199:14
236:9

Winnipeg
1:22 12:20
132:3,11
133:20
135:21
139:5
145:18
205:9

winter
24:9,16
26:23,25
27:10,13
32:19,22,2
5 40:14
41:18,22
42:12,25
44:10,14,1
7,22,25
45:6,12,17
46:19
55:7,21
93:8
121:18,19
133:7,17,2
0 134:2
135:1,18
147:9,13
148:5
149:14
150:4,5
152:10,12,
20 154:14
155:12,20
161:18
162:7,9
175:9,14,1
5,18,21,22
,25 176:7
177:22
178:4
179:6,10,1
6,21
180:2,9,17
,19,24
181:3,19
235:20

winters
  37:22
  147:19
  148:21,22

winter's
  179:12

winter-
  summer
  181:16

wish 12:10
  111:10

withdraw
  89:19
  153:6
  221:23
  223:17
  235:17

withdrawal
  6:13 156:1
  157:1,11
  161:15,16
  236:9,11

withdrawals
  36:14 44:7
  204:6
  205:19

withdrawing
  221:25

withdrawn
  45:17
  146:22

witness 5:3
  12:19
  14:22
  17:1,3,6
  19:14
  30:19 67:4
  68:1,2,12
  69:1
  70:19,24
  101:19
  189:2,6

witnesses
  10:11
  12:9,12,15
  ,18 19:14
  22:19
  66:11,24

68:16,21,2
  4 70:19
  71:3
  108:25
  221:13

wonder
  108:21
  112:19
  113:9

wondered
  237:18

wont 21:24

work 22:11
  58:25 69:8
  133:18
  151:12
  158:4
  181:17
  190:13

worked 107:2
  215:16
  217:20
  219:22

working
  15:24
  49:13
  105:12
  215:18
  217:21

world 53:17
  205:21

worlds
  205:22

worst-case
  158:9

worth 39:3
  100:20

worthwhile
  190:12

wrinkle
  161:20

write 240:11

writing
  13:13

written
  14:12,21

17:24 18:8
  21:2 30:20
  61:2
  63:7,10

wrong 129:5
  226:19

_____

X
_____
x-axis
  146:20

_____

Y
_____
year's 39:8
  73:17
  99:25
  198:12

yellow 10:20

yet 13:16
  28:19
  73:16
  99:1,16

yielded
  232:7

Y-O-U 68:10

you'll 12:4
  75:22 80:9
  88:15
  112:6
  144:14
  176:22
  184:24
  222:25

yours 10:23

yourself
  59:10
  101:21
  118:19

you've 10:18
  22:10 38:5
  53:16 71:8
  75:11 81:3
  89:21 90:4
  108:10
  109:15
  115:8
  121:3,10
  131:1

132:1
152:6
153:5
156:14
167:8
176:23
179:1
184:2
188:1
197:22
209:12

_____

Z
_____
zero 103:11
  146:20
  147:2,7,12
  148:7
  152:7
  178:2,5,25
  179:7,11,2
  0
  180:16,17,
  19
  223:16,19

zone 135:21
  193:3,11,1
  4,16,20,21
  ,22
  194:2,23