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YUKON UTILITIES BOARD

YUKON ENERGY CORPORATION  
WHITEHORSE DIESEL TO LIQUEFIED NATURAL GAS  
CONVERSION PROJECT (LNG PROJECT)

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P R O C E E D I N G S

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Volume 3  
April 2, 2014  
Whitehorse, Yukon

1 Proceedings taken at the Westmark Whitehorse Hotel &  
 2 Conference Center, 201 Wood Street, Whitehorse, Yukon.

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4 Volume 3

5 April 2, 2014

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14

Mr. D. Austin	Leading Edge Projects Inc. and
Mr. J. Maissan	Yukon Conservation Society
Ms. A. Middler	

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Mr. M. Janigan	Utilities Consumers' Group
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Mr. D. Roberts	In his own stead
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Ms. A. Jones, CSR(A)	Official Court Reporter
Ms. D. Gerbrandt, CSR(A)	Official Court Reporter

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21 THE CHAIR: Good morning. Please be  
 22 seated.

23 So I like this start time much better. At  
 24 least for the Board it was great.

25 So I'm just going to turn this over to

1 Mr. Landry and you can proceed with your argument.

2 Do you have any preliminary matters? Sorry, I  
3 should ask.

4 MR. LANDRY: I do, Mr. Chairman. Just to  
5 finish off the undertakings, we were able to complete them  
6 last evening. And I have handed it out -- or had somebody  
7 hand them out to Board staff and to the parties in the room,  
8 the two undertakings. So I'll let Ms. Henry help you out a  
9 little bit there and then I'll put it onto the record.

10 Okay. The first undertaking relates to a  
11 transcript reference on page 400, which related to  
12 Mr. Morrison and the remaining questions on FD1 and WD3. You  
13 can see that the answer to the undertaking is in that  
14 document that's been handed up. And I'd ask that that  
15 document be entered as the next exhibit, which I believe to  
16 be B-15.

17 THE CHAIR: So marked.

18 **EXHIBIT B-15 - UNDERTAKING RESPONSE**

19 MR. LANDRY: And all that undertaking is  
20 doing is speaking about the operational issues that YEC was  
21 having with the refurbished Mirrlees and indicates that,  
22 obviously, they're a little better than the others.

23 The second document is a table entitled  
24 "Table 1: Forecast Base Case (No Alexco) Grid Capacity  
25 Requirement (2013-2030)." That table relates to a transcript

1 undertaking at page 351 of the transcript, which was an  
2 undertaking to advise if at the beginning of the year for all  
3 of the various other years in the forecast up to 2030  
4 expected retirements are recorded.

5 And the answer is yes. And the table  
6 basically is the information backing that up. So I would ask  
7 that that be marked as the next exhibit, which I believe  
8 would be B-16.

9 THE CHAIR: So marked.

10 **EXHIBIT B-16 - UNDERTAKING RESPONSE**

11 MR. LANDRY: So those -- to our  
12 understanding, sir, as I mentioned yesterday, with those two  
13 additions it's our view that we have completed all of the  
14 undertakings. And if there are any issues in that regard  
15 staff or other parties could come and speak to me and we will  
16 see if we can deal with it, but I believe they've all been  
17 answered.

18 THE CHAIR: Thank you very much.

19 MR. LANDRY: The last item that I had given  
20 to staff and the people in the room relates to my oral  
21 argument, and let me explain to you what it is. At the top  
22 it's called "References Re: Yukon Energy Argument." I don't  
23 know if you have that, sir.

24 THE CHAIR: No, we don't have that yet.

25 MR. LANDRY: I'll have Ms. Henry...

1                   So just to explain what this is and then  
2 suggest that it be marked, for no other reason than to get it  
3 on the record, even though it is argument. What I've  
4 attempted to do -- or we've attempted to do in this is to  
5 give to the Board key references from both the opening  
6 statement, which you heard the other day from Mr. Morrison,  
7 and from the evidence that you have heard in relation to the  
8 five main terms of reference in the document that was sent to  
9 you by the minister.

10                   So it's effectively taking the format that I  
11 believe, Mr. Chairman, you asked the parties to follow. And  
12 it gives the Board and your staff some idea of some of the  
13 things that were said and the key -- not all, but some, of  
14 the key references for each of them.

15                   So if you just quickly go through it, you'll  
16 see the first heading is the public need portion of the term  
17 of reference. There is a reference to a portion of YEC's  
18 opening statement. Then there's a -- on the first page  
19 there's the effect of the project and rates of customers and  
20 the references for that. And then you go through each of  
21 the -- you see some key references, the application Section  
22 4, YUB-130. And then you go on to the next one, again the  
23 capability of the system. You've got Yukon Energy's opening  
24 statement. You've got key references at the bottom.

25                   The third item on the third page is the risks,

## Submissions by Mr. Landry

1 and then we talk generally and then relative to some of the  
2 other things which I'll be speaking to in my argument. But  
3 it gives you some key references.

4 And, again, number 4 with the alternatives,  
5 you see the general, the refurbishment and the new diesel and  
6 renewables issues, again key references. And then, finally,  
7 the prudence of the project which really deals with the  
8 project economics.

9 And we have quoted a little bit more  
10 extensively from the opening statement and then we have  
11 attached for your reference the updated Table 4-3 from B-13,  
12 which is the update filed on -- that's on page 7, sir --  
13 which was the update filed on March 27th. And at the back,  
14 you have the updated Figure 1 which, again, was on  
15 March 27th.

16 So it's simply sort of a Cole's Notes sort of  
17 sheet that helps focus, I hope, the Board to the key areas of  
18 the application and the evidence that highlights these  
19 points.

20 THE CHAIR: Thank you. So we'll mark that  
21 as Exhibit B-17, if I'm correct.

22 MR. LANDRY: So marked. Thank you.

23 **EXHIBIT B-17 - UNDERTAKING RESPONSE**

24 **SUBMISSIONS BY MR. LANDRY**

25 MR. LANDRY: I will give my oral



## Submissions by Mr. Landry

1 that we've all been referring to that came from the Minister.  
2 And the first item on the terms of reference, and I'll quote  
3 it so that everybody has it firmly in their mind as I'm  
4 making the oral submissions.

5 The first term of reference says "the public  
6 need for the project under various reasonable electric load  
7 forecasts, including near-term requirements related to  
8 industrial and non-industrial loads and the effect of the  
9 project upon the rates of customers."

10 Now, Mr. Chairman, members of the Board, the  
11 need for the project is driven, as you've heard, by a  
12 forecast grid capacity shortfall of 7 megawatts by the start  
13 of 2015; 10.9 megawatts by the start of 2017; and 17  
14 megawatts by the start of 2019.

15 And you're going to hear more of this from me,  
16 and you've heard a awful lot of it in relation to WD1 and  
17 WD2. But I'm just quoting from page 19 of the transcript  
18 which was as follows, and I quote:

19 "WD1 and WD2 are at end of life, as  
20 I've already mentioned. They are  
21 46 years old and, without major  
22 refurbishment, can no longer be relied  
23 upon for backup capacity."

24 Now, as discussed in detail during the oral testimony, the  
25 fact that WD1 and WD2 are at end of life in 2014 and 2015

## Submissions by Mr. Landry

1 removes approximately 8 megawatts of derated capacity at  
2 Whitehorse and drives the need for the 7 megawatts of new  
3 capacity by the start of 2015.

4           The primary need for this project, as you've  
5 heard time and time again, is capacity. It's needed to meet  
6 Yukon Energy's capacity requirements for the Yukon grid. The  
7 forecast capacity shortfall is based on conservative load  
8 forecast that have not been challenged in this proceeding.  
9 That is, it is base case without the Alexco mine.

10           It should be noted that the remaining five  
11 diesel units at the Whitehorse plant are all planned to be  
12 retired within the next 13 years, and ongoing modernization  
13 of this key facility at Yukon's largest load centre will be  
14 needed over this period.

15           In relation to this project, there is also an  
16 opportunity to utilize cheaper natural gas to replace  
17 incremental winter diesel requirements which benefit both the  
18 environment and ratepayers.

19           The forecasts that were used is based, as you  
20 know, and consistent with the Board's rulings on future  
21 long-term average hydro. The forecast long-term average fuel  
22 cost savings are based on the, as I said, base case without  
23 Alexco mine forecast.

24           As noted in the testimony that you've heard,  
25 it is reasonable to assume, actually, that Alexco will be

## Submissions by Mr. Landry

1 back on the grid in 2015 given the information that YEC has  
2 received, but it has not gone into that base load forecast.  
3 But if that was the case, which I submit is reasonable to  
4 assume, this would do nothing but increase the fuel cost  
5 savings for the project.

6 As regards to the effects of the project on  
7 the rates to the customers, the updated evidence demonstrates  
8 that, without the project, there will be an unacceptable  
9 capacity shortfall starting in 2015, as I've said, and the  
10 customers will pay for forecast long-term diesel requirements  
11 at a fuel cost of 30.8 cents, meaning customers would pay  
12 \$5.2 million for long-term average diesel in 2015, increasing  
13 to \$9.7 million by 2018.

14 Now the project, as you know, and have heard,  
15 will allow Yukon Energy to install the new capacity required  
16 to meet the capacity shortfall need without raising rates to  
17 pay for the new capacity. In fact, after 2015, the project  
18 costs for capital and fuel charges under the base case  
19 forecast as shown in Exhibit B-15, the updated Table 4-3 that  
20 we talked about earlier, will be less than would occur with  
21 no new capacity. That is, no new capital costs for diesels  
22 or refurbishments -- in other words, if there was nothing  
23 done, no capital costs for either new diesels or  
24 refurbishments and it was compared to the LNG alternative,  
25 there would be savings and rates to customers of \$700,000 in

## Submissions by Mr. Landry

1 2016 and increasing to 2.1 million by 2018.

2           And I pause there to say that's a dramatic  
3 point of how the economics of this project drive a positive  
4 outcome for ratepayers. If we do nothing, which you've heard  
5 you cannot do, you can't reliably do, this Board -- the Yukon  
6 Energy can't do it, this Board could not allow Yukon Energy  
7 to do it, but based on the evidence that even if you didn't  
8 do anything to the diesels, just from a pure economic point  
9 of view, the LNG project drives very significant savings for  
10 ratepayers.

11           The new diesel alternative to the project will  
12 secure new capacity needed to meet the capacity -- sorry, let  
13 me just stop there. And I apologize, this is going to be a  
14 little choppy because it's oral argument, but if we now talk  
15 a little bit about the new diesel alternative which is the  
16 one that you know has been compared to the LNG project, the  
17 new diesel alternative to the project will secure the new  
18 capacity needed to meet the capacity shortfall, but it will  
19 require an increase in rates charged to customers. Under the  
20 base case forecast, as shown in Exhibit B-13 and the updated  
21 Table 4.3, the net ratepayer effect compared to the project  
22 is an added \$1.3 million cost in 2015 which would directly  
23 increase rates increasing to a \$3.1 million cost in 2018.

24           Again, this dramatically shows the positive  
25 economic impact to ratepayers by proceeding with this project

## Submissions by Mr. Landry

1 as opposed to doing the only other realistic option that is  
2 before this tribunal and before Yukon Energy of new diesel.

3 Now, I'd like to switch over to the second  
4 major or second item on the terms of reference that is set  
5 out in the terms of reference provided to you by the  
6 Minister. And again I quote:

7 "The capability of existing and  
8 currently committed generation and  
9 transmission facilities including  
10 thermal generation facilities to  
11 provide reliable electric power  
12 generation to meet forecast load  
13 requirements and YEC's capacity  
14 planning criteria, and the effect of  
15 the ... project on this capability."

16 We've heard, and this Board fully knows, having gone through  
17 many issues in the past, that there is a need for a flexible  
18 and reliable thermal capacity on Yukon's isolated grid.

19 Yukon's grid is a predominantly hydro-based  
20 system, and it, like other hydro-based systems, requires  
21 thermal backup. And we know that as of today thermal backup  
22 on the Yukon's grid is diesel.

23 And I would like to pause here for a moment,  
24 Mr. Chairman and members of the Panel, to quote from the  
25 application to highlight what we say is a very key point in

1 the discussion that we're having in terms of the alternative  
2 to meet the capacity shortfall and the need to have a thermal  
3 backup for this system.

4 And if I could -- and there's no need to turn  
5 it up, but it comes from section 4.1.1 of the application,  
6 page 17. And it's under the heading "Yukon Grid Context -  
7 Relevance of Reliable & Flexible Thermal Generation." And I  
8 would like to just quote from here to set the context within  
9 which the point I'm making. I think it's made clearly.

10 And I quote:

11 "Although the isolated Yukon grid is  
12 predominantly served today by  
13 hydro-electric generation, reliable and  
14 flexible thermal generation continues  
15 to be a critical component. In 2012,  
16 99% of the generation on the Yukon's  
17 Integrated Grid was from renewable  
18 sources such as hydro and wind.

19 As with other hydro-based systems in  
20 southern Canada, thermal generation is,  
21 and will continue to be, an integral  
22 and cost effective component required  
23 for reliable and flexible power  
24 generation on the Yukon grid. Unlike  
25 other hydro based systems in southern

## Submissions by Mr. Landry

1 Canada, however, Yukon's isolated grid  
2 has no access to external North  
3 American power grids to secure extra  
4 power when it is needed, or to sell  
5 surplus renewable generation when it  
6 occurs. These features in Yukon  
7 enhance the ongoing requirement for  
8 reliable and flexible thermal  
9 generation on the Yukon grid."

10 And I'd like to also reference you to -- and I won't quote it  
11 specifically, but reference you to the transcript at  
12 pages 290 and 291 when Mr. Osler talked extensively about  
13 this requirement for thermal generation to be on hydro-based  
14 systems. He specifically referenced Manitoba, which, as this  
15 Board well knows, is a jurisdiction with which he is very  
16 familiar, being from Winnipeg and working extensively in that  
17 market and in the electrical market, and also in British  
18 Columbia.

19 And the point that was made by Mr. Osler is  
20 thermal generation backup is required for their purposes  
21 also, not only from a winter capability point of view, which  
22 we've heard, but from a drought perspective too because their  
23 water-based hydro systems, they have to be able to in drought  
24 conditions generate sufficient power to meet the needs of  
25 their customers.

## Submissions by Mr. Landry

1                   And in the case of both British Columbia and  
2 Manitoba, which are both predominantly hydro-based systems,  
3 they both have thermal backup, notwithstanding the fact --  
4 notwithstanding the fact -- that they have interconnection  
5 with the -- in the case of, for example, British Columbia the  
6 Pacific Northwest grid.

7                   So, you know, when people are trying to  
8 understand the Yukon grid system, they don't have to go very  
9 far to see that the concept of thermal backup, right now it's  
10 diesel, is a necessary ingredient to a hydro-based system.  
11 And there can be no doubt about that.

12                   So when we sit here and we talk -- and we'll  
13 get to alternatives and we'll talk about renewables and their  
14 capability to deal with capacity issues. The fact of the  
15 matter is that in relevant examples to Yukon, thermal backup  
16 is the key. It is the key in the Yukon, it has been the key  
17 in the Yukon, and it will continue to be the key in the Yukon  
18 in the future. There's no realistic way of getting around  
19 it.

20                   And I only ask the people who are from the  
21 Yukon to remember what happened in -- I believe it was 2007,  
22 in January, when effectively the Aishihik facility was  
23 knocked off the grid. At that time, the only reason Yukon --  
24 or that Whitehorse was able to get back up and have power  
25 within a relatively short period of time was the thermal

## Submissions by Mr. Landry

1 generation. It was there. It was ready, and quickly,  
2 relatively quickly, came online. That's one of the key  
3 things that it's there for.

4 And of course the need for thermal generation  
5 is not only to provide for the reliable electric power, but  
6 also in the context of what we've debated before this Board a  
7 number of times, which is YEC's capacity planning criteria.

8 And just to quickly highlight and summarize  
9 that, as the evidence during the hearing showed and we  
10 reviewed, Yukon Energy's capacity planning criteria, as  
11 recommended by this Board after review of the 2006 resource  
12 plan, as well as forecast load requirements on the grid, as  
13 these affect the peak winter capacity, which is what we  
14 talked about, needed to meet base load of the non-industrial  
15 loads. So we're talking non-industrial loads. And you heard  
16 Mr. Morrison explain that yesterday.

17 And, of course, it's the capacity planning  
18 criteria and the way Yukon Energy looks at capacity planning  
19 criteria and these needs that start, in effect drive, the  
20 need for this project in the concept of the capacity  
21 shortfall starting in 2015, with the retirement of WD1 and  
22 WD2.

23 Now, we'll come back to the -- under this  
24 heading obviously the retirement of WD1 and WD2 is a key  
25 component, and they're at the end-of-life. Now, we'll come

## Submissions by Mr. Landry

1 back to the issue of whether or not there is an alternative  
2 to refurbishing the WD1 and WD2 to meet the capacity  
3 shortfall. But, obviously, in terms of capability of the  
4 system, as of 2015 there is a capacity shortfall and,  
5 therefore, there is a need to do it.

6 Now, the project will fully supply the added  
7 reliability capacity needed to meet the forecast capacity  
8 shortfalls on the grid in 2015 and for the period to 2018.  
9 And, as I indicated earlier, the evidence also shows that the  
10 remaining five diesel units at Whitehorse will be retired  
11 within the next 13 years, and that ongoing new capacity will  
12 be required beyond 2018 to address future capacity shortfalls  
13 due, in part, to these diesel unit retirements. The project  
14 is the first step in this regard and will facilitate future  
15 cost-effective diesel conversions at the Whitehorse thermal  
16 operating station.

17 Now, the third item, Mr. Chairman, Panel  
18 members, on the terms of reference relates to risks. And I  
19 again quote from the terms of reference. It states risks  
20 facing the project and potential impact on rates for  
21 customers.

22 Now, what I intend to do, and what I've done  
23 in the references, is I intend to deal with each of the  
24 material risks that we've discussed and outlined in the  
25 application. And I want to start firstly with the security

## Submissions by Mr. Landry

1 of supply.

2 Mr. Chairman, members of the Panel, in our  
3 submission the evidence that's -- clearly demonstrate that  
4 Yukon Energy has a secure and cost-effective supply of LNG  
5 from FortisBC's plant at Tilbury.

6 This is an actual operating facility, and the  
7 LNG will be secured under a cost base rate that has been set  
8 by government (OIC). This is not going to be a market base  
9 rate. This is a cost base rate. And as you heard in the  
10 cross-examination and answers to the cross-examination, this  
11 rate is subject to small annual inflation-related increases.  
12 So this is a secure cost base rate, which should be a very  
13 fundamental and positive point from the perspective of  
14 Yukon Energy and Yukon ratepayers.

15 You've heard, and the evidence is, and there's  
16 no evidence, obviously, to contradict this, that YEC has  
17 confirmed that Fortis has ample LNG supply to meet the  
18 project requirements, including supply from existing  
19 facilities during 2015, and that it is undertaking a major  
20 capital expansion, a major expansion of its facility, which  
21 once again has been directed by Order-in-Council to be  
22 included in rates.

23 So they've already got to the point where  
24 they've gone beyond the need issue and specifically have the  
25 authority and BCUC will be required to effectively put that

## Submissions by Mr. Landry

1 facility that they're expanding into rates, regardless of  
2 demand for the product. That's the way it works.

3 And we also heard from Mr. Morrison that at  
4 present there is in the ballpark of 60 percent of the current  
5 Fortis capacity that's available and the needs of  
6 Yukon Energy over the next 12 months are very small, relative  
7 to the capacity that we're talking about there.

8 And as you heard yesterday, Mr. Morrison  
9 himself personally met with the president of Fortis to  
10 personally confirm availability of the supply from the plant  
11 and to review options for YEC to secure supply from this  
12 plant. He also noted the continuing working discussion he  
13 and his staff have with key people at FortisBC.

14 The evidence clearly demonstrates that there's  
15 a good relationship that Yukon Energy has with Fortis and  
16 that they're working with Yukon Energy to help in terms of  
17 their requirements over not only the short term but the long  
18 term and that is a very positive thing, in my submission,  
19 both for Yukon Energy and the ratepayers in the Yukon.

20 And I add one element to this, Mr. Chairman.  
21 The evidence also demonstrated, and is clearly the case, that  
22 at any time if there was a move in capacity being taken up  
23 that they could enter into longer term contractual  
24 relationships with Fortis. There's no impediment with that.

25 So in the circumstances, as NT Energy is doing

## Submissions by Mr. Landry

1 for the people of Inuvik, they would be purchasing on a spot  
2 basis while it's of good effective price and there's no need  
3 at this point in time to enter into long-term contract. But  
4 if they need to do that, they have that capability.

5 Now, in terms of the related issue of supply  
6 logistics and transport, because, obviously, Yukon Energy  
7 will have to get the product to the Yukon, as you heard,  
8 Yukon Energy is coordinating plans with NT Energy, which I  
9 think -- and this is a very important element from those of  
10 us that have some knowledge of this area in both British  
11 Columbia and Alberta -- NT Energy is currently securing LNG  
12 from Tilbury and currently using it for the Town of Inuvik  
13 because of I'm sure what people understand to be some pretty  
14 serious gas-related issues in Inuvik. It's not Inuvik  
15 doesn't have diesel. Inuvik has diesel. It's just that,  
16 obviously, they've been running a gas for many years and gas  
17 is a much more cost-effective option, and they, NT Energy,  
18 are ahead of Yukon Energy, and they actually are supplying  
19 LNG to their facilities in Inuvik using the tridems as we've  
20 talked about.

21 Obviously, as you've heard, there is  
22 cooperation ongoing, as you would expect, in northern  
23 communities between Yukon Energy and NT Energy to utilize  
24 NT Energy's tridem units until such time as the A-train units  
25 that have been talked about are permitted.

## Submissions by Mr. Landry

1           I think the evidence -- I would submit to you  
2   that the evidence also demonstrates that A-trains will likely  
3   be permitted shortly for both NT Energy and for Yukon Energy.  
4   You've heard that effectively the Yukon has already given its  
5   approval. Mr. Morrison talked about the discussions that  
6   Yukon Energy is having with the B.C. government, and you can  
7   review that evidence; it's referenced in the reference  
8   material. And he basically says that the information they  
9   have they don't believe there will be a problem and it will  
10  happen shortly.

11           In any event, it doesn't matter. If one  
12  looks, as we'll see in a moment, if one looks at the project  
13  economics using tridems, the project economics still are  
14  significantly better than the alternative of new diesel.

15           As you heard, Yukon Energy and NT Energy are  
16  also exploring how joint cost savings with A-train units can  
17  be secured once they're permitted. And this relates to the  
18  whole issue of the -- these units coming from Vancouver  
19  through up into the north, either going to the Yukon or into  
20  the Northwest Territories. There was, pretty clearly,  
21  potential cost savings that can be had with the cooperation  
22  between the two parties.

23           Yukon Energy, as it has in the past, is  
24  working with NT Energy on other potential near-term lower  
25  cost LNG supply options with both AltaGas and Ferus, and

## Submissions by Mr. Landry

1 you've heard Mr. Morrison speak of that.

2                   And I think another point, for those of us who  
3 have been through this from the beginning of Charrette is  
4 that the evidence demonstrated here that the near-term LNG  
5 domestic supply development has grown considerably in the  
6 last 12 months in both Alberta and B.C., including potential  
7 facilities in Edmonton, Grande Prairie, Dawson Creek, and  
8 Fort Nelson.

9                   And I pause here to say that Ferus is in the  
10 process now of commissioning a plant in Grande Prairie. So,  
11 in addition to the Tilbury facility, we have one coming on.  
12 You've heard the evidence from Mr. Morrison about the other  
13 parties that are seriously considering, including AltaGas and  
14 Ferus, the opening up of further domestic supply-related LNG  
15 facilities.

16                   Now, the next major risk issue relates to the  
17 natural gas price forecast risk that we heard a fair amount  
18 about.

19                   The evidence of near-term forecast fuel cost  
20 savings from 2015 to 2018, as shown in the update, has not  
21 been challenged in this hearing. The forecast fuel prices  
22 adopted reflect diesel costs over the last six months and gas  
23 costs of about 20 percent higher than gas prices over the  
24 last six months. In other words, the gas cost that's assumed  
25 in the economic analysis is \$4.50 MMBtu versus over the last

## Submissions by Mr. Landry

1 six months the average price of the AECO is \$3.70 per MMBtu.

2 Now, during the hearing, we heard discussion  
3 about uncertainty for gas prices after the near term; i.e.,  
4 over the 40-year life of the project. Now, YEC provided  
5 evidence showing that the material fuel cost savings in  
6 dollars per million BTU equivalent for gas versus crude oil  
7 is forecast by EIA and the NEB to be sustained in North  
8 America over at least the next two to three decades.

9 As you heard further, active ongoing  
10 considerations of various LNG export opportunities from B.C.  
11 to Asia as well as the development of new LNG production  
12 facilities in Western Canada to supply domestic markets -  
13 i.e., the Feruses and the AltaGases that we've been talking -  
14 in our submission, reflect key stakeholders expectations that  
15 the major gap between North American gas prices and world  
16 crude oil prices will likely be sustained for the next 20  
17 years or more into the future.

18 And, as you know, Yukon Energy provided  
19 information from the U.S. Energy Information Administration  
20 at pages 40 and 41 in the application and in response to UCG  
21 YEC-1-13.

22 As you heard, the EIA is an agency within the  
23 U.S. department of the agency that collects, analyzes, and  
24 disseminates independent and impartial energy information.

25 There is no evidence on the record to

## Submissions by Mr. Landry

1 contradict the views of EIA that material fuel cost savings  
2 in dollars per million BTU equivalent for gas versus crude  
3 oil are expected to be sustained in North America over at  
4 least the next two to three decades.

5 Yukon Energy, in oral testimony, noted that  
6 the National Energy Board in November 2013 provided world oil  
7 and U.S. natural gas price forecasts which also indicated a  
8 gap similar to that forecast by EIA between gas and diesel  
9 prices extending out for the next 20 to 30 years.

10 Mr. Chairman -- and this is important. I'm  
11 sure I'll have more to say on this later, but unsupported  
12 statements by counsel regarding the forecast record of EIA or  
13 the uncertainty of fuel future prices in EIA forecasts; i.e.,  
14 that could be wrong, are nothing but speculation. You are an  
15 evidence-based tribunal, and in order to bring in such  
16 suggestions to impact your deliberations, they have to be  
17 provided in evidence.

18 And I would put to you -- to the Board and to  
19 you, Mr. Chairman, the evidence of the price forecast over  
20 the next 20 to 30 years, the EI information has been out  
21 there since the application was filed. As you do in each of  
22 your processes, you give every key stakeholder who would like  
23 to be a party to this proceeding the capability to bring in  
24 evidence to counteract Yukon Energy's evidence. They don't  
25 have to. I have no difficulty with the fact that people

## Submissions by Mr. Landry

1 might not want to put in evidence. But in order to challenge  
2 evidence of this type and nature, in my submission, you have  
3 to put evidence on the record. Innuendo, speculation, maybes  
4 are not good enough.

5 In short, Mr. Chairman, the evidence in this  
6 hearing shows that customers in the Yukon will continue after  
7 2018 and over the 40-year life of these gas engines to  
8 sustain substantial ongoing fuel cost savings for every  
9 kilowatt hour that is generated by gas-fired generation  
10 rather than by diesel generation.

11 Q. From a ratepayer risk viewpoint, it is key to note that  
12 the project's viability does not rely on specific gas versus  
13 oil price forecasts going out 10 to 20 or 30 years.

14 The project's viability is forecast to occur  
15 within the first four years and, thereafter, the project  
16 provides Yukon ratepayers with the option to use gas whenever  
17 it is less costly than diesel. It does not force YEC to use  
18 gas on a substantial basis beyond emergencies at any future  
19 time when gas might cost more than diesel.

20 This is a pretty important point,  
21 Mr. Chairman. What this means is once these gas engines are  
22 in play you have alternatives within the thermal system you  
23 have, to use either diesel or to use gas. That is an  
24 alternative that the Yukon has not had on its system. So  
25 whatever is cheaper -- especially after the first four years,

## Submissions by Mr. Landry

1 whatever is cheaper can be used on the system -- with the  
2 exception of the emergency backup in terms of needing load at  
3 the winter peak. But if we were talking, for example, a  
4 drought situation, if for any reason diesel was higher priced  
5 than -- sorry. If diesel was lower priced than natural gas,  
6 this system will be able to handle that now. It did not have  
7 that capability. Obviously because gas has not been in the  
8 Yukon over the last 30 years.

9 But one doesn't have to go very far to look to  
10 test this proposition. If one looks over, from the fuel  
11 price information that's on the record, at the prices of gas  
12 versus oil for the last, say, 30 years, there was only a few  
13 times, very few times, where oil was higher than gas.

14 If we project that 30-year forecast into the  
15 future and say the same thing will happen, not this large gap  
16 that we've been talking about, there is still going to be the  
17 capability to react to those type of pricing situations.

18 And I was going to say this in terms of the  
19 economic analysis of the project. But just think of it this  
20 way: If the Yukon had the option, which they did not, it had  
21 the option of using gas over diesel over the last 30 years,  
22 it doesn't take very much to show that Yukon ratepayers and  
23 Yukoners would have saved a significant amount of money in  
24 terms of costs going into rates if they had that capability  
25 over the last 30 years. And that's just the 30-year history

## Submissions by Mr. Landry

1 that we talk about now, and does not take into account what  
2 has happened in the last number of years that we've all heard  
3 about, which is that natural gas has broken off from the  
4 price of oil and now there is a major difference between the  
5 two prices, which is projected, as I've said, to last for the  
6 next many, many years.

7 Now, the next major risk or material risk  
8 issue, Mr. Chairman, relates to project costs and schedule.  
9 In relation to project costs, as you heard, the cost  
10 certainty around the project is much more certain today than  
11 it was in November of 2013, when the application was filed.

12 All of the major contracts have been tendered  
13 and entered into. The last remaining contracts have now been  
14 tendered, and the expectation is that they will be in shortly  
15 and available for a start date.

16 So what it is saying to you now is the cost  
17 certainty that would not have been here if we were in  
18 November is now there. And you heard Mr. Morrison speak to  
19 it. And so from a project cost perspective there is much  
20 more certainty, and from your perspective, Mr. Chairman and  
21 the Board, Panel members, in your deliberations, that is not  
22 as big a risk as it might have been a number of months ago.

23 In addition, on March 19th, as you know, the  
24 YESAB draft screening report was issued, recommending the  
25 Yukon government, which is the decision body, that the

## Submissions by Mr. Landry

1 project be allowed to proceed without a review, subject to  
2 eight terms and conditions recommended in the report.

3 I note this, Mr. Chairman: The executive  
4 committee noted that the relatively few recommendations in  
5 its report are indicative of the comprehensiveness of  
6 Yukon Energy's commitments.

7 Now, except for the recommendation to install  
8 the underground power distribution line, which YEC indicated  
9 it's intending to discuss with YESAB and hopes to have it  
10 revised, you heard, and the evidence demonstrates, that  
11 Yukon Energy's current plans accommodate all of the draft  
12 screening report's recommended terms and conditions without  
13 any discernible adjustment to design or cost.

14 The other thing, Mr. Chairman, that was  
15 confirmed on the record yesterday, that even if the YESAB  
16 recommendation is left in place for the underground power  
17 distribution lines, it will not have any material effect to  
18 the added cost of approximately a million dollars, will not  
19 have any material effect on the project economics. It is  
20 still a good project. And even if it was much more than  
21 that, as you'll see in the evidence where the issue of risk  
22 factor is dealt with in terms of costs, it would still be a  
23 good project.

24 The other thing that's very positive from  
25 Yukon Energy's perspective, and I would say for Yukon

## Submissions by Mr. Landry

1 ratepayers in terms of security of supply, is the release of  
2 the positive draft screening report means that Yukon Energy's  
3 mid-May construction schedule is on track.

4 Now, the other major issue that we've heard a  
5 little bit about both at the hearing and also at the public  
6 session obviously relates to safety. Now, you are not --  
7 YESAB is the environmental regulator. It's the regulator  
8 that deals effectively with these issues. These are not  
9 necessarily the prime issue that you're dealing with, but  
10 obviously from the perspective of this Board, safety is an  
11 important consideration.

12 Safety issues and concerns regarding accidents  
13 and malfunctions are comprehensively reviewed in the draft  
14 screening report -- which, by the way, for the record is at  
15 Exhibit B-11. The YESAB executive committee has determined  
16 in its draft screening report that the project will not  
17 result in significant adverse effects to safety considering  
18 the mitigations proposed by the proponents in compliance with  
19 the non-discretionary legislation. And I'd like to quote  
20 from page 55 of the YESAB draft screening report. And it  
21 says this, and I quote: (as read)

22 "The report notes that LNG leaks,  
23 spills and potential effects will be  
24 systemically addressed and planned for  
25 during all phases of the project. The

## Submissions by Mr. Landry

1           demanding regulatory requirements  
2           include comprehensive management,  
3           prevention and contingency planning  
4           such that the adverse effects are  
5           highly unlikely.

6           The safe operation of LNG facilities  
7           is supported by the industry's safety  
8           record, which is regarded as having the  
9           best safety record of any of the energy  
10          industries."

11        So I say to you, Mr. Chairman and the Board, that this has  
12        been comprehensively dealt with by the YESAB, and you can  
13        comforted by the comprehensive nature of that review and the  
14        conclusions that YESAB has come to.

15                Now, the fourth major item on the terms of  
16        reference relates to alternatives. And again I will quote  
17        from the terms of reference. They state:

18                "What, if any, alternatives to the ...  
19                Project might be advisable given  
20                reasonable load assumptions and risk  
21                assessments."

22        Now, Mr. Chairman, you've heard from the panel, the  
23        Yukon Energy panel, and from the application and from the  
24        many IRs that dealt with this issue that there are no  
25        feasible renewable resource alternatives to the project that

## Submissions by Mr. Landry

1 have been identified.

2 As noted during the testimony, and as I've  
3 said again and again, the need that this project addresses is  
4 the need for flexible and reliable backup capacity.

5 In order to understand this you have to  
6 understand -- or people have to understand the difference  
7 between capacity and energy.

8 Hydro enhancements options are being pursued  
9 by Yukon Energy in the near term, but will not meet the  
10 identified need for new flexible and reliable capacity.  
11 Renewable hydro enhancement options -- and examples that  
12 we've been referred to are Mayo Lake and the Marsh Lake  
13 storage -- are estimated to supply 4 and 6 gigawatt hours on  
14 a long-term average basis respectively, but no more than  
15 1 megawatt of reliable new capacity.

16 Now, during the hearing no specific renewable  
17 resource options has been identified to the Board as a  
18 potential option to meet the capacity shortfall forecast in  
19 2015, or in other years to 2018. There's no evidence of  
20 another renewable that could meet the need based on the  
21 evidence that you've heard. I'm sure we'll be talking about  
22 this more later.

23 Greenfield renewable options are being  
24 considered for future development when higher and longer term  
25 grid energy loads can justify such developments. Such

## Submissions by Mr. Landry

1 renewable options are expected to be developed when they can,  
2 provide cost savings, by displacing thermal energy  
3 generation, diesel or natural gas, and are not expected to be  
4 developed to provide reliable flexible capacity to meet the  
5 grid's backup capacity requirements.

6 We'll speak of this again, Mr. Chairman, but  
7 this Panel has seen over the last 10 to 15 years  
8 Yukon Energy's commitment to renewables. They've been before  
9 you on numerous occasions asking for approval, for your Board  
10 approval, to put in effect what are renewable projects into  
11 the rates.

12 And obviously good examples of that are the  
13 Aishihik third turbine; Mayo B; the Mayo-Dawson line, which  
14 effectively took Dawson off diesel; the Carmacks-Stewart  
15 line, the first stage of which effectively took the Minto  
16 mine off diesel; and the connection of the two grids to allow  
17 more flexibility in allowing renewable energy and capacity to  
18 be supplied throughout the system.

19 Now, in terms of the alternatives,  
20 Mr. Chairman, members of the Panel, there was a lot of talk  
21 about refurbishment of WD1 and WD2; but I would submit to you  
22 that it is clearly not an acceptable option for YEC, for this  
23 Board, or for ratepayers that need reliable capacity for the  
24 grid.

25 And unlike ten years or so ago we have an

## Submissions by Mr. Landry

1 example where we need that. We have an example when Aishihik  
2 went down and the importance of having good thermal backup  
3 for when that occurs.

4           You've heard a lot of evidence on the issue of  
5 WD1, WD2 because there is this -- with all due respect to the  
6 people who have said it -- uninformed view that we should  
7 just leave WD1 and WD2 in place or we should do some more  
8 jerry-rigging or we should refurbish them to get the -- to  
9 meet up the capacity shortfall.

10           WD1 and WD2, there is no question they're at  
11 end-of-life. They're 46 years old. And you've heard from  
12 Mr. Morrison very succinctly and very passionately I might  
13 add that they can no longer be relied upon for backup  
14 capacity. This Board knows full well Mr. Morrison went to  
15 the manufacturer back in 2006 to get a commitment from the  
16 manufacturer to say, "If we're going to refurbish this thing,  
17 we want your commitment to make sure that you will supply the  
18 parts and you will provide the technical support." And it  
19 was only on the basis of that commitment, and the evidence  
20 said that to you, that he agreed to go forward with those  
21 refurbishments. More importantly, that he agreed to bring it  
22 to you to allow you to make the decision that that was an  
23 appropriate way to go. That commitment has not been lived up  
24 to, and you heard that from Mr. Morrison.

25           He has indicated to you in no uncertain terms

## Submissions by Mr. Landry

1 the difficulty of getting parts and support, the long delays,  
2 and the material issues with quality control.

3 He's indicated to you that during the monthly  
4 start-ups, they don't even start 50 percent of the time.

5 And I'd like to, just for a moment,  
6 Mr. Chairman, refer to some of the testimony from  
7 Mr. Morrison, which I say to you clearly puts this issue at  
8 rest. And if I may, this is in response to a question from  
9 Ms. Bentivegna, and it starts at transcript reference 409.  
10 And the question, after a little bit of lead-in from  
11 Ms. Bentivegna, was:

12 "If this project didn't proceed, what  
13 would you do with those engines to  
14 continue to have them run until you  
15 dealt with however else you want to  
16 address their retirement?

17 A MR. MORRISON: A couple of  
18 things, Ms. Bentivegna.

19 There isn't anything we can do that  
20 we haven't already done to those  
21 engines to keep them running as -- our  
22 lead hand, our head mechanical -- our  
23 head mechanic, the fellow that runs the  
24 mechanical department at YEC is a  
25 Mirrlees factory-trained mechanic.

## Submissions by Mr. Landry

1           What he said to me this morning was, 'I  
2           can't jerry-rig these engines anymore  
3           than I've done. I can't fiddle and  
4           figure out how to make them run and  
5           keep them running more than I have.'  
6           He's patched and patched and patched.

7           So there isn't anything in his  
8           opinion -- and I value his opinion a  
9           lot -- that he can do.

10          And, you know, maybe it isn't very  
11          concrete in terms of numbers, but I can  
12          tell you that both he and my manager of  
13          operations have come to me several  
14          times during the past year and said,  
15          'You know, we're not sleeping. We  
16          cannot run these engines -- we don't  
17          know if these engines are going to be  
18          reliable.'"

19          I pause there. These are people that would have been around  
20          in January, in the cold, when the Aishihik line went down.  
21          Mr. Morrison goes on:

22                 "Now, I know it's not concrete. I know  
23                 it's not numbers, but exposing in my  
24                 mind -- I don't know what I'd -- I  
25                 don't know what I'd do if somebody said

## Submissions by Mr. Landry

1           'You have to rely on those engines for  
2           another year.' I can't -- I wouldn't  
3           do that. I won't tell my staff that --  
4           I won't tell Yukon ratepayers that  
5           these things are reliable and I can  
6           jerry-rig them some to make them  
7           reliable. I can't make these engines  
8           reliable.

9           So we gamble. We gamble that we  
10          don't have an issue next winter. I'm  
11          fine for now. You know, we're out of  
12          the bad cold. I think we're okay. But  
13          30 below in January or December next  
14          year and these engines -- we have a  
15          problem and these engines cave, I just  
16          can't, in all consciousness, face  
17          that."

18         So that -- and there are many other extracts from the  
19         transcript which are referred to in the references that I'm  
20         talking about are from the president and CEO, Mr. Morrison, a  
21         long-time Yukoner coming to this Board and saying to this  
22         Board they can't be relied upon.

23                 So anybody that suggests, in my submission,  
24         anybody that suggests that the evidence before you allows you  
25         in any way, shape, or form to suggest that these retirements

## Submissions by Mr. Landry

1 should be delayed in any manner, in my submission, would  
2 be -- would be just not a valid point, not a credible point.

3 And I point out that the evidence that you  
4 have before you is also in relation to the refurbishments  
5 that did occur that took in excess of three years, and they  
6 still, as you can see from the undertaking, are not  
7 necessarily in as good a shape as I'm sure we all believed  
8 and hoped they would have been when we dealt with those  
9 issues back in 2006 in the resource plan.

10 So where that leads us to, Mr. Chairman,  
11 members of the Panel, is that the new diesel generation is  
12 the only feasible option available to meet the identified  
13 project need.

14 Now, in relation to this option, and comparing  
15 it to the LNG project, as you heard in the evidence, there's  
16 no material difference in terms of equipment costs between  
17 new gas or diesel generation units. The primary cost  
18 difference is the requirement to establish new facilities  
19 needed for the LNG truck unload, storage, and vaporization.

20 However, it's important to note that once  
21 those facilities are developed, Yukon Energy will have the  
22 capability to support up to 30 megawatts of gas-related  
23 future generation capacity at the Whitehorse thermal  
24 generating station.

25 And I make that point, not in relation to

## Submissions by Mr. Landry

1 trying to add to what's already there. I make that point in  
2 relation to there will be a need over the next 13 years or so  
3 to retire further diesels; i.e., to modernize further the  
4 thermal requirement on this hydro-based system and these  
5 facilities will help facilitate that.

6 And I say, Mr. Chairman, that the evidence  
7 clearly demonstrates that the opportunity to meet Yukon  
8 grid's capacity shortfall with new cleaner-burning and  
9 cheaper-operating gas-fired units means that this project,  
10 the LNG project, is by far, by far the superior and most  
11 cost-effective option.

12 Now, the last item on the terms of reference,  
13 Mr. Chairman, and just -- I'll pause there to say that I  
14 think I will probably be able to meet the timeframe that  
15 you're speaking of and I would suspect I won't be more than  
16 another 15 to 20 minutes.

17 THE CHAIR: Sure, that's fine.

18 MR. LANDRY: The last item on the terms of  
19 reference -- and, again, I quote, is:

20 "Whether it is prudent to build the ...  
21 Project at this time."

22 Now, a key point that I've emphasized before, but I'd like to  
23 emphasize one more time is that there is an opportunity to  
24 put in place a natural gas fuel alternative and provide Yukon  
25 with an alternative, as I said before, that it has not had

1 before.

2 This project is an extremely robust project  
3 based on the evidence, meaning, for example, that it  
4 continues to provide ratepayer cost savings when we attempt  
5 or Yukon Energy increases the capital costs by more than 10  
6 to 15 percent or when they decrease the projected fuel cost  
7 savings by, say, 4 to 5 cents a kilowatt hour. It's  
8 extremely robust. And you can see from the evidence that  
9 that is the case.

10 The project's feasibility and economics have  
11 been tested under a wide range of conditions and has  
12 continued to demonstrate savings for ratepayers in the near  
13 term that more than pay off the cost difference compared to  
14 the new diesel alternative.

15 The updated fuel cost savings per kilowatt  
16 hour have not been materially impacted by the change in the  
17 LNG supply to the existing Fortis plant at Tilbury. The  
18 updated LNG costs that you now have before you reflect  
19 updated haul costs, i.e., transportation costs.

20 And, as I said earlier, there's still  
21 contained a conservative estimate of the AECO price of \$4.50  
22 for MMBTU. And that, I submit, based on the evidence, is a  
23 conservative assumption when you look at, as we talked about  
24 earlier, what the average ACO price over the last six months  
25 which averaged \$3.70.

## Submissions by Mr. Landry

1                   Another notice of forecast fuel displacement  
2 that we talked about in the near term and the longer term.  
3 We talked about the fact that Yukon electric rates are based  
4 on long-term average hydro generation. And I'd refer the  
5 Board, for the record, to the Board Order that established  
6 that, which is Board Order 2013-1.

7                   The projected ratepayer's fuel cost savings in  
8 the project over the last -- sorry, over the four initial  
9 years approximate, as you've heard, 11.9 million using the  
10 conservative base load forecast with no Alexco load. These  
11 fuel cost savings are well in excess of the project capital  
12 cost charges over that same time frame of approximately 2.7  
13 million compared to new diesel resulting in overall ratepayer  
14 savings exceeding 9 million over the time period, including 1  
15 million in 2015 alone.

16                   Projected fuel cost savings of 11.9 million in  
17 the first four years are in excess of 9.3 million additional  
18 capital costs assumed for the project compared to new diesel.

19                   As you've heard, in effect, the project's  
20 added capital costs are projected to be fully recovered  
21 during the initial four operating years.

22                   So, Mr. Chairman, members of the Panel, in  
23 closing, the application, the responses to the information  
24 requests, and the testimony from YEC's witnesses have  
25 demonstrated there is a clear need for the project at this

## Submissions by Mr. Landry

1 time.

2 Absent the project, YEC would need to install  
3 equivalent new diesel generation capacity at the Whitehorse  
4 diesel plant. This project provides a new option to Yukon  
5 ratepayers to keep costs down. This is not a matter of tying  
6 Yukon down to one fuel option but is instead providing a  
7 choice for Yukoners. It shows the robustness of the  
8 project's near-term ratepayers' savings economics, given a  
9 number of sensitivity tests regarding capital cost changes  
10 and fuel cost changes.

11 And the material savings expected to  
12 ratepayers over the project's economic life, the project will  
13 yield cost savings in each of its first four years and the  
14 4-year total savings are expected to be sufficient to fully  
15 recover any added capital cost compared to new diesel  
16 generation that otherwise would be required today, and  
17 ratepayer fuel cost savings are expected to continue  
18 throughout the 40-year economic life of the project.

19 And, Mr. Chairman, members of the Panel, those  
20 are my oral submissions subject to reply, and I will be  
21 having comments, obviously, relative to the replies of my  
22 friends at the City of Whitehorse and any comments that I  
23 have in response to the oral -- sorry, the public hearing  
24 that took place on Monday night.

25 THE CHAIR:

Thank you very much.

## Submissions by Mr. Janigan

1                   So the next speaker would be Mr. Janigan, but  
2 I'll check with you, I think this might be an appropriate  
3 time to take a half hour break. Does that work for you, or  
4 would you like to proceed before we take a break?

5 MR. JANIGAN:                   I'm in your hands,  
6 Mr. Chairman, but I think I would like to proceed before the  
7 break.

8 THE CHAIR:                   Sure. That's fine. So I will  
9 turn it over to you and you can proceed.

10 **SUBMISSIONS BY MR. JANIGAN:**

11 MR. JANIGAN:                   Thank you very much. This  
12 proceeding has been convened for the purpose of a review  
13 requested under Part 3 of the *Public Utilities Act* for an  
14 energy project certificate and energy operation certificate.

15                   The purpose of the hearing is to obtain  
16 recommendations as to the potential benefits, costs, risks,  
17 and customer impacts that influence whether the project  
18 should proceed.

19                   UCG has participated to both test the premise  
20 of the project proposal put forward by the company and  
21 address the elements of the considerations that the Board has  
22 before it, including public need, current capability, risks  
23 of proceeding with the project, alternatives, and overall  
24 prudence.

25                   First with respect to public need, which, in

## Submissions by Mr. Janigan

1 our view, is rather intrinsically linked to current  
2 capability. We are aware of the difference between energy  
3 and capacity-driven decisions. Clearly there is a  
4 difference, although there is a connection between the two  
5 terms as well.

6 Capacity in this case is needed to provide  
7 backup, emergency power, drought relief, etcetera wherever  
8 there is problems on the system and enables, particularly in  
9 circumstances of particular difficulty, Yukon Energy to  
10 provide hydro to all elements of their system. We understand  
11 that.

12 Currently in Whitehorse the capacity, the  
13 backup capacity, has been provided by 46-year-old Mirrlees  
14 engines, providing about 8 megawatts of capacity. And there  
15 is a need for capacity and, as well, there will be a need to  
16 replace these engines with some other alternative in the near  
17 future.

18 Now, the extent and timing of the need for  
19 capacity may be in some doubt; and in part this may be  
20 because of the fact that the company themselves has been  
21 extraordinarily reticent with respect to evidence associated  
22 with the existing engines, with the exception of the hearsay  
23 reports that have been provided by Mr. Morrison.

24 And I say hearsay because effectively in his  
25 discussion with me he was unaware of when the last time the

## Submissions by Mr. Janigan

1 engines were refurbished, yet was able to effectively report  
2 on what he had learned from discussions with his engineer and  
3 what his engineers had told him. But there had been no  
4 consolidation of that report in a fashion that one might  
5 expect in a company such as Yukon Energy. It seems as if  
6 these -- the evidence that the company went ahead on was  
7 largely on the basis of the meetings that it had with the  
8 project engineers, and there was no consolidated report  
9 showing the different aspects of the wear and tear on the  
10 engines, the alternatives that they were provided. All of  
11 this was never done by Yukon Energy, according to  
12 Mr. Morrison. And if you check on transcript 134, you'll  
13 note where this exchange occurs.

14 We find that difficult to believe, but, on the  
15 other hand, we're not in a position to say that 46-year-old  
16 engines at some point in time will have to be replaced won't  
17 have to be replaced. It's just that the in terrorem appeal  
18 that these engines have to be replaced almost immediately  
19 loses some luster when the company -- who has all these  
20 resources at its disposal to in fact put together a report on  
21 the status of these engines and fails to do so, and relies  
22 essentially upon anecdotal and hearsay reports by the  
23 president of the company. However... We accept that in the  
24 short-term these engines have to be replaced.

25 The second aspect of the need for capacity is

## Submissions by Mr. Janigan

1 the extent of the need for capacity. Now, not only has the  
2 company come forward and said that they require the ability  
3 to replace the capacity provided by these engines, but  
4 they've also indicated that there is a need for capacity for  
5 increased load and in effect expanding the need for capacity  
6 along with the replacement of the existing engines.

7 This is troublesome to UCG insofar as at the  
8 same time as it's brought forward with its plans there's been  
9 very little on the table to indicate that the company is  
10 trying its best to reduce the load that is generating the  
11 need for the capacity.

12 And I just -- sorry to jump around like this,  
13 but just in relation to my previous point with respect to the  
14 timing of the replacement of the Mirrlees engines, I would  
15 note Mr. Osler's comment on transcript page 132 of the  
16 record.

17 "... the corporation has not found that  
18 these engines to date have failed to  
19 meet the need for reliability."

20 So while there may be little dispute that eventually  
21 46-year-old engines have to be replaced, there may be some  
22 dispute as to how quickly they have to be built with.

23 And in relation to the public need, we would  
24 be more encouraged if this application was accompanied by  
25 more significant commitment to reduce load. Particularly

## Submissions by Mr. Janigan

1 more significant commitment for new renewable generation and  
2 enhancement of DSM. We are aware of the fact that the  
3 company has put their toe in the water with respect to DSM in  
4 relation to their joint efforts with YECL. But, as the  
5 testimony indicated, the degree of commitment and what it is  
6 likely it achieve over the next four years frankly is not  
7 good enough.

8 As well, I believe the company has downplayed  
9 the ability to request some industrials to rely on their own  
10 diesel in the case of an emergency. This does not mean that  
11 this kind of capacity replaces the need for the capacity  
12 provided by the current engines, but it is an additional  
13 factor that they use in relation to how much capacity is  
14 needed and when it is needed.

15 So we accept that there is some need for  
16 capacity, and it must be met in the short-term.

17 The alternatives that have been considered  
18 have been few in number. And on page 42 in transcript of  
19 Volume 1 -- and my previous references were all to Volume 1  
20 of the transcript.

21 In my discussion with Mr. Morrison it was  
22 noted that there were -- most alternatives were rejected for  
23 a variety of different reasons. Number one, the primary  
24 reason why new generation, particularly new renewable  
25 generation, was rejected is that it involves a commitment of

## Submissions by Mr. Janigan

1 higher capital and lower operating cost to operate at  
2 intermittent times.

3           If I could repeat that again, because it's  
4 significant in relation to looking at the comparison between  
5 the LNG option and the diesel option, the options initially  
6 were rejected because of the fact that they have higher  
7 capital costs and lower costs operating at intermittent  
8 times. In other words, as Mr. Morrison put it, it doesn't  
9 pay to not run hydro, particularly if it's on an -- it's  
10 operating at a lower cost.

11           Secondly, options such as secondhand diesel  
12 engines seem to be rejected out of hand. This may well be  
13 that the experience with the Mirrlees engines over the last  
14 ten years has soured the company on the whole and the idea of  
15 anything secondhand, but one might have thought that that  
16 might be considered.

17           Things like the new hydro renewable generation  
18 initiatives; natural gas developments; storage, either  
19 hydrogen or natural gas; or enhanced DSM were not considered  
20 in relation to both the possibility of replacing existing  
21 capacity, which is perhaps to some extent understandable, but  
22 more in particular with respect to the reduction of the load  
23 that was generating the capacity.

24           Now, I want to deal with the risks that are  
25 associated with the proposal that has been brought forward or

## Submissions by Mr. Janigan

1 the preferred proposal of the company. And, as has been  
2 noted, it offers the highest upfront capital costs of some  
3 9.3 million, potentially another million, I guess, if the  
4 YESAB recommendation is accepted associated with the burying  
5 of the underground lines. And it becomes the preferred  
6 choice only on the basis of the difference between the use of  
7 natural gas as the fuel rather than diesel.

8 As the YESAB report says on page 67,  
9 "predicted savings are from increased generation." So not  
10 only are these -- the savings reported from the basis of the  
11 anticipated differential between the price of natural gas and  
12 diesel, but also from the increased generation and the  
13 increased load that will be used for capacity building.

14 UCG would ask you to examine carefully the  
15 assumptions behind the predictions of rate savings that are  
16 contained in the application starting in page 33.

17 One need not be an expert in either graphs or  
18 predictions to look at the table that is presented in their  
19 evidence at Figure 4-2 to realize that there has been  
20 extensive price volatility over the last seven or eight  
21 years.

22 With all due respect to my friend, the idea  
23 that we can predict what the price of natural gas will be  
24 over the short-term and particularly over the long term, I  
25 think, is pie in the sky.

## Submissions by Mr. Janigan

1           I recall a question to an expert that I made  
2 when I commenced my regulatory career as to what he thought  
3 the price of gas would be in two years' time. He told me,  
4 "If I had known that, I would not be here wasting my time  
5 answering questions from you." And effectively, I would  
6 suggest that the best prediction of the past -- by the future  
7 might be the past, and the immediate past is, in fact,  
8 showing extreme volatility.

9           And when you look at the rate savings that are  
10 effectively generating the rationale for this project, you  
11 might consider how easily they may be toppled by that price  
12 volatility.

13           As well, in UCG-YEC-1-5(c), the company has  
14 set out what the capacity requirements have been for the last  
15 four years. And -- find it here -- in 2010 it was 2.417  
16 gigawatt hours; 2011, 6.570 gigawatt hours; 2012, 2.205  
17 gigawatt hours; and 2013, .840 gigawatt hours. That kind of  
18 use of the generation for capacity is going to throw these  
19 figures into a cocked hat.

20           Effectively yes, we need to plan beyond what  
21 appear to be relatively low figures associated with capacity  
22 use, but we also have to look at what the risk might be in  
23 relation to all of these things happening at the same time.

24           In the event of a perfect storm, for example,  
25 high price volatility, low capacity requirements, what is

1 likely to happen?

2                   The other observation, which is possibly  
3 trite, is that this is a new technology for the company.  
4 It's certainly demonstrated some capability in relation to  
5 its operations, but this is new technology. There is likely  
6 to be glitches. There is likely to be cost overruns. There  
7 is likely to be problems in relation to the transition to --  
8 from diesel to natural gas. That's not something that is  
9 based on the record, but it's simply a reasonable projection  
10 for the future. How well will these figures stand up in that  
11 kind of circumstance?

12                   Mr. Osler has indicated that there may be a  
13 requirement to transit to other options after the first four  
14 or five years. But on page 102 effectively indicates that  
15 there may be sufficient payback in that four or five-year  
16 period to justify the LNG project in and of itself. Well,  
17 obviously, if you're into a period of high volatility, you're  
18 in the first period of attempting to adapt to the capital  
19 project. And, as well, it may be a low needs for capacity.  
20 Things may not be as rosy as predicted, and, in fact, the  
21 predicted savings for ratepayers may not eventuate.

22                   As well, it's to be noted while the 4.5 BTU  
23 figure was used for the various tables prepared by the  
24 company, it flat lined across the board up to 2018. That's  
25 unlikely to happen, and, in fact, it's unlikely to represent

## Submissions by Mr. Janigan

1 where, in fact, the price might be over that period of time.

2           It's been emphasized by the company throughout  
3 this hearing, and in their evidence, that this project is not  
4 driven by fuel savings but capacity. So, as was noted -- and  
5 I can't find the transcript reference in the time I was here,  
6 but I believe it was a quote from Mr. Osler, that alternative  
7 -- in this case, the new diesel alternatives would achieve  
8 the same result, just more costly in terms of fuel.

9           So if the Board is not satisfied in relation  
10 to the proposition from the company that there will be  
11 enormous savings passed on in rates as a result of a  
12 difference in fuel, the option for new diesel becomes  
13 increasingly more attractive.

14           And that leads me to discussion of prudence as  
15 a whole. And to emphasize my previous point, the intent of  
16 the project was to replace and enhance capacity.

17           At the same time as it's been brought forward,  
18 we see little or no significant attempt to reduce load and  
19 reduce the need for capacity in the long term.

20           The project is arriving, perhaps  
21 unfortunately, at a time -- well, indeed unfortunately -- at  
22 a time of high price volatility where, in fact, the price of  
23 natural gas has been up and down like a yo-yo over the last  
24 eight years and Figure 4-2 on page 41 of the application  
25 illustrates that.

## Submissions by Mr. Janigan

1           The recent past illustrates that diesel  
2 capacity has been on the wane at least for the last four  
3 years and is not so predictable as to deliver the anticipated  
4 savings to customers as the -- as is predicated by the LNG  
5 plan.

6           So if we put -- if the Board puts itself in  
7 the position of a management of a private sector company and  
8 you have a key element of your operating system that needs to  
9 be replaced and is dependant on one component, do you choose  
10 the one that is favoured by a price prediction that is, if  
11 not speculative, certainly prone to considerable risk, or do  
12 you choose an option which the company is familiar with and  
13 has had experience in delivering a particular product, in  
14 this case, capacity?

15           In our humble opinion that, number one, the  
16 LNG option is, if not premature, it simply does not have the  
17 evidence behind it to enable the Board to choose it with  
18 confidence over the diesel option.

19           Secondly, the Board has the right to insist  
20 that accompanying any further increase in capacity above the  
21 replacement of the engines, that there are more significant  
22 efforts on the part of the company to demonstrate efforts to  
23 reduce load; in particular, in some of the different  
24 initiatives that we've listed.

25 Q.   And insofar as this option that we have recommended has

## Submissions by Mr. Janigan

1 also been blessed by the YESAB and acknowledged by the  
2 company to be a potential option or an option which could be  
3 chosen by them but for their preference for the LNG based on  
4 fuel savings, we would suggest that it would be -- it would  
5 be a prudent option for the Board to recommend to the  
6 Minister.

7 I want to deal briefly with the comments from  
8 the public meeting. And I come upon this issue with a  
9 certain amount of reluctance. Being from Ontario I'm not  
10 familiar with public proceedings in the Yukon. If we got an  
11 attendance like that in a small -- for a small utility in  
12 Ontario, you would think there was a revolution underway.  
13 So, as I understand it, there's a much more enhanced  
14 tradition of people showing up and exercising their rights as  
15 a public citizen to speak their minds at these meetings. So  
16 I have to understand that basis to make my comment.

17 I would suggest that it does, however, set a  
18 tone for this proceeding in relation to the expression of  
19 public concern, that in fact there's not enough being done to  
20 advance environmental concerns and concern with leaping into  
21 the fray with this new technology.

22 My suggestion is, is that if the Board can  
23 align prudent practice in the way I've suggested with respect  
24 to the preferred option of diesel over LNG, and with a  
25 concomitant public support, I believe this would be a

## Submissions by Mr. Janigan

1 decision that would align with the public interest, which is  
2 in fact the objective of the Board and the government itself.

3           So I am suggesting that the course of action  
4 that UCG has suggested accords with public interest in the  
5 long run and as well may allay public concern, which I  
6 believe is a factor in some respect that the Board may  
7 consider. At least for setting the tone and background for  
8 the proceeding.

9           That concludes my submissions on the matters  
10 in issue.

11           I want to just briefly support an idea that,  
12 Mr. Chairman, that you put forward, that there might be an  
13 examination of the Board's policy in relation to documents  
14 put in evidence in the context of this proceeding.

15           I think we have -- because we have attempted  
16 to adopt rules associated with civil litigation we have sort  
17 of lost the thread of the underlying objective of evidence,  
18 that essentially we want to see all the relevant evidence  
19 before the Board so they can rule in the public interest.  
20 And we have at the one hand considerable challenges against  
21 evidence offered in a fashion where documents are put --  
22 official documents are put to the witness, yet at the same  
23 time we have witnesses testifying about reports that they've  
24 seen, hearsay evidence that we put in the record.

25           And I'm not criticizing that it shouldn't be

## Submissions by Mr. Janigan

1 considered. All I'm saying is that we have to consider that  
2 the first test is whether or not it's in the public interest  
3 to receive that evidence and whether or not it's reliable and  
4 whether or not it's something that is relevant and whether or  
5 not it has fairness associated with it in being admitted.

6 So I'm not here to set out a framework for  
7 admission of documents into the -- into proceedings. I'm  
8 here to support your suggestion that perhaps it's an  
9 opportune time to have that policy reviewed.

10 So that concludes UCG's presentation, and we  
11 would thank the Board for its patience and the opportunity to  
12 present.

13 THE CHAIR: Thank you very much for your  
14 presentation, Mr. Janigan, on behalf of UCG.

15 So I think -- what's the time now? It's  
16 12:37. So if we can break for half an hour or thereabouts,  
17 then we would move -- we'd come back at 1:15 and then we  
18 would -- Mr. Austin would be up at that time. Thanks very  
19 much.

20

21 PROCEEDINGS ADJOURNED TO 1:15 P.M.

22

23

24

25

## Submissions by Mr. Austin

1 Volume 3  
2 April 2, 2014  
3 P.M. Session

4

5 THE CHAIR: Please be seated.

6 So, Mr. Austin, whenever you're ready I'll  
7 turn it over to you.

8 **SUBMISSIONS BY MR. AUSTIN**

9 MR. AUSTIN: Good afternoon, Panel.

10 Mr. Landry and Mr. Janigan have attempted to explain why we  
11 are here in a practical and not philosophical sense, so I'm  
12 not going to add much to that, other than to explain that  
13 we're here to discuss a capacity and energy project.

14 There's been a lot of backwards and forwards  
15 over the last couple of days about energy and capacity, and I  
16 would invite the members of the Board to rely on Board staff  
17 and its consultants to provide it with any background it  
18 needs to help understand the concepts in the context of this  
19 project. I think that's very important.

20 Energy and capacity are not easy concepts to  
21 understand for those who are not closely associated with the  
22 electric industry. And they get confused very, very easily;  
23 but once you have them, it's like riding a bicycle, you have  
24 it for life. But when you don't have it and people start  
25 talking about energy capacity in a hearing like this, it gets

## Submissions by Mr. Austin

1 really confusing. And I've seen a lot of people's eyes glaze  
2 over in a lot of hearings when we start talking about energy  
3 and capacity.

4           The other point that I want to make about  
5 energy and capacity in a basic sense is renewable energy  
6 projects can provide capacity. And an example of that -- a  
7 good example of that is the Aishihik project of YEC's. It  
8 provides energy, but it also provides capacity. And it  
9 provides dependable capacity, firm capacity, whatever you  
10 want to call it. It's there, it's available, and it's only  
11 subject to a transmission outage.

12           So to take it a little further, how does it  
13 supply the dependable capacity? It has reservoir storage.  
14 The reservoir storage is the fuel for the engines. Just like  
15 the LNG will be the fuel for the proposed natural gas  
16 engines. So if I've got the fuel and it's available 365 days  
17 a year, then essentially I've got dependable capacity.

18           In relation to this application, an issue is  
19 when did YEC discover it was going to have a capacity problem  
20 on its system. I did some cross-examination on this. And  
21 the references are Volume 1, pages 145 to 146 of the  
22 transcript and Volume 1, page 148 of the transcript. The  
23 capacity problem was discovered in 2006, or at least known in  
24 2006, which is quite some time ago.

25           I gave YEC an opportunity to confirm that date

## Submissions by Mr. Austin

1 or say, no, that was too early, but it never came back with  
2 any response. So, for the purposes of the record, it knew  
3 about the capacity problem as it exists today back about  
4 2006.

5 While YCS/LE appreciates the Mirrlees need to  
6 be replaced, the urgency associated with this project is  
7 unwarranted. There's been plenty of time to sort all this  
8 out. There's been plenty of time to look at alternatives.

9 The Mirrlees aren't in the best of condition,  
10 but they're usable. And I'll have more to say about that  
11 later on in this presentation.

12 As a result of not moving towards a solution  
13 for the capacity problem a lot sooner, YEC has put this Board  
14 in a very awkward position. Because if you look at responses  
15 to YCS/LE-11(d) and (e), YEC has committed approximately  
16 \$16.7 million to the project already without Board approval.

17 But dispute that, the Board has to look at  
18 this in the context of the terms of reference. But we  
19 certainly appreciate the pressure that the Board -- is being  
20 brought to bear on the Board because of poor planning and  
21 expenditures today.

22 I'm following the Chair's suggestion about  
23 argument. So I'm in the area of public need, and I'll just  
24 make one more point before I move out of the area of public  
25 need. And this goes back to capacity.

## Submissions by Mr. Austin

1 I heard in Mr. Landry's argument about the  
2 Burrard thermal plant in British Columbia and how  
3 hydroelectric systems need thermal plants. There is no  
4 Burrard thermal plant for the purposes of planning in  
5 British Columbia anymore. That's by government directive.

6 B.C. Hydro is going to run its predominantly  
7 hydro-based electric system without any major thermal  
8 generation. It's a matter of public record. It's been  
9 directed by the government of British Columbia and it's  
10 through Orders-in-Council, special directions to the B.C.  
11 Utilities Commission. There's a very long history there.  
12 I'm summarizing it the best I can, but essentially no more  
13 Burrard thermal for the B.C. Hydro system in relation to  
14 energy. And when a new transmission line is being built is  
15 completed from the Interior, Lower Mainland, no more Burrard  
16 thermal planning for planning for capacity purposes.

17 I'd like to move to the next area in terms of  
18 the format for the argument, and that's the capability of  
19 existing and currently committed generation. In my comments  
20 with respect to the public need, I mentioned the issue of the  
21 Mirrlees and whether they're usable, what their state is.  
22 And I find the discussion that's been going on rather  
23 difficult to understand in the context of the facts that I  
24 thought were on the record.

25 If you look at YUB-YEC-1-13(b), page 11 and

1 13, it says:

2 "Maintenance has not been an issue with  
3 WD1 and WD2 as their use has been very  
4 little since the 2006 Resource Plan was  
5 completed. This was discussed with  
6 YEC's lead hand..."

7 I want to emphasize lead hand.

8 "... mechanical maintenance. It was  
9 noted that after virtually each monthly  
10 mandatory startup of these engines  
11 small component failures and engine oil  
12 and coolant leaks have to be fixed.  
13 Capital expenditures have also been  
14 minimal as they were identified in the  
15 2006 Resource Plan as needing either  
16 life extension or replacement. The  
17 common cooling water pump for all three  
18 Mirrlees was replaced as a capital  
19 project in 2008 at a cost of \$31k."

20 That was the evidence. So when I cross-examined the  
21 representatives of YEC -- and this is at Volume 1, page 188  
22 of the transcript, I asked about major failures. The word  
23 "major failures."

24 "How often do you test WD1 and WD2?

25 We test all our engines every month.

## Submissions by Mr. Austin

1           Every month. In the period from 2010  
2           to 2013, in terms of the monthly tests,  
3           has there ever been a major failure  
4           with respect to WD1 or WD2?

5           I can't tell you off the top of my  
6           head, Mr. Chairman.

7           Is that something that you could ask  
8           your plant manager?

9           We can do that."

10          So that was what I was asking about major failures.

11                    So the next day in response to the undertaking  
12          YEC provided a response that was well outside the  
13          undertaking. And the comment was, "Well, gee, we don't have  
14          the transcript." Nobody ever asked me what I was looking for  
15          in terms of my undertaking.

16                    So instead of getting the report on major  
17          failures, which there weren't any of, as far as I can tell by  
18          reading the transcript, we had a whole new addition of  
19          evidence about a discussion with the lead hand that started  
20          there and went off onto other issues.

21                    For the purposes of YEC LE's respective  
22          submission, the correct version of the problems -- any  
23          problems associated with the startup of the Mirrlees is  
24          contained in the information response to the YUB. They  
25          talked to the lead hand, and here's the evidence.

## Submissions by Mr. Austin

1           What YEC did was take the opportunity to  
2 respond to an undertaking about major failures to come up  
3 with a whole set of evidence with respect to something I  
4 never even asked about and which a response was already on  
5 the record.

6           The next area I'd like to cover is the risks  
7 facing the Whitehorse Diesel Natural Gas Conversion Project.  
8 And, again, this was a subject of cross-examination. The  
9 transcript reference is Volume 1, pages 142 to 143. And this  
10 is about the fuel use for the Jenbacher natural gas engines.  
11 And the concern in terms of risk management, which the  
12 utility business is always concerned about, is what can I run  
13 these engines on? And the reason that's important is because  
14 if you have a problem with fuel supply and there's an  
15 interruption in fuel supply, if the price of your fuel goes a  
16 lot higher -- and in terms of the price of fuel, it's  
17 something I want to cover later, it's not the world price of  
18 oil and the price of natural gas, because the price of  
19 natural gas in terms of the reference prices, the  
20 United States is delivered by pipeline, and this hearing is  
21 about the price of liquid natural gas delivered to Whitehorse  
22 and the price of diesel delivered to Whitehorse. But I'll  
23 talk a bit more about that later on.

24           So I'm got these -- potentially these -- I'm  
25 installing these natural gas engines in Whitehorse. If I

## Submissions by Mr. Austin

1 have an interruption in the LNG supply or something goes  
2 wrong, what's my alternative? My alternative is they can't  
3 be run on diesel. And if the price of LNG delivered to  
4 Whitehorse pops above the price of diesel delivered to  
5 Whitehorse, I can't pour diesel into these engines. They're  
6 a one-way engine.

7 And that's a very important point in terms of  
8 reliability supply because, on the record, there is reference  
9 to dual-fuel engines.

10 The next point in terms of risk is the Tilbury  
11 LNG supply or any LNG supply, because the evidence was at  
12 this point in time, or for the foreseeable future, it's an  
13 illiquid supply, meaning there are not a lot of places you  
14 can go get it. And right now the evidence is you can get it  
15 in one place, and that's the Tilbury Island Fortis plant in  
16 Vancouver.

17 Yesterday in terms of rebuttal evidence, we  
18 heard the representative from YEC say that he's received  
19 essentially personal assurances about the supply of LNG from  
20 Tilbury. This evidence should be given no weight. And the  
21 reason it should be given no weight is that the sale and  
22 purchase of LNG by Fortis is strictly regulated by Rate  
23 Schedule 46, which is Exhibit C-48.

24 As a regulated utility -- and YEC's  
25 representatives were talking about, well, this is a regulated

## Submissions by Mr. Austin

1 supply of LNG, a utility can't go beyond the terms and  
2 conditions of its approved tariff. YEC can't. Fortis can't.  
3 So any personal representations to YEC from representatives  
4 of Fortis have got no weight.

5 What YEC is proposing to do is purchase  
6 electricity on a spot basis. The provisions for the supply  
7 of LNG on a spot basis are in the tariff, and I  
8 cross-examined on those. The basic reality is that there is  
9 no reliability of supply on that Fortis spot rate.

10 If YEC wants to increase the level of security  
11 of supply, then it will have to contract for LNG on the  
12 short-term rate or the long-term rate.

13 YCS/LE hasn't looked through the tariff that  
14 carefully, but it would be their expectation that that's  
15 probably going to be more expensive. And, as discussed in  
16 cross-examination, even on those rates, there is no absolute  
17 assurance of security of supply.

18 In terms of risks, I'd like to move to the  
19 next area now, and that's the price of oil versus natural  
20 gas. And, as I previously indicated, the problem the Board  
21 has to wrestle with is not the price of oil versus the price  
22 of natural gas; it is the price of diesel delivered to  
23 Whitehorse versus the price of LNG delivered to Whitehorse.  
24 And it's when the price of LNG delivered to Whitehorse  
25 exceeds the price of diesel delivered to Whitehorse that the

## Submissions by Mr. Austin

1 4-year business case essentially flips in the sense that  
2 there are no savings from using LNG. As a matter of fact,  
3 you may be running into a loss situation in relation to  
4 diesel if the price flips, as I just indicated.

5                   And I'd like to refer the Board to  
6 YCS/LE-1-14. And this is the only time in this argument that  
7 I would like the Board members to look specifically at  
8 this -- an information request because I want to try and  
9 explain why the problem the Board is wrestling with is not  
10 the world price of oil and the price of natural gas delivered  
11 to Henry Hub in the United States because that's what the EIA  
12 forecast is based on.

13                   So if you look at that response to the  
14 information request, these numbers have changed because of  
15 the move from Shell over to Fortis. So it's just  
16 indicative -- it's not the precision of the numbers that's  
17 important; it's the point I'm going to try and make, which is  
18 if you look at the top bullet, it says "delivered cost." And  
19 if you're thinking of world oil and gas prices and diesel  
20 prices and LNG prices, you have to take it one step back and  
21 try and get away from looking at it in cents per kilowatt  
22 hour because the gas industry does not work on cents per  
23 kilowatt hours; it works on MMBtus, MMcf's, gigajoules.  
24 Those are units but they're all about the same.

25                   So the estimated cost of delivering LNG to

## Submissions by Mr. Austin

1 Whitehorse is about \$16 an MMBTU in this example. You have  
2 to break that cost down. Well, what does the \$16 consist of?  
3 It's the natural gas cost, so that's assumed to be 4.50 an  
4 MMBTU. So that's called the commodity price of gas. So  
5 that's the natural gas before it goes into the LNG plant.

6 And even the price of natural gas requires  
7 further breakdown to truly understand it, but that's beyond  
8 the scope of this, and it's beyond any evidence that's been  
9 entered into these proceedings.

10 So I've got a commodity cost of gas of \$4.50.  
11 In this particular instance, I've got a transportation charge  
12 to get it to Whitehorse. So when this IR was written, it was  
13 Calgary, so we've got about a \$5 per MMBTU cost.

14 So what's interesting about this is because  
15 you have to transport it by truck, the cost of transportation  
16 exceeds the commodity cost of gas.

17 And then there's the LNG charge. So you have  
18 to turn the natural gas into LNG. So for the purposes of the  
19 Fortis example, that's about \$5. So you can see that the  
20 commodity cost and the change to -- from natural gas to LNG  
21 is quite expensive.

22 Now, for the purposes of this proceeding,  
23 there is a little bit of evidence in terms of how you would  
24 break down the cost of diesel delivered to Whitehorse. But  
25 I'm not going to do the math because I'm not going to give

## Submissions by Mr. Austin

1 evidence, but essentially what you would do is take the world  
2 price of oil, figure out how many litres are in there, and  
3 then take the diesel price, which is on the record, of diesel  
4 delivered to Whitehorse and subtract the two. And what you  
5 can see is that the cost of converting natural gas into LNG  
6 in transporting it to Whitehorse has a much higher value in  
7 relation to commodity cost than doing the similar thing for  
8 LNG.

9           So the point I'm making is when you're talking  
10 about the world price of oil, you have to look at what it  
11 takes to convert that into diesel. Then you also have to  
12 look at the price of natural gas and what it takes to convert  
13 it into LNG. Because I'm going back to my main point. It's  
14 not for the purpose of these proceedings when the world price  
15 of oil and the price of natural gas in North America cross  
16 over, because we're completely ignoring the fact that you  
17 don't burn crude oil in Whitehorse and you don't burn natural  
18 gas in Whitehorse unless it gets here by LNG because you've  
19 got no pipe to get it here. Your pipe is your truck that you  
20 fill with LNG.

21           So when you think of that, your crossover  
22 point for when the project economics may flip has to take  
23 into consideration the cost of converting it into LNG and  
24 transportation.

25           Similarly, when you're looking at the crude

## Submissions by Mr. Austin

1 oil price you have to take into account you have to refine it  
2 into diesel and you have to transport it to Whitehorse. And  
3 it's essential to remember that it costs a lot more in terms  
4 of the percentage of commodity price to turn natural gas into  
5 LNG and transport to Whitehorse than it does for diesel to be  
6 refined and transported to Whitehorse.

7 So the next -- still in the same area, but now  
8 I just want to cover YEC's adoption of the EIA price gap  
9 forecast and the National Energy Board price forecast for oil  
10 and natural gas.

11 What YEC has done is adopted these forecasts  
12 essentially as their own. They didn't prepare them. And in  
13 terms of the information requests that YCS/LE asked about  
14 essentially this adoption, which are found at IR 1-47, YCS/LE  
15 IR 1-47, YCS/LE asked a number of questions about YEC's  
16 knowledge of these forecasts because it did not prepare them.  
17 And I invite the Board to go look at those responses.

18 I also took the matter up on cross-examination  
19 with the representatives of YEC. And, if you remember, the  
20 first thing I did was ask about what knowledge that the YEC  
21 representatives essentially have about the oil and gas  
22 industry. They don't have any recent knowledge. None.  
23 Zero. And yet we're in this extremely unusual situation of  
24 YEC witnesses adopting forecasts that they didn't prepare  
25 and, quite frankly, aren't qualified to interpret.

## Submissions by Mr. Austin

1           As an example, they never checked the accuracy  
2 of the forecasts. We heard words like "prudence,"  
3 "reputable." It doesn't matter how prudent or reputable YEC  
4 thinks the U.S. Energy Information Agency is or the National  
5 Energy Board is, it's the accuracy of their forecasts that  
6 count. And they didn't check them.

7           I asked about what the YEC representatives  
8 knew about switching from coal to natural gas or electricity  
9 generation in the United States. They didn't have any idea  
10 what the trend was in terms of construction of new power  
11 plants. You can imply that because of changes to U.S.  
12 environmental regulations that new coal plants are not being  
13 built, but in terms of numbers, the terms of how that will  
14 impact the demand for natural gas, which using basic  
15 economics will probably impact price. They didn't know  
16 anything about that.

17           In addition to that, they tried to buttress  
18 their understanding of the long-term forecast of the EIA in  
19 terms of the price spread between the world price -- the  
20 price of crude -- and it's probably not even a world price.  
21 It's probably a Cushing in Oklahoma in the United States --  
22 and a price of natural gas in Henry Hub by reference to the  
23 trends in the LNG industry in British Columbia.

24           When I asked them some very basic questions  
25 about the potential for the LNG industry in British Columbia,

## Submissions by Mr. Austin

1 they couldn't answer them. It's no buttress at all. That  
2 particular statement about YEC's interpretation of what's  
3 going on in terms of the LNG industry in British Columbia  
4 should be given absolutely no weight. They're not qualified  
5 to interpret it. And even when given an opportunity to show  
6 that they had some knowledge in the area, they couldn't.

7 Another area that I asked about was the rise  
8 in the natural gas price in the United States this winter.  
9 And the representatives of YEC had to admit that the evidence  
10 that they -- the answer to the information request was purely  
11 on the basis of anecdotal evidence. There is an objective  
12 way of determining that, but they hadn't done it. They  
13 hadn't done the analysis. They didn't pay anybody to do the  
14 analysis. So that particular evidence should be given  
15 absolutely no weight.

16 And in the proceedings we've heard about the  
17 average price of natural gas at the Alberta border, known as  
18 AECO, which, for the purpose of Tilbury, is now going to be  
19 replaced by what they call the Sumas price. It's not average  
20 that counts. Because YEC through its own evidence is going  
21 to be probably needing LNG insofar as it needs it in the  
22 winter months.

23 You have to look at the winter prices. And  
24 that's generally -- as any analysis of the AECO prices that  
25 are on the record, are going to show higher prices. And if

## Submissions by Mr. Austin

1 you go back to Tariff 46, Tariff 46 will explain how the  
2 commodity price, meaning the natural gas price, will be  
3 calculated for the purposes of the various rates that Fortis  
4 has.

5 I'd like to move on to the next heading of the  
6 terms of references, and it's called alternatives. And I'd  
7 like to break that section into two, meaning the alternatives  
8 not considered and the one alternative that was considered.

9 And for the purposes of this analysis you have  
10 to think in terms of when YEC knew about the potential  
11 capacity problem. That was back in 2006.

12 So in terms of alternatives not considered --  
13 and Mr. Janigan made reference to some of these -- it really  
14 hasn't considered demand side management in relation to the  
15 capacity problem it apparently has. It's had plenty of time  
16 to do that. And one would have thought that if it's got a  
17 capacity problem, what you'd want to do is examine the  
18 alternatives in terms of least cost. That would be the  
19 standard utility way of approaching the problem, which is  
20 look at the alternatives and try, as best you can, price  
21 them.

22 And I appreciate it's a tough thing to do  
23 because of the length of time of the various assets and some  
24 of the other factors that you have to consider, like the  
25 future price of LNG delivered to Whitehorse, future carbon

## Submissions by Mr. Austin

1 costs, future demand. But that's what utility  
2 representatives are paid to do.

3           It's a tough job. It's not an easy job.  
4 There's not a lot of kudos that come to utility  
5 representatives for what they do, but essentially they have  
6 to go into the forecasting business whether they like it or  
7 not.

8           And from what I see in terms of the term of  
9 the business case versus the term of the life of the natural  
10 gas engines, YEC representatives don't seem to like it, but  
11 I'll talk a bit more about that later on.

12           So in relation to the demand side management  
13 problems. Well, why didn't you target your DSM program  
14 towards your problem, which is capacity? It hasn't been  
15 done. And one way -- there's a number of ways of doing that,  
16 and you could expand your supervising control and data  
17 acquisition system, otherwise known as SCADA, to allow more  
18 control of the equipment that uses electricity, such as hot  
19 water heaters, baseboard heaters.

20           So that's no big surprise in the electric  
21 utility business. Essentially, what you're trying to do is  
22 shave the peak. Don't get so much electricity use between  
23 the hours of 4:00 and 6:00, shift it outside those hours,  
24 because the more I reduce the demand during the 4 to 6 period  
25 or the 7 to 9 period in the morning, the less capacity I will

1 need to serve that peak. Again, this is all a cost-driven  
2 exercise.

3 So you would -- one would expect you'd look at  
4 the alternatives, price them, and then price them in relation  
5 to the replacement of diesel because we're dealing with the  
6 same problem.

7 In the area of DSM, there's the concept of  
8 demand side storage. That was never examined. That's  
9 nothing new in the utility industry, the electric utility  
10 industry, especially if you look at the experience that these  
11 types of systems in Europe or other parts of Canada.

12 There's also the concept of shifting  
13 electricity use during the day to the night. In other words,  
14 don't turn your dishwasher on at 5:00 in the afternoon or  
15 6:00 in the afternoon. All you have to do is have a timer on  
16 it so that it turns on at 1:00 in the morning. Doesn't  
17 matter in terms of function.

18 Similarly with respect to heat load. There  
19 are ways to essentially warm something up at 1:00 in the  
20 afternoon so you don't have to turn your baseboard heater on  
21 or your baseboard heater isn't on between 4 and 6.

22 In very simple terms, all I need is a mass  
23 that I can warm up. In a very crude term, I could warm up a  
24 pile of rocks. So I can warm up my pile of rocks at 1 to 2  
25 in the afternoon and they will provide heat for my building

## Submissions by Mr. Austin

1 between 4 and 6. Again, this is not rocket science.

2           The next option, which I cross-examined fairly  
3 extensively on, was Surprise Lake in Atlin. And I was, no  
4 pun intended, very surprised that that alternative hadn't  
5 been given much attention. The comment was "It's an energy  
6 project, and the only way to make a project pay is pay for  
7 energy." No, because Aishihik is an example of a project in  
8 terms of the third generator that wasn't providing much in  
9 terms of additional generation. It's a capacity project, but  
10 somehow that will have made to pay.

11           And the representatives of YEC seemed to think  
12 it was the responsibility of the developers of the existing  
13 hydro electric project in Atlin using Surprise Lake and Pine  
14 Creek to come to them. Well, if I'm trying to become  
15 cost-effective and in terms of the examination of my  
16 alternatives, I would think that I would want to go to the  
17 market to find out what the market's got. But when I go to  
18 the market, I have to be prepared to tell the market what it  
19 is that I want. That's very, very basic.

20           This is a complex area. How does the market  
21 know what YEC needs or wants unless YEC tells them?

22           In relation to the Surprise Lake/Atlin  
23 project, it was identified in a -- the 2011 resource plan.  
24 And it was identified as having the ability to provide 52 GWH  
25 of energy. So not only could this plant potentially provide

## Submissions by Mr. Austin

1 8 megawatts of capacity, it could provide energy. It may be  
2 possible that you could increase the amount of capacity  
3 relative to the amount of water that's available, just like  
4 YEC has done with respect to Aishihik.

5 And if you -- when you have a quiet moment,  
6 look at Appendix C to the application, Table C-2, page C-5,  
7 and in the second column, you will see what YEC's energy  
8 requirements are over the next number of years, 2013 to 2030  
9 to be specific.

10 If the Surprise Lake project, as set out in  
11 the 2011 resource plan, is able to provide 52 GWH of energy,  
12 it fits really nicely into those requirements.

13 I'm not here to sell the Surprise Lake hydro  
14 electric potential. I'm just pointing out it was not an  
15 alternative that YEC pursued essentially in any way. It  
16 should have been pursued so it could have been priced so that  
17 you can compare it to the costs associated with this project.

18 Another alternative I cross-examined about,  
19 and there was a lot of confusion of -- and this is in  
20 relation to existing diesel generation at mines.

21 Now, I fully appreciate that under YEC's  
22 tariff is if there's a problem on the system, the mines can  
23 be cut off so they've got -- at least one of them has --  
24 backup generation presumably to keep its operations going if  
25 it gets cut off the system. Well, if it's got this diesel

## Submissions by Mr. Austin

1 generation, and for the right price, it might say, rather  
2 than use this existing diesel generation for its own  
3 purposes, it could sell electricity to YEC.

4           Again, I don't know what a mine might be  
5 willing to do. I don't know what price it would be willing  
6 to do something. I don't know how good its diesels are, but  
7 that's all another discussion that YEC should have had with  
8 the mine. All I heard was "They're not very -- that was long  
9 ago."

10           There's some circumstances surrounding  
11 discussions that I didn't quite understand, but it's a  
12 commercial discussion. Presumably the mine owners are in  
13 business to make money. And again, if they're interested,  
14 how much and how much does that -- how much it would cost  
15 would be compared to the other alternatives, including the  
16 alternatives that are before you?

17           You have to go out and look at the  
18 alternatives. You have to go to the market. You have to  
19 price them so you can do some comparisons.

20           There are no comparisons in relation to any of  
21 these alternatives. We only have one alternative on the  
22 table and that's natural gas engines to diesel engines, and  
23 it's all within the confines of YEC.

24           Now, in relation to the comparisons it did do,  
25 there is about a \$9.3 million capital cost -- and, again, I'm

## Submissions by Mr. Austin

1 just using this in rough numbers -- between let's call it the  
2 LNG case and the diesel case. Well, the difference is  
3 because of the infrastructure required from LNG -- required  
4 for LNG but not trucking, conversion into LNG, natural gas  
5 commodity price, not that; just that, physically, you need a  
6 LNG tank, you need a vapourizer and that costs more money,  
7 because when you're buying diesel, you get somebody else to  
8 store it and they just truck it over.

9 But on cross-examination, I tried to explain  
10 or tried to get out that that's just part of the story  
11 because the total bill for all this is about \$40 million.  
12 And, again, I'm just speaking from memory here. So there's a  
13 whole lot of capital that also has to be paid back in  
14 relation to my natural gas engines, just like I have to pay  
15 back the capital for the price of my diesel engines.

16 And this is where this concept of what I see  
17 as this 4-year business case completely eludes me because the  
18 diesel engines and the natural gas engines are going to be  
19 around for 40 years. I can't do the analysis on a 4-year  
20 basis; the analysis has to be done on a 40-year basis. I've  
21 got 40-year assets. I'm comparing a 40-year asset to a  
22 40-year asset. I need business cases for both sides of the  
23 equation. They don't exist. The only thing that we have for  
24 40 years -- or 30 years is YEC's interpretation of natural  
25 gas and oil forecast prices prepared by the EIA and the

1 National Energy Board. I don't see how that works.

2 We need business cases for 40-year assets  
3 compared to 40-year assets and not just 40-year  
4 interpretations of price forecasts. It's a difficult  
5 exercise, but it has to be done.

6 In relation to -- let's call it the lower  
7 level of analysis, there were costs that were formerly  
8 attributable to the YEC LNG Project that were no longer  
9 considered part of that project. And on cross-examination  
10 what we learned was, well, that's the way the accountants  
11 told us to do it. Well, those same accountants were,  
12 presumably, in existence when the original forecasts were  
13 prepared. So why the shift? There weren't a lot of strong  
14 answers in that area.

15 I fully appreciate that accountants can, will,  
16 and do change their minds, but there weren't a lot of strong  
17 representations other than -- strong backup for those shifts  
18 other than "The accountants told me to do it that way."

19 So I would invite the Board to go look at that  
20 cross-examination and critically analyze the shifts. I would  
21 also invite the Board to go back and critically analyze  
22 balance of plant costs and where they should be properly  
23 allocated.

24 In that respect there's seismic outbreak  
25 costs, there's electrical equipment costs, and air handling

## Submissions by Mr. Austin

1 costs. You can't all of a sudden just change an accounting  
2 view. There's got to be some strong support and strong  
3 reasons for it.

4           The other point that I'd like to make in this  
5 area is once an investment is made in a thermal option it  
6 becomes a sunk cost. And after that future additions to the  
7 system will be not measured against the actual cost of the  
8 investment, it will be measured a cost against the variable  
9 cost, meaning the price of fuel. So what you're going to get  
10 is the cost of renewables will be measured against the cost  
11 of not the natural gas engines plus the fuel, it will be the  
12 displacement of the use of natural gas. Because throughout  
13 these proceedings we've heard about the cost of displacing  
14 diesel generation. And that inevitably just turns out to be  
15 the cost of diesel.

16           So if you're not careful, what you can do is  
17 warp future decisions based on an investment decision in  
18 capacity. I've invested in these engines because I need  
19 capacity. But, by the way, they can produce energy. So in  
20 the future the cost of energy is not associated with the  
21 cost, the capital cost, of the engines. It's associated with  
22 the cost of LNG delivered to Whitehorse.

23           Move to the next heading in terms of the terms  
24 of reference, and this is under prudence. And I invite the  
25 Board to look at YEC's responses to the Board's information

## Submissions by Mr. Austin

1 request 1-45(f) and (h), page 3 of 4. And essentially what  
2 the Board was asking there is, where is the lifecycle or net  
3 present value of this project on a 40-year basis? That's an  
4 excellent question. That's one of the questions that's  
5 fundamental to this application. It doesn't exist. It's a  
6 4-year business case.

7 I'd also invite the Board to look at YCS/LE  
8 information request 1-3(c). And in the response to that  
9 information request, YCS said: (as read)

10 "YEC does not provide long-term  
11 forecast of natural gas, diesel, oil or  
12 carbon prices. The application  
13 reviewed information regarding the  
14 expected future long-term relationship  
15 between domestic North American gas  
16 prices and world oil prices."

17 Well, what about the rest of the long-term risks that this  
18 project faces? Where is the analysis? Where are my  
19 discounted cash flows? Where are all the other things that  
20 you see in a business case? Because the business case  
21 essentially is if the weather cooperates, meaning it's not  
22 too warm and there's sufficient inflows into our reservoir,  
23 then under average water conditions it's cheaper to use LNG  
24 delivered to Whitehorse than it is diesel delivered to  
25 Whitehorse. In result of that difference we can pay off the

## Submissions by Mr. Austin

1 difference in terms of the infrastructure required for an LNG  
2 project and the diesel project.

3           So, again, in rough terms \$9 million. I can  
4 pay off the \$9 million, but I've still got to pay off the  
5 difference between \$9 million and \$40 million, which is total  
6 expected cost of the project. How am I supposed to do this  
7 when there's no evidence on the record? How are you supposed  
8 to figure that out?

9           And in relation to the alternatives, I'd  
10 invite you to look at UCG-YEC-1-9 paragraph (c) in the very  
11 last sentence, and it says:

12           "There is no basis or requirement for  
13 YEC to provide a business case for  
14 alternatives that YEC is not  
15 proposing."

16 Well, that becomes a self-fulfilling prophecy. If I don't  
17 propose it, I don't have to look at it. It's not a problem.  
18 But I respectfully submit that's not the way you go about  
19 doing this. You look at the reasonable alternatives because  
20 that's what the terms of reference say you're supposed to do.

21           You can't just -- if you've only got one  
22 alternative, that means how and why did you dismiss all the  
23 other ones? And in terms of cross-examination of that on  
24 those points, YEC didn't have any good answers. Where is my  
25 stack of alternatives? Where is my costs? How do they match

1 up against the project over the equivalent time period? How  
2 do they pay for themselves? What are the risks associated  
3 with them? It doesn't exist. We've just got a 4-year  
4 business case.

5 I'd like to move to the final area of my  
6 argument, and that's the terms of reference head of prudence.  
7 Well, what does it mean to be prudent? If you look at your  
8 normal dictionary definition it will say to be cautious, to  
9 employ and exercise care, skill and good management in the  
10 use and management of one's resources, avoiding risks, acting  
11 with care and thought for the future.

12 So in terms of prudence, the 4-year business  
13 case doesn't match the standard of prudence. And in addition  
14 to it, when I'm doing my business case, I have to take into  
15 account environmental considerations because they can cost  
16 money.

17 And the prime example of that is carbon risk.  
18 I've got this thermal option that I want to proceed with.  
19 Nowhere in the evidence is the potential impact of carbon  
20 prices on that option. YEC only did two comparisons, thermal  
21 to thermal. So in that sense carbon risk is really not an  
22 issue. But since it didn't do any comparison between thermal  
23 and renewable or thermal and DSM, then carbon has never been  
24 discussed. But if I do this properly, I have to take that  
25 into consideration and I have to take that cost into

1 consideration.

2                   And, also, that would appear in a 40-year  
3 analysis. Because even in relation to the thermal options,  
4 if carbon pricing, as it has in British Columbia, becomes  
5 reality, that's got to be in the financial analysis. This is  
6 what it's going to cost me. And in that financial analysis  
7 here's what my projected revenue flows are. Here's what my  
8 projected costs are. And costs including a carbon charge.

9                   So the concept of the environment is not  
10 outside the scope of this proceeding because it can be a  
11 cost, a hard objective cost. And in my example on  
12 British Columbia it is a hard objective cost. It's called a  
13 carbon tax.

14                   I'd like to move on to the area under prudence  
15 of social license. And it's important for prudence because  
16 social license can stop a project in its tracks. In other  
17 jurisdictions that's exactly what's happened. If there isn't  
18 a lot of public support for a project, despite the fact that  
19 the financial analysis may be there, it doesn't move forward.

20                   With respect to what YEC says about social  
21 license, I would invite the Board to look at YEC-LE-1-21(c).  
22 According to YEC, social license is complex and ever  
23 changing.

24                   I'd also invite the Board to look at  
25 YCS/LE-YEC-1-21(c), which states: (as read)

## Submissions by Mr. Austin

1 "Social license evidence with respect  
2 to this project through the open  
3 discussions YEC has engaged in over  
4 several years with First Nations and  
5 broader community and what YEC has  
6 heard from these discussions."

7 YCS/LE begs to differ with that because, in terms of the  
8 record, one of the First Nations has withdrawn from whatever  
9 economic participation it may have had in the project. And  
10 maybe I'm overstepping it by saying that's not evidence of  
11 social license, because the terms of the withdrawal,  
12 essentially, were confidential.

13 But with respect to the project itself, if you  
14 look at UCG-YEC-1-12(a), it says:

15 "To be clear, consultation undertaken  
16 with respect to the 2011 Resource Plan  
17 did not specifically relate to, or  
18 address, the proposed Project as  
19 defined in the YESAB Project Proposal  
20 or in the Part 3 Application."

21 If you look at UCG-YEC-1-12, there's also on page 3 of 4,  
22 note (c):

23 "Please note that the January 2012  
24 Liquefied Natural Gas Workshop focused  
25 on LNG as a supply option for Yukon

1 (generally) and was not focused on the  
2 Project..."

3 And in response to (d) through (f) on that same page, it  
4 says:

5 "The January 2012 workshop focused on  
6 LNG as a potential supply option (and  
7 did not relate specifically to the  
8 Project..."

9 So in terms of public support or social license for the  
10 project, the only evidence on the record is what happened in  
11 the YESAB project as evidenced in the preliminary screening  
12 report and the public participation in your meeting on Monday  
13 night.

14 In the YESAB draft report on page 29 -- and  
15 that's Exhibit B-11, it says: (as read)

16 "The executive committee recognizes  
17 that the majority of comments received  
18 oppose the project proceeding."

19 In terms of the comments that you heard on Monday night, I  
20 invite the Board to draw its own conclusions.

21 I think the Board should take into account the  
22 fact that Yukon Energy is a publicly owned utility. Yukon --  
23 Yukoners are not only YEC's customers; they're effectively  
24 its shareholders. The confidence and support of these  
25 shareholders and customers is essential.

## Submissions by Mr. Austin

1           To summarize, what you have is a project that  
2 really hasn't been presented in its current form to the  
3 public except through the YESAB process and this process. It  
4 rely -- at its core it's relying on a price gap forecast the  
5 representatives of YEC did not prepare and are not qualified  
6 to interpret, and is based on a 4-year business case where  
7 the assets have a 40-year life.

8           And, finally, alternatives to the projects  
9 were not costed and carefully considered. If they weren't --  
10 if those alternatives, even the limited numbers that were  
11 there weren't within the domain of YEC, they were given no  
12 consideration. That's not how it should be to get the most  
13 cost-effective solution. You need to look at those  
14 alternatives for the purposes of determining whether what's  
15 before you is a cost-effective solution.

16           I've got one -- I would not really call it an  
17 authority, but at least one example of where a utilities  
18 board had somewhat similar circumstances to deal with. And  
19 this was the British Columbia Utilities Commission and  
20 B.C. Hydro, or a subsidiary of B.C. Hydro, where B.C. Hydro  
21 had already ordered a combined cycle plant for a proposed  
22 natural gas facility on Vancouver Island and the B.C.  
23 Utilities Commission told B.C. Hydro to go look at  
24 alternatives and go back to the market.

25           I'm not saying it's a precedent because a

## Submissions by Mr. Roberts

1 decision of the British Columbia Utilities Commission doesn't  
2 bind the Yukon Utilities Board, and I fully appreciate that.  
3 It's just an example of things like this can and do happen.

4 And I'd like to hand that out, and I'd like to  
5 thank the Board for its indulgence, its attention, thank the  
6 Board staff for being very accommodating, and especially the  
7 court reporter who's had to work extremely hard, given the  
8 tight timeframes that we've had to work with.

9 THE CHAIR: Thank you very much,  
10 Mr. Austin.

11 Ms. Bentivegna, so this BCUC decision that's  
12 being handed out now, is that appropriate?

13 MS. BENTIVEGNA: Yes, Mr. Chair, in that it's  
14 just being used as an example for you. And, as Mr. Austin  
15 said, it's not a binding precedent; it's just an example.

16 THE CHAIR: So it does not attract an  
17 exhibit number?

18 MS. BENTIVEGNA: No.

19 THE CHAIR: Thank you.

20 So, Mr. Roberts, you are up next.

21 We'll let you get settled in, and we'll get  
22 this BCUC decision.

23 **SUBMISSIONS BY MR. ROBERTS**

24 THE CHAIR: Just before you begin, I'm just  
25 trying to -- do you have a sense of how long your

## Submissions by Mr. Roberts

1 presentation will be?

2 MR. ROBERTS: Possibly 30, 40 minutes.

3 THE CHAIR: That's fine. I'm just trying  
4 to get a sense of -- it's almost 2:30 now -- in terms of  
5 having a -- I don't want to interrupt you, obviously, in the  
6 middle of your presentation, so that will work just fine.

7 MR. ROBERTS: I can speak faster too.

8 THE CHAIR: No, no, please don't. The  
9 court reporters will have my head if you do that.

10 MR. ROBERTS: Once again, thank you very  
11 much. I really appreciate the fact that the YUB Board has  
12 done something quite significant here in putting the public  
13 back into these hearings. I think this is very significant  
14 for Yukoners.

15 As I said before, this is the first time I've  
16 ever appeared as a witness, and I'm not sure I'll ever do it  
17 again, but the experience is always an education.

18 After all the Yukon ratepayers, as has been  
19 said many times, are the legitimate owners of YEC and they  
20 should be part of the long-term decisions that are going to  
21 affect our quality of life.

22 The question of social license was brought up  
23 again, and I, again, have to -- this seems to be one of my  
24 main themes throughout all the work that I've been trying to  
25 do in the last few years is that Yukoners must make

## Submissions by Mr. Roberts

1 decisions. They must understand and know where we are going,  
2 whether it's utilities, whether it's oil and gas, whether  
3 it's mining, whatever. I think we have a responsibility for  
4 Yukoners today and for Yukoners in the future.

5           And the social license issue I think is a very  
6 important one because I sometimes think we have forgotten  
7 that Yukoners do want to be informed. And social license can  
8 be changed, as we all have just witnessed in the last couple  
9 of weeks with the Ross River situation, where a decision was  
10 made it was going to be torn down and yet -- but guess what,  
11 it was reversed.

12           I think the other point that we've seen over  
13 the last number of months are the numbers of people that have  
14 been turning out at various functions to give the government,  
15 to give various components of committees and so on their view  
16 on where life is at. And I think basically we have seen from  
17 just this particular issue of the LNG conversion the other  
18 night showing a very solid confirmation of where they want to  
19 go.

20           My opinion is YEC does not have a solid plan  
21 to convert diesel to LNG. It is my opinion, and it's my  
22 opinion alone -- I'm not necessarily alone, but there are  
23 many other Yukoners that feel the same way -- that YEC and  
24 other agencies are quite often working overtime. I think  
25 they're working overtime now to please our political masters.

## Submissions by Mr. Roberts

1                   It is a known fact -- and this may be  
2 something out of my context, but I'm going to say it -- that  
3 our premier has stated on many occasions he wanted LNG in the  
4 Yukon. I think this whole idea is wrong headed and it will  
5 affect our Yukoners today, tomorrow, and in the future.

6                   In my close to 50 years living in the Yukon we  
7 have had many decision makers, be they political or CEOs of  
8 whatever, make these long-term decisions and then leave the  
9 Yukon to let Yukoners deal with the mess. I would hope this  
10 is not going to be one of them.

11                  My wife and I, along with many Yukoners, chose  
12 to retire in the Yukon because of its beauty and people. We  
13 have nine grandchildren, and we want to continue to leave the  
14 Yukon as one of the best places to live in the world.

15                  I am shocked at this point in time when I find  
16 out that we had a project on the YEC agenda about  
17 Surprise Lake. That was first knowledge that I ever heard  
18 about that yesterday. And the fact that this was not looked  
19 at in more in-depth is something that really shocks me. Why  
20 was this not pursued with the same vigour as the LNG project?

21                  I am also shocked about the amount of money  
22 that YEC has already spent on this project, and they haven't  
23 even got approval. And I worked for government. I was in  
24 government. And I believe if I was still there this cannot  
25 be allowed. No business gets -- no group of directors will

## Submissions by Mr. Roberts

1 allow a company to spend money if they haven't given approval  
2 to the project. I think many Yukoners are going to be quite  
3 concerned about that.

4 As well, why was the 2009 Mt. Sumanik wind  
5 generation project not shared with Yukoners? This is another  
6 thing that seems to be embargoed somewhere and it has not been  
7 shared.

8 There seems to be option after option that was  
9 disconnected or discounted by YEC without fully engaging with  
10 Yukon ratepayers. And I have to underline Yukon ratepayers  
11 own Yukon Energy.

12 I understand that we need reliable backup  
13 demand for our emergencies. I lived in Riverdale for  
14 40 years. I lived right across from the plant. I used to  
15 hear them go all the time. And I understand that we are  
16 going to have breakdowns.

17 But I believe that what we're trying to do  
18 here is to introduce something else in the Yukon that  
19 Yukoners don't want. And if we have to buy new generators,  
20 then let's buy them and do it as an interim thing and let's  
21 not get caught in trying to do something that we may be very  
22 sorry for.

23 When YEC puts forward -- and that's another  
24 point that I'm really quite concerned about as a ratepayer  
25 and as a Yukoner. When I hear that -- even talk about hiring

## Submissions by Mr. Roberts

1 a helicopter to transport this equipment from Skagway to  
2 Whitehorse because the chosen model that they took couldn't  
3 go on a truck. I'm sure there are many models out there that  
4 could have. And this would cost thousands and hundreds of  
5 thousands of dollars. I just can't believe that we are using  
6 all kinds of reasons why this idea replacing diesel with  
7 diesel will work.

8 I think the important part we must also  
9 demonstrate -- and I think what YEC has done is not  
10 demonstrated fairness and honesty here. I think what has  
11 happened, we've ended up with a situation we are basically  
12 setting the scale so that we only hear what we want the  
13 public to hear.

14 This project is not in the public interest.  
15 It will entrench and expand the Yukon's reliance on fossil  
16 fuels and, again, leaving us exposed to the financial cost of  
17 finite fuels, which are unpredictable. Spending \$40 million  
18 on public funds on a fossil fuel facility will mean fewer  
19 financial resources or alternatives.

20 LNG is not a suitable backup fuel. It's not  
21 stable in storage. Diesel is. You have to boil off the gas,  
22 you have to vent it, or you have to flare it. And, of  
23 course, we can put diesel in a tank and leave it there and  
24 not worry about it.

25 The primary component of natural gas is

## Submissions by Mr. Roberts

1 methane, a potent greenhouse gas. And with the extraction  
2 and process and liquefaction and transportation and  
3 combustion of this liquefied natural gas, this releases  
4 methane. This responds to our climate. This responds to our  
5 future.

6           The safety risk of having LNG offloading,  
7 storage, and vapourization, including flaring and combustion  
8 right next to our dam, right next to Riverdale, right next to  
9 the airport, and one of our two accesses into the downtown  
10 area to me is abhorrent. I just can't believe that we're  
11 going to be doing this.

12           Yes, I've heard that these are the safest  
13 things; and yet on Monday of this past week we had a major  
14 explosion in Washington and Oregon. Unfortunately it didn't  
15 take a lot of life, but if it would have gone any further it  
16 would have.

17           This project will have negative impacts and  
18 very few benefits to the public. It will keep us reliant on  
19 fossil fuels. Instead we should be doing the opposite. We  
20 should be reducing our fossil fuel dependency.

21           The massive public investment will create  
22 definitely a very -- I'll be surprised if this is approved  
23 that we'll see much in the area of renewables over the next  
24 number of years; because we are already over \$100 million in  
25 debt by YEC and we're going to add another 40 million to it.

## Submissions by Mr. Roberts

1 And that's going to -- I would challenge that it's going to  
2 stay at 40 million. There are very few contracts in the  
3 Yukon that ever stay at their stated price. There's always  
4 major overages. Just look at our hospitals.

5 The claim that we will experience cost saving  
6 from the difference between LNG and diesel fuel are very  
7 shortsighted; and simplistic, I think, in many ways.

8 When LNG is exported from B.C. -- and I've  
9 made this comment yesterday -- that the cost of fuel will  
10 spike. Many experts are saying this. Ratepayers will be on  
11 the site -- will be on the hook for this stranded asset.  
12 This project will justify local extraction activity, and this  
13 is where my concern becomes very paramount.

14 We have over 90 percent of our geology is  
15 shale, and to do any kind of drilling in the Yukon requires  
16 fracing. And this is a wasteful, polluting process that  
17 removes vast quantities of water from the ecosystem and  
18 returns it as contaminated forever.

19 YUB should recommend to the government that  
20 this project not proceed. It's not accountable in its  
21 financial commitments. At the very best, I would  
22 recommend -- or we should recommend -- or YUB should  
23 recommend to the government that the project be deferred  
24 until we have a better understanding of where natural gas and  
25 LNG prices are going and reasonable alternatives to the

## Submissions by Mr. Roberts

1 project have been fairly and adequately considered.

2                   There are far better alternatives to LNG. As  
3 has just been spoken here, load management technologies.  
4 We've known about this for the last ten years, and yet very  
5 little has been done on it. Our wind potential is obviously  
6 a very positive thing, and yet very little has been done on  
7 it.

8                   Yes, I agree, we have an emergency issue. The  
9 problem I have, why has it suddenly become an emergency in  
10 the last year when these same Mirrlees were supposed to be  
11 decommissioned 10 or 12 years ago? They're still running.  
12 And I think the important part for us is to question why we  
13 see this as being a factor today.

14                   So that's what I see happening here with YEC.  
15 They seem to be stacking the deck with all the negatives  
16 about going to alternatives. I've heard the question and the  
17 comment about "Well, it gives us another alternative. You  
18 know, instead of having just diesel, now we will have natural  
19 gas."

20                   The problem with natural gas, we don't have it  
21 readily available. And yet when we talk about this to other  
22 branches of the government, they say, "Well, it could  
23 happen." And I guess that's the concern that many of us as  
24 Yukoners have.

25                   There are -- I have a list here of

## Submissions by Mr. Roberts

1     uncertainties and I call speculative and risks. And I'm just  
2     going to go down the list because I really strongly believe  
3     these are the things that are unanswered at this point.

4             The first one, the Shell Jumping Pound. They  
5     were going to supply guaranteed gas for at least five years.  
6     And this was supposed to be non-fraced gas. They have  
7     withdrawn from the equation.

8             We have the Ta'an First Nations, who were  
9     going to be partners in the -- I guess you would call it the  
10    economic future. They have withdrawn. And it's by my  
11    understanding they withdrew because they do not believe that  
12    LNG is the answer because of the potential of destroying  
13    their water.

14            The Ta'an First Nations are keepers of the  
15    water and land and do not want to pollute it. This is one of  
16    the reasons why they withdrew. There may be other reasons,  
17    but I know this is one of them.

18            The raising price of LNG is a reality and we  
19    are uncertain where it will stop. Why would we move ahead on  
20    a project when we don't know if this is -- regardless of what  
21    the National Energy Board says or what other so-called  
22    significant groups say? It's on the move and it's not going  
23    down.

24            YEC was forced to find another supplier in  
25    Tilbury in the Delta area in Vancouver, the Fortis supply.

## Submissions by Mr. Roberts

1 That's one supplier. They have no other suppliers at this  
2 point.

3 And what we heard from YEC, well, yes, this is  
4 coming on line at Dawson Creek, Fort Nelson, you know,  
5 everywhere else, Edmonton, these are all coming on line.  
6 That's not sureness to move ahead on a project like this.  
7 Whereas diesel, at least you know you can get it from many  
8 places in Western Canada.

9 YEC has no guaranteed price for processing as  
10 they had with Shell and they will have to pay so-called daily  
11 spot prices of natural gas.

12 And I heard the question, and it keeps coming  
13 up when the president Mr. Morrison sat down with Fortis and  
14 they had a real good relationship and this was going to be  
15 guaranteed, that they were going to have a real good supply  
16 and so on. I would assume Mr. Morrison had done this with  
17 also Shell, that they had sat down and really talked about  
18 the security of getting this gas at the proper price. They  
19 even had an agreed processing price. The rest wasn't  
20 guaranteed, but the process. So I'm not sure what that has  
21 to do with how they can be sure that Fortis is going to  
22 continue to supply.

23 They can shut down tomorrow, or a bigger  
24 supplier can come along. And they also have limited supply  
25 abilities because they're in the process of building.

## Submissions by Mr. Roberts

1                   Presently, there were no other suppliers of  
2 LNG in Alberta and B.C. Why are we putting all our eggs in  
3 one basket? Diesel is readily available.

4                   And then there's the LNG trucks. I didn't  
5 realize that I was going to be, as a ratepayer and as an  
6 owner of Yukon Energy, that I was going to start to have  
7 something to do with truck design. That's not what an energy  
8 company does, just to prove their point.

9                   The energy is to supply energy and try to get  
10 the best deal for what the people want. And I'm going to  
11 underline "for what the people want." Now we have trucks --  
12 when they were going to get gas from the Alberta distributor,  
13 they were looking at 95,000 litres which could be what they  
14 call A-trains. Now they can't do that because the Alberta  
15 one is shut down and because B.C. will only allow a maximum  
16 of about 60,000 litres. So now they're going to the  
17 governments to get them to approve the license to have bigger  
18 trucks.

19                   Little Yukon is going to convince the B.C.  
20 government, and we have assurance from YEC that this is going  
21 to be a fact. The Yukon yet is going to approve it because  
22 we're a small jurisdiction. I'm not too sure that's going to  
23 be done in that short time that they expect. So we'll be  
24 paying more for the cost of this delivery.

25                   This is the question around YEC getting

## Submissions by Mr. Roberts

1 involved in the fabrication of long haul trucks. Why? Why  
2 are we doing this?

3 And another factor which was brought out over  
4 the last couple of days, YEC has very little experience or --  
5 nor resource people on staff that understand the complexities  
6 of LNG use? Why have we moved down a path that is being  
7 listened to with expertise advice that comes from Texas or  
8 wherever they have it? This is something that we should  
9 be -- if we're going to ever move down this path, which I  
10 hope we never do, we should have our own resources and we  
11 should have answers.

12 And, of course, I've already mentioned about  
13 climate change. That's another factor that I think we have  
14 to put into the equation.

15 And the other one -- another one that I think  
16 is this underground line that now has been recommended by  
17 YESAB that is going to cost a million dollars. Where is the  
18 money coming for that? That's a million dollars that wasn't  
19 at first put into the budget. Are we just going to borrow  
20 another million?

21 I really have strong feelings about the fact  
22 that we are not being given all the information that we need  
23 to make the right decisions. And I think this is one of the  
24 main issues in our development as a territory. We basically  
25 have to look at what we're trying to do, why we're trying to

## Submissions by Mr. Roberts

1 do it, and then consult with Yukoners to make that decision.  
2 Hopefully, that's why the YUB is that sober second thought,  
3 to advise the government that the evidence and the  
4 information is not all there.

5 YEC claims there's no alternative to LNG  
6 project, but it has not explored the advantages of building a  
7 smarter grid, deploring demand side storage, integrating more  
8 wind and hydro power in the Yukon. If they have, we haven't  
9 seen the extensive study.

10 And here we have a group within the Yukon, a  
11 group of very concerned citizens who will be setting up on  
12 May 13th and 14th and YEC is partnering with the whole  
13 process. They had to come kicking and screaming about  
14 electrical thermal storage. This is a workshop that will  
15 bring experts across North America to discuss a smart grid  
16 solution to the Yukon. These leaders will show us how we can  
17 build renewable energy future in the Yukon and drastically  
18 reduce our dependency on fossil fuels for electricity and  
19 heating our homes and even powering our cars.

20 This, to me, is innovation. This is what  
21 Yukoners are all about. We do not need this project to move  
22 forward until we have all the evidence. I strongly believe  
23 that if we do, those of us that are left here in the Yukon,  
24 who remain here in the Yukon, because it's our permanent  
25 home, are going to be left holding the bag.

## Submissions by Mr. Roberts

1 I urge you to make the right decision and turn  
2 down the proposal to switch from diesel to LNG.

3 Please use this large amount of public money  
4 to invest in renewables and allow more small scale  
5 decentralized projects to be built.

6 Again, I'd like to thank the expertise of the  
7 Board, the court reporters, of course, and for all those that  
8 have listened.

9 I am not an expert in this field. I am just  
10 an ordinary ratepayer, a concerned ratepayer, and concerned  
11 about the future. Let's please make the right moral decision  
12 for the future. Thank you.

13 THE CHAIR: Thank you, Mr. Roberts.

14 So just an order of business here.

15 Mr. Landry, would it be appropriate to give  
16 you 20 minutes or so for you to formulate your reply?

17 MR. LANDRY: I wonder, Mr. Chairman, if we  
18 might have half an hour. I don't suspect I'm going to be  
19 overly long, but obviously a little bit more time will clean  
20 up my notes. I've been trying to listen intently to all the  
21 people, so. If I could have half an hour, then I shouldn't  
22 be overly long.

23 THE CHAIR: Certainly. That's not a  
24 problem. Is half hour enough?

25 MR. LANDRY: I think half hour should be

## Submissions by Mr. Landry

1 sufficient. If not, I can speak to your counsel and get some  
2 notice back to you.

3 THE CHAIR: Because it's relatively early  
4 in the afternoon so we do have some time, and we're certainly  
5 ahead of schedule here.

6 I guess, before we do move to that, I would  
7 like to, when Mr. Roberts here and the other interveners have  
8 done their arguments, I just want to thank all of them for  
9 their thoughtful input through this whole process and we do  
10 obviously appreciate that we do have good solid interveners  
11 who help us through this whole thinking process.

12 So I'll leave that for now, and we'll come  
13 back in about half an hour or so. It will be about 3:15,  
14 3:20, I guess.

15 MR. JANIGAN: I apologized to Mr. Landry, but  
16 I have to catch a flight at 5:00.

17 THE CHAIR: No, you have to stay right  
18 'til...

19 (ADJOURNMENT)

20 THE CHAIR: Please be seated.

21 So, Mr. Landry, you can proceed with your  
22 reply argument whenever you're ready.

23 **SUBMISSIONS BY MR. LANDRY:**

24 MR. LANDRY: Mr. Chairman and members of the  
25 Panel, I apologize for a little extra lengthy delay. As you

## Submissions by Mr. Landry

1 know, it's not custom before this Board, nor is it before  
2 many boards these days to have oral argument, so I wanted to  
3 make sure that I tried to get through all of the things that  
4 were said by the various parties. And the approach that I'm  
5 going to take, Mr. Chairman, is this: I have one specific  
6 comment because it references an IR that Mr. Janigan  
7 referenced, and I'll deal with that with UCG.

8                   With the balance of my comments, I'm going to  
9 focus it on the argument of Mr. Austin, but it, in effect,  
10 deals with lot of the issues that have been raised by either  
11 Mr. Roberts or the City of Whitehorse or UCG, so that the way  
12 I try to bob and weave a little bit because, for those of us  
13 who have to do reply oral arguments, they do get a little  
14 scattered, and I will apologize up front for that.

15 THE CHAIR:                   Thank you.

16 MR. LANDRY:                 Sir, the first item that I'd  
17 like to reply to was in relation to a point made by  
18 Mr. Janigan in reference -- and you'll see it in the record  
19 when you go back -- reference to UCG -- IR UCG 1 dash -- I  
20 believe it was 5(c) where he outlined and recounted the  
21 actual diesel generation from 2010 to 2013 purportedly making  
22 some point about the fact that the actual generation somehow  
23 in effect impacts ratepayers.

24                   And as this Board fully knows, given its  
25 ruling, looking at diesel generation, ratepayer savings, and

## Submissions by Mr. Landry

1 costs are determined by long-term average, not actual diesel.  
2 Water variability is not a risk that the Board or ratepayers  
3 need to consider when assessing the prudence or of the  
4 viability of the project. And you heard Mr. Osler speak of  
5 that on a number of occasions, and it goes without saying,  
6 given the ruling that the Board had made in that earlier  
7 Board decision that I referenced in my argument.

8 Now, sir, I now, as I was indicating, would  
9 like to turn to the argument at YCS/LE and the report. I  
10 note that Mr. Austin is not here. I deal with Mr. Austin in  
11 British Columbia, and so I'm making these comments on the  
12 expectation he was here, but there will be a record of it in  
13 any event. Sir, Mr. Austin and the firmness with which he  
14 has made his points should not hide what is on many issues.

15 Number one: Putting evidence improperly into  
16 argument or, put another way, making submissions without  
17 evidence to support those submissions on the record. And you  
18 have to be extremely careful, as I had mentioned on a number  
19 of occasions here during the week, to separate the difference  
20 between the two. You're here as an evidence-based tribunal  
21 based on the evidence on the record -- not what counsel tells  
22 you is what the evidence is.

23 Two: Asking this Board to reject evidence on  
24 the record. We'll come to it in a moment. He's asking this  
25 Board not to believe Mr. Morrison. He's asking this Board

## Submissions by Mr. Landry

1 not to accept forecasts of reputable organizations in the  
2 United States and Canada which are the only evidence on  
3 forecasts on the record.

4 Three: His submissions, in my submission,  
5 show a misunderstanding of the Yukon system and what key  
6 ratepayers within that system will or will not do. And the  
7 two points that I'll come back to in a moment are Aishihik,  
8 Aishihik third turbine and what he says about industrial  
9 customers. And he put customers in the Yukon.

10 Four: Attempting to suggest, because there's  
11 no 40-year NPV or DCF, there's not a sufficient business case  
12 before this Board on the issue of the LNG project.

13 Fifth: Suggesting alternatives that, when you  
14 examine them even at a superficial level, make absolutely no  
15 sense. And I'll come to that in a moment.

16 I'm going to go through a number of points.  
17 Those are a preliminary overview of my comments in relation  
18 to his submission, and I'm going to go through a number of  
19 points one by one.

20 He made the point, in effect, that  
21 Aishihik No. 3 was made for capacity purposes. Clearly, the  
22 issue is not whether or not Aishihik No. 3 or the Aishihik  
23 facility can provide capacity at most times which, as we all  
24 know, it can and does, and does a very good job for the Yukon  
25 system. That was not the question that we were talking

## Submissions by Mr. Landry

1 about, and it was talked about at some length.

2 Aishihik No. 3, in the text of the criteria  
3 that this Board has established in conjunction with YEC and  
4 all stakeholders, rates Aishihik No. 3 for the purposes of  
5 reliable capacity at zero. And you heard plenty of evidence  
6 on that point yesterday and the day before.

7 He then made the point that, somehow, the way  
8 in which YEC has done this bring this before the Board -- the  
9 Board is putting undue pressure on the Board (verbatim).  
10 Now, those are my words, but I think you'll recall the point  
11 that he was making. And he says that because there are these  
12 sunk costs that YEC clearly put before you and has not hidden  
13 in any way, shape, or form.

14 What Mr. Austin obviously does not know, and  
15 his clients should know and do know, is that YEC has for some  
16 time said to this Board that before going forward with a  
17 capital project in some magnitude -- there is a bit of a  
18 dispute in terms of number, but whatever the disputed number  
19 is, this project meets it -- that they would try to get it  
20 before the Board so that this Board could review it, because  
21 as you know, we don't have an automatic CPCN procedure, which  
22 is very unusual. Jurisdictions usually do.

23 In this case, the reason why we are here is  
24 because of the fact that the government has designated this  
25 project as a regulated project. And once it was designated,

## Submissions by Mr. Landry

1 within a month, the application was made to the minister, and  
2 soon thereafter, I believe -- I don't have the exact date on  
3 this -- it was referred to this Board for review.

4 And in any event, this review is about the  
5 terms of reference. It's not about prudence of costs. The  
6 issue of prudence of costs, whether this project is  
7 recommended by this Board, or not; whether this project goes  
8 ahead, or not, is for a general rate application. And Yukon  
9 Energy will stand up before you either way and make the  
10 argument that these costs were prudently incurred. But  
11 that's not the issue that's before us today.

12 Mr. Austin -- a good example of him providing  
13 evidence in his submission or at least making statements  
14 where there's no support for the proposition on the  
15 evidence -- talked about the Burrard plant, presumably to try  
16 to make the point that thermal is not an important aspect of  
17 a hydro-based system. Didn't say that, but he talked the  
18 Burrard plant, and he talked about what BC Hydro does and  
19 does not do. He talked about what the OIC does and does not  
20 do. He even mentioned the fact that it would not be  
21 considered capacity, the Burrard plant, after the  
22 transmission line that's being built from the interior of  
23 British Columbia to the coast.

24 Well, let me just say this, sir. I don't  
25 agree with Mr. Austin, but it doesn't matter because it's

## Submissions by Mr. Landry

1 irrelevant. It's not something that's before you. That  
2 evidence is not before you. The only evidence that is before  
3 you, and has been there since the beginning, is that  
4 hydro-based systems require thermal backup, and B.C. is  
5 included in that.

6 If YCS and LE wanted to challenge that, they  
7 should have brought evidence to do so, not through a counsel  
8 trying to present that evidence in his submission.

9 And I might say to you, sir, what was glaring  
10 in its absence in that submission is he never mentioned  
11 Manitoba. Why did he not mention Manitoba? Because he knew  
12 he had on the stand yesterday a person who had full access to  
13 all information regarding Manitoba, and he specifically gave  
14 the evidence that thermal backup is there for the hydro-based  
15 system in Manitoba.

16 And, sir, one that I'm particularly concerned  
17 about, Mr. Austin, in a fairly significant way, criticized  
18 what was a fulsome answer to an undertaking that was asked  
19 about WD1 and WD2. He cited, for the record, YUB -- I  
20 believe it was 13(b) -- I could be corrected by the record --  
21 pages 11 and 13. And what he said to you, sir, was  
22 effectively that's not what I asked him. He gave evidence,  
23 but I want you to ignore it. I want you to accept what he  
24 says pages 11 and 13 say.

25 What he's asking you to do, sir, is to say

## Submissions by Mr. Landry

1 Mr. Morrison was not telling you the truth. That's what he's  
2 asking you to say. Mr. Morrison gave that evidence, he gave  
3 it -- and you heard him give that evidence.

4 And I might add -- and this is where the real  
5 problem with what he is saying comes in. Mr. Austin was  
6 still in the middle of cross-examination. If he believed --  
7 if he believed that Mr. Morrison was not being truthful,  
8 under every test of fairness for evidentiary rules, he should  
9 have put YUB-13(b), page 11 and 13 to Mr. Morrison, and he  
10 should have asked for a response to that. Instead, he never  
11 even asked the question. He comes before this tribunal in  
12 front of the public here and he tells you to ignore  
13 Mr. Morrison's evidence. Not only is that unfair, sir, from  
14 a legal perspective, in my submission, it's totally  
15 inappropriate.

16 Sir, he then went on to talk about a number of  
17 things with respect to -- and gave significant evidence, and  
18 I leave that to you. You can look at the questions and you  
19 can look at the answers and determine whether or not the  
20 questions have evidence in them. I say they do or at least  
21 they have statements that are not supported by the evidence.

22 He tries to say effectively it's not the  
23 difference in natural gas prices and oil prices, right, that  
24 is the driving force. He asked you, in the way he wants you  
25 to do it, which was not totally clear to me, to do some

1 analysis on the price of natural gas when it arrives in  
2 Whitehorse versus the price of oil when it -- diesel when it  
3 arrives in Whitehorse, and he makes the point trying to  
4 suggest that it's only one -- I guess, he's saying one small  
5 component that the price of natural gas when it comes -- and  
6 perhaps a lesser component when it comes to diesel. Well, he  
7 admittedly said he couldn't do that analysis for you.

8 He makes this point as if somehow it's a  
9 revelation. Well, it's not a revelation, sir. There is  
10 detailed evidence before you which talks about the very point  
11 he's talking about, the transportation cost of LNG to  
12 Whitehorse. He talked about the liquefaction cost. There is  
13 no evidence to suggest transportation costs that Yukon Energy  
14 has put forward in this application is incorrect in any way.  
15 None. None whatsoever.

16 And secondly, the liquefaction portion of the  
17 landed -- if I can put it that way -- the landed LNG cost  
18 into Whitehorse, that liquefaction is a regulated rate. It's  
19 not a rate that's going to be subject to change on  
20 willy-nilly on somebody -- on market base or anything else.

21 There is nothing new in Mr. Austin's point.  
22 Nothing new. There is evidence on the record that talks  
23 specifically to the landed costs of LNG into Whitehorse and  
24 the landed diesel into Whitehorse.

25 Sir, he then made the point -- and I'm using

## Submissions by Mr. Landry

1 my words, not to quote because I don't have the transcript --  
2 regarding Tilbury being a regulated rate and made the point  
3 somehow that Fortis cannot give any assurance *vis-à-vis* the  
4 regulated rate. That's a very simplistic way of looking at  
5 the evidence that is presented to you on what YEC did, what  
6 Mr. Morrison did.

7 He doesn't deal with the fundamental point of  
8 the conversation that was held. In my mind -- in my  
9 submission, I should say, he ignores the evidence. The  
10 evidence of Mr. Morrison in effect was about what is the  
11 level of capacity that you have in your facility?

12 Remembering in the back -- and back of the  
13 point is should I have a contract rate or should I go with  
14 the spot rate? What is the level of capacity? That was the  
15 assurance that Mr. Morrison was looking for and you heard  
16 what the evidence he gave, that there was more than  
17 sufficient capacity, not only now but over the next two years  
18 because of the increasing capacity of level and the ability  
19 to enter into contractual arrangements if that's what needed  
20 to happen. That's what was being discussed.

21 Mr. Austin then talks about the forecasts of  
22 the EIA and the NEB. He attacks the credentials of the  
23 witnesses on the panel rather than the substance of the  
24 results of the two forecasts by leading U.S. and Canadian  
25 energy agencies. He didn't attack that because he can't. He

## Submissions by Mr. Landry

1 did not put -- or YCS and LE did not put in any evidence to  
2 suggest that, and I'd ask the Board to look at another piece  
3 of evidence where Mr. Osler said that he could not find one  
4 credible forecast, okay, that was, in substance, different  
5 than what the NEB and EIA said.

6 He's asking you, sir, to ignore them. And he  
7 does it on the basis to attack the credentials of the  
8 witnesses that were here that provided those -- that agency  
9 information.

10 And that -- and the point I made -- and I made  
11 it in my argument, and he did not deal with that. That  
12 evidence has been on the record since the beginning, and if  
13 YCS or LE wanted to challenge that and say it is not  
14 accurate, which they never say that, in my submission, they  
15 want to say it is not accurate and it is not a reflection of  
16 the way people are forecasting into the future for this  
17 project, they could have provided their own evidence. They  
18 did not. That is telling, in my submission.

19 It's all innuendo, and if this report relied  
20 on the innuendo that was suggested when, in fact, the YEC has  
21 put before you forecasts, which is all anybody can do for the  
22 future, forecasts, and if you accepted that innuendo when YEC  
23 is saying to you these are proper forecasts, these are the  
24 ones that show these fuel costs.

25 What would happen five years from now if you

## Submissions by Mr. Landry

1 accepted the innuendo and not the evidence that was before  
2 you regarding that if, indeed, those forecasts are accurate?

3 And there was really nothing on the evidence,  
4 even on cross-examination, that dealt with the short-term,  
5 the four or five years we're talking about. Everybody seems  
6 to be pretty sure that that gap that all of a sudden happened  
7 over the last several years is going to stay there during  
8 that time period. And that time period is, obviously, a key  
9 time period for the economics of this project.

10 Then Mr. Austin went on for some time about  
11 the issue of what alternatives were considered and what  
12 alternatives were not considered. He suggested that YEC had  
13 not considered a number of resource options -- or resource  
14 options since 2006.

15 If Mr. Austin was in the Yukon since 2005 with  
16 many of us who have been there since then on many different  
17 hearings, they would know that YEC has gone through an  
18 extensive resource planning including resource planning in  
19 relation to capacity and energy, just to name a few.

20 And these are public proceedings that this  
21 Board has been involved in: The 2006 resource planning  
22 hearing, energy and capacity; the Carmacks-Stewart  
23 Transmission Plant Part 3 hearing, which dealt with energy  
24 and capacity, a key part of that whole thing; the Mayo B Part  
25 3 hearing, which dealt with capacity and energy; the 2005

## Submissions by Mr. Landry

1 GRA -- YEC GRA where capacity and energy was dealt with; the  
2 2012 GRA that YEC had before this Board, issues of capacity,  
3 the Mirrlees, the Mayo Bs, the Carmacks-Stewart, the  
4 transmission lines, they've all been there.

5 To suggest that YEC has not considered all  
6 credible options based on their extensive consultations,  
7 hearings, especially when his clients, the YCS and LE have  
8 been in the middle of them, is, with respect, disingenuous,  
9 and I don't use that -- I use that term very carefully.

10 Now let's go through the list of the projects  
11 that he says should have been considered that weren't being  
12 considered.

13 DSM. Well, Mr. Austin wasn't at the YECL  
14 hearing where the whole DSM thing, at the request of the  
15 Board, is before this Board. And one of the issues that  
16 specifically was dealt with before this Board -- and  
17 Mr. Morrison testified to this yesterday -- was the issue of  
18 DSM for capacity.

19 This Board knows and Mr. Morrison has  
20 testified to this yesterday that the experts that were before  
21 the Board specifically said to go slowly and that capacity is  
22 not the first thing that you should be looking at.

23 And YEC doesn't even have a ruling yet -- and  
24 YECL -- from the Board. That's not a criticism of the Board.  
25 That is the Board being very considered in its views of

## Submissions by Mr. Landry

1 something -- i.e., DSM -- that for years was not really a big  
2 thing in the Yukon because there was surplus. Very different  
3 than other jurisdictions in the way they've dealt with it.

4           The next item he mentions is Surprise Lake.  
5 In that, he attempts to bring forward an option with no  
6 evidence, based on a set of eight or ten lines in a resource  
7 plan, that addressed many, many options. That resource plan  
8 addressed a considerable number of options both for energy  
9 and capacity.

10           There's no evidence about this Surprise Lake  
11 project that he's talking about besides what he attempted to  
12 do in cross-examination. The only evidence is that YEC  
13 actually considered it. They went to the First Nation in  
14 British Columbia, talked to the First Nation; and the First  
15 Nation hasn't gone forward in any way. And just think about  
16 the proposition that is being put before you.

17           It's being run by a First Nation development  
18 corp, it's in Atlin, the 8 megawatts resource option that he  
19 says that YEC should look at would mean -- this is what it  
20 would mean: A capacity expansion at a facility that is not  
21 even used today fully in Atlin, not even used today fully in  
22 Atlin. You'd have to expand the capacity at that site.

23           This is in the evidence, by the way. You'd  
24 have to go to a different site near the town of Atlin and  
25 create a new hydro facility to the total of about 6

## Submissions by Mr. Landry

1 megawatts. So you'll have to get presumably the people of  
2 Atlin to agree that putting a hydro facility where they would  
3 get absolutely no benefit from it into their community, and  
4 then you'd have to do a hundred kilometre interprovincial  
5 transmission line to the Yukon. All for what? For Yukon  
6 Energy's capacity in the time frame that we're talking about  
7 here? It is simply specious to suggest that that's a  
8 credible option that this Board should to look at, especially  
9 when there is no evidence before the Board but the evidence  
10 by Yukon Energy on this point. It is simply not a credible  
11 or realistic option.

12 His third one; mines. And he said mines.  
13 Well, there's one mine. We know what it is. It's the Minto  
14 mine, and thankfully it is here. It helped us create some of  
15 the renewable projects that we've gone forward with.

16 But this Board has heard about the so-called  
17 diesels that the Minto facility has. And you heard the  
18 evidence, unchallenged, of Mr. Morrison that says they can't  
19 rely on those, and they never want to rely on those for  
20 reliable backup. Now they don't want to do that. And I ask  
21 the question -- it's rhetorical, but I ask it: Would the  
22 people of Whitehorse using the specific example that happened  
23 in January of 2006 -- I was corrected on that, January  
24 2006 -- would they like to rely on a mining company to assure  
25 them that they're going to have reliable capacity to make

## Submissions by Mr. Landry

1 sure that their homes are heated? I think the answer to that  
2 question is obvious.

3           And this Board knows that Yukon Energy -- and  
4 it's the one industrial customer that's out there today --  
5 there has been a lot of dealings between Yukon Energy and  
6 that customer. There have been PPAs agreed to that this  
7 Board has approved, there's been discussions throughout the  
8 proceedings that we've had about it. And to now somehow all  
9 of a sudden come out of it and say, you know what, you should  
10 go to Minto, and you should make sure that they have reliable  
11 capacity so that that can help you in your capacity  
12 situation. It is simply, simply not credible.

13           Sir, then he goes to the considered  
14 alternatives. And notwithstanding all of the statements made  
15 about DSM and the Surprise Lake and the mines, the only  
16 considered alternative that people can look at in this case  
17 is new diesel. WD1 and WD2 -- notwithstanding what  
18 Mr. Austin would like you to believe that they can still  
19 continue -- is simply, on the evidence, not an option.  
20 Nobody appears to be really arguing that point.

21           He quibbles on costs. I think he called it  
22 the lower level or something to that effect. Balance of  
23 plant costs, planning costs, and accounting rules and how you  
24 located accounting rules and planning costs. Well, with all  
25 due respect, the type of numbers he's talking about, as you

## Submissions by Mr. Landry

1 know and as you've heard yesterday simply do not come  
2 anywhere near a materiality effect on this project.

3 He talks about a carbon tax. That really  
4 surprised me, Mr. Chairman. If carbon tax is going to be a  
5 situation in this case and one was doing an analysis and you  
6 were going -- which is the only credible alternative -- new  
7 diesel versus natural gas, okay, new diesel is going to lose  
8 out over natural gas.

9 He then tries to make the point that, oh, we  
10 should have a 40-year net present value or DCF and related  
11 analysis. And you don't have that; therefore, you can't come  
12 to a conclusion. That's a smokescreen, Mr. Chairman. He  
13 simply does not challenge the basic evidence that over the  
14 next four years, based on the forecasts that he'd like you to  
15 reject, that there is going to be significant fuel cost  
16 savings to the point that it's doing to offset all of the  
17 additional capital costs that have been incurred for -- that  
18 would be incurred for the LNG project.

19 And if it's going forward, the other 36 years  
20 that he says you have to take a look at and everybody's going  
21 to -- you know, you're going to have to pay for those -- that  
22 analysis applies for diesel just as much as it applies for  
23 LNG. It's a smokescreen. What was done is a credible, good  
24 business analysis to show to this Board that this LNG project  
25 is, by far -- not by a little -- by far, a far superior

1 project to new diesel.

2                   And I might say that after the four years when  
3 the additional capital costs are paid off -- and this is not  
4 a small point -- what that means is, from then on, the Yukon  
5 has two options instead of one. They have diesel, and they  
6 have natural gas. This territory unfortunately is one of the  
7 only places in Canada that has not had that option over the  
8 last 30 years.

9                   It will have that capability to move from one  
10 to the other. And in terms of an economic regulator like you  
11 are, in terms of rates and in terms of ratepayers, that's a  
12 fabulous option to have because you will always get the  
13 lowest-cost fuel. And in any event, as we talked about  
14 before, if we look at the past -- and I believe I might have  
15 misstated earlier, Mr. Chairman, in one of the statements I  
16 made -- over the last 30 years, there's only been a couple of  
17 occasions where the price of natural gas was higher than oil.

18                   And I'd like to end, sir, on a point that my  
19 friend made. He's made the point that somehow, once you've  
20 made your investment, it's sunk. And somehow or other, this  
21 prejudices renewables.

22                   I want to talk a little bit about YEC's record  
23 in this regard because, quite frankly, when one looks at the  
24 evidence, notwithstanding the impassioned statements that  
25 were made the other night, notwithstanding the statements

## Submissions by Mr. Landry

1 that were made to you on more than one occasion, YEC's record  
2 in relation to renewables is second to none.

3 YEC has come before you on many occasions,  
4 including this hearing, and said they are absolutely  
5 committed to putting renewables on this grid when the load is  
6 available and where there's the opportunity. And what is  
7 their record in that regard?

8 Their regard is, quite frankly, extremely  
9 good. They did Mayo-Dawson. Now, what did that do? That  
10 took Dawson off of diesel, and now they're on renewables from  
11 Mayo, and now because the grid is connected from the grid  
12 (verbatim). And by the way, Yukon Energy didn't take the  
13 diesels out of Dawson, did they? Why? Because if that line  
14 goes down, they've got to take care of the people in Dawson.

15 So they did Mayo-Dawson. They did the  
16 Carmack-Stewart Transmission Project with Minto. They took  
17 Minto off of diesel. And what were they supplied with up  
18 until now, recently while the surplus is gone? By  
19 renewables, by surplus hydro from Whitehorse.

20 They did Mayo B. What is that? That's a  
21 10-megawatt renewable project, a very significant investment  
22 for the Yukon. They did Aishihik No. 3. What is that? A  
23 renewable.

24 Sir, Yukon Energy has invested well in excess  
25 of \$250 million in the last number of years on renewable-type

1 projects.

2 To somehow suggest that because they would  
3 like to have a cheaper, cleaner thermal backup system, a  
4 thermal backup system that is needed in hydro-based system,  
5 to somehow suggest that that is going to turn Yukon Energy  
6 around from its commitment made to this Board on many  
7 occasions, that it will always look at renewables, it is  
8 looking at renewables, it is working on renewables. And when  
9 the load is there, that's where they're going to go, and they  
10 have a record to prove it.

11 Mr. Chairman, those are my submissions in  
12 reply.

13 THE CHAIR: Thank you very much,  
14 Mr. Landry.

15 So I guess with that, there's no other  
16 procedural matters, so I would call this hearing to a close.  
17 Thank you.

18 Oh, actually I should say I would like to  
19 thank the court reporters and Steve for the process and the  
20 YUB Board staff and our local staff in Whitehorse. I think  
21 that's it. Thank you.

22 \_\_\_\_\_

23 PROCEEDINGS CONCLUDED

24 \_\_\_\_\_

25

1 Certificate of Transcript

2

3 We, the undersigned, hereby certify that the foregoing pages  
4 436 to 557 are a complete and accurate transcript of the  
5 proceedings taken down by us in shorthand and transcribed  
6 from our shorthand notes to the best of our skill and  
7 ability.

8 Dated at the City of Whitehorse, Yukon  
9 Territory, on April 2, 2014.

10

11

12

\_\_\_\_\_ "A. Jones"

13

A. Jones, CSR(A)

14

Official Court Reporter

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18

\_\_\_\_\_ "D. Gerbrandt"

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D. Gerbrandt, CSR(A)

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Official Court Reporter

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## - I N D E X -

1

2

3

VOLUME 3

4

5

6 SUBMISSIONS BY MR. LANDRY 441

7 SUBMISSIONS BY MR. JANIGAN 477

8 SUBMISSIONS BY MR. AUSTIN 491

9 SUBMISSIONS BY MR. ROBERTS 522

10 SUBMISSIONS BY MR. LANDRY 537

11

12 EXHIBITS

13

14 EXHIBIT B-15 - UNDERTAKING RESPONSE 438

15

16 EXHIBIT B-16 - UNDERTAKING RESPONSE 439

17

18 EXHIBIT B-17 - UNDERTAKING RESPONSE 441

19

20

21

22

23

24

25

## YUB - YEC LNG Project, Volume 3, April 2, 2014

<b>\$</b>	2.7 [1] - 475:12 20 [7] - 457:23, 458:16, 459:9, 459:20, 460:13, 473:16, 536:16 2005 [2] - 548:15, 548:25 2006 [13] - 451:11, 468:15, 472:9, 492:23, 492:24, 493:4, 495:4, 495:15, 506:11, 548:14, 548:21, 551:23, 551:24 2007 [1] - 450:21 2008 [1] - 495:19 2009 [1] - 526:4 201 [1] - 437:2 2010 [3] - 484:15, 496:1, 538:21 2011 [4] - 484:16, 509:23, 510:11, 519:16 2012 [5] - 448:15, 484:16, 519:23, 520:5, 549:2 2013 [6] - 459:6, 462:11, 484:17, 496:2, 510:8, 538:21 2013-1 [1] - 475:6 2013-2030 [1] - 438:25 2014 [5] - 436:21, 437:5, 443:25, 491:2, 557:9 2015 [15] - 443:13, 443:25, 444:3, 445:1, 445:9, 445:12, 445:17, 446:22, 451:21, 452:4, 452:8, 453:19, 457:20, 466:19, 475:15 2016 [1] - 446:1 2017 [1] - 443:13 2018 [9] - 445:13, 446:1, 446:23, 452:8, 452:12, 457:20, 460:7, 466:19, 485:24 2019 [1] - 443:14 2030 [2] - 439:3, 510:8 27th [2] - 441:13, 441:15 29 [1] - 520:14 290 [1] - 449:12 291 [1] - 449:12 2:30 [1] - 523:4	351 [1] - 439:1 36 [1] - 553:19 365 [1] - 492:16 3:15 [1] - 537:13 3:20 [1] - 537:14	<b>4</b>	4 [9] - 440:22, 441:4, 466:13, 474:7, 507:24, 508:21, 509:1, 515:1, 519:21 4-2 [2] - 483:19, 486:24 4-3 [2] - 441:11, 445:19 4-year [8] - 476:14, 500:1, 512:17, 512:19, 515:6, 517:3, 517:12, 521:6 4.1.1 [1] - 448:5 4.3 [1] - 446:21 4.5 [1] - 485:22 4.50 [1] - 501:3 40 [7] - 458:20, 512:19, 512:24, 523:2, 526:14, 528:25, 529:2 40-year [15] - 458:4, 460:7, 476:18, 512:20, 512:21, 512:22, 513:2, 513:3, 515:3, 518:2, 521:7, 540:11, 553:10 400 [1] - 438:11 409 [1] - 469:9 41 [2] - 458:20, 486:24 42 [1] - 481:18 436 [1] - 557:4 438 [1] - 558:14 439 [1] - 558:16 441 [2] - 558:6, 558:18 46 [5] - 443:21, 468:11, 498:23, 506:1 46-year-old [3] - 478:13, 479:15, 480:21 477 [1] - 558:7 491 [1] - 558:8 4:00 [1] - 507:23	<b>5</b>	5 [2] - 474:7, 501:13 5(c) [1] - 538:20 5.2 [1] - 445:12 50 [2] - 469:4, 525:6 52 [2] - 509:24, 510:11 522 [1] - 558:9 537 [1] - 558:10 55 [1] - 464:20 557 [1] - 557:4 5:00 [2] - 508:14, 537:16	<b>6</b>	6 [5] - 466:13, 507:24, 508:21, 509:1, 550:25 6.570 [1] - 484:16 60 [1] - 454:4 60,000 [1] - 533:16 67 [1] - 483:8 6:00 [2] - 507:23, 508:15	<b>7</b>	7 [4] - 441:12, 443:12, 444:2, 507:25	<b>8</b>	8 [4] - 444:1, 478:14, 510:1, 550:18 840 [1] - 484:17	<b>9</b>	9 [5] - 475:14, 507:25, 516:3, 516:4, 516:5 9.3 [3] - 475:17, 483:3, 511:25 9.7 [1] - 445:13 90 [1] - 529:14 95,000 [1] - 533:13 99% [1] - 448:16	<b>A</b>	A-train [2] - 455:24, 456:16 A-trains [2] - 456:2, 533:14 abhorrent [1] - 528:10 abilities [1] - 532:25 ability [5] - 480:2, 481:9, 509:24, 546:18, 557:7 able [7] - 438:5, 449:23, 450:24, 461:6, 473:14, 479:1, 510:11 absence [1] - 543:10 absent [1] - 476:2 absolute [1] - 499:16 absolutely [5] - 505:4, 505:15, 540:14, 551:3, 555:4 accept [4] - 479:23, 481:15, 540:1, 543:23 acceptable [1] - 467:22 accepted [3] - 483:4, 547:22, 548:1 access [2] - 449:2, 543:12 accesses [1] - 528:9 accidents [1] - 464:12 accommodate [1] - 463:11 accommodating [1] - 522:6 accompanied [1] - 480:24 accompanying [1] - 487:20 accounting [2] - 479:11, 518:22 accords [1] - 489:4 account [4] - 462:1, 503:1, 517:15, 520:21 accountable [1] - 529:20 accountants [4] - 513:10, 513:11, 513:15, 513:18 accounting [3] - 514:1, 552:23, 552:24 accuracy [2] - 504:1, 504:5 accurate [4] -	547:14, 547:15, 548:2, 557:4 achieve [2] - 481:6, 486:7 acknowledged [1] - 488:1 ACO [1] - 474:24 acquisition [1] - 507:17 Act [1] - 477:13 acting [1] - 517:10 action [1] - 489:3 active [1] - 458:9 activity [1] - 529:12 actual [5] - 453:6, 514:7, 538:21, 538:22, 539:1 adapt [1] - 485:18 add [6] - 454:20, 468:13, 473:1, 491:12, 528:25, 544:4 added [5] - 446:22, 452:6, 463:18, 475:20, 476:15 addition [5] - 457:11, 462:23, 496:18, 504:17, 517:13 additional [5] - 475:17, 481:12, 509:9, 553:17, 554:3 additions [2] - 439:13, 514:6 address [4] - 452:12, 469:16, 477:21, 519:18 addressed [3] - 464:24, 550:7, 550:8 addresses [1] - 466:3 adequately [1] - 530:1 ADJOURNED [1] - 490:21 ADJOURNMENT [1] - 537:19 adjustment [1] - 463:13 Administration [1] - 458:19 admission [1] - 490:7 admit [1] - 505:9 admitted [1] - 490:5 admittedly [1] - 545:7 adopt [1] - 489:16 adopted [2] - 457:22, 503:11 adopting [1] - 503:24 adoption [2] - 503:8, 503:14 advance [1] - 488:20 advantages [1] - 535:6 adverse [2] - 464:17, 465:4 advice [1] - 534:7 advisable [1] - 465:19 advise [2] - 439:2, 535:3 AECO [4] - 458:1, 474:21, 505:18, 505:24 affect [3] - 451:13, 523:21, 525:5 afternoon [6] - 491:9, 508:14, 508:15, 508:20, 508:25, 537:4			
<b>1</b>	1 [12] - 438:24, 441:14, 466:15, 475:14, 481:19, 492:21, 492:22, 495:21, 497:9, 508:24, 538:19 1-3(c) [1] - 515:8 1-45(f) [1] - 515:1 1-47 [2] - 503:14, 503:15 1.3 [1] - 446:22 10 [4] - 460:13, 467:7, 474:5, 530:11 10-megawatt [1] - 555:21 10.9 [1] - 443:13 102 [1] - 485:14 11 [4] - 494:25, 543:21, 543:24, 544:9 11.9 [2] - 475:9, 475:16 12 [3] - 454:6, 457:6, 530:11 12:20 [1] - 442:13 12:30 [1] - 442:9 12:37 [1] - 490:16 12:40 [1] - 442:13 13 [7] - 444:12, 452:11, 473:2, 495:1, 543:21, 543:24, 544:9 13(b) [1] - 543:20 132 [1] - 480:15 134 [1] - 479:12 13th [1] - 535:12 142 [1] - 497:9 143 [1] - 497:9 145 [1] - 492:21 146 [1] - 492:21 148 [1] - 492:22 14th [1] - 535:12 15 [3] - 467:7, 473:16, 474:6 16.7 [1] - 493:16 17 [2] - 443:13, 448:6 188 [1] - 495:21 19 [1] - 443:17 19th [1] - 462:23 1:00 [2] - 508:16, 508:19 1:15 [2] - 490:17, 490:21	<b>2</b>	2 [5] - 436:21, 437:5, 491:2, 508:24, 557:9 2.1 [1] - 446:1 2.205 [1] - 484:16 2.417 [1] - 484:15	<b>3</b>	3 [15] - 436:20, 437:4, 477:13, 491:1, 515:1, 519:20, 519:21, 540:21, 540:22, 541:2, 541:4, 548:23, 548:25, 555:22, 558:3 3.1 [1] - 446:23 30 [13] - 459:9, 459:20, 460:13, 461:8, 461:12, 461:21, 461:25, 471:13, 472:22, 512:24, 523:2, 554:8, 554:16 30-year [2] - 461:14, 461:25 30.8 [1] - 445:11 31k [1] - 495:19 33 [1] - 483:16	<b>4</b>	4 [9] - 440:22, 441:4, 466:13, 474:7, 507:24, 508:21, 509:1, 515:1, 519:21 4-2 [2] - 483:19, 486:24 4-3 [2] - 441:11, 445:19 4-year [8] - 476:14, 500:1, 512:17, 512:19, 515:6, 517:3, 517:12, 521:6 4.1.1 [1] - 448:5 4.3 [1] - 446:21 4.5 [1] - 485:22 4.50 [1] - 501:3 40 [7] - 458:20, 512:19, 512:24, 523:2, 526:14, 528:25, 529:2 40-year [15] - 458:4, 460:7, 476:18, 512:20, 512:21, 512:22, 513:2, 513:3, 515:3, 518:2, 521:7, 540:11, 553:10 400 [1] - 438:11 409 [1] - 469:9 41 [2] - 458:20, 486:24 42 [1] - 481:18 436 [1] - 557:4 438 [1] - 558:14 439 [1] - 558:16 441 [2] - 558:6, 558:18 46 [5] - 443:21, 468:11, 498:23, 506:1 46-year-old [3] - 478:13, 479:15, 480:21 477 [1] - 558:7 491 [1] - 558:8 4:00 [1] - 507:23	<b>5</b>	5 [2] - 474:7, 501:13 5(c) [1] - 538:20 5.2 [1] - 445:12 50 [2] - 469:4, 525:6 52 [2] - 509:24, 510:11 522 [1] - 558:9 537 [1] - 558:10 55 [1] - 464:20 557 [1] - 557:4 5:00 [2] - 508:14, 537:16	<b>6</b>	6 [5] - 466:13, 507:24, 508:21, 509:1, 550:25 6.570 [1] - 484:16 60 [1] - 454:4 60,000 [1] - 533:16 67 [1] - 483:8 6:00 [2] - 507:23, 508:15	<b>7</b>	7 [4] - 441:12, 443:12, 444:2, 507:25	<b>8</b>	8 [4] - 444:1, 478:14, 510:1, 550:18 840 [1] - 484:17	<b>9</b>	9 [5] - 475:14, 507:25, 516:3, 516:4, 516:5 9.3 [3] - 475:17, 483:3, 511:25 9.7 [1] - 445:13 90 [1] - 529:14 95,000 [1] - 533:13 99% [1] - 448:16	<b>A</b>	A-train [2] - 455:24, 456:16 A-trains [2] - 456:2, 533:14 abhorrent [1] - 528:10 abilities [1] - 532:25 ability [5] - 480:2, 481:9, 509:24, 546:18, 557:7 able [7] - 438:5, 449:23, 450:24, 461:6, 473:14, 479:1, 510:11 absence [1] - 543:10 absent [1] - 476:2 absolute [1] - 499:16 absolutely [5] - 505:4, 505:15, 540:14, 551:3, 555:4 accept [4] - 479:23, 481:15, 540:1, 543:23 acceptable [1] - 467:22 accepted [3] - 483:4, 547:22, 548:1 access [2] - 449:2, 543:12 accesses [1] - 528:9 accidents [1] - 464:12 accommodate [1] - 463:11 accommodating [1] - 522:6 accompanied [1] - 480:24 accompanying [1] - 487:20 accounting [2] - 479:11, 518:22 accords [1] - 489:4 account [4] - 462:1, 503:1, 517:15, 520:21 accountable [1] - 529:20 accountants [4] - 513:10, 513:11, 513:15, 513:18 accounting [3] - 514:1, 552:23, 552:24 accuracy [2] - 504:1, 504:5 accurate [4] -	547:14, 547:15, 548:2, 557:4 achieve [2] - 481:6, 486:7 acknowledged [1] - 488:1 ACO [1] - 474:24 acquisition [1] - 507:17 Act [1] - 477:13 acting [1] - 517:10 action [1] - 489:3 active [1] - 458:9 activity [1] - 529:12 actual [5] - 453:6, 514:7, 538:21, 538:22, 539:1 adapt [1] - 485:18 add [6] - 454:20, 468:13, 473:1, 491:12, 528:25, 544:4 added [5] - 446:22, 452:6, 463:18, 475:20, 476:15 addition [5] - 457:11, 462:23, 496:18, 504:17, 517:13 additional [5] - 475:17, 481:12, 509:9, 553:17, 554:3 additions [2] - 439:13, 514:6 address [4] - 452:12, 469:16, 477:21, 519:18 addressed [3] - 464:24, 550:7, 550:8 addresses [1] - 466:3 adequately [1] - 530:1 ADJOURNED [1] - 490:21 ADJOURNMENT [1] - 537:19 adjustment [1] - 463:13 Administration [1] - 458:19 admission [1] - 490:7 admit [1] - 505:9 admitted [1] - 490:5 admittedly [1] - 545:7 adopt [1] - 489:16 adopted [2] - 457:22, 503:11 adopting [1] - 503:24 adoption [2] - 503:8, 503:14 advance [1] - 488:20 advantages [1] - 535:6 adverse [2] - 464:17, 465:4 advice [1] - 534:7 advisable [1] - 465:19 advise [2] - 439:2, 535:3 AECO [4] - 458:1, 474:21, 505:18, 505:24 affect [3] - 451:13, 523:21, 525:5 afternoon [6] - 491:9, 508:14, 508:15, 508:20, 508:25, 537:4

## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p><b>agencies</b> [2] - 524:24, 546:25  <b>agency</b> [3] - 458:22, 458:23, 547:8  <b>Agency</b> [1] - 504:4  <b>agenda</b> [1] - 525:16  <b>ago</b> [5] - 462:22, 467:25, 492:24, 511:9, 530:11  <b>agree</b> [3] - 530:8, 542:25, 551:2  <b>agreed</b> [4] - 468:20, 468:21, 532:19, 552:6  <b>ahead</b> [6] - 455:18, 479:6, 531:19, 532:6, 537:5, 542:8  <b>air</b> [1] - 513:25  <b>airport</b> [1] - 528:9  <b>Aishihik</b> [15] - 450:22, 467:13, 468:1, 470:20, 492:7, 509:7, 510:4, 540:7, 540:8, 540:21, 540:22, 541:2, 541:4, 555:22  <b>Alberta</b> [6] - 455:11, 457:6, 505:17, 533:2, 533:12, 533:14  <b>Alexco</b> [5] - 438:24, 444:9, 444:23, 444:25, 475:10  <b>align</b> [2] - 488:23, 489:1  <b>allay</b> [1] - 489:5  <b>allocated</b> [1] - 513:23  <b>allow</b> [8] - 445:15, 446:6, 467:16, 468:22, 507:17, 526:1, 533:15, 536:4  <b>allowed</b> [2] - 463:1, 525:25  <b>allowing</b> [1] - 467:17  <b>allows</b> [1] - 471:24  <b>almost</b> [2] - 479:18, 523:4  <b>alone</b> [3] - 475:15, 524:22  <b>AltaGas</b> [2] - 456:25, 457:13  <b>AltaGases</b> [1] - 458:13  <b>alternative</b> [25] - 445:24, 446:11, 446:15, 446:17, 448:1, 452:1, 456:14, 460:24, 473:24, 473:25, 474:14, 478:16, 486:6, 498:2, 506:8, 509:4, 510:15, 510:18, 511:21, 516:22, 530:17, 535:5, 552:16, 553:6  <b>alternatives</b> [40] - 441:4, 450:13, 460:22, 465:16, 465:18, 465:25, 467:19, 477:23, 479:10, 481:17, 481:22, 486:7, 493:8, 506:6, 506:7, 506:12, 506:18, 506:20, 508:4, 509:16, 511:15, 511:16, 511:18, 511:21, 516:9, 516:14, 516:19, 516:25, 521:8, 521:10, 521:14, 521:24, 527:19, 529:25,</p>	<p>530:2, 530:16, 540:13, 548:11, 548:12, 552:14  <b>America</b> [4] - 458:8, 459:3, 502:15, 535:15  <b>American</b> [3] - 449:3, 458:15, 515:15  <b>amount</b> [7] - 457:17, 461:23, 488:9, 510:2, 510:3, 525:21, 536:3  <b>ample</b> [1] - 453:17  <b>analysis</b> [20] - 457:25, 461:19, 505:13, 505:14, 505:24, 506:9, 512:19, 512:20, 513:7, 515:18, 518:3, 518:5, 518:6, 518:19, 545:1, 545:7, 553:5, 553:11, 553:22, 553:24  <b>analyze</b> [2] - 513:20, 513:21  <b>analyzes</b> [1] - 458:23  <b>anecdotal</b> [2] - 479:22, 505:11  <b>annual</b> [1] - 453:11  <b>answer</b> [7] - 438:13, 439:5, 505:1, 505:10, 531:12, 543:18, 552:1  <b>answered</b> [1] - 439:17  <b>answering</b> [1] - 484:5  <b>answers</b> [5] - 453:10, 513:14, 516:24, 534:11, 544:19  <b>anticipated</b> [2] - 483:11, 487:3  <b>apologize</b> [3] - 446:13, 537:25, 538:14  <b>apologized</b> [1] - 537:15  <b>appeal</b> [1] - 479:17  <b>appear</b> [2] - 484:21, 518:2  <b>appeared</b> [1] - 523:16  <b>Appendix</b> [1] - 510:6  <b>application</b> [20] - 440:21, 441:18, 447:25, 448:5, 452:25, 458:20, 459:21, 462:11, 465:23, 475:23, 480:24, 483:16, 486:24, 492:18, 510:6, 515:5, 515:12, 542:1, 542:8, 545:14  <b>Application</b> [1] - 519:20  <b>applies</b> [2] - 553:22  <b>appreciate</b> [7] - 493:19, 506:22, 510:21, 513:15, 522:2, 523:11, 537:10  <b>appreciates</b> [1] - 493:5  <b>approach</b> [1] - 538:4  <b>approaching</b> [1] - 506:19  <b>appropriate</b> [4] - 468:23, 477:2, 522:12, 536:15  <b>approval</b> [6] - 456:5, 467:9, 467:10, 493:16, 525:23, 526:1  <b>approve</b> [2] - 533:17,</p>	<p>533:21  <b>approved</b> [3] - 499:2, 528:22, 552:7  <b>approximate</b> [1] - 475:9  <b>April</b> [4] - 436:21, 437:5, 491:2, 557:9  <b>area</b> [18] - 455:10, 493:23, 493:24, 494:17, 497:6, 499:19, 503:7, 505:6, 505:7, 508:7, 509:20, 513:14, 514:5, 517:5, 518:14, 528:10, 528:23, 531:25  <b>areas</b> [1] - 441:17  <b>arguing</b> [1] - 552:20  <b>argument</b> [19] - 438:1, 439:21, 440:3, 441:2, 442:12, 446:14, 493:23, 494:1, 494:18, 500:6, 517:6, 537:22, 538:2, 538:9, 539:7, 539:9, 539:16, 542:10, 547:11  <b>Argument</b> [1] - 439:22  <b>arguments</b> [2] - 537:8, 538:13  <b>arrangements</b> [1] - 546:19  <b>arrives</b> [2] - 545:1, 545:3  <b>arriving</b> [1] - 486:20  <b>Asia</b> [1] - 458:11  <b>aspect</b> [2] - 479:25, 542:16  <b>aspects</b> [1] - 479:9  <b>assessing</b> [1] - 539:3  <b>assessments</b> [1] - 465:21  <b>asset</b> [3] - 512:21, 512:22, 529:11  <b>assets</b> [5] - 506:23, 512:21, 513:2, 513:3, 521:7  <b>associated</b> [13] - 478:21, 482:25, 483:4, 484:21, 489:16, 490:5, 491:21, 493:6, 496:23, 510:17, 514:20, 514:21, 517:2  <b>assume</b> [3] - 444:25, 445:4, 532:16  <b>assumed</b> [3] - 457:24, 475:18, 501:3  <b>assumption</b> [1] - 474:23  <b>assumptions</b> [2] - 465:20, 483:15  <b>assurance</b> [4] - 499:17, 533:20, 546:3, 546:15  <b>assurances</b> [1] - 498:19  <b>assure</b> [1] - 551:24  <b>Atlin</b> [7] - 509:3, 509:13, 550:18, 550:21, 550:22, 550:24, 551:2  <b>attached</b> [1] - 441:11  <b>attack</b> [2] - 546:25, 547:7  <b>attacks</b> [1] - 546:22  <b>attempt</b> [2] - 474:4, 486:18  <b>attempted</b> [5] -</p>	<p>440:4, 489:15, 491:10, 550:11  <b>attempting</b> [2] - 485:18, 540:10  <b>attempts</b> [1] - 550:5  <b>attendance</b> [1] - 488:11  <b>attention</b> [2] - 509:5, 522:5  <b>attract</b> [1] - 522:16  <b>attractive</b> [1] - 486:13  <b>attributable</b> [1] - 513:8  <b>Austin</b> [19] - 437:14, 490:18, 491:6, 522:10, 522:14, 538:9, 539:10, 539:13, 541:14, 542:12, 542:25, 543:17, 544:5, 546:21, 548:10, 548:15, 549:13, 552:18  <b>AUSTIN</b> [3] - 491:8, 491:9, 558:8  <b>Austin's</b> [1] - 545:21  <b>authority</b> [2] - 453:25, 521:17  <b>automatic</b> [1] - 541:21  <b>availability</b> [1] - 454:10  <b>available</b> [9] - 454:5, 462:15, 472:12, 492:10, 492:16, 510:3, 530:21, 533:3, 555:6  <b>average</b> [11] - 444:21, 445:12, 458:1, 466:14, 474:24, 475:4, 505:17, 505:19, 515:23, 539:1  <b>averaged</b> [1] - 474:25  <b>avoiding</b> [1] - 517:10  <b>aware</b> [2] - 478:2, 481:2  <b>awful</b> [1] - 443:16  <b>awkward</b> [1] - 493:14</p>	<p>478:7, 478:13, 510:24, 513:17, 526:12, 527:20, 543:4, 543:14, 551:20, 556:3, 556:4  <b>backwards</b> [1] - 491:14  <b>bad</b> [1] - 471:12  <b>bag</b> [1] - 535:25  <b>balance</b> [3] - 513:22, 538:8, 552:22  <b>ballpark</b> [1] - 454:4  <b>Base</b> [1] - 438:24  <b>base</b> [12] - 444:9, 444:22, 445:2, 445:18, 446:20, 451:14, 453:7, 453:8, 453:9, 453:12, 475:10, 545:20  <b>baseboard</b> [3] - 507:19, 508:20, 508:21  <b>based</b> [33] - 444:7, 444:19, 444:22, 446:7, 447:19, 447:20, 448:19, 448:25, 449:13, 449:23, 450:2, 450:10, 459:15, 466:20, 473:4, 474:3, 474:22, 475:3, 485:9, 488:3, 494:7, 500:12, 514:17, 521:6, 539:20, 539:21, 542:17, 543:4, 543:14, 549:6, 550:6, 553:14, 556:4  <b>basic</b> [6] - 492:5, 499:8, 504:14, 504:24, 509:19, 553:13  <b>basis</b> [16] - 455:2, 460:18, 466:14, 468:19, 479:7, 483:6, 483:10, 488:16, 499:6, 499:7, 505:11, 512:20, 515:3, 516:12, 547:7  <b>basket</b> [1] - 533:3  <b>BC</b> [1] - 542:18  <b>BCUC</b> [3] - 453:25, 522:11, 522:22  <b>bear</b> [1] - 493:20  <b>beauty</b> [1] - 525:12  <b>begin</b> [1] - 522:24  <b>beginning</b> [5] - 439:2, 442:24, 457:3, 543:3, 547:12  <b>begs</b> [1] - 519:7  <b>behalf</b> [1] - 490:14  <b>behind</b> [2] - 483:15, 487:17  <b>below</b> [1] - 471:13  <b>benefit</b> [2] - 444:17, 551:3  <b>benefits</b> [2] - 477:16, 528:18  <b>BENTIVEGNA</b> [2] - 522:13, 522:18  <b>Bentivegna</b> [5] - 437:9, 469:9, 469:11, 469:18, 522:11  <b>best</b> [10] - 465:9, 480:10, 484:6, 493:9, 494:12, 506:20, 525:14, 529:21, 533:10, 557:6  <b>better</b> [6] - 437:23, 438:22, 442:19, 456:14, 529:24, 530:2</p>
---	--	--	--	--

## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p><b>between</b> [24] - 442:11, 455:23, 456:22, 458:15, 459:8, 462:4, 466:7, 472:16, 478:2, 478:4, 482:4, 483:6, 483:11, 504:19, 507:22, 508:21, 509:1, 512:1, 515:15, 516:5, 517:22, 529:6, 539:20, 552:5</p> <p><b>beyond</b> [7] - 452:12, 453:24, 460:18, 484:20, 499:1, 501:7, 501:8</p> <p><b>bicycle</b> [1] - 491:23</p> <p><b>big</b> [4] - 442:3, 462:22, 507:20, 550:1</p> <p><b>bigger</b> [2] - 532:23, 533:17</p> <p><b>bill</b> [1] - 512:11</p> <p><b>bind</b> [1] - 522:2</p> <p><b>binding</b> [1] - 522:15</p> <p><b>bit</b> [13] - 438:9, 441:9, 442:19, 446:15, 464:5, 469:10, 497:23, 501:23, 507:11, 536:19, 538:12, 541:17, 554:22</p> <p><b>blessed</b> [1] - 488:1</p> <p><b>BOARD</b> [1] - 436:1</p> <p><b>board</b> [2] - 485:24, 521:18</p> <p><b>Board</b> [112] - 437:7, 437:8, 437:8, 437:9, 437:10, 437:11, 437:12, 437:24, 438:7, 440:5, 440:12, 441:17, 442:21, 443:10, 446:5, 446:6, 447:16, 449:15, 451:6, 451:11, 459:6, 459:18, 462:21, 464:10, 465:11, 466:17, 467:9, 467:23, 468:14, 471:21, 471:22, 475:5, 475:6, 477:21, 486:9, 487:6, 487:17, 487:19, 488:5, 488:22, 489:2, 489:6, 489:19, 490:11, 491:16, 493:13, 493:16, 493:17, 493:19, 493:20, 499:20, 500:5, 500:7, 500:9, 503:9, 503:17, 504:5, 513:1, 513:19, 513:21, 514:25, 515:2, 515:7, 518:21, 518:24, 520:20, 520:21, 522:2, 522:5, 522:6, 523:11, 531:21, 536:7, 538:1, 538:24, 539:2, 539:6, 539:7, 539:23, 539:25, 540:12, 541:3, 541:8, 541:9, 541:16, 541:20, 542:3, 542:7, 547:2, 548:21, 549:2, 549:15, 549:16, 549:19, 549:21, 549:24, 549:25, 551:8, 551:9, 551:16, 552:3, 552:7, 553:24, 556:6, 556:20</p> <p><b>Board's</b> [3] - 444:20, 489:13, 514:25</p>	<p><b>boards</b> [1] - 538:2</p> <p><b>bob</b> [1] - 538:12</p> <p><b>body</b> [1] - 462:25</p> <p><b>boil</b> [1] - 527:21</p> <p><b>Boisvert</b> [1] - 437:8</p> <p><b>border</b> [1] - 505:17</p> <p><b>borrow</b> [1] - 534:19</p> <p><b>bottom</b> [1] - 440:24</p> <p><b>branches</b> [1] - 530:22</p> <p><b>break</b> [10] - 442:8, 442:11, 442:14, 477:3, 477:4, 477:7, 490:16, 501:2, 501:24, 506:7</p> <p><b>breakdown</b> [1] - 501:7</p> <p><b>breakdowns</b> [1] - 526:16</p> <p><b>briefly</b> [2] - 488:7, 489:11</p> <p><b>bring</b> [6] - 459:15, 459:23, 468:21, 535:15, 541:8, 550:5</p> <p><b>British</b> [17] - 449:17, 450:1, 450:5, 455:10, 494:2, 494:5, 494:9, 504:23, 504:25, 505:3, 518:4, 518:12, 521:19, 522:1, 539:11, 542:23, 550:14</p> <p><b>broader</b> [1] - 519:5</p> <p><b>broken</b> [1] - 462:3</p> <p><b>brought</b> [7] - 480:8, 482:25, 486:17, 493:20, 523:22, 534:3, 543:7</p> <p><b>Bs</b> [1] - 549:3</p> <p><b>BTU</b> [3] - 458:6, 459:2, 485:22</p> <p><b>budget</b> [1] - 534:19</p> <p><b>build</b> [2] - 473:20, 535:17</p> <p><b>building</b> [4] - 483:13, 508:25, 532:25, 535:6</p> <p><b>built</b> [5] - 480:22, 494:14, 504:13, 536:5, 542:22</p> <p><b>bullet</b> [1] - 500:18</p> <p><b>burn</b> [2] - 502:17</p> <p><b>burning</b> [1] - 473:8</p> <p><b>Burrard</b> [7] - 494:2, 494:4, 494:13, 494:15, 542:15, 542:18, 542:21</p> <p><b>burying</b> [1] - 483:4</p> <p><b>business</b> [21] - 497:12, 500:1, 507:6, 507:9, 507:21, 511:13, 512:17, 512:22, 513:2, 515:6, 515:20, 516:13, 517:4, 517:12, 517:14, 521:6, 525:25, 536:14, 540:11, 553:24</p> <p><b>buttress</b> [2] - 504:17, 505:1</p> <p><b>buy</b> [2] - 526:19, 526:20</p> <p><b>buying</b> [1] - 512:7</p>	<p><b>Calgary</b> [1] - 501:13</p> <p><b>Canada</b> [7] - 448:20, 449:1, 458:12, 508:11, 532:8, 540:2, 554:7</p> <p><b>Canadian</b> [1] - 546:24</p> <p><b>cannot</b> [4] - 446:5, 470:16, 525:24, 546:3</p> <p><b>capability</b> [17] - 440:23, 447:7, 447:15, 449:21, 450:14, 452:3, 455:4, 459:23, 461:7, 461:17, 461:24, 472:22, 477:22, 478:2, 485:4, 494:18, 554:9</p> <p><b>Capacity</b> [1] - 438:24</p> <p><b>capacity</b> [131] - 443:12, 443:23, 444:1, 444:3, 444:5, 444:6, 444:7, 445:9, 445:15, 445:16, 445:17, 445:21, 446:12, 446:18, 447:13, 447:18, 448:2, 450:14, 451:7, 451:10, 451:13, 451:17, 451:18, 451:20, 452:2, 452:4, 452:7, 452:11, 452:12, 454:5, 454:7, 454:22, 466:4, 466:7, 466:10, 466:15, 466:18, 467:4, 467:5, 467:17, 467:23, 468:9, 468:14, 472:23, 473:8, 476:3, 478:3, 478:6, 478:12, 478:13, 478:14, 478:15, 478:19, 479:25, 480:1, 480:3, 480:4, 480:5, 480:11, 481:11, 481:13, 481:16, 482:21, 482:23, 483:13, 484:14, 484:18, 484:21, 484:25, 485:19, 486:4, 486:16, 486:19, 487:2, 487:14, 487:20, 491:13, 491:15, 491:20, 491:25, 492:3, 492:5, 492:6, 492:8, 492:9, 492:13, 492:17, 492:19, 492:23, 493:3, 493:13, 493:25, 494:16, 506:11, 506:15, 506:17, 507:14, 507:25, 509:9, 510:1, 510:2, 514:18, 514:19, 540:21, 540:23, 541:5, 542:21, 546:11, 546:14, 546:17, 546:18, 548:19, 548:22, 548:24, 548:25, 549:1, 549:2, 549:18, 549:21, 550:9, 550:20, 550:22, 551:6, 551:25, 552:11</p> <p><b>capacity-driven</b> [1] - 478:3</p> <p><b>capital</b> [23] - 445:18, 445:21, 445:23, 453:20, 474:5,</p>	<p>475:11, 475:18, 475:20, 476:9, 476:15, 482:1, 482:7, 483:2, 485:18, 495:13, 495:18, 511:25, 512:13, 512:15, 514:21, 541:17, 553:17, 554:3</p> <p><b>carbon</b> [11] - 506:25, 515:12, 517:17, 517:19, 517:21, 517:23, 518:4, 518:8, 518:13, 553:3, 553:4</p> <p><b>care</b> [3] - 517:9, 517:11, 555:14</p> <p><b>career</b> [1] - 484:2</p> <p><b>careful</b> [2] - 514:16, 539:18</p> <p><b>carefully</b> [4] - 483:14, 499:14, 521:9, 549:9</p> <p><b>Carmack</b> [1] - 555:16</p> <p><b>Carmack-Stewart</b> [1] - 555:16</p> <p><b>Carmacks</b> [3] - 467:14, 548:22, 549:3</p> <p><b>Carmacks-Stewart</b> [3] - 467:14, 548:22, 549:3</p> <p><b>cars</b> [1] - 535:19</p> <p><b>case</b> [30] - 444:9, 444:22, 445:3, 445:18, 446:20, 450:1, 450:5, 454:21, 474:9, 478:6, 481:10, 486:7, 487:14, 500:1, 507:9, 512:2, 512:17, 515:6, 515:20, 516:13, 517:4, 517:13, 517:14, 521:6, 540:11, 541:23, 552:16, 553:5</p> <p><b>Case</b> [1] - 438:24</p> <p><b>cases</b> [2] - 512:22, 513:2</p> <p><b>cash</b> [1] - 515:19</p> <p><b>catch</b> [1] - 537:16</p> <p><b>caught</b> [1] - 526:21</p> <p><b>cautious</b> [1] - 517:8</p> <p><b>cave</b> [1] - 471:15</p> <p><b>Center</b> [1] - 437:2</p> <p><b>centre</b> [1] - 444:13</p> <p><b>cents</b> [4] - 445:11, 474:7, 500:21, 500:22</p> <p><b>CEO</b> [1] - 471:20</p> <p><b>CEOs</b> [1] - 525:7</p> <p><b>certain</b> [2] - 462:10, 488:9</p> <p><b>certainly</b> [5] - 485:4, 487:11, 493:19, 536:23, 537:4</p> <p><b>certainty</b> [3] - 462:10, 462:17, 462:20</p> <p><b>certificate</b> [2] - 477:14</p> <p><b>Certificate</b> [1] - 557:1</p> <p><b>certify</b> [1] - 557:3</p> <p><b>Chair</b> [2] - 437:6, 522:13</p> <p><b>CHAIR</b> [26] - 437:21, 438:17, 439:9, 439:18, 439:24, 441:20, 442:6, 442:22, 473:17, 476:25, 477:8, 490:13, 491:5, 522:9, 522:16, 522:19,</p>	<p>522:24, 523:3, 523:8, 536:13, 536:23, 537:3, 537:17, 537:20, 538:15, 556:13</p> <p><b>chair</b> [1] - 437:7</p> <p><b>Chair's</b> [1] - 493:22</p> <p><b>Chairman</b> [36] - 438:4, 440:11, 442:23, 443:10, 447:24, 452:17, 453:2, 454:20, 459:10, 459:19, 460:5, 460:21, 462:8, 462:20, 463:3, 463:14, 465:11, 465:22, 467:6, 467:20, 469:6, 472:10, 473:6, 473:13, 475:22, 476:19, 477:6, 489:12, 496:6, 536:17, 537:24, 538:5, 553:4, 553:12, 554:15, 556:11</p> <p><b>challenge</b> [5] - 460:1, 529:1, 543:6, 547:13, 553:13</p> <p><b>challenged</b> [2] - 444:8, 457:21</p> <p><b>challenges</b> [1] - 489:20</p> <p><b>change</b> [6] - 474:16, 501:20, 513:16, 514:1, 534:13, 545:19</p> <p><b>changed</b> [2] - 500:14, 524:8</p> <p><b>changes</b> [3] - 476:9, 476:10, 504:11</p> <p><b>changing</b> [1] - 518:23</p> <p><b>charge</b> [3] - 501:11, 501:17, 518:8</p> <p><b>charged</b> [1] - 446:19</p> <p><b>charges</b> [2] - 445:18, 475:12</p> <p><b>Charrette</b> [1] - 457:3</p> <p><b>cheaper</b> [6] - 444:16, 460:25, 461:1, 473:9, 515:23, 556:3</p> <p><b>cheaper-operating</b> [1] - 473:9</p> <p><b>check</b> [3] - 477:2, 479:12, 504:6</p> <p><b>checked</b> [1] - 504:1</p> <p><b>choice</b> [2] - 476:7, 483:6</p> <p><b>choose</b> [3] - 487:9, 487:12, 487:17</p> <p><b>choppy</b> [1] - 446:14</p> <p><b>chose</b> [1] - 525:11</p> <p><b>chosen</b> [2] - 488:3, 527:2</p> <p><b>circumstance</b> [1] - 485:11</p> <p><b>circumstances</b> [4] - 454:25, 478:9, 511:10, 521:18</p> <p><b>cited</b> [1] - 543:19</p> <p><b>citizen</b> [1] - 488:15</p> <p><b>citizens</b> [1] - 535:11</p> <p><b>City</b> [3] - 476:22, 538:11, 557:8</p> <p><b>civil</b> [1] - 489:16</p> <p><b>claim</b> [1] - 529:5</p> <p><b>claims</b> [1] - 535:5</p> <p><b>Clarke</b> [1] - 437:12</p> <p><b>clean</b> [1] - 536:19</p> <p><b>cleaner</b> [2] - 473:8, 556:3</p>
	<p><b>C</b></p>			
	<p><b>C-2</b> [1] - 510:6</p> <p><b>C-48</b> [1] - 498:23</p> <p><b>C-5</b> [1] - 510:6</p> <p><b>calculated</b> [1] - 506:3</p>			

## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p><b>cleaner-burning</b> [1] - 473:8</p> <p><b>clear</b> [3] - 475:25, 519:15, 544:25</p> <p><b>clearly</b> [11] - 448:9, 453:3, 454:14, 454:21, 456:20, 467:22, 469:7, 473:7, 478:3, 540:21, 541:12</p> <p><b>clients</b> [2] - 541:15, 549:7</p> <p><b>climate</b> [2] - 528:4, 534:13</p> <p><b>close</b> [2] - 525:6, 556:16</p> <p><b>closely</b> [1] - 491:21</p> <p><b>closing</b> [1] - 475:23</p> <p><b>coal</b> [2] - 504:8, 504:12</p> <p><b>coast</b> [1] - 542:23</p> <p><b>cocked</b> [1] - 484:19</p> <p><b>cold</b> [2] - 470:20, 471:12</p> <p><b>Cole's</b> [1] - 441:16</p> <p><b>collects</b> [1] - 458:23</p> <p><b>Columbia</b> [17] - 449:18, 450:1, 450:5, 455:11, 494:2, 494:5, 494:9, 504:23, 504:25, 505:3, 518:4, 518:12, 521:19, 522:1, 539:11, 542:23, 550:14</p> <p><b>column</b> [1] - 510:7</p> <p><b>combined</b> [1] - 521:21</p> <p><b>combustion</b> [2] - 528:3, 528:7</p> <p><b>comforted</b> [1] - 465:13</p> <p><b>coming</b> [7] - 456:18, 457:11, 471:21, 532:4, 532:5, 532:12, 534:18</p> <p><b>commenced</b> [1] - 484:2</p> <p><b>comment</b> [7] - 480:15, 488:16, 496:13, 509:5, 529:9, 530:17, 538:6</p> <p><b>comments</b> [9] - 476:21, 476:22, 488:7, 494:19, 520:17, 520:19, 538:8, 539:11, 540:17</p> <p><b>commercial</b> [1] - 511:12</p> <p><b>Commission</b> [4] - 494:11, 521:19, 521:23, 522:1</p> <p><b>commissioning</b> [1] - 457:10</p> <p><b>commitment</b> [10] - 467:8, 468:15, 468:17, 468:19, 468:23, 480:25, 481:1, 481:5, 481:25, 556:6</p> <p><b>commitments</b> [2] - 463:6, 529:21</p> <p><b>committed</b> [4] - 447:8, 493:15, 494:19, 555:5</p> <p><b>committee</b> [3] - 463:4, 464:15, 520:16</p> <p><b>committees</b> [1] - 524:15</p> <p><b>commodity</b> [8] - 501:4, 501:10, 501:16, 501:20,</p>	<p>502:7, 503:4, 506:2, 512:5</p> <p><b>common</b> [1] - 495:17</p> <p><b>communities</b> [1] - 455:23</p> <p><b>community</b> [2] - 519:5, 551:3</p> <p><b>company</b> [24] - 477:20, 478:20, 479:5, 479:6, 479:19, 479:23, 480:2, 480:9, 481:3, 481:8, 482:14, 483:1, 484:13, 485:3, 485:24, 486:2, 486:10, 487:7, 487:12, 487:22, 488:2, 526:1, 533:8, 551:24</p> <p><b>compare</b> [1] - 510:17</p> <p><b>compared</b> [9] - 445:24, 446:16, 446:21, 474:13, 475:13, 475:18, 476:15, 511:15, 513:3</p> <p><b>comparing</b> [2] - 472:14, 512:21</p> <p><b>comparison</b> [2] - 482:4, 517:22</p> <p><b>comparisons</b> [4] - 511:19, 511:20, 511:24, 517:20</p> <p><b>complete</b> [2] - 438:5, 557:4</p> <p><b>completed</b> [3] - 439:13, 494:15, 495:5</p> <p><b>completely</b> [2] - 502:16, 512:17</p> <p><b>complex</b> [2] - 509:20, 518:22</p> <p><b>complexities</b> [1] - 534:5</p> <p><b>compliance</b> [1] - 464:18</p> <p><b>component</b> [8] - 448:15, 448:22, 451:25, 487:9, 495:11, 527:25, 545:5, 545:6</p> <p><b>components</b> [1] - 524:15</p> <p><b>comprehensive</b> [2] - 465:2, 465:13</p> <p><b>comprehensively</b> [2] - 464:13, 465:12</p> <p><b>comprehensiveness</b> [1] - 463:5</p> <p><b>concept</b> [6] - 450:9, 451:20, 508:7, 508:12, 512:16, 518:9</p> <p><b>concepts</b> [2] - 491:18, 491:20</p> <p><b>concern</b> [6] - 488:19, 488:20, 489:5, 497:11, 529:13, 530:23</p> <p><b>concerned</b> [7] - 497:12, 526:3, 526:24, 535:11, 536:10, 543:16</p> <p><b>concerns</b> [2] - 464:12, 488:20</p> <p><b>CONCLUDED</b> [1] - 556:23</p> <p><b>concludes</b> [2] - 489:9, 490:10</p> <p><b>conclusion</b> [1] - 553:12</p> <p><b>conclusions</b> [2] - 465:14, 520:20</p> <p><b>concomitant</b> [1] -</p>	<p>488:25</p> <p><b>concrete</b> [2] - 470:11, 470:22</p> <p><b>condition</b> [1] - 493:9</p> <p><b>conditions</b> [6] - 449:24, 463:2, 463:12, 474:11, 499:2, 515:23</p> <p><b>Conference</b> [1] - 437:2</p> <p><b>confidence</b> [2] - 487:18, 520:24</p> <p><b>confidential</b> [1] - 519:12</p> <p><b>confines</b> [1] - 511:23</p> <p><b>confirm</b> [2] - 454:10, 492:25</p> <p><b>confirmation</b> [1] - 524:18</p> <p><b>confirmed</b> [2] - 453:17, 463:15</p> <p><b>confused</b> [1] - 491:22</p> <p><b>confusing</b> [1] - 492:1</p> <p><b>confusion</b> [1] - 510:19</p> <p><b>conjunction</b> [1] - 541:3</p> <p><b>connected</b> [1] - 555:11</p> <p><b>connection</b> [2] - 467:16, 478:4</p> <p><b>consciousness</b> [1] - 471:16</p> <p><b>Conservation</b> [1] - 437:15</p> <p><b>conservative</b> [4] - 444:7, 474:21, 474:23, 475:10</p> <p><b>consider</b> [5] - 484:11, 489:7, 490:1, 506:24, 539:3</p> <p><b>considerable</b> [3] - 487:11, 489:20, 550:8</p> <p><b>considerably</b> [1] - 457:5</p> <p><b>consideration</b> [5] - 464:11, 502:23, 517:25, 518:1, 521:12</p> <p><b>considerations</b> [3] - 458:10, 477:21, 517:15</p> <p><b>considered</b> [23] - 466:24, 481:17, 482:16, 482:19, 490:1, 506:8, 506:12, 506:14, 513:9, 521:9, 530:1, 542:21, 548:11, 548:12, 548:13, 549:5, 549:11, 549:12, 549:25, 550:13, 552:13, 552:16</p> <p><b>considering</b> [2] - 457:13, 464:17</p> <p><b>consist</b> [1] - 501:2</p> <p><b>consistent</b> [1] - 444:20</p> <p><b>consolidated</b> [1] - 479:8</p> <p><b>consolidation</b> [1] - 479:4</p> <p><b>construction</b> [2] - 464:3, 504:10</p> <p><b>consult</b> [1] - 535:1</p> <p><b>consultants</b> [1] - 491:17</p> <p><b>consultation</b> [1] - 519:15</p> <p><b>consultations</b> [1] -</p>	<p>549:6</p> <p><b>Consumers'</b> [1] - 437:16</p> <p><b>contained</b> [3] - 474:21, 483:16, 496:24</p> <p><b>contaminated</b> [1] - 529:18</p> <p><b>Context</b> [1] - 448:6</p> <p><b>context</b> [7] - 448:8, 451:6, 489:14, 491:18, 493:18, 494:23, 525:2</p> <p><b>contingency</b> [1] - 465:3</p> <p><b>continue</b> [8] - 448:21, 450:17, 460:6, 469:14, 476:17, 525:13, 532:22, 552:19</p> <p><b>continued</b> [1] - 474:12</p> <p><b>continues</b> [2] - 448:14, 474:4</p> <p><b>continuing</b> [1] - 454:12</p> <p><b>contract</b> [3] - 455:3, 499:11, 546:13</p> <p><b>contracts</b> [3] - 462:12, 462:13, 529:2</p> <p><b>contractual</b> [2] - 454:23, 546:19</p> <p><b>contradict</b> [2] - 453:16, 459:1</p> <p><b>control</b> [3] - 469:2, 507:16, 507:18</p> <p><b>convened</b> [1] - 477:12</p> <p><b>conversation</b> [1] - 546:8</p> <p><b>Conversion</b> [1] - 497:7</p> <p><b>conversion</b> [2] - 512:4, 524:17</p> <p><b>CONVERSION</b> [1] - 436:8</p> <p><b>conversions</b> [1] - 452:15</p> <p><b>convert</b> [3] - 502:11, 502:12, 524:21</p> <p><b>converting</b> [2] - 502:5, 502:23</p> <p><b>convince</b> [1] - 533:19</p> <p><b>coolant</b> [1] - 495:12</p> <p><b>cooling</b> [1] - 495:17</p> <p><b>cooperates</b> [1] - 515:21</p> <p><b>cooperation</b> [2] - 455:22, 456:21</p> <p><b>coordinating</b> [1] - 455:8</p> <p><b>core</b> [1] - 521:4</p> <p><b>corp</b> [1] - 550:18</p> <p><b>corporation</b> [1] - 480:17</p> <p><b>CORPORATION</b> [1] - 436:6</p> <p><b>Corporation</b> [1] - 437:13</p> <p><b>correct</b> [2] - 441:21, 496:22</p> <p><b>corrected</b> [2] - 543:20, 551:23</p> <p><b>cost</b> [96] - 444:22, 445:4, 445:11, 446:22, 446:23, 448:22, 452:15, 453:4, 453:7, 453:9, 453:12, 455:17,</p>	<p>456:16, 456:21, 456:25, 457:19, 457:24, 458:5, 459:1, 460:8, 460:19, 462:9, 462:16, 462:19, 463:13, 463:18, 467:2, 472:17, 473:11, 474:4, 474:6, 474:13, 474:15, 475:7, 475:11, 475:12, 475:16, 476:9, 476:10, 476:13, 476:15, 476:17, 482:1, 482:10, 485:6, 495:19, 500:18, 500:25, 501:2, 501:3, 501:10, 501:13, 501:15, 501:16, 501:20, 501:24, 502:5, 502:7, 502:23, 506:18, 508:1, 509:15, 511:14, 511:25, 514:6, 514:7, 514:8, 514:9, 514:10, 514:13, 514:15, 514:20, 514:21, 514:22, 516:6, 517:15, 517:25, 518:6, 518:11, 518:12, 521:13, 521:15, 527:4, 527:16, 529:5, 529:9, 533:24, 534:17, 545:11, 545:12, 545:17, 553:15, 554:13</p> <p><b>cost-driven</b> [1] - 508:1</p> <p><b>cost-effective</b> [7] - 452:15, 453:4, 455:17, 473:11, 509:15, 521:13, 521:15</p> <p><b>costed</b> [1] - 521:9</p> <p><b>costly</b> [2] - 460:17, 486:8</p> <p><b>costs</b> [47] - 445:18, 445:21, 445:23, 457:22, 457:23, 461:24, 462:8, 462:9, 463:22, 472:16, 474:5, 474:18, 474:19, 475:18, 475:20, 476:5, 477:16, 482:7, 483:2, 503:3, 507:1, 510:17, 512:6, 513:7, 513:22, 513:25, 514:1, 516:25, 518:8, 539:1, 541:12, 542:5, 542:6, 542:10, 545:13, 545:23, 547:24, 552:21, 552:23, 552:24, 553:17, 554:3</p> <p><b>Council</b> [2] - 453:21, 494:10</p> <p><b>counsel</b> [4] - 459:12, 537:1, 539:21, 543:7</p> <p><b>Counsel</b> [1] - 437:9</p> <p><b>count</b> [1] - 504:6</p> <p><b>counteract</b> [1] - 459:24</p> <p><b>counts</b> [1] - 505:20</p> <p><b>couple</b> [5] - 469:17, 491:15, 524:8, 534:4, 554:16</p> <p><b>course</b> [6] - 451:4, 451:17, 489:3, 527:23, 534:12, 536:7</p>
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## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p><b>court</b> [4] - 522:7, 523:9, 536:7, 556:19  <b>Court</b> [4] - 437:18, 437:19, 557:14, 557:20  <b>cover</b> [3] - 497:6, 497:17, 503:8  <b>CPCN</b> [1] - 541:21  <b>create</b> [3] - 528:21, 550:25, 551:14  <b>credentials</b> [2] - 546:22, 547:7  <b>credible</b> [8] - 472:2, 547:4, 549:6, 551:8, 551:10, 552:12, 553:6, 553:23  <b>Creek</b> [3] - 457:7, 509:14, 532:4  <b>criteria</b> [6] - 447:14, 451:7, 451:10, 451:18, 451:19, 541:2  <b>critical</b> [1] - 448:15  <b>critically</b> [2] - 513:20, 513:21  <b>criticism</b> [1] - 549:24  <b>criticized</b> [1] - 543:17  <b>criticizing</b> [1] - 489:25  <b>cross</b> [18] - 453:10, 492:20, 495:20, 497:8, 499:8, 499:16, 502:15, 503:18, 509:2, 510:18, 512:9, 513:9, 513:20, 516:23, 544:6, 548:4, 550:12  <b>cross-examination</b> [13] - 453:10, 492:20, 497:8, 499:16, 503:18, 512:9, 513:9, 513:20, 516:23, 544:6, 548:4, 550:12  <b>cross-examined</b> [4] - 495:20, 499:8, 509:2, 510:18  <b>crossover</b> [1] - 502:21  <b>crude</b> [7] - 458:6, 458:16, 459:2, 502:17, 502:25, 504:20, 508:23  <b>CSR(A)</b> [4] - 437:18, 437:19, 557:13, 557:19  <b>current</b> [6] - 454:4, 463:11, 477:22, 478:1, 481:12, 521:2  <b>Cushing</b> [1] - 504:21  <b>custom</b> [1] - 538:1  <b>customer</b> [3] - 477:17, 552:4, 552:6  <b>customers</b> [15] - 440:19, 443:9, 445:7, 445:10, 445:11, 445:25, 446:19, 449:25, 452:21, 460:6, 487:4, 520:23, 520:25, 540:9  <b>cut</b> [2] - 510:23, 510:25  <b>cycle</b> [1] - 521:21</p>	<p>480:18, 492:25, 542:2  <b>Dated</b> [1] - 557:8  <b>Dawson</b> [9] - 457:7, 467:13, 467:14, 532:4, 555:9, 555:10, 555:13, 555:14, 555:15  <b>days</b> [4] - 491:15, 492:16, 534:4, 538:2  <b>DCF</b> [2] - 540:11, 553:10  <b>deal</b> [12] - 439:16, 450:14, 452:23, 482:24, 488:7, 521:18, 525:9, 533:10, 538:7, 539:10, 546:7, 547:11  <b>dealing</b> [2] - 464:9, 508:5  <b>dealings</b> [1] - 552:5  <b>deals</b> [3] - 441:7, 464:8, 538:10  <b>dealt</b> [11] - 463:22, 465:12, 465:24, 469:15, 472:8, 548:4, 548:23, 548:25, 549:1, 549:16, 550:3  <b>debated</b> [1] - 451:6  <b>debt</b> [1] - 528:25  <b>decades</b> [2] - 458:8, 459:4  <b>December</b> [1] - 471:13  <b>decentralized</b> [1] - 536:5  <b>decision</b> [13] - 462:25, 468:22, 489:1, 514:17, 522:1, 522:11, 522:22, 524:9, 525:7, 535:1, 536:1, 536:11, 539:7  <b>decisions</b> [6] - 478:3, 514:17, 523:20, 524:1, 525:8, 534:23  <b>deck</b> [1] - 530:15  <b>decommissioned</b> [1] - 530:11  <b>decrease</b> [1] - 474:6  <b>deferred</b> [1] - 529:23  <b>defined</b> [1] - 519:19  <b>definitely</b> [1] - 528:22  <b>definition</b> [1] - 517:8  <b>degree</b> [1] - 481:5  <b>delay</b> [1] - 537:25  <b>delayed</b> [1] - 472:1  <b>delays</b> [1] - 469:1  <b>deliberations</b> [2] - 459:16, 462:21  <b>deliver</b> [1] - 487:3  <b>delivered</b> [17] - 497:20, 497:21, 497:22, 498:3, 498:4, 499:22, 499:23, 499:24, 499:25, 500:10, 500:18, 501:24, 502:4, 506:25, 514:22, 515:24  <b>delivering</b> [2] - 487:13, 500:25  <b>delivery</b> [1] - 533:24  <b>Delta</b> [1] - 531:25  <b>demand</b> [9] - 454:2, 504:14, 506:14, 507:1, 507:12, 507:24, 508:8, 526:13, 535:7  <b>demanding</b> [1] -</p>	<p>465:1  <b>demonstrate</b> [4] - 453:3, 474:12, 487:22, 527:9  <b>demonstrated</b> [5] - 454:21, 457:4, 475:25, 485:4, 527:10  <b>demonstrates</b> [5] - 445:7, 454:14, 456:2, 463:10, 473:7  <b>department</b> [2] - 458:23, 469:24  <b>dependable</b> [3] - 492:9, 492:13, 492:17  <b>dependant</b> [1] - 487:9  <b>dependency</b> [2] - 528:20, 535:18  <b>deploring</b> [1] - 535:7  <b>depth</b> [1] - 525:19  <b>derated</b> [1] - 444:1  <b>design</b> [2] - 463:13, 533:7  <b>designated</b> [2] - 541:24, 541:25  <b>despite</b> [1] - 518:18  <b>destroying</b> [1] - 531:12  <b>detail</b> [1] - 443:24  <b>detailed</b> [1] - 545:10  <b>determine</b> [1] - 544:19  <b>determined</b> [2] - 464:15, 539:1  <b>determining</b> [2] - 505:12, 521:14  <b>developed</b> [3] - 467:1, 467:4, 472:21  <b>developers</b> [1] - 509:12  <b>development</b> [5] - 457:5, 458:11, 466:24, 534:24, 550:17  <b>developments</b> [2] - 466:25, 482:18  <b>dictionary</b> [1] - 517:8  <b>Diesel</b> [1] - 497:7  <b>diesel</b> [100] - 441:5, 444:11, 444:17, 445:10, 445:12, 446:1, 446:15, 446:17, 447:2, 447:22, 450:10, 452:10, 452:13, 452:15, 455:15, 456:14, 457:22, 459:8, 460:10, 460:17, 460:19, 460:23, 461:4, 461:5, 461:21, 467:3, 467:14, 467:16, 472:11, 472:17, 474:14, 475:13, 475:18, 476:3, 476:4, 476:15, 481:10, 482:5, 482:11, 483:7, 483:12, 485:8, 486:7, 486:12, 487:1, 487:18, 488:24, 497:22, 498:3, 498:4, 498:5, 499:22, 499:25, 500:4, 500:19, 501:24, 502:3, 502:11, 503:2, 503:5, 508:5, 510:20, 510:25, 511:2, 511:22, 512:2, 512:7, 512:15, 512:18, 514:14, 514:15,</p>	<p>515:11, 515:24, 516:2, 524:21, 527:6, 527:7, 527:21, 527:23, 529:6, 530:18, 532:7, 533:3, 536:2, 538:21, 538:25, 539:1, 545:2, 545:6, 545:24, 552:17, 553:7, 553:22, 554:1, 554:5, 555:10, 555:17  <b>DIESEL</b> [1] - 436:7  <b>diesels</b> [7] - 445:21, 445:23, 446:8, 473:3, 511:6, 551:17, 555:13  <b>differ</b> [1] - 519:7  <b>difference</b> [16] - 462:4, 466:6, 472:16, 472:18, 474:13, 478:2, 478:4, 483:6, 486:12, 512:2, 515:25, 516:1, 516:5, 529:6, 539:19, 544:23  <b>different</b> [7] - 479:9, 481:23, 487:23, 547:4, 548:16, 550:2, 550:24  <b>differential</b> [1] - 483:11  <b>difficult</b> [3] - 479:14, 494:23, 513:4  <b>difficulty</b> [3] - 459:25, 469:1, 478:9  <b>directed</b> [2] - 453:21, 494:9  <b>directions</b> [1] - 494:10  <b>directive</b> [1] - 494:5  <b>directly</b> [1] - 446:22  <b>directors</b> [1] - 525:25  <b>discernible</b> [1] - 463:13  <b>disconnected</b> [1] - 526:9  <b>discounted</b> [2] - 515:19, 526:9  <b>discover</b> [1] - 492:19  <b>discovered</b> [1] - 492:23  <b>discretionary</b> [1] - 464:19  <b>discuss</b> [3] - 463:9, 491:13, 535:15  <b>discussed</b> [6] - 443:24, 452:24, 495:5, 499:15, 517:24, 546:20  <b>discussion</b> [10] - 448:1, 454:12, 458:2, 478:25, 481:21, 486:14, 494:22, 496:19, 511:7, 511:12  <b>discussions</b> [6] - 456:5, 479:2, 511:11, 519:3, 519:6, 552:7  <b>dishwasher</b> [1] - 508:14  <b>disingenuous</b> [1] - 549:8  <b>dismiss</b> [1] - 516:22  <b>displacement</b> [2] - 475:1, 514:12  <b>displacing</b> [2] - 467:2, 514:13  <b>disposal</b> [1] - 479:20  <b>dispute</b> [4] - 480:20, 480:22, 493:17, 541:18  <b>disputed</b> [1] - 541:18</p>	<p><b>disseminates</b> [1] - 458:24  <b>distribution</b> [2] - 463:8, 463:17  <b>distributor</b> [1] - 533:12  <b>document</b> [5] - 438:14, 438:15, 438:23, 440:8, 442:25  <b>documents</b> [4] - 489:13, 489:21, 489:22, 490:7  <b>dollars</b> [6] - 458:6, 459:2, 463:18, 527:5, 534:17, 534:18  <b>domain</b> [1] - 521:11  <b>domestic</b> [4] - 457:5, 457:14, 458:12, 515:15  <b>done</b> [22] - 445:23, 452:22, 469:20, 470:3, 479:11, 488:19, 503:11, 505:12, 505:13, 507:15, 510:4, 512:20, 513:5, 523:12, 527:9, 530:5, 530:6, 532:16, 533:23, 537:8, 541:8, 553:23  <b>doubt</b> [2] - 450:11, 478:19  <b>down</b> [19] - 468:2, 470:20, 476:5, 476:6, 486:23, 501:2, 501:24, 524:10, 531:2, 531:23, 532:13, 532:17, 532:23, 533:15, 534:6, 534:9, 536:2, 555:14, 557:5  <b>downplayed</b> [1] - 481:8  <b>downtown</b> [1] - 528:9  <b>draft</b> [7] - 462:24, 463:11, 464:2, 464:13, 464:16, 464:20, 520:14  <b>dramatic</b> [1] - 446:2  <b>dramatically</b> [1] - 446:24  <b>drastically</b> [1] - 535:17  <b>draw</b> [1] - 520:20  <b>drilling</b> [1] - 529:15  <b>drive</b> [2] - 446:3, 451:19  <b>driven</b> [4] - 443:11, 478:3, 486:4, 508:1  <b>drives</b> [2] - 444:2, 446:9  <b>driving</b> [1] - 544:24  <b>drought</b> [4] - 449:22, 449:23, 461:4, 478:7  <b>DSM</b> [11] - 481:2, 481:3, 482:19, 507:13, 508:7, 517:23, 549:13, 549:14, 549:18, 550:1, 552:15  <b>dual</b> [1] - 498:9  <b>dual-fuel</b> [1] - 498:9  <b>due</b> [4] - 452:13, 468:5, 483:22, 552:25  <b>during</b> [15] - 442:12, 443:24, 451:9, 453:19, 458:2, 464:25, 466:2, 466:16, 469:3,</p>
<b>D</b>				
<p><b>daily</b> [1] - 532:10  <b>dam</b> [1] - 528:8  <b>dash</b> [1] - 538:19  <b>data</b> [1] - 507:16  <b>date</b> [4] - 462:15,</p>	<p>480:18, 492:25, 542:2  <b>Dated</b> [1] - 557:8  <b>Dawson</b> [9] - 457:7, 467:13, 467:14, 532:4, 555:9, 555:10, 555:13, 555:14, 555:15  <b>days</b> [4] - 491:15, 492:16, 534:4, 538:2  <b>DCF</b> [2] - 540:11, 553:10  <b>deal</b> [12] - 439:16, 450:14, 452:23, 482:24, 488:7, 521:18, 525:9, 533:10, 538:7, 539:10, 546:7, 547:11  <b>dealing</b> [2] - 464:9, 508:5  <b>dealings</b> [1] - 552:5  <b>deals</b> [3] - 441:7, 464:8, 538:10  <b>dealt</b> [11] - 463:22, 465:12, 465:24, 469:15, 472:8, 548:4, 548:23, 548:25, 549:1, 549:16, 550:3  <b>debated</b> [1] - 451:6  <b>debt</b> [1] - 528:25  <b>decades</b> [2] - 458:8, 459:4  <b>December</b> [1] - 471:13  <b>decentralized</b> [1] - 536:5  <b>decision</b> [13] - 462:25, 468:22, 489:1, 514:17, 522:1, 522:11, 522:22, 524:9, 525:7, 535:1, 536:1, 536:11, 539:7  <b>decisions</b> [6] - 478:3, 514:17, 523:20, 524:1, 525:8, 534:23  <b>deck</b> [1] - 530:15  <b>decommissioned</b> [1] - 530:11  <b>decrease</b> [1] - 474:6  <b>deferred</b> [1] - 529:23  <b>defined</b> [1] - 519:19  <b>definitely</b> [1] - 528:22  <b>definition</b> [1] - 517:8  <b>degree</b> [1] - 481:5  <b>delay</b> [1] - 537:25  <b>delayed</b> [1] - 472:1  <b>delays</b> [1] - 469:1  <b>deliberations</b> [2] - 459:16, 462:21  <b>deliver</b> [1] - 487:3  <b>delivered</b> [17] - 497:20, 497:21, 497:22, 498:3, 498:4, 499:22, 499:23, 499:24, 499:25, 500:10, 500:18, 501:24, 502:4, 506:25, 514:22, 515:24  <b>delivering</b> [2] - 487:13, 500:25  <b>delivery</b> [1] - 533:24  <b>Delta</b> [1] - 531:25  <b>demand</b> [9] - 454:2, 504:14, 506:14, 507:1, 507:12, 507:24, 508:8, 526:13, 535:7  <b>demanding</b> [1] -</p>	<p>465:1  <b>demonstrate</b> [4] - 453:3, 474:12, 487:22, 527:9  <b>demonstrated</b> [5] - 454:21, 457:4, 475:25, 485:4, 527:10  <b>demonstrates</b> [5] - 445:7, 454:14, 456:2, 463:10, 473:7  <b>department</b> [2] - 458:23, 469:24  <b>dependable</b> [3] - 492:9, 492:13, 492:17  <b>dependant</b> [1] - 487:9  <b>dependency</b> [2] - 528:20, 535:18  <b>deploring</b> [1] - 535:7  <b>depth</b> [1] - 525:19  <b>derated</b> [1] - 444:1  <b>design</b> [2] - 463:13, 533:7  <b>designated</b> [2] - 541:24, 541:25  <b>despite</b> [1] - 518:18  <b>destroying</b> [1] - 531:12  <b>detail</b> [1] - 443:24  <b>detailed</b> [1] - 545:10  <b>determine</b> [1] - 544:19  <b>determined</b> [2] - 464:15, 539:1  <b>determining</b> [2] - 505:12, 521:14  <b>developed</b> [3] - 467:1, 467:4, 472:21  <b>developers</b> [1] - 509:12  <b>development</b> [5] - 457:5, 458:11, 466:24, 534:24, 550:17  <b>developments</b> [2] - 466:25, 482:18  <b>dictionary</b> [1] - 517:8  <b>Diesel</b> [1] - 497:7  <b>diesel</b> [100] - 441:5, 444:11, 444:17, 445:10, 445:12, 446:1, 446:15, 446:17, 447:2, 447:22, 450:10, 452:10, 452:13, 452:15, 455:15, 456:14, 457:22, 459:8, 460:10, 460:17, 460:19, 460:23, 461:4, 461:5, 461:21, 467:3, 467:14, 467:16, 472:11, 472:17, 474:14, 475:13, 475:18, 476:3, 476:4, 476:15, 481:10, 482:5, 482:11, 483:7, 483:12, 485:8, 486:7, 486:12, 487:1, 487:18, 488:24, 497:22, 498:3, 498:4, 498:5, 499:22, 499:25, 500:4, 500:19, 501:24, 502:3, 502:11, 503:2, 503:5, 508:5, 510:20, 510:25, 511:2, 511:22, 512:2, 512:7, 512:15, 512:18, 514:14, 514:15,</p>	<p>515:11, 515:24, 516:2, 524:21, 527:6, 527:7, 527:21, 527:23, 529:6, 530:18, 532:7, 533:3, 536:2, 538:21, 538:25, 539:1, 545:2, 545:6, 545:24, 552:17, 553:7, 553:22, 554:1, 554:5, 555:10, 555:17  <b>DIESEL</b> [1] - 436:7  <b>diesels</b> [7] - 445:21, 445:23, 446:8, 473:3, 511:6, 551:17, 555:13  <b>differ</b> [1] - 519:7  <b>difference</b> [16] - 462:4, 466:6, 472:16, 472:18, 474:13, 478:2, 478:4, 483:6, 486:12, 512:2, 515:25, 516:1, 516:5, 529:6, 539:19, 544:23  <b>different</b> [7] - 479:9, 481:23, 487:23, 547:4, 548:16, 550:2, 550:24  <b>differential</b> [1] - 483:11  <b>difficult</b> [3] - 479:14, 494:23, 513:4  <b>difficulty</b> [3] - 459:25, 469:1, 478:9  <b>directed</b> [2] - 453:21, 494:9  <b>directions</b> [1] - 494:10  <b>directive</b> [1] - 494:5  <b>directly</b> [1] - 446:22  <b>directors</b> [1] - 525:25  <b>discernible</b> [1] - 463:13  <b>disconnected</b> [1] - 526:9  <b>discounted</b> [2] - 515:19, 526:9  <b>discover</b> [1] - 492:19  <b>discovered</b> [1] - 492:23  <b>discretionary</b> [1] - 464:19  <b>discuss</b> [3] - 463:9, 491:13, 535:15  <b>discussed</b> [6] - 443:24, 452:24, 495:5, 499:15, 517:24, 546:20  <b>discussion</b> [10] - 448:1, 454:12, 458:2, 478:25, 481:21, 486:14, 494:22, 496:19, 511:7, 511:12  <b>discussions</b> [6] - 456:5, 479:2, 511:11, 519:3, 519:6, 552:7  <b>dishwasher</b> [1] - 508:14  <b>disingenuous</b> [1] - 549:8  <b>dismiss</b> [1] - 516:22  <b>displacement</b> [2] - 475:1, 514:12  <b>displacing</b> [2] - 467:2, 514:13  <b>disposal</b> [1] - 479:20  <b>dispute</b> [4] - 480:20, 480:22, 493:17, 541:18  <b>disputed</b> [1] - 541:18</p>	<p><b>disseminates</b> [1] - 458:24  <b>distribution</b> [2] - 463:8, 463:17  <b>distributor</b> [1] - 533:12  <b>document</b> [5] - 438:14, 438:15, 438:23, 440:8, 442:25  <b>documents</b> [4] - 489:13, 489:21, 489:22, 490:7  <b>dollars</b> [6] - 458:6, 459:2, 463:18, 527:5, 534:17, 534:18  <b>domain</b> [1] - 521:11  <b>domestic</b> [4] - 457:5, 457:14, 458:12, 515:15  <b>done</b> [22] - 445:23, 452:22, 469:20, 470:3, 479:11, 488:19, 503:11, 505:12, 505:13, 507:15, 510:4, 512:20, 513:5, 523:12, 527:9, 530:5, 530:6, 532:16, 533:23, 537:8, 541:8, 553:23  <b>doubt</b> [2] - 450:11, 478:19  <b>down</b> [19] - 468:2, 470:20, 476:5, 476:6, 486:23, 501:2, 501:24, 524:10, 531:2, 531:23, 532:13, 532:17, 532:23, 533:15, 534:6, 534:9, 536:2, 555:14, 557:5  <b>downplayed</b> [1] - 481:8  <b>downtown</b> [1] - 528:9  <b>draft</b> [7] - 462:24, 463:11, 464:2, 464:13, 464:16, 464:20, 520:14  <b>dramatic</b> [1] - 446:2  <b>dramatically</b> [1] - 446:24  <b>drastically</b> [1] - 535:17  <b>draw</b> [1] - 520:20  <b>drilling</b> [1] - 529:15  <b>drive</b> [2] - 446:3, 451:19  <b>driven</b> [4] - 443:11, 478:3, 486:4, 508:1  <b>drives</b> [2] - 444:2, 446:9  <b>driving</b> [1] - 544:24  <b>drought</b> [4] - 449:22, 449:23, 461:4, 478:7  <b>DSM</b> [11] - 481:2, 481:3, 482:19, 507:13, 508:7, 517:23, 549:13, 549:14, 549:18, 550:1, 552:15  <b>dual</b> [1] - 498:9  <b>dual-fuel</b> [1] - 498:9  <b>due</b> [4] - 452:13, 468:5, 483:22, 552:25  <b>during</b> [15] - 442:12, 443:24, 451:9, 453:19, 458:2, 464:25, 466:2, 466:16, 469:3,</p>

470:14, 475:21, 507:24, 508:13, 539:19, 548:7	<b>element</b> [3] - 454:20, 455:9, 487:8 <b>elements</b> [2] - 477:21, 478:10 <b>eludes</b> [1] - 512:17 <b>embargoed</b> [1] - 526:6 <b>emergencies</b> [2] - 460:18, 526:13 <b>emergency</b> [5] - 461:2, 478:7, 481:10, 530:8, 530:9 <b>emphasize</b> [3] - 473:23, 486:15, 495:7 <b>emphasized</b> [2] - 473:22, 486:2 <b>employ</b> [1] - 517:9 <b>enable</b> [1] - 487:17 <b>enables</b> [1] - 478:8 <b>encouraged</b> [1] - 480:24 <b>end</b> [6] - 442:18, 443:19, 443:25, 451:25, 468:11, 554:18 <b>end-of-life</b> [2] - 451:25, 468:11 <b>ended</b> [1] - 527:11 <b>energy</b> [37] - 458:24, 465:9, 466:7, 466:25, 467:2, 467:17, 477:14, 478:2, 491:13, 491:15, 491:20, 491:25, 492:2, 492:5, 492:8, 494:14, 509:5, 509:7, 509:25, 510:1, 510:7, 510:11, 514:19, 514:20, 533:7, 533:9, 535:17, 546:25, 548:19, 548:22, 548:23, 548:25, 549:1, 550:8 <b>ENERGY</b> [1] - 436:6 <b>Energy</b> [56] - 437:13, 439:22, 445:15, 446:6, 447:2, 451:18, 453:4, 453:14, 454:6, 454:15, 454:16, 454:19, 454:25, 455:6, 455:8, 455:11, 455:17, 455:18, 455:23, 456:3, 456:6, 456:15, 456:23, 456:24, 458:18, 458:19, 459:5, 459:6, 465:23, 466:9, 472:21, 474:5, 478:9, 479:5, 479:11, 503:9, 504:4, 504:5, 513:1, 520:22, 526:11, 531:21, 533:6, 542:9, 545:13, 551:10, 552:3, 552:5, 555:12, 555:24, 556:5 <b>Energy's</b> [11] - 440:23, 444:6, 451:10, 455:24, 459:24, 463:6, 463:11, 463:25, 464:2, 467:8, 551:6 <b>engaged</b> [1] - 519:3 <b>engaging</b> [1] - 526:9 <b>engine</b> [2] - 495:11, 498:6 <b>engineer</b> [1] - 479:2 <b>engineers</b> [2] - 479:3, 479:8 <b>engines</b> [48] - 460:7, 460:21, 469:13,	469:21, 470:2, 470:16, 470:17, 471:1, 471:7, 471:14, 471:15, 478:14, 478:16, 478:22, 479:1, 479:10, 479:16, 479:18, 479:21, 479:24, 480:3, 480:6, 480:14, 480:18, 480:21, 481:12, 482:12, 482:13, 487:21, 492:14, 492:16, 495:10, 495:25, 497:10, 497:13, 497:25, 498:5, 498:9, 507:10, 511:22, 512:14, 512:15, 512:18, 514:11, 514:18, 514:21 <b>enhance</b> [2] - 449:7, 486:16 <b>enhanced</b> [2] - 482:19, 488:13 <b>enhancement</b> [2] - 466:11, 481:2 <b>enhancements</b> [1] - 466:8 <b>enormous</b> [1] - 486:11 <b>enter</b> [3] - 454:23, 455:3, 546:19 <b>entered</b> [3] - 438:15, 462:13, 501:9 <b>entitled</b> [1] - 438:23 <b>entrench</b> [1] - 527:15 <b>environment</b> [2] - 444:18, 518:9 <b>environmental</b> [4] - 464:7, 488:20, 504:12, 517:15 <b>equation</b> [3] - 512:23, 531:7, 534:14 <b>equipment</b> [4] - 472:16, 507:18, 513:25, 527:1 <b>equivalent</b> [4] - 458:6, 459:2, 476:3, 517:1 <b>especially</b> [5] - 460:25, 508:10, 522:6, 549:7, 551:8 <b>essential</b> [2] - 503:3, 520:25 <b>Essentially</b> [1] - 507:21 <b>essentially</b> [16] - 479:22, 489:18, 492:17, 494:12, 498:19, 500:1, 502:1, 503:12, 503:14, 503:21, 507:5, 508:19, 510:15, 515:1, 515:21, 519:12 <b>establish</b> [1] - 472:18 <b>established</b> [2] - 475:5, 541:3 <b>estimate</b> [1] - 474:21 <b>estimated</b> [2] - 466:13, 500:25 <b>etcetera</b> [1] - 478:7 <b>Europe</b> [1] - 508:11 <b>eventing</b> [1] - 438:6 <b>event</b> [5] - 456:11, 484:24, 539:13, 542:4, 554:13 <b>eventually</b> [1] - 480:20 <b>eventuate</b> [1] -	485:21 <b>everywhere</b> [1] - 532:5 <b>evidence</b> [119] - 440:7, 441:18, 445:7, 446:7, 451:9, 452:9, 453:3, 453:15, 453:16, 454:14, 454:21, 456:1, 456:2, 456:7, 457:4, 457:12, 457:19, 458:5, 458:25, 459:15, 459:17, 459:19, 459:24, 460:1, 460:2, 460:3, 460:5, 463:10, 463:21, 466:19, 466:21, 468:4, 468:19, 471:24, 472:3, 472:15, 473:6, 474:3, 474:8, 474:22, 478:21, 479:6, 483:19, 486:3, 487:17, 489:14, 489:17, 489:18, 489:21, 489:24, 490:3, 495:20, 496:19, 496:25, 497:3, 498:11, 498:14, 498:17, 498:20, 501:8, 501:23, 502:1, 505:9, 505:11, 505:14, 505:20, 516:7, 517:19, 519:1, 519:10, 520:10, 535:3, 535:22, 539:15, 539:17, 539:20, 539:21, 539:22, 539:23, 540:2, 541:5, 542:13, 542:15, 543:2, 543:7, 543:8, 543:14, 543:22, 544:2, 544:3, 544:13, 544:17, 544:20, 544:21, 545:10, 545:13, 545:22, 546:5, 546:9, 546:10, 546:16, 547:1, 547:3, 547:12, 547:17, 548:1, 548:3, 550:6, 550:10, 550:12, 550:23, 551:9, 551:18, 552:19, 553:13, 554:24 <b>evidence-based</b> [2] - 459:15, 539:20 <b>evidenced</b> [1] - 520:11 <b>evidentiary</b> [1] - 544:8 <b>exact</b> [1] - 542:2 <b>exactly</b> [1] - 518:17 <b>examination</b> [15] - 453:10, 489:13, 492:20, 497:8, 499:16, 503:18, 509:15, 512:9, 513:9, 513:20, 516:23, 544:6, 548:4, 550:12 <b>examine</b> [3] - 483:14, 506:17, 540:14 <b>examined</b> [5] - 495:20, 499:8, 508:8, 509:2, 510:18 <b>example</b> [20] - 450:5, 461:3, 468:1, 474:3, 484:24, 492:6, 492:7, 501:1, 501:19, 504:1,	509:7, 517:17, 518:11, 521:17, 522:3, 522:14, 522:15, 542:12, 551:22 <b>examples</b> [3] - 450:15, 466:11, 467:12 <b>exceeding</b> [1] - 475:14 <b>exceeds</b> [2] - 499:25, 501:16 <b>excellent</b> [1] - 515:4 <b>except</b> [2] - 463:7, 521:3 <b>exception</b> [2] - 461:2, 478:22 <b>excess</b> [4] - 472:5, 475:11, 475:17, 555:24 <b>exchange</b> [1] - 479:13 <b>Executive</b> [1] - 437:10 <b>executive</b> [3] - 463:3, 464:15, 520:16 <b>exercise</b> [3] - 508:2, 513:5, 517:9 <b>exercising</b> [1] - 488:14 <b>exhibit</b> [3] - 438:15, 439:7, 522:17 <b>Exhibit</b> [6] - 441:21, 445:19, 446:20, 464:15, 498:23, 520:15 <b>EXHIBIT</b> [6] - 438:18, 439:10, 441:23, 558:14, 558:16, 558:18 <b>EXHIBITS</b> [1] - 558:12 <b>exist</b> [3] - 512:23, 515:5, 517:3 <b>existence</b> [1] - 513:12 <b>existing</b> [10] - 447:7, 453:18, 474:17, 478:22, 480:6, 482:20, 494:19, 509:12, 510:20, 511:2 <b>exists</b> [1] - 493:3 <b>expand</b> [3] - 507:16, 527:15, 550:22 <b>expanding</b> [2] - 454:1, 480:5 <b>expansion</b> [3] - 453:20, 550:20 <b>expect</b> [4] - 455:22, 479:5, 508:3, 533:23 <b>expectation</b> [3] - 462:14, 499:14, 539:12 <b>expectations</b> [1] - 458:14 <b>expected</b> [9] - 439:4, 459:3, 467:1, 467:3, 476:11, 476:14, 476:17, 515:14, 516:6 <b>expenditures</b> [2] - 493:21, 495:13 <b>expensive</b> [2] - 499:15, 501:21 <b>experience</b> [6] - 482:13, 487:13, 508:10, 523:17, 529:5, 534:4 <b>expert</b> [3] - 483:17, 484:1, 536:9 <b>expertise</b> [2] - 534:7,
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## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p>536:6  <b>experts</b> [3] - 529:10,  535:15, 549:20  <b>explain</b> [8] - 439:21,  440:1, 451:16,  491:10, 491:12,  500:9, 506:1, 512:9  <b>explored</b> [1] - 535:6  <b>exploring</b> [1] -  456:16  <b>explosion</b> [1] -  528:14  <b>export</b> [1] - 458:10  <b>exported</b> [1] - 529:8  <b>exposed</b> [1] - 527:16  <b>exposing</b> [1] -  470:23  <b>expression</b> [1] -  488:18  <b>extending</b> [1] - 459:9  <b>extension</b> [1] -  495:16  <b>extensive</b> [4] -  483:20, 535:9,  548:18, 549:6  <b>extensively</b> [4] -  441:10, 449:12,  449:16, 509:3  <b>extent</b> [3] - 478:18,  480:1, 482:21  <b>external</b> [1] - 449:2  <b>extra</b> [2] - 449:3,  537:25  <b>extraction</b> [2] -  528:1, 529:12  <b>extracts</b> [1] - 471:18  <b>extraordinarily</b> [1] -  478:21  <b>extreme</b> [1] - 484:8  <b>extremely</b> [6] -  474:2, 474:8, 503:23,  522:7, 539:18, 555:8  <b>eyes</b> [1] - 492:1</p>	<p>534:21, 538:22,  541:24, 542:20,  547:20  <b>factor</b> [6] - 463:22,  481:13, 489:6,  530:13, 534:3, 534:13  <b>factors</b> [1] - 506:24  <b>factory</b> [1] - 469:25  <b>factory-trained</b> [1] -  469:25  <b>facts</b> [1] - 494:23  <b>failed</b> [1] - 480:18  <b>fails</b> [1] - 479:21  <b>failure</b> [1] - 496:3  <b>failures</b> [6] - 495:11,  495:22, 495:23,  496:10, 496:17, 497:2  <b>fair</b> [1] - 457:17  <b>fairly</b> [3] - 509:2,  530:1, 543:17  <b>fairness</b> [3] - 490:5,  527:10, 544:8  <b>familiar</b> [3] - 449:16,  487:12, 488:10  <b>far</b> [9] - 450:9, 461:9,  473:10, 496:17,  530:2, 553:25  <b>fashion</b> [2] - 479:4,  489:21  <b>faster</b> [1] - 523:7  <b>favoured</b> [1] - 487:10  <b>FD1</b> [1] - 438:12  <b>feasibility</b> [1] -  474:10  <b>feasible</b> [2] - 465:25,  472:12  <b>features</b> [1] - 449:6  <b>feelings</b> [1] - 534:21  <b>fellow</b> [1] - 469:23  <b>Ferus</b> [3] - 456:25,  457:9, 457:14  <b>Feruses</b> [1] - 458:13  <b>few</b> [8] - 461:12,  461:13, 463:4,  481:18, 523:25,  528:18, 529:2, 548:19  <b>fewer</b> [1] - 527:18  <b>fiddle</b> [1] - 470:3  <b>field</b> [1] - 536:9  <b>fifth</b> [1] - 540:13  <b>Figure</b> [3] - 441:14,  483:19, 486:24  <b>figure</b> [4] - 470:4,  485:23, 502:2, 516:8  <b>figures</b> [3] - 484:19,  484:21, 485:10  <b>filed</b> [4] - 441:12,  441:13, 459:21,  462:11  <b>fill</b> [1] - 502:20  <b>final</b> [1] - 517:5  <b>finally</b> [2] - 441:6,  521:8  <b>financial</b> [6] - 518:5,  518:6, 518:19,  527:16, 527:19,  529:21  <b>fine</b> [6] - 442:17,  471:11, 473:17,  477:8, 523:3, 523:6  <b>finish</b> [1] - 438:5  <b>finite</b> [1] - 527:17  <b>fired</b> [2] - 460:9,  473:9  <b>firm</b> [1] - 492:9  <b>firmly</b> [1] - 443:3  <b>firmness</b> [1] - 539:13  <b>first</b> [22] - 438:10,  440:16, 440:18,  443:2, 443:5, 452:14,</p>	<p>460:15, 460:25,  467:15, 475:17,  476:13, 477:25,  485:13, 485:18,  490:2, 503:20,  523:15, 525:17,  531:4, 534:19,  538:16, 549:22  <b>First</b> [8] - 519:4,  519:8, 531:8, 531:14,  550:13, 550:14,  550:17  <b>firstly</b> [1] - 452:25  <b>fits</b> [1] - 510:12  <b>five</b> [8] - 440:8,  444:10, 452:10,  485:14, 485:15,  531:5, 547:25, 548:5  <b>five-year</b> [1] - 485:15  <b>fixed</b> [1] - 495:12  <b>flare</b> [1] - 527:22  <b>flaring</b> [1] - 528:7  <b>flat</b> [1] - 485:24  <b>flexibility</b> [1] -  467:17  <b>flexible</b> [7] - 447:17,  448:14, 448:23,  449:8, 466:4, 466:10,  467:4  <b>Flexible</b> [1] - 448:7  <b>flight</b> [1] - 537:16  <b>flip</b> [1] - 502:22  <b>flips</b> [2] - 500:1,  500:4  <b>flows</b> [2] - 515:19,  518:7  <b>focus</b> [2] - 441:17,  538:9  <b>focused</b> [3] - 519:24,  520:1, 520:5  <b>follow</b> [1] - 440:11  <b>following</b> [1] -  493:22  <b>follows</b> [1] - 443:18  <b>force</b> [2] - 460:17,  544:24  <b>forced</b> [1] - 531:24  <b>Forecast</b> [1] - 438:24  <b>forecast</b> [33] - 439:3,  443:12, 444:7, 444:8,  444:21, 444:23,  445:2, 445:10,  445:19, 446:20,  447:12, 451:12,  452:7, 457:17,  457:19, 457:21,  458:7, 459:8, 459:12,  459:19, 460:14,  461:14, 466:18,  475:1, 475:10,  500:12, 503:9,  504:18, 512:25,  515:11, 521:4, 547:4  <b>forecasting</b> [2] -  507:6, 547:16  <b>forecasts</b> [21] -  443:7, 444:19, 459:7,  459:13, 460:13,  503:11, 503:16,  503:24, 504:2, 504:5,  513:4, 513:12, 540:1,  540:3, 546:21,  546:24, 547:21,  547:22, 547:23,  548:2, 553:14  <b>foregoing</b> [1] - 557:3  <b>foreseeable</b> [1] -  498:12  <b>forever</b> [1] - 529:18  <b>forgotten</b> [1] - 524:6</p>	<p><b>form</b> [3] - 471:25,  521:2, 541:13  <b>format</b> [2] - 440:10,  494:18  <b>formerly</b> [1] - 513:7  <b>formulate</b> [1] -  536:16  <b>Fort</b> [2] - 457:8,  532:4  <b>Fortin</b> [1] - 437:8  <b>Fortis</b> [18] - 453:17,  454:5, 454:9, 454:15,  454:24, 474:17,  498:15, 498:22,  499:2, 499:4, 499:9,  500:15, 501:19,  506:3, 531:25,  532:13, 532:21, 546:3  <b>FortisBC</b> [1] - 454:13  <b>FortisBC's</b> [1] -  453:5  <b>forward</b> [16] -  468:20, 477:20,  480:2, 480:8, 482:25,  486:17, 489:12,  518:19, 526:23,  535:22, 541:16,  545:14, 550:5,  550:15, 551:15,  553:19  <b>forwards</b> [1] -  491:14  <b>fossil</b> [5] - 527:15,  527:18, 528:19,  528:20, 535:18  <b>four</b> [15] - 460:15,  460:25, 475:8,  475:17, 475:21,  476:13, 481:6,  484:15, 485:13,  485:15, 487:2,  540:10, 548:5,  553:14, 554:2  <b>fourth</b> [1] - 465:15  <b>fraced</b> [1] - 531:6  <b>fracing</b> [1] - 529:16  <b>frame</b> [2] - 475:12,  551:6  <b>framework</b> [1] -  490:6  <b>frankly</b> [4] - 481:6,  503:25, 554:23, 555:8  <b>fray</b> [1] - 488:21  <b>friend</b> [2] - 483:22,  554:19  <b>friends</b> [1] - 476:22  <b>front</b> [2] - 538:14,  544:12  <b>fuel</b> [45] - 444:21,  445:4, 445:11,  445:18, 457:19,  457:21, 458:5, 459:1,  459:13, 460:8,  461:10, 473:24,  474:6, 474:15, 475:1,  475:7, 475:11,  475:16, 476:6,  476:10, 476:17,  483:7, 486:4, 486:8,  486:12, 488:4,  492:14, 492:15,  492:16, 497:10,  497:14, 497:15,  497:16, 498:9, 514:9,  514:11, 527:18,  527:20, 528:20,  529:6, 529:9, 547:24,  553:15, 554:13  <b>fuels</b> [4] - 527:16,  527:17, 528:19,</p>	<p>535:18  <b>fulfilling</b> [1] - 516:16  <b>full</b> [2] - 468:14,  543:12  <b>fully</b> [11] - 447:16,  452:6, 475:20,  476:14, 510:21,  513:15, 522:2, 526:9,  538:24, 550:21  <b>fulsome</b> [1] - 543:18  <b>function</b> [1] - 508:17  <b>functions</b> [1] -  524:14  <b>fundamental</b> [3] -  453:13, 515:5, 546:7  <b>funds</b> [1] - 527:18  <b>future</b> [31] - 444:20,  450:18, 452:12,  452:14, 458:17,  459:13, 460:18,  461:15, 466:24,  472:23, 478:17,  484:6, 485:10,  498:12, 506:25,  507:1, 514:6, 514:17,  514:20, 515:14,  517:11, 524:4, 525:5,  528:5, 531:10,  535:17, 536:11,  536:12, 547:16,  547:22</p>
<b>G</b>				
<p><b>gamble</b> [2] - 471:9  <b>gap</b> [6] - 458:15,  459:8, 461:15, 503:8,  521:4, 548:6  <b>Gas</b> [2] - 497:7,  519:24  <b>gas</b> [104] - 444:16,  455:14, 455:16,  457:17, 457:22,  457:23, 457:24,  458:3, 458:6, 458:15,  459:2, 459:7, 459:8,  460:7, 460:9, 460:12,  460:16, 460:18,  460:19, 460:21,  460:23, 461:5, 461:7,  461:11, 461:13,  461:21, 462:3, 467:3,  472:17, 472:22,  473:9, 473:24,  482:18, 482:19,  483:7, 483:11,  483:23, 484:3, 485:8,  486:23, 492:15,  497:10, 497:18,  497:19, 497:21,  497:25, 499:20,  499:22, 500:10,  500:19, 500:22,  501:3, 501:4, 501:5,  501:6, 501:10,  501:16, 501:18,  501:20, 502:5,  502:12, 502:15,  502:18, 503:4,  503:10, 503:21,  504:8, 504:14,  504:22, 505:8,  505:17, 506:2,  507:10, 511:22,  512:4, 512:14,  512:18, 512:25,  514:11, 514:12,  515:11, 515:15,  521:22, 524:2,  527:21, 527:25,</p>				
<p><b>fabrication</b> [1] -  534:1  <b>fabulous</b> [1] - 554:12  <b>face</b> [1] - 471:16  <b>faces</b> [1] - 515:18  <b>facilitate</b> [2] -  452:14, 473:5  <b>facilities</b> [11] - 447:9,  447:10, 453:19,  455:19, 457:7,  457:15, 458:12,  465:6, 472:18,  472:21, 473:5  <b>facility</b> [14] - 444:13,  450:22, 453:6,  453:20, 454:1,  457:11, 521:22,  527:18, 540:23,  546:11, 550:20,  550:25, 551:2, 551:17  <b>facing</b> [2] - 452:20,  497:7  <b>fact</b> [31] - 443:25,  445:17, 450:3, 450:4,  450:14, 459:25,  475:3, 478:20,  479:20, 481:2, 482:6,  484:7, 485:20,  485:25, 486:1,  486:22, 488:19,  489:2, 500:2, 502:16,  518:18, 520:22,  523:11, 525:1,  525:18, 533:21,</p>	<p><b>F</b></p>	<p><b>flexible</b> [7] - 447:17,  448:14, 448:23,  449:8, 466:4, 466:10,  467:4  <b>Flexible</b> [1] - 448:7  <b>flight</b> [1] - 537:16  <b>flip</b> [1] - 502:22  <b>flips</b> [2] - 500:1,  500:4  <b>flows</b> [2] - 515:19,  518:7  <b>focus</b> [2] - 441:17,  538:9  <b>focused</b> [3] - 519:24,  520:1, 520:5  <b>follow</b> [1] - 440:11  <b>following</b> [1] -  493:22  <b>follows</b> [1] - 443:18  <b>force</b> [2] - 460:17,  544:24  <b>forced</b> [1] - 531:24  <b>Forecast</b> [1] - 438:24  <b>forecast</b> [33] - 439:3,  443:12, 444:7, 444:8,  444:21, 444:23,  445:2, 445:10,  445:19, 446:20,  447:12, 451:12,  452:7, 457:17,  457:19, 457:21,  458:7, 459:8, 459:12,  459:19, 460:14,  461:14, 466:18,  475:1, 475:10,  500:12, 503:9,  504:18, 512:25,  515:11, 521:4, 547:4  <b>forecasting</b> [2] -  507:6, 547:16  <b>forecasts</b> [21] -  443:7, 444:19, 459:7,  459:13, 460:13,  503:11, 503:16,  503:24, 504:2, 504:5,  513:4, 513:12, 540:1,  540:3, 546:21,  546:24, 547:21,  547:22, 547:23,  548:2, 553:14  <b>foregoing</b> [1] - 557:3  <b>foreseeable</b> [1] -  498:12  <b>forever</b> [1] - 529:18  <b>forgotten</b> [1] - 524:6</p>	<p><b>G</b></p>	

## YUB - YEC LNG Project, Volume 3, April 2, 2014

528:1, 528:3, 529:24,  
530:19, 530:20,  
531:5, 531:6, 532:11,  
532:18, 533:12,  
544:23, 545:1, 545:5,  
553:7, 553:8, 554:6,  
554:17  
**GAS** [1] - 436:7  
**gas-fired** [2] - 460:9,  
473:9  
**gas-related** [2] -  
455:14, 472:22  
**gee** [1] - 496:13  
**general** [2] - 441:5,  
542:8  
**generally** [3] - 441:1,  
505:24, 520:1  
**generate** [1] - 449:24  
**generated** [1] - 460:9  
**generating** [4] -  
472:24, 480:10,  
482:23, 484:10  
**generation** [43] -  
447:8, 447:10,  
447:12, 448:13,  
448:14, 448:16,  
448:20, 448:24,  
449:5, 449:9, 449:13,  
449:20, 451:1, 451:4,  
460:9, 460:10, 467:3,  
472:11, 472:17,  
472:23, 475:4, 476:3,  
476:16, 481:1,  
481:24, 481:25,  
482:17, 483:9,  
483:12, 484:18,  
494:8, 494:19, 504:9,  
509:9, 510:20,  
510:24, 511:1, 511:2,  
514:14, 526:5,  
538:21, 538:22,  
538:25  
**Generation** [1] -  
448:7  
**generator** [1] - 509:8  
**generators** [1] -  
526:19  
**geology** [1] - 529:14  
**Gerbrandt** [3] -  
437:19, 557:18,  
557:19  
**gigajoules** [1] -  
500:23  
**gigawatt** [5] -  
466:13, 484:16,  
484:17  
**given** [17] - 439:19,  
445:1, 456:4, 465:19,  
476:8, 498:20,  
498:21, 505:4, 505:5,  
505:14, 509:5,  
521:11, 522:7, 526:1,  
534:22, 538:24, 539:6  
**glaring** [1] - 543:9  
**glaze** [1] - 492:1  
**glitches** [1] - 485:6  
**government** [15] -  
453:8, 456:6, 462:25,  
489:2, 494:5, 494:9,  
524:14, 525:23,  
525:24, 529:19,  
529:23, 530:22,  
533:20, 535:3, 541:24  
**governments** [1] -  
533:17  
**GRA** [3] - 549:1,  
549:2  
**grandchildren** [1] -  
525:13  
**Grande** [2] - 457:7,

457:10  
**graphs** [1] - 483:17  
**great** [1] - 437:24  
**greenfield** [1] -  
466:23  
**greenhouse** [1] -  
528:1  
**Grid** [3] - 438:24,  
448:6, 448:17  
**grid** [22] - 443:12,  
444:6, 445:1, 447:18,  
447:19, 447:22,  
448:11, 448:24,  
449:1, 449:9, 450:6,  
450:8, 450:23,  
451:12, 452:8,  
466:25, 467:24,  
535:7, 535:15, 555:5,  
555:11  
**grid's** [2] - 467:5,  
473:8  
**grids** [2] - 449:3,  
467:16  
**group** [3] - 525:25,  
535:10, 535:11  
**Group** [1] - 437:16  
**groups** [1] - 531:22  
**grown** [1] - 457:5  
**guaranteed** [4] -  
531:5, 532:9, 532:15,  
532:20  
**guess** [8] - 483:3,  
524:10, 530:23,  
531:9, 537:6, 537:14,  
545:4, 556:15  
**GWH** [2] - 509:24,  
510:11

## H

**half** [8] - 442:14,  
477:3, 490:16,  
536:18, 536:21,  
536:24, 536:25,  
537:13  
**hand** [9] - 438:7,  
469:22, 479:15,  
482:12, 489:20,  
495:7, 496:19,  
496:25, 522:4  
**hand..** [1] - 495:6  
**handed** [3] - 438:6,  
438:14, 522:12  
**handle** [1] - 461:6  
**handling** [1] - 513:25  
**hands** [1] - 477:5  
**hard** [3] - 518:11,  
518:12, 522:7  
**hat** [1] - 484:19  
**haul** [2] - 474:19,  
534:1  
**head** [5] - 469:22,  
469:23, 496:6, 517:6,  
523:9  
**headed** [1] - 525:4  
**heading** [5] - 440:16,  
448:6, 451:24, 506:5,  
514:23  
**hear** [5] - 443:15,  
526:15, 526:25,  
527:12, 527:13  
**heard** [58] - 440:6,  
440:7, 443:11,  
443:16, 444:5,  
444:24, 445:14,  
446:4, 447:16,  
449:22, 451:15,  
453:9, 453:15, 454:3,  
454:8, 455:7, 455:21,  
456:4, 456:15, 457:1,

457:12, 457:17,  
458:2, 458:9, 458:22,  
462:2, 462:9, 462:18,  
463:10, 464:4,  
465:22, 466:21,  
468:4, 468:11,  
468:24, 472:15,  
475:9, 475:19, 494:1,  
498:18, 504:2,  
505:16, 511:8,  
514:13, 519:6,  
520:19, 525:17,  
528:12, 530:16,  
532:3, 532:12, 539:4,  
541:5, 544:3, 546:15,  
551:16, 551:17, 553:1  
**Hearing** [1] - 437:11  
**hearing** [18] -  
442:24, 451:9,  
457:21, 458:2, 460:6,  
464:5, 466:16,  
476:23, 477:15,  
486:3, 491:25,  
497:20, 548:22,  
548:23, 548:25,  
549:14, 555:4, 556:16  
**hearings** [4] - 492:2,  
523:13, 548:17, 549:7  
**hearsay** [4] - 478:22,  
478:24, 479:22,  
489:24  
**heat** [2] - 508:18,  
508:25  
**heated** [1] - 552:1  
**heater** [2] - 508:20,  
508:21  
**heaters** [2] - 507:19  
**heating** [1] - 535:19  
**held** [1] - 546:8  
**helicopter** [1] - 527:1  
**help** [6] - 438:8,  
454:16, 473:5,  
491:18, 537:11,  
552:11  
**helped** [1] - 551:14  
**helps** [1] - 441:17  
**Henry** [4] - 437:11,  
438:8, 500:11, 504:22  
**Henry..** [1] - 439:25  
**hereby** [1] - 557:3  
**hidden** [1] - 541:12  
**hide** [1] - 539:14  
**high** [3] - 484:25,  
485:17, 486:22  
**higher** [10] - 457:23,  
461:4, 461:13,  
466:24, 482:1, 482:6,  
497:16, 502:6,  
505:25, 554:17  
**highest** [1] - 483:2  
**highlight** [2] -  
447:25, 451:8  
**highlights** [1] -  
441:18  
**highly** [1] - 465:5  
**himself** [1] - 454:9  
**hiring** [1] - 526:25  
**history** [2] - 461:25,  
494:11  
**holding** [1] - 535:25  
**home** [1] - 535:25  
**homes** [2] - 535:19,  
552:1  
**honesty** [1] - 527:10  
**hook** [1] - 529:11  
**hope** [3] - 441:17,  
525:9, 534:10  
**hoped** [1] - 472:8  
**hopeful** [1] - 442:16  
**hopefully** [1] - 535:2

**hopes** [1] - 463:9  
**hospitals** [1] - 529:4  
**hot** [1] - 507:18  
**Hotel** [1] - 437:1  
**hour** [12] - 442:15,  
460:9, 474:7, 474:16,  
477:3, 490:16,  
500:22, 536:18,  
536:21, 536:24,  
536:25, 537:13  
**hours** [8] - 466:13,  
484:16, 484:17,  
500:23, 507:23  
**however..** [1] -  
479:23  
**Hub** [2] - 500:11,  
504:22  
**humble** [1] - 487:15  
**hundred** [1] - 551:4  
**hundreds** [1] - 527:4  
**hydro** [29] - 444:21,  
447:19, 447:20,  
448:13, 448:18,  
448:19, 448:25,  
449:13, 449:23,  
450:2, 450:10, 466:8,  
466:11, 473:4, 475:4,  
478:10, 482:9,  
482:17, 494:7,  
509:13, 510:13,  
535:8, 542:17, 543:4,  
543:14, 550:25,  
551:2, 555:19, 556:4  
**Hydro** [7] - 494:6,  
494:13, 521:20,  
521:23, 542:18  
**hydro-based** [12] -  
447:19, 447:20,  
448:19, 449:13,  
450:2, 450:10, 473:4,  
494:7, 542:17, 543:4,  
543:14, 556:4  
**hydro-electric** [1] -  
448:13  
**hydroelectric** [1] -  
494:3  
**hydrogen** [1] -  
482:19

## I

**i.e** [6] - 458:3,  
458:13, 459:13,  
473:3, 474:19, 550:1  
**idea** [7] - 440:12,  
482:14, 483:22,  
489:11, 504:9, 525:4,  
527:6  
**identified** [7] - 466:1,  
466:10, 466:17,  
472:12, 495:14,  
509:23, 509:24  
**ignore** [3] - 543:23,  
544:12, 547:6  
**ignores** [1] - 546:9  
**ignoring** [1] - 502:16  
**illiquid** [1] - 498:13  
**illustrates** [2] -  
486:25, 487:1  
**immediate** [1] -  
484:7  
**immediately** [1] -  
479:18  
**impact** [6] - 446:25,  
452:20, 459:16,  
504:14, 504:15,  
517:19  
**impacted** [1] -  
474:16  
**impacts** [3] - 477:17,

528:17, 538:23  
**impartial** [1] - 458:24  
**impassioned** [1] -  
554:24  
**impediment** [1] -  
454:24  
**imply** [1] - 504:11  
**importance** [1] -  
468:2  
**important** [14] -  
455:9, 459:10,  
460:20, 464:11,  
472:20, 491:19,  
497:13, 498:7,  
500:17, 518:15,  
524:6, 527:8, 530:12,  
542:16  
**importantly** [1] -  
468:21  
**improperly** [1] -  
539:15  
**in-depth** [1] - 525:19  
**inappropriate** [1] -  
544:15  
**Inc** [1] - 437:14  
**include** [1] - 465:2  
**included** [2] -  
453:22, 543:5  
**including** [12] -  
443:7, 447:9, 453:18,  
457:6, 457:13,  
475:14, 477:22,  
511:15, 518:8, 528:7,  
548:18, 555:4  
**incorrect** [1] -  
545:14  
**increase** [6] - 445:4,  
446:19, 446:23,  
487:20, 499:10, 510:2  
**increased** [4] -  
480:5, 483:9, 483:12,  
483:13  
**increases** [2] -  
453:11, 474:5  
**increasing** [4] -  
445:12, 446:1,  
446:23, 546:18  
**increasingly** [1] -  
486:13  
**incremental** [1] -  
444:17  
**incurred** [3] -  
542:10, 553:17,  
553:18  
**indeed** [2] - 486:21,  
548:2  
**independent** [1] -  
458:24  
**indicate** [1] - 480:9  
**indicated** [10] -  
452:9, 459:7, 463:8,  
468:25, 469:3, 480:4,  
481:5, 485:12,  
499:20, 500:4  
**indicates** [2] -  
438:21, 485:14  
**indicating** [1] - 539:8  
**indicative** [2] -  
463:5, 500:16  
**indulgence** [1] -  
522:5  
**industrial** [6] - 443:8,  
451:14, 451:15,  
540:8, 552:4  
**industrials** [1] -  
481:9  
**industries** [1] -  
465:10  
**industry** [8] - 491:22,  
500:22, 503:22,

## YUB - YEC LNG Project, Volume 3, April 2, 2014

504:23, 504:25,  
505:3, 508:9, 508:10  
**industry's** [1] - 465:7  
**inevitably** [1] -  
514:14  
**inflation** [1] - 453:11  
**inflation-related** [1] -  
453:11  
**inflows** [1] - 515:22  
**influence** [1] -  
477:17  
**Information** [2] -  
458:19, 504:4  
**information** [21] -  
439:6, 445:1, 456:8,  
458:19, 458:24,  
459:20, 461:11,  
475:23, 496:24,  
500:8, 500:14,  
503:13, 505:10,  
514:25, 515:8, 515:9,  
515:13, 534:22,  
535:4, 543:13, 547:9  
**informed** [1] - 524:7  
**infrastructure** [2] -  
512:3, 516:1  
**ingredient** [1] -  
450:10  
**initial** [2] - 475:8,  
475:21  
**initiatives** [2] -  
482:18, 487:24  
**innovation** [1] -  
535:20  
**innuendo** [5] - 460:3,  
547:19, 547:20,  
547:22, 548:1  
**input** [1] - 537:9  
**insist** [1] - 487:19  
**insofar** [3] - 480:7,  
487:25, 505:21  
**install** [3] - 445:15,  
463:7, 476:2  
**installing** [1] -  
497:25  
**instance** [1] - 501:11  
**instead** [6] - 476:6,  
496:16, 528:19,  
530:18, 544:10, 554:5  
**integral** [1] - 448:21  
**Integrated** [1] -  
448:17  
**integrating** [1] -  
535:7  
**intend** [2] - 452:22,  
452:23  
**intended** [1] - 509:4  
**intending** [1] - 463:9  
**intent** [1] - 486:15  
**intently** [1] - 536:20  
**interconnection** [1] -  
450:4  
**interest** [5] - 489:1,  
489:4, 489:19, 490:2,  
527:14  
**interested** [1] -  
511:13  
**interesting** [1] -  
501:14  
**interim** [1] - 526:20  
**interior** [1] - 542:22  
**Interior** [1] - 494:15  
**intermittent** [2] -  
482:2, 482:7  
**interpret** [3] -  
503:25, 505:5, 521:6  
**interpretation** [2] -  
505:2, 512:24  
**interpretations** [1] -  
513:4

**interprovincial** [1] -  
551:4  
**interrupt** [2] -  
442:12, 523:5  
**interruption** [2] -  
497:15, 498:1  
**interveners** [2] -  
537:7, 537:10  
**intrinsically** [1] -  
478:1  
**introduce** [1] -  
526:18  
**Inuvik** [6] - 455:1,  
455:12, 455:14,  
455:15, 455:19  
**invest** [1] - 536:4  
**invested** [2] -  
514:18, 555:24  
**investment** [6] -  
514:5, 514:8, 514:17,  
528:21, 554:20,  
555:21  
**invite** [10] - 491:16,  
503:17, 513:19,  
513:21, 514:24,  
515:7, 516:10,  
518:21, 518:24,  
520:20  
**involved** [2] - 534:1,  
548:21  
**involves** [1] - 481:25  
**IR** [5] - 501:12,  
503:14, 503:15,  
538:6, 538:19  
**irrelevant** [1] - 543:1  
**IRs** [1] - 465:24  
**Island** [2] - 498:15,  
521:22  
**isolated** [3] - 447:18,  
448:11, 449:1  
**issue** [28] - 452:1,  
453:24, 455:5,  
456:18, 457:16,  
462:8, 463:21, 464:4,  
464:9, 465:24, 468:4,  
469:7, 471:10, 488:8,  
489:10, 492:18,  
494:20, 495:2,  
517:22, 524:5,  
524:17, 530:8,  
540:12, 540:22,  
542:6, 542:11,  
548:11, 549:17  
**issued** [1] - 462:24  
**issues** [16] - 438:20,  
439:14, 441:6,  
447:17, 450:14,  
455:14, 464:8,  
464:12, 469:2, 472:9,  
496:20, 534:24,  
538:10, 539:14,  
549:2, 549:15  
**item** [10] - 439:19,  
440:25, 443:2, 447:4,  
452:17, 465:15,  
473:12, 473:18,  
538:16, 550:4  
**itself** [4] - 485:16,  
487:6, 489:2, 519:13

## J

**Janigan** [7] - 437:16,  
477:1, 490:14,  
491:10, 506:13,  
538:6, 538:18  
**JANIGAN** [5] - 477:5,  
477:10, 477:11,  
537:15, 558:7  
**January** [7] - 450:22,

470:20, 471:13,  
519:23, 520:5, 551:23  
**Jenbacher** [1] -  
497:10  
**jerry** [3] - 468:8,  
470:2, 471:6  
**jerry-rig** [2] - 470:2,  
471:6  
**jerry-rigging** [1] -  
468:8  
**job** [3] - 507:3,  
540:24  
**joint** [2] - 456:16,  
481:4  
**Jones** [3] - 437:18,  
557:12, 557:13  
**jump** [1] - 480:12  
**Jumping** [1] - 531:4  
**jurisdiction** [2] -  
449:15, 533:22  
**jurisdictions** [3] -  
518:17, 541:22, 550:3  
**justify** [3] - 466:25,  
485:16, 529:12

## K

**keep** [5] - 469:21,  
470:5, 476:5, 510:24,  
528:18  
**keepers** [1] - 531:14  
**keeps** [1] - 532:12  
**key** [25] - 440:5,  
440:13, 440:14,  
440:21, 440:24,  
441:3, 441:6, 441:17,  
444:13, 447:25,  
450:16, 450:17,  
451:2, 451:24,  
454:13, 458:14,  
459:22, 460:11,  
473:22, 487:8, 540:5,  
548:8, 548:24  
**kicking** [1] - 535:13  
**kilometre** [1] - 551:4  
**kilowatt** [5] - 460:9,  
474:7, 474:15,  
500:21, 500:23  
**kind** [4] - 481:11,  
484:17, 485:11,  
529:15  
**kinds** [1] - 527:6  
**knocked** [1] - 450:23  
**knowledge** [6] -  
455:10, 503:16,  
503:20, 503:22,  
505:6, 525:17  
**known** [6] - 484:4,  
492:23, 505:17,  
507:17, 525:1, 530:4  
**knows** [6] - 447:16,  
449:15, 468:14,  
538:24, 549:19, 552:3  
**kudos** [1] - 507:4

## L

**Lake** [10] - 466:12,  
509:3, 509:13,  
510:10, 510:13,  
525:17, 550:4,  
550:10, 552:15  
**Lake/Atlin** [1] -  
509:22  
**Laking** [1] - 437:7  
**land** [1] - 531:15  
**landed** [4] - 545:17,  
545:23, 545:24  
**LANDRY** [18] -  
438:4, 438:19,  
439:11, 439:19,  
439:25, 441:22,  
441:24, 441:25,  
442:16, 442:23,  
473:18, 536:17,  
536:25, 537:23,  
537:24, 538:16,  
558:6, 558:10  
**Landry** [7] - 437:13,  
438:1, 491:10,  
536:15, 537:15,  
537:21, 556:14  
**Landry's** [1] - 494:1  
**large** [2] - 461:15,  
536:3  
**largely** [1] - 479:7  
**largest** [1] - 444:13  
**last** [36] - 438:6,  
439:19, 457:6,  
457:22, 457:24,  
457:25, 461:8,  
461:12, 461:21,  
461:25, 462:2, 462:5,  
462:13, 467:7,  
473:12, 473:18,  
474:24, 475:8,  
478:25, 482:13,  
483:20, 484:14,  
486:23, 487:2,  
491:15, 516:11,  
523:25, 524:8,  
524:13, 530:4,  
530:10, 534:4, 548:7,  
554:8, 554:16, 555:25  
**LE** [4] - 543:6, 547:1,  
547:13, 549:7  
**LE's** [1] - 496:21  
**lead** [6] - 469:10,  
469:22, 495:6, 495:7,  
496:19, 496:25  
**lead-in** [1] - 469:10  
**leaders** [1] - 535:16  
**Leading** [1] - 437:14  
**leading** [1] - 546:24  
**leads** [2] - 472:10,  
486:14  
**leaks** [2] - 464:22,  
495:12  
**leaping** [1] - 488:20  
**learned** [2] - 479:2,  
513:10  
**least** [13] - 437:24,  
458:8, 459:4, 487:2,  
489:7, 492:23,  
506:18, 510:23,  
521:17, 531:5, 532:7,  
542:13, 544:20  
**leave** [6] - 468:7,  
525:8, 525:13,  
527:23, 537:12,  
544:18  
**leaving** [1] - 527:16  
**left** [3] - 463:16,  
535:23, 535:25  
**legal** [1] - 544:14  
**legislation** [1] -  
464:19  
**legitimate** [1] -  
523:19  
**Lemke** [1] - 437:10  
**length** [2] - 506:23,  
541:1  
**lengthy** [1] - 537:25  
**Les** [1] - 437:8  
**less** [3] - 445:20,  
460:17, 507:25  
**lesser** [1] - 545:6  
**level** [7] - 499:10,  
513:7, 540:14,  
546:11, 546:14,

546:18, 552:22  
**license** [11] - 518:15,  
518:16, 518:21,  
518:22, 519:1,  
519:11, 520:9,  
523:22, 524:5, 524:7,  
533:17  
**life** [15] - 443:19,  
443:25, 451:25,  
458:4, 460:7, 468:11,  
476:12, 476:18,  
491:24, 495:16,  
507:9, 521:7, 523:21,  
524:16, 528:15  
**lifecycle** [1] - 515:2  
**likely** [8] - 442:7,  
456:2, 458:16, 481:6,  
485:1, 485:5, 485:6,  
485:7  
**limited** [2] - 521:10,  
532:24  
**line** [11] - 463:8,  
467:13, 467:15,  
470:20, 494:14,  
532:4, 532:5, 534:16,  
542:22, 551:5, 555:13  
**lined** [1] - 485:24  
**lines** [4] - 463:17,  
483:5, 549:4, 550:6  
**linked** [1] - 478:1  
**liquefaction** [4] -  
528:2, 545:12,  
545:16, 545:18  
**LIQUEFIED** [1] -  
436:7  
**liquefied** [1] - 528:3  
**Liquefied** [1] -  
519:24  
**liquid** [1] - 497:21  
**list** [3] - 530:25,  
531:2, 549:10  
**listed** [1] - 487:24  
**listen** [1] - 536:20  
**listened** [2] - 534:7,  
536:8  
**litigation** [1] - 489:16  
**litres** [3] - 502:2,  
533:13, 533:16  
**live** [1] - 525:14  
**lived** [3] - 468:23,  
526:13, 526:14  
**living** [1] - 525:6  
**LNG** [93] - 436:8,  
445:24, 446:9,  
446:16, 453:4, 453:7,  
453:17, 455:11,  
455:19, 456:25,  
457:4, 457:14,  
458:10, 458:11,  
464:22, 465:6,  
472:15, 472:19,  
473:10, 474:17,  
474:18, 482:5,  
485:16, 487:4,  
487:16, 488:3,  
488:24, 492:15,  
498:1, 498:3, 498:11,  
498:19, 498:22,  
499:1, 499:7, 499:11,  
499:23, 499:24,  
500:2, 500:20,  
500:25, 501:5,  
501:17, 501:18,  
501:20, 502:5, 502:8,  
502:13, 502:18,  
502:20, 502:23,  
503:5, 504:23,  
504:25, 505:3,  
505:21, 506:25,  
512:2, 512:3, 512:4,

## YUB - YEC LNG Project, Volume 3, April 2, 2014

512:6, 513:8, 514:22, 515:23, 516:1, 519:25, 520:6, 524:17, 524:21, 525:3, 525:20, 527:20, 528:6, 529:6, 529:8, 529:25, 530:2, 531:12, 531:18, 533:2, 533:4, 534:6, 535:5, 536:2, 540:12, 545:11, 545:17, 545:23, 553:18, 553:23, 553:24 <b>load</b> [22] - 443:6, 444:7, 444:13, 445:2, 447:12, 451:12, 451:14, 461:2, 465:20, 475:10, 480:5, 480:10, 480:25, 482:22, 483:13, 486:18, 487:23, 508:18, 530:3, 555:5, 556:9 <b>loads</b> [4] - 443:8, 451:15, 466:25 <b>local</b> [2] - 529:12, 556:20 <b>located</b> [1] - 552:24 <b>logistics</b> [1] - 455:6 <b>long-term</b> [15] - 444:21, 445:10, 445:12, 455:3, 466:14, 475:4, 499:12, 504:18, 515:10, 515:14, 515:17, 523:20, 525:8, 539:1 <b>long-time</b> [1] - 471:21 <b>look</b> [45] - 461:9, 474:23, 483:18, 484:9, 484:22, 493:8, 493:14, 493:17, 494:25, 500:7, 500:13, 500:18, 502:10, 502:12, 503:17, 505:23, 506:20, 508:3, 508:10, 510:6, 511:17, 513:19, 514:25, 515:17, 516:10, 516:17, 516:19, 517:7, 518:21, 518:24, 519:14, 519:21, 521:13, 521:23, 529:4, 534:25, 544:18, 544:19, 547:2, 550:19, 551:8, 552:16, 553:20, 554:14, 556:7 <b>looked</b> [2] - 499:13, 525:18 <b>looking</b> [10] - 482:4, 496:14, 500:21, 502:25, 533:13, 538:25, 546:4, 546:15, 549:22, 556:8 <b>looks</b> [5] - 451:18, 456:12, 461:10, 554:23 <b>lose</b> [1] - 553:7 <b>loses</b> [1] - 479:19 <b>loss</b> [1] - 500:3 <b>lost</b> [1] - 489:17 <b>low</b> [3] - 484:21, 484:25, 485:19 <b>lower</b> [7] - 456:24, 461:5, 482:1, 482:7, 482:10, 513:6, 552:22	<b>Lower</b> [1] - 494:15 <b>lowest</b> [1] - 554:13 <b>lowest-cost</b> [1] - 554:13 <b>luster</b> [1] - 479:19  <b>M</b>  <b>magnitude</b> [1] - 541:17 <b>main</b> [4] - 440:8, 502:13, 523:24, 534:24 <b>Mainland</b> [1] - 494:15 <b>maintenance</b> [2] - 495:2, 495:8 <b>Maissan</b> [1] - 437:15 <b>major</b> [20] - 443:21, 447:4, 453:19, 453:20, 457:16, 458:15, 462:4, 462:7, 462:12, 464:4, 465:15, 494:7, 495:22, 495:23, 496:3, 496:10, 496:16, 497:2, 528:13, 529:4 <b>majority</b> [1] - 520:17 <b>makers</b> [1] - 525:7 <b>malfunctions</b> [1] - 464:13 <b>management</b> [8] - 465:2, 487:7, 497:11, 506:14, 507:12, 517:9, 517:10, 530:3 <b>manager</b> [2] - 470:12, 496:8 <b>mandatory</b> [1] - 495:10 <b>Manitoba</b> [6] - 449:14, 450:2, 543:11, 543:13, 543:15 <b>manner</b> [1] - 472:1 <b>manufacturer</b> [2] - 468:15, 468:16 <b>March</b> [3] - 441:13, 441:15, 462:23 <b>mark</b> [1] - 441:20 <b>marked</b> [5] - 438:17, 439:7, 439:9, 440:2, 441:22 <b>market</b> [10] - 449:17, 453:8, 509:17, 509:18, 509:20, 511:18, 521:24, 545:20 <b>market's</b> [1] - 509:17 <b>markets</b> [1] - 458:12 <b>Marsh</b> [1] - 466:12 <b>mass</b> [1] - 508:22 <b>massive</b> [1] - 528:21 <b>masters</b> [1] - 524:25 <b>match</b> [2] - 516:25, 517:13 <b>material</b> [10] - 452:24, 456:8, 458:5, 459:1, 462:7, 463:17, 463:19, 469:2, 472:16, 476:11 <b>materiality</b> [1] - 553:2 <b>materially</b> [1] - 474:16 <b>math</b> [1] - 501:25 <b>matter</b> [9] - 450:15, 456:11, 476:5, 494:8, 500:2, 503:18, 504:3, 508:17, 542:25	<b>matters</b> [3] - 438:2, 489:9, 556:16 <b>maximum</b> [1] - 533:15 <b>maybes</b> [1] - 460:3 <b>Mayo</b> [9] - 466:12, 467:13, 548:24, 549:3, 555:9, 555:11, 555:15, 555:20 <b>Mayo-Dawson</b> [3] - 467:13, 555:9, 555:15 <b>McLennan</b> [1] - 437:6 <b>mean</b> [5] - 481:10, 517:7, 527:18, 550:19, 550:20 <b>meaning</b> [7] - 445:11, 474:3, 498:13, 506:2, 506:7, 514:9, 515:21 <b>means</b> [5] - 460:21, 464:2, 473:9, 516:22, 554:4 <b>meant</b> [1] - 442:7 <b>measured</b> [3] - 514:7, 514:8, 514:10 <b>mechanic</b> [2] - 469:23, 469:25 <b>mechanical</b> [3] - 469:22, 469:24, 495:8 <b>meet</b> [20] - 444:5, 445:16, 446:12, 446:18, 447:12, 448:2, 449:24, 451:14, 452:2, 452:7, 453:17, 466:9, 466:18, 466:20, 467:4, 468:9, 472:12, 473:7, 473:14, 480:19 <b>meeting</b> [2] - 488:8, 520:12 <b>meetings</b> [2] - 479:7, 488:15 <b>meets</b> [1] - 541:19 <b>megawatt</b> [1] - 466:15 <b>megawatts</b> [10] - 443:12, 443:13, 443:14, 444:1, 444:2, 472:22, 478:14, 510:1, 550:18, 551:1 <b>Member</b> [3] - 437:7, 437:8, 437:8 <b>members</b> [12] - 443:10, 447:24, 452:18, 453:2, 462:21, 467:20, 472:11, 475:22, 476:19, 491:16, 500:7, 537:24 <b>memory</b> [1] - 512:12 <b>mention</b> [2] - 442:7, 543:11 <b>mentioned</b> [7] - 439:12, 443:20, 494:20, 534:12, 539:18, 542:20, 543:10 <b>mentions</b> [1] - 550:4 <b>mess</b> [1] - 525:9 <b>met</b> [2] - 454:9, 481:16 <b>methane</b> [2] - 528:1, 528:4 <b>mid</b> [1] - 464:3 <b>mid-May</b> [1] - 464:3 <b>middle</b> [3] - 523:6, 544:6, 549:8 <b>Middler</b> [1] - 437:15 <b>might</b> [21] - 460:1,	460:19, 462:22, 465:19, 468:12, 477:2, 479:4, 482:15, 482:16, 484:7, 484:11, 484:22, 486:1, 489:12, 511:1, 511:4, 536:18, 543:9, 544:4, 554:2, 554:14 <b>million</b> [31] - 445:12, 445:13, 446:1, 446:22, 446:23, 458:6, 459:2, 463:18, 475:9, 475:13, 475:14, 475:15, 475:16, 475:17, 483:3, 493:16, 511:25, 512:11, 516:3, 516:4, 516:5, 527:17, 528:24, 528:25, 529:2, 534:17, 534:18, 534:20, 555:25 <b>mind</b> [3] - 443:3, 470:24, 546:8 <b>minds</b> [2] - 488:15, 513:16 <b>mine</b> [8] - 444:9, 444:23, 467:16, 511:4, 511:8, 511:12, 551:13, 551:14 <b>mines</b> [5] - 510:20, 510:22, 551:12, 552:15 <b>minimal</b> [1] - 495:14 <b>mining</b> [2] - 524:3, 551:24 <b>Minister</b> [3] - 443:1, 447:6, 488:6 <b>minister</b> [2] - 440:9, 542:1 <b>Minto</b> [6] - 467:15, 551:13, 551:17, 552:10, 555:16, 555:17 <b>minutes</b> [3] - 473:16, 523:2, 536:16 <b>Mirrlees</b> [12] - 438:21, 469:25, 478:13, 480:14, 482:13, 493:5, 493:9, 494:21, 495:18, 496:23, 530:10, 549:3 <b>misstated</b> [1] - 554:15 <b>misunderstanding</b> [1] - 540:5 <b>mitigations</b> [1] - 464:18 <b>MMBTu</b> [2] - 457:25, 458:1 <b>MMBTU</b> [4] - 474:22, 501:1, 501:4, 501:13 <b>MMBTus</b> [1] - 500:23 <b>MMcfs</b> [1] - 500:23 <b>model</b> [1] - 527:2 <b>models</b> [1] - 527:3 <b>modernization</b> [1] - 444:12 <b>modernize</b> [1] - 473:3 <b>moment</b> [7] - 447:23, 456:12, 469:5, 510:5, 539:24, 540:7, 540:15 <b>Monday</b> [4] - 476:24, 520:12, 520:19, 528:13 <b>money</b> [8] - 461:23, 511:13, 512:6, 517:16, 525:21, 526:1, 534:18, 536:3	<b>month</b> [3] - 495:25, 496:1, 542:1 <b>monthly</b> [3] - 469:3, 495:9, 496:2 <b>months</b> [9] - 454:6, 457:6, 457:22, 457:24, 458:1, 462:22, 474:24, 505:22, 524:13 <b>moral</b> [1] - 536:11 <b>morning</b> [4] - 437:21, 470:1, 507:25, 508:16 <b>MORRISON</b> [1] - 469:17 <b>Morrison</b> [32] - 438:12, 440:6, 451:16, 454:3, 454:8, 456:5, 457:1, 457:12, 462:18, 468:12, 468:14, 468:24, 469:7, 470:21, 471:20, 478:23, 479:12, 481:21, 482:8, 532:13, 532:16, 539:25, 544:1, 544:2, 544:7, 544:9, 546:6, 546:10, 546:15, 549:17, 549:19, 551:18 <b>Morrison's</b> [1] - 544:13 <b>most</b> [4] - 473:10, 481:22, 521:12, 540:23 <b>move</b> [18] - 454:22, 490:17, 493:24, 494:17, 499:18, 500:15, 506:5, 514:23, 517:5, 518:14, 518:19, 531:19, 531:22, 532:6, 534:9, 535:21, 537:6, 554:9 <b>moved</b> [1] - 534:6 <b>moving</b> [1] - 493:12 <b>Mt</b> [1] - 526:4 <b>must</b> [4] - 481:16, 523:25, 524:1, 527:8
<b>N</b>				
<b>name</b> [1] - 548:19 <b>Nation</b> [4] - 550:13, 550:14, 550:15, 550:17 <b>National</b> [5] - 459:6, 503:9, 504:4, 513:1, 531:21 <b>Nations</b> [4] - 519:4, 519:8, 531:8, 531:14 <b>NATURAL</b> [1] - 436:7 <b>natural</b> [64] - 442:10, 444:16, 457:17, 459:7, 461:5, 462:3, 467:3, 473:24, 482:18, 482:19, 483:7, 483:11, 483:23, 485:8, 486:23, 492:15, 497:10, 497:18, 497:19, 497:21, 497:25, 499:19, 499:22, 500:10, 501:3, 501:5, 501:6, 501:18, 501:20, 502:5, 502:12, 502:15, 502:17, 503:4, 503:10, 504:8, 504:14, 504:22,				

## YUB - YEC LNG Project, Volume 3, April 2, 2014

505:8, 505:17, 506:2, 507:9, 511:22, 512:4, 512:14, 512:18, 512:24, 514:11, 514:12, 515:11, 521:22, 527:25, 528:3, 529:24, 530:18, 530:20, 532:11, 544:23, 545:1, 545:5, 553:7, 553:8, 554:6, 554:17 <b>Natural</b> [2] - 497:7, 519:24 <b>nature</b> [2] - 460:2, 465:13 <b>near</b> [12] - 443:7, 456:24, 457:4, 457:19, 458:3, 466:9, 474:12, 475:2, 476:8, 478:16, 550:24, 553:2 <b>near-term</b> [5] - 443:7, 456:24, 457:4, 457:19, 476:8 <b>NEB</b> [3] - 458:7, 546:22, 547:5 <b>necessarily</b> [3] - 464:9, 472:7, 524:22 <b>necessary</b> [1] - 450:10 <b>need</b> [61] - 440:16, 442:3, 442:8, 443:6, 443:11, 444:2, 444:4, 445:16, 447:17, 448:2, 448:4, 451:4, 451:20, 452:5, 453:24, 455:2, 455:4, 466:3, 466:4, 466:10, 466:20, 467:23, 468:1, 472:13, 473:2, 475:25, 476:2, 477:22, 477:25, 478:15, 478:18, 479:25, 480:1, 480:4, 480:5, 480:11, 480:19, 480:23, 481:11, 481:15, 483:17, 484:20, 486:19, 493:5, 493:23, 493:25, 494:3, 494:20, 508:1, 508:22, 512:5, 512:6, 512:22, 513:2, 514:18, 521:13, 526:12, 534:22, 535:21, 539:3 <b>needed</b> [13] - 444:5, 444:14, 446:12, 446:18, 449:4, 451:14, 452:7, 472:19, 478:6, 481:14, 546:19, 556:4 <b>needing</b> [3] - 461:2, 495:15, 505:21 <b>needs</b> [8] - 449:24, 451:19, 454:5, 485:19, 487:8, 491:18, 505:21, 509:21 <b>negative</b> [1] - 528:17 <b>negatives</b> [1] - 530:15 <b>Nelson</b> [2] - 457:8, 532:4 <b>net</b> [3] - 446:21, 515:2, 553:10 <b>never</b> [11] - 479:11, 493:1, 497:4, 504:1, 508:8, 517:23, 534:10, 543:10, 544:10, 547:14,	551:19 <b>new</b> [50] - 441:5, 444:2, 445:15, 445:17, 445:21, 445:23, 446:11, 446:12, 446:15, 446:17, 447:2, 452:11, 456:14, 458:11, 466:10, 466:15, 472:11, 472:18, 473:8, 474:14, 475:13, 475:18, 476:3, 476:4, 476:15, 481:1, 481:24, 482:17, 485:3, 485:5, 486:7, 486:12, 488:21, 494:14, 496:18, 504:10, 504:12, 508:9, 526:19, 545:21, 545:22, 550:25, 552:17, 553:6, 553:7, 554:1 <b>next</b> [37] - 438:15, 439:7, 440:22, 444:12, 452:11, 454:6, 457:16, 458:8, 458:16, 459:4, 459:9, 459:20, 462:6, 462:7, 471:10, 471:13, 473:2, 477:1, 481:6, 494:17, 496:11, 497:6, 498:10, 499:19, 503:7, 506:5, 509:2, 510:8, 514:23, 522:20, 528:8, 528:23, 546:17, 550:4, 553:14 <b>nicely</b> [1] - 510:12 <b>night</b> [6] - 476:24, 508:13, 520:13, 520:19, 524:18, 554:25 <b>nilly</b> [1] - 545:20 <b>nine</b> [1] - 525:13 <b>nobody</b> [2] - 496:14, 552:20 <b>non</b> [5] - 443:8, 451:14, 451:15, 464:19, 531:6 <b>non-discretionary</b> [1] - 464:19 <b>non-fraced</b> [1] - 531:6 <b>non-industrial</b> [3] - 443:8, 451:14, 451:15 <b>none</b> [4] - 503:22, 545:15, 555:2 <b>noon</b> [1] - 442:8 <b>normal</b> [1] - 517:8 <b>North</b> [7] - 449:2, 458:7, 458:15, 459:3, 502:15, 515:15, 535:15 <b>north</b> [1] - 456:19 <b>northern</b> [1] - 455:22 <b>Northwest</b> [2] - 450:6, 456:20 <b>note</b> [8] - 460:11, 463:3, 472:20, 479:13, 480:15, 519:22, 519:23, 539:10 <b>noted</b> [11] - 444:10, 444:24, 454:12, 459:5, 463:4, 466:2, 481:22, 483:2, 485:22, 486:4, 495:9 <b>Notes</b> [1] - 441:16	<b>notes</b> [6] - 442:3, 442:4, 442:20, 464:22, 536:20, 557:6 <b>nothing</b> [8] - 445:4, 445:22, 446:4, 459:14, 508:9, 545:21, 545:22, 548:3 <b>notice</b> [2] - 475:1, 537:2 <b>notwithstanding</b> [6] - 450:3, 450:4, 552:14, 552:17, 554:24, 554:25 <b>November</b> [3] - 459:6, 462:11, 462:18 <b>nowhere</b> [1] - 517:19 <b>NPV</b> [1] - 540:11 <b>NT</b> [9] - 454:25, 455:8, 455:11, 455:17, 455:23, 455:24, 456:3, 456:15, 456:24 <b>number</b> [25] - 441:4, 451:7, 462:2, 462:22, 476:9, 481:18, 481:23, 487:15, 503:15, 507:15, 510:8, 522:17, 524:13, 528:24, 539:5, 539:15, 539:18, 540:16, 540:18, 541:18, 544:16, 548:13, 550:8, 555:25 <b>numbers</b> [9] - 470:11, 470:23, 500:14, 500:16, 504:13, 512:1, 521:10, 524:13, 552:25 <b>numerous</b> [1] - 467:9	<b>offset</b> [1] - 553:16 <b>often</b> [2] - 495:24, 524:24 <b>OIC</b> [1] - 542:19 <b>OIC)</b> [1] - 453:8 <b>oil</b> [28] - 458:6, 458:16, 459:3, 459:6, 460:13, 461:12, 461:13, 462:4, 495:11, 497:18, 499:19, 499:21, 500:10, 500:19, 502:2, 502:10, 502:15, 502:17, 503:1, 503:9, 503:21, 512:25, 515:11, 515:16, 524:2, 544:23, 545:2, 554:17 <b>Oklahoma</b> [1] - 504:21 <b>old</b> [2] - 443:21, 468:11 <b>once</b> [11] - 442:2, 442:18, 453:21, 456:17, 460:21, 472:20, 491:23, 514:5, 523:10, 541:25, 554:19 <b>one</b> [67] - 440:22, 446:16, 451:2, 454:20, 456:11, 456:12, 457:11, 461:9, 461:10, 473:23, 476:6, 479:4, 481:23, 482:15, 483:17, 487:9, 487:10, 487:15, 489:20, 493:24, 498:6, 498:15, 500:20, 506:8, 506:16, 507:15, 508:3, 510:23, 511:21, 515:4, 516:21, 519:8, 521:16, 521:17, 523:23, 524:6, 525:10, 525:14, 528:9, 531:4, 531:15, 531:17, 532:1, 533:3, 533:15, 534:15, 534:23, 538:5, 539:15, 540:19, 543:16, 545:4, 547:3, 549:15, 551:12, 551:13, 552:4, 553:5, 554:5, 554:6, 554:9, 554:15, 554:23, 555:1 <b>one's</b> [1] - 517:10 <b>one-way</b> [1] - 498:6 <b>ones</b> [2] - 516:23, 547:24 <b>ongoing</b> [6] - 444:12, 449:7, 452:11, 455:22, 458:9, 460:8 <b>online</b> [1] - 451:2 <b>onset</b> [1] - 442:7 <b>Ontario</b> [2] - 488:9, 488:12 <b>open</b> [1] - 519:2 <b>opening</b> [5] - 440:5, 440:18, 440:23, 441:10, 457:14 <b>operate</b> [1] - 482:1 <b>operating</b> [8] - 452:16, 453:6, 473:9, 475:21, 482:1, 482:7, 482:10, 487:8 <b>operation</b> [2] - 465:6, 477:14 <b>operational</b> [1] -	438:20 <b>operations</b> [3] - 470:13, 485:5, 510:24 <b>opinion</b> [6] - 470:8, 487:15, 524:20, 524:21, 524:22 <b>opportunity</b> [1] - 490:9 <b>opportunities</b> [1] - 458:10 <b>opportunity</b> [8] - 444:16, 473:7, 473:23, 490:11, 492:25, 497:1, 505:5, 555:6 <b>oppose</b> [1] - 520:18 <b>opposed</b> [1] - 447:1 <b>opposite</b> [1] - 528:19 <b>option</b> [38] - 447:1, 455:17, 460:16, 461:20, 461:21, 466:18, 467:22, 472:12, 472:14, 473:11, 476:4, 476:6, 482:5, 486:12, 487:12, 487:16, 487:18, 487:25, 488:2, 488:5, 488:24, 509:2, 514:5, 517:18, 517:20, 519:25, 520:6, 526:8, 550:5, 550:18, 551:8, 551:11, 552:19, 554:7, 554:12 <b>options</b> [17] - 454:11, 456:25, 466:8, 466:11, 466:17, 466:23, 467:1, 482:5, 482:11, 485:13, 518:3, 548:13, 548:14, 549:6, 550:7, 550:8, 554:5 <b>oral</b> [11] - 439:20, 441:25, 442:25, 443:4, 443:24, 446:14, 459:5, 476:20, 476:23, 538:2, 538:13 <b>order</b> [4] - 459:15, 460:1, 466:5, 536:14 <b>Order</b> [3] - 453:21, 475:5, 475:6 <b>Order-in-Council</b> [1] - 453:21 <b>ordered</b> [1] - 521:21 <b>Orders</b> [1] - 494:10 <b>Orders-in-Council</b> [1] - 494:10 <b>ordinary</b> [1] - 536:10 <b>Oregon</b> [1] - 528:14 <b>organizations</b> [1] - 540:1 <b>original</b> [1] - 513:12 <b>Osler</b> [6] - 449:12, 449:19, 485:12, 486:6, 539:4, 547:3 <b>Osler's</b> [1] - 480:15 <b>otherwise</b> [2] - 476:16, 507:17 <b>outage</b> [1] - 492:11 <b>outbreak</b> [1] - 513:24 <b>outcome</b> [1] - 446:4 <b>outlined</b> [2] - 452:24, 538:20 <b>outside</b> [3] - 496:12, 507:23, 518:10 <b>overages</b> [1] - 529:4 <b>overall</b> [2] - 475:13, 477:23
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## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p><b>overly</b> [3] - 442:17, 536:19, 536:22</p> <p><b>overruns</b> [1] - 485:6</p> <p><b>overstepping</b> [1] - 519:10</p> <p><b>overtime</b> [2] - 524:24, 524:25</p> <p><b>overview</b> [1] - 540:17</p> <p><b>own</b> [9] - 437:17, 481:9, 503:12, 505:20, 511:2, 520:20, 526:11, 534:10, 547:17</p> <p><b>owned</b> [1] - 520:22</p> <p><b>owner</b> [1] - 533:6</p> <p><b>owners</b> [2] - 511:12, 523:19</p>	<p><b>parts</b> [3] - 468:18, 469:1, 508:11</p> <p><b>party</b> [1] - 459:23</p> <p><b>passed</b> [1] - 486:11</p> <p><b>passionately</b> [1] - 468:12</p> <p><b>past</b> [9] - 447:17, 456:23, 470:14, 484:6, 484:7, 487:1, 528:13, 554:14</p> <p><b>patched</b> [3] - 470:6</p> <p><b>path</b> [2] - 534:6, 534:9</p> <p><b>patience</b> [1] - 490:11</p> <p><b>pause</b> [5] - 446:2, 447:23, 457:9, 470:19, 473:13</p> <p><b>pay</b> [16] - 445:10, 445:11, 445:17, 474:13, 482:9, 505:13, 509:6, 509:10, 512:14, 515:25, 516:4, 517:2, 532:10, 553:21</p> <p><b>payback</b> [1] - 485:15</p> <p><b>paying</b> [1] - 533:24</p> <p><b>peak</b> [4] - 451:13, 461:3, 507:22, 508:1</p> <p><b>people</b> [23] - 439:20, 450:7, 450:20, 454:13, 455:1, 455:13, 459:25, 466:6, 468:6, 470:19, 488:14, 491:24, 524:13, 525:12, 533:10, 533:11, 534:5, 536:21, 547:16, 551:1, 551:22, 552:16, 555:14</p> <p><b>people's</b> [1] - 492:1</p> <p><b>per</b> [7] - 458:1, 458:6, 459:2, 474:15, 500:21, 500:22, 501:13</p> <p><b>percent</b> [5] - 454:4, 457:23, 469:4, 474:6, 529:14</p> <p><b>percentage</b> [1] - 503:4</p> <p><b>perfect</b> [1] - 484:24</p> <p><b>perhaps</b> [4] - 482:21, 486:20, 490:8, 545:6</p> <p><b>period</b> [15] - 444:14, 450:25, 452:8, 475:14, 485:16, 485:17, 485:18, 486:1, 496:1, 507:24, 507:25, 517:1, 548:8, 548:9</p> <p><b>permanent</b> [1] - 535:24</p> <p><b>permitted</b> [3] - 455:25, 456:3, 456:17</p> <p><b>person</b> [1] - 543:12</p> <p><b>personal</b> [2] - 498:19, 499:3</p> <p><b>personally</b> [2] - 454:9, 454:10</p> <p><b>perspective</b> [7] - 449:22, 453:13, 462:19, 462:20, 463:25, 464:10, 544:14</p> <p><b>phases</b> [1] - 464:25</p> <p><b>philosophical</b> [1] - 491:11</p> <p><b>physically</b> [1] - 512:5</p> <p><b>pie</b> [1] - 483:25</p>	<p><b>piece</b> [1] - 547:2</p> <p><b>pile</b> [2] - 508:24</p> <p><b>Pine</b> [1] - 509:13</p> <p><b>pipe</b> [2] - 502:19</p> <p><b>pipeline</b> [1] - 497:20</p> <p><b>place</b> [5] - 463:16, 468:7, 473:24, 476:24, 498:15</p> <p><b>places</b> [4] - 498:13, 525:14, 532:8, 554:7</p> <p><b>plan</b> [10] - 442:13, 451:12, 472:9, 484:20, 487:5, 509:23, 510:11, 524:20, 550:7</p> <p><b>Plan</b> [3] - 495:4, 495:15, 519:16</p> <p><b>planned</b> [2] - 444:11, 464:24</p> <p><b>planning</b> [15] - 447:14, 451:7, 451:10, 451:17, 451:18, 465:3, 493:20, 494:4, 494:16, 548:18, 548:21, 552:23, 552:24</p> <p><b>plans</b> [3] - 455:8, 463:11, 480:8</p> <p><b>Plant</b> [1] - 548:23</p> <p><b>plant</b> [20] - 444:11, 453:5, 454:10, 454:12, 457:10, 474:17, 476:4, 494:2, 494:4, 496:8, 498:15, 501:5, 509:25, 513:22, 521:21, 526:14, 542:15, 542:18, 542:21, 552:23</p> <p><b>plants</b> [3] - 494:3, 504:11, 504:12</p> <p><b>play</b> [1] - 460:22</p> <p><b>please</b> [8] - 437:21, 491:5, 519:23, 523:8, 524:25, 536:3, 536:11, 537:20</p> <p><b>plenty</b> [4] - 493:7, 493:8, 506:15, 541:5</p> <p><b>plus</b> [1] - 514:11</p> <p><b>point</b> [59] - 446:3, 446:8, 447:25, 448:9, 449:19, 449:21, 453:13, 453:23, 455:3, 457:2, 460:20, 472:2, 472:3, 472:25, 473:1, 473:22, 479:16, 480:13, 486:15, 492:4, 493:24, 498:7, 498:10, 498:12, 500:17, 502:9, 502:13, 502:22, 514:4, 524:12, 525:15, 526:24, 531:3, 532:2, 533:8, 538:17, 538:22, 540:20, 541:6, 541:7, 541:10, 542:16, 545:3, 545:8, 545:10, 545:21, 545:25, 546:2, 546:7, 546:13, 547:10, 551:10, 552:20, 553:9, 553:16, 554:4, 554:18, 554:19</p> <p><b>pointing</b> [1] - 510:14</p> <p><b>points</b> [6] - 441:19, 516:24, 539:14, 540:7, 540:16, 540:19</p>	<p><b>policy</b> [2] - 489:13, 490:9</p> <p><b>political</b> [2] - 524:25, 525:7</p> <p><b>pollute</b> [1] - 531:15</p> <p><b>polluting</b> [1] - 529:16</p> <p><b>poor</b> [1] - 493:20</p> <p><b>pops</b> [1] - 498:4</p> <p><b>portion</b> [3] - 440:16, 440:17, 545:16</p> <p><b>position</b> [3] - 479:15, 487:7, 493:14</p> <p><b>positive</b> [7] - 446:3, 446:24, 453:13, 454:18, 463:24, 464:2, 530:6</p> <p><b>possibility</b> [1] - 482:20</p> <p><b>possible</b> [1] - 510:2</p> <p><b>possibly</b> [2] - 485:2, 523:2</p> <p><b>potent</b> [1] - 528:1</p> <p><b>potential</b> [15] - 452:20, 456:21, 456:24, 457:6, 464:23, 466:18, 477:16, 488:2, 504:25, 506:10, 510:14, 517:19, 520:6, 530:5, 531:12</p> <p><b>potentially</b> [3] - 483:3, 497:24, 509:25</p> <p><b>Pound</b> [1] - 531:4</p> <p><b>pour</b> [1] - 498:5</p> <p><b>power</b> [12] - 447:11, 448:23, 449:3, 449:4, 449:24, 450:24, 451:5, 463:8, 463:16, 478:7, 504:10, 535:8</p> <p><b>powering</b> [1] - 535:19</p> <p><b>PPAs</b> [1] - 552:6</p> <p><b>practical</b> [1] - 491:11</p> <p><b>practice</b> [1] - 488:23</p> <p><b>Prairie</b> [2] - 457:7, 457:10</p> <p><b>Prasad</b> [1] - 437:7</p> <p><b>precedent</b> [2] - 521:25, 522:15</p> <p><b>precision</b> [1] - 500:16</p> <p><b>predicated</b> [1] - 487:4</p> <p><b>predict</b> [1] - 483:23</p> <p><b>predictable</b> [1] - 487:3</p> <p><b>predicted</b> [3] - 483:9, 485:20, 485:21</p> <p><b>prediction</b> [2] - 484:6, 487:10</p> <p><b>predictions</b> [2] - 483:15, 483:18</p> <p><b>predominantly</b> [4] - 447:19, 448:12, 450:2, 494:6</p> <p><b>preference</b> [1] - 488:3</p> <p><b>preferred</b> [3] - 483:1, 483:5, 488:24</p> <p><b>prejudices</b> [1] - 554:21</p> <p><b>preliminary</b> [3] - 438:2, 520:11, 540:17</p> <p><b>premature</b> [1] - 487:16</p> <p><b>premier</b> [1] - 525:3</p> <p><b>premise</b> [1] - 477:19</p> <p><b>prepare</b> [4] - 503:12, 503:16, 503:24, 521:5</p> <p><b>prepared</b> [4] -</p>	<p>485:23, 509:18, 512:25, 513:13</p> <p><b>present</b> [5] - 454:4, 490:12, 515:3, 543:8, 553:10</p> <p><b>presentation</b> [6] - 442:1, 490:10, 490:14, 493:11, 523:1, 523:6</p> <p><b>presented</b> [3] - 483:18, 521:2, 546:5</p> <p><b>Presently</b> [1] - 533:1</p> <p><b>president</b> [4] - 454:9, 471:20, 479:23, 532:13</p> <p><b>pressure</b> [2] - 493:19, 541:9</p> <p><b>presumably</b> [5] - 510:24, 511:12, 513:12, 542:15, 551:1</p> <p><b>pretty</b> [4] - 455:13, 456:20, 460:20, 548:6</p> <p><b>prevention</b> [1] - 465:3</p> <p><b>previous</b> [3] - 480:13, 481:19, 486:15</p> <p><b>previously</b> [1] - 499:20</p> <p><b>price</b> [83] - 455:2, 457:17, 458:1, 459:7, 459:19, 460:13, 461:11, 462:4, 474:21, 474:24, 483:11, 483:20, 483:23, 484:3, 484:11, 484:25, 486:1, 486:22, 487:10, 497:15, 497:16, 497:17, 497:18, 497:21, 497:22, 498:3, 498:4, 499:19, 499:21, 499:22, 499:23, 499:24, 499:25, 500:4, 500:10, 501:4, 501:6, 502:2, 502:3, 502:10, 502:12, 502:14, 502:15, 503:1, 503:4, 503:8, 503:9, 504:15, 504:19, 504:20, 504:22, 505:8, 505:17, 505:19, 506:2, 506:20, 506:25, 508:4, 511:1, 511:5, 511:19, 512:5, 512:15, 513:4, 514:9, 521:4, 529:3, 531:18, 532:9, 532:18, 532:19, 545:1, 545:2, 545:5, 554:17</p> <p><b>priced</b> [3] - 461:4, 461:5, 510:16</p> <p><b>prices</b> [25] - 457:21, 457:23, 458:3, 458:15, 458:16, 459:9, 459:13, 461:11, 462:5, 497:19, 500:19, 500:20, 505:23, 505:24, 505:25, 512:25, 515:12, 515:16, 517:20, 529:25, 532:11, 544:23</p> <p><b>pricing</b> [2] - 461:17, 518:4</p> <p><b>primary</b> [4] - 444:4, 472:17, 481:23,</p>
<b>P</b>				
<p><b>P.M</b> [2] - 490:21, 491:3</p> <p><b>Pacific</b> [1] - 450:6</p> <p><b>page</b> [23] - 438:11, 439:1, 440:18, 440:25, 441:12, 443:17, 448:6, 464:20, 480:15, 481:18, 483:8, 483:16, 485:14, 486:24, 492:22, 494:25, 495:21, 510:6, 515:1, 519:21, 520:3, 520:14, 544:9</p> <p><b>pages</b> [7] - 449:12, 458:20, 492:21, 497:9, 543:21, 543:24, 557:3</p> <p><b>paid</b> [3] - 507:2, 512:13, 554:3</p> <p><b>Panel</b> [11] - 447:24, 452:17, 453:2, 462:21, 467:7, 467:20, 472:11, 475:22, 476:19, 491:9, 537:25</p> <p><b>panel</b> [3] - 465:22, 465:23, 546:23</p> <p><b>paragraph</b> [1] - 516:10</p> <p><b>paramount</b> [1] - 529:13</p> <p><b>part</b> [9] - 452:13, 478:19, 487:22, 512:10, 513:9, 523:20, 527:8, 530:12, 548:24</p> <p><b>Part</b> [4] - 477:13, 519:20, 548:23, 548:24</p> <p><b>participated</b> [1] - 477:19</p> <p><b>participation</b> [2] - 519:9, 520:12</p> <p><b>particular</b> [8] - 478:9, 482:22, 487:13, 487:23, 501:11, 505:2, 505:14, 524:17</p> <p><b>particularly</b> [6] - 478:8, 480:25, 481:24, 482:9, 483:24, 543:16</p> <p><b>parties</b> [6] - 438:7, 439:15, 440:11, 456:22, 457:13, 538:4</p> <p><b>partnering</b> [1] - 535:12</p> <p><b>partners</b> [1] - 531:9</p>				

## YUB - YEC LNG Project, Volume 3, April 2, 2014

527:25 <b>prime</b> [2] - 464:9, 517:17 <b>print</b> [1] - 442:3 <b>printed</b> [2] - 442:2, 442:20 <b>private</b> [1] - 487:7 <b>problem</b> [21] - 456:9, 471:15, 492:19, 492:23, 493:3, 493:13, 497:14, 499:20, 500:9, 506:11, 506:15, 506:17, 506:19, 507:14, 508:6, 510:22, 516:17, 530:9, 530:20, 536:24, 544:5 <b>problems</b> [5] - 478:8, 485:7, 496:22, 496:23, 507:13 <b>procedural</b> [1] - 556:16 <b>procedure</b> [1] - 541:21 <b>proceed</b> [10] - 438:1, 463:1, 469:12, 477:4, 477:6, 477:9, 477:18, 517:18, 529:20, 537:21 <b>proceeding</b> [11] - 444:8, 446:25, 459:23, 477:12, 477:23, 488:18, 489:8, 489:14, 501:22, 518:10, 520:18 <b>proceedings</b> [9] - 488:10, 490:7, 501:9, 502:14, 505:16, 514:13, 548:20, 552:8, 557:5 <b>Proceedings</b> [1] - 437:1 <b>PROCEEDINGS</b> [2] - 490:21, 556:23 <b>process</b> [11] - 457:10, 521:3, 528:2, 529:16, 532:20, 532:25, 535:13, 537:9, 537:11, 556:19 <b>processes</b> [1] - 459:22 <b>processing</b> [2] - 532:9, 532:19 <b>produce</b> [1] - 514:19 <b>product</b> [3] - 454:2, 455:7, 487:13 <b>production</b> [1] - 458:11 <b>program</b> [1] - 507:13 <b>project</b> [132] - 440:19, 441:7, 441:8, 443:6, 443:9, 443:11, 444:4, 444:15, 445:5, 445:6, 445:8, 445:14, 445:17, 446:3, 446:9, 446:11, 446:16, 446:17, 446:21, 446:25, 447:15, 451:20, 452:6, 452:13, 452:20, 453:18, 456:12, 456:13, 458:4, 460:15, 461:14, 461:19, 462:8, 462:9, 462:10, 462:19, 463:1, 463:19, 463:20, 463:23, 464:16, 464:25, 465:25, 466:3, 469:12, 472:13, 472:15, 473:9, 473:10, 474:2, 475:8, 475:11, 475:18, 475:25, 476:2, 476:4, 476:12, 476:18, 477:14, 477:17, 477:20, 477:23, 479:8, 484:10, 485:16, 485:19, 486:3, 486:16, 486:20, 491:13, 491:19, 492:7, 493:6, 493:16, 495:19, 502:22, 509:6, 509:7, 509:9, 509:13, 509:23, 510:10, 510:17, 513:9, 515:3, 515:18, 516:2, 516:6, 517:1, 518:16, 518:18, 519:2, 519:9, 519:13, 520:10, 520:11, 520:18, 521:1, 525:16, 525:20, 525:22, 526:2, 526:5, 527:14, 528:17, 529:12, 529:20, 529:23, 530:1, 531:20, 532:6, 535:6, 535:21, 539:4, 540:12, 541:17, 541:19, 541:25, 542:6, 542:7, 547:17, 548:9, 550:11, 553:2, 553:18, 553:24, 554:1, 555:21 <b>Project</b> [7] - 465:19, 473:21, 497:7, 513:8, 519:18, 519:19, 555:16 <b>PROJECT</b> [2] - 436:8 <b>project's</b> [6] - 460:12, 460:14, 474:10, 475:19, 476:8, 476:12 <b>Project..</b> [2] - 520:2, 520:8 <b>projected</b> [7] - 462:5, 474:6, 475:7, 475:16, 475:20, 518:7, 518:8 <b>projection</b> [1] - 485:9 <b>projects</b> [7] - 467:10, 492:6, 521:8, 536:5, 549:10, 551:15, 556:1 <b>Projects</b> [1] - 437:14 <b>prone</b> [1] - 487:11 <b>proper</b> [2] - 532:18, 547:23 <b>properly</b> [2] - 513:22, 517:24 <b>prophecy</b> [1] - 516:16 <b>proponents</b> [1] - 464:18 <b>proposal</b> [4] - 477:20, 482:25, 483:1, 536:2 <b>Proposal</b> [1] - 519:19 <b>propose</b> [1] - 516:17 <b>proposed</b> [4] - 464:18, 492:15, 519:18, 521:21 <b>proposing</b> [2] - 499:5, 516:15 <b>proposition</b> [4] - 461:10, 486:10, 542:14, 550:16	<b>prove</b> [2] - 533:8, 556:10 <b>provide</b> [20] - 442:24, 447:11, 451:5, 467:2, 467:4, 468:18, 473:24, 474:4, 478:6, 478:10, 491:17, 492:6, 508:25, 509:24, 509:25, 510:1, 510:11, 515:10, 516:13, 540:23 <b>provided</b> [13] - 447:5, 458:4, 458:18, 459:6, 459:17, 478:13, 478:23, 479:10, 480:3, 481:12, 496:12, 547:8, 547:17 <b>provides</b> [5] - 460:16, 476:4, 492:8, 492:9 <b>providing</b> [4] - 476:6, 478:14, 509:8, 542:12 <b>provisions</b> [1] - 499:6 <b>prudency</b> [13] - 441:7, 477:24, 486:14, 504:2, 514:24, 517:6, 517:12, 517:13, 518:14, 518:15, 539:3, 542:5, 542:6 <b>prudent</b> [5] - 473:20, 488:5, 488:23, 504:3, 517:7 <b>prudently</b> [1] - 542:10 <b>public</b> [34] - 440:16, 443:5, 464:5, 476:23, 477:22, 477:25, 480:23, 488:8, 488:10, 488:15, 488:19, 488:25, 489:1, 489:4, 489:5, 489:19, 490:2, 493:23, 493:24, 494:8, 494:20, 518:18, 520:9, 520:12, 521:3, 523:12, 527:13, 527:14, 527:18, 528:18, 528:21, 536:3, 544:12, 548:20 <b>Public</b> [1] - 477:13 <b>publicly</b> [1] - 520:22 <b>pump</b> [1] - 495:17 <b>pun</b> [1] - 509:4 <b>purchase</b> [2] - 498:22, 499:5 <b>purchasing</b> [1] - 455:1 <b>pure</b> [1] - 446:8 <b>purely</b> [1] - 505:10 <b>purportedly</b> [1] - 538:21 <b>purpose</b> [4] - 477:12, 477:15, 502:14, 505:18 <b>purposes</b> [13] - 449:20, 493:2, 494:4, 494:16, 496:21, 501:18, 501:22, 506:3, 506:9, 511:3, 521:14, 540:21, 541:4 <b>pursued</b> [4] - 466:8, 510:15, 510:16, 525:20 <b>put</b> [31] - 438:9, 453:25, 459:18,	460:1, 460:3, 467:10, 473:24, 477:20, 479:20, 481:3, 482:8, 487:6, 489:12, 489:14, 489:21, 489:22, 489:24, 493:13, 527:23, 534:14, 534:19, 539:16, 540:9, 541:12, 544:9, 545:14, 545:17, 547:1, 547:21, 550:16 <b>puts</b> [3] - 469:7, 487:6, 526:23 <b>putting</b> [6] - 523:12, 533:2, 539:15, 541:9, 551:2, 555:5	529:10, 538:23, 539:2, 540:6, 554:11 <b>ratepayers</b> [1] - 476:8 <b>rates</b> [18] - 440:19, 443:9, 445:7, 445:16, 445:25, 446:19, 446:23, 452:20, 453:22, 454:1, 461:24, 467:11, 475:3, 486:11, 499:16, 506:3, 541:4, 554:11 <b>rather</b> [6] - 460:10, 478:1, 483:7, 494:22, 511:1, 546:23 <b>rationale</b> [1] - 484:10 <b>Re</b> [1] - 439:22 <b>react</b> [1] - 461:17 <b>read</b> [4] - 464:21, 515:9, 518:25, 520:15 <b>readily</b> [2] - 530:21, 533:3 <b>reading</b> [1] - 496:18 <b>ready</b> [4] - 442:19, 451:1, 491:6, 537:22 <b>real</b> [3] - 532:14, 532:15, 544:4 <b>realistic</b> [3] - 447:1, 450:18, 551:11 <b>reality</b> [3] - 499:8, 518:5, 531:18 <b>realize</b> [2] - 483:19, 533:5 <b>really</b> [17] - 441:7, 492:1, 506:13, 510:12, 517:21, 521:2, 521:16, 523:11, 525:19, 526:24, 531:2, 532:17, 534:21, 548:3, 550:1, 552:20, 553:3 <b>reason</b> [7] - 440:2, 450:23, 461:4, 481:24, 497:13, 498:21, 541:23 <b>reasonable</b> [7] - 443:6, 444:25, 445:3, 465:20, 485:9, 516:19, 529:25 <b>reasons</b> [5] - 481:23, 514:3, 527:6, 531:16 <b>rebuttal</b> [1] - 498:17 <b>receive</b> [1] - 490:3 <b>received</b> [3] - 445:2, 498:18, 520:17 <b>recent</b> [2] - 487:1, 503:22 <b>recently</b> [1] - 555:18 <b>recognizes</b> [1] - 520:16 <b>recommend</b> [5] - 488:5, 529:19, 529:22, 529:23 <b>recommendation</b> [3] - 463:7, 463:16, 483:4 <b>recommendations</b> [2] - 463:4, 477:16 <b>recommended</b> [6] - 451:11, 463:2, 463:12, 487:25, 534:16, 542:7 <b>recommending</b> [1] - 462:24 <b>record</b> [38] - 438:9, 440:3, 458:25, 459:12, 460:3, 461:11, 463:15, 464:14, 465:8, 465:9,
<b>Q</b>			
<p><b>qualified</b> [3] - 503:25, 505:4, 521:5 <b>quality</b> [2] - 469:2, 523:21 <b>quantities</b> [1] - 529:17 <b>questions</b> [7] - 438:12, 484:5, 503:15, 504:24, 515:4, 544:18, 544:20 <b>quibbles</b> [1] - 552:21 <b>quickly</b> [5] - 440:15, 451:1, 451:2, 451:8, 480:22 <b>quiet</b> [1] - 510:5 <b>quite</b> [10] - 492:24, 501:21, 503:25, 511:11, 523:12, 524:24, 526:2, 526:24, 554:23, 555:8 <b>quote</b> [14] - 443:2, 443:18, 447:6, 447:24, 448:8, 448:10, 449:10, 452:19, 464:19, 464:21, 465:16, 473:19, 486:6, 546:1 <b>quoted</b> [1] - 441:9 <b>quoting</b> [1] - 443:17</p>			
<b>R</b>			
<p><b>raised</b> [1] - 538:10 <b>raising</b> [2] - 445:16, 531:18 <b>range</b> [1] - 474:11 <b>Rate</b> [1] - 498:22 <b>rate</b> [17] - 453:7, 453:9, 453:11, 453:12, 483:15, 484:9, 499:9, 499:12, 542:8, 545:18, 545:19, 546:2, 546:4, 546:13, 546:14 <b>ratepayer</b> [10] - 446:21, 460:11, 474:4, 475:13, 476:17, 526:24, 533:5, 536:10, 538:25 <b>ratepayer's</b> [1] - 475:7 <b>ratepayers</b> [23] - 444:18, 446:4, 446:10, 446:25, 453:14, 454:19, 460:16, 461:22, 464:1, 467:23, 471:4, 474:12, 476:5, 476:12, 485:21, 523:18, 526:10,</p>			

## YUB - YEC LNG Project, Volume 3, April 2, 2014

475:5, 480:16, 485:9, 489:24, 493:2, 494:8, 494:24, 497:5, 498:8, 502:3, 505:25, 516:7, 519:8, 520:10, 538:18, 539:12, 539:17, 539:21, 539:24, 540:3, 543:19, 543:20, 545:22, 547:12, 554:22, 555:1, 555:7, 556:10 <b>recorded</b> [1] - 439:4 <b>recounted</b> [1] - 538:20 <b>recover</b> [1] - 476:15 <b>recovered</b> [1] - 475:20 <b>reduce</b> [7] - 480:10, 480:25, 486:18, 486:19, 487:23, 507:24, 535:18 <b>reducing</b> [1] - 528:20 <b>reduction</b> [1] - 482:22 <b>refer</b> [3] - 469:6, 475:4, 500:5 <b>reference</b> [33] - 438:11, 440:8, 440:17, 441:11, 442:25, 443:2, 443:5, 447:4, 447:5, 449:10, 449:11, 452:18, 452:19, 456:7, 465:16, 465:17, 469:9, 473:12, 473:19, 486:5, 493:18, 497:9, 497:19, 498:8, 504:22, 506:13, 514:24, 516:20, 517:6, 538:18, 538:19, 542:5 <b>referenced</b> [4] - 449:14, 456:7, 538:7, 539:7 <b>references</b> [13] - 440:5, 440:14, 440:20, 440:21, 440:24, 441:3, 441:6, 452:23, 471:19, 481:19, 492:21, 506:6, 538:6 <b>References</b> [1] - 439:22 <b>referred</b> [3] - 466:12, 471:19, 542:3 <b>referring</b> [1] - 443:1 <b>refine</b> [1] - 503:1 <b>refined</b> [1] - 503:6 <b>reflect</b> [3] - 457:22, 458:14, 474:18 <b>reflection</b> [1] - 547:15 <b>refurbish</b> [2] - 468:8, 468:16 <b>refurbished</b> [2] - 438:21, 479:1 <b>refurbishing</b> [1] - 452:2 <b>refurbishment</b> [3] - 441:5, 443:22, 467:21 <b>refurbishments</b> [4] - 445:22, 445:24, 460:3, 467:4 <b>regard</b> [5] - 439:14, 452:14, 554:23, 555:7, 555:8 <b>regarded</b> [1] - 465:8 <b>regarding</b> [7] -	459:12, 464:12, 476:9, 515:13, 543:13, 546:2, 548:2 <b>regardless</b> [2] - 454:1, 531:20 <b>regards</b> [1] - 445:6 <b>regulated</b> [7] - 498:22, 498:24, 498:25, 541:25, 545:18, 546:2, 546:4 <b>regulations</b> [1] - 504:12 <b>regulator</b> [3] - 464:7, 554:10 <b>regulatory</b> [2] - 465:1, 484:2 <b>reject</b> [2] - 539:23, 553:15 <b>rejected</b> [4] - 481:22, 481:25, 482:6, 482:12 <b>relate</b> [2] - 519:17, 520:7 <b>related</b> [8] - 438:11, 443:7, 453:11, 455:5, 455:14, 457:14, 472:22, 553:10 <b>relates</b> [9] - 438:10, 438:25, 439:20, 452:18, 456:17, 457:16, 462:8, 464:6, 465:16 <b>relation</b> [39] - 440:7, 443:16, 444:15, 462:9, 472:4, 472:14, 472:25, 473:2, 480:13, 480:23, 481:4, 481:13, 482:4, 482:20, 484:23, 485:4, 485:7, 486:9, 488:18, 489:13, 492:18, 494:13, 500:3, 502:7, 506:14, 507:12, 508:4, 509:22, 510:20, 511:20, 511:24, 512:14, 513:6, 516:9, 518:3, 538:17, 540:17, 548:19, 555:2 <b>relationship</b> [3] - 454:15, 515:14, 532:14 <b>relationships</b> [1] - 454:24 <b>relative</b> [5] - 441:1, 442:23, 454:6, 476:21, 510:3 <b>relatively</b> [5] - 450:25, 451:2, 463:4, 484:21, 537:3 <b>release</b> [1] - 464:1 <b>releases</b> [1] - 528:3 <b>Relevance</b> [1] - 448:7 <b>relevant</b> [3] - 450:15, 489:18, 490:4 <b>reliability</b> [4] - 452:7, 480:19, 498:8, 499:9 <b>reliable</b> [21] - 447:11, 447:18, 448:13, 448:23, 449:8, 451:5, 466:4, 466:10, 466:15, 467:4, 467:23, 470:18, 471:5, 471:7, 471:8, 490:3, 526:12, 541:5, 551:20, 551:25, 552:10 <b>Reliable</b> [1] - 448:7 <b>reliably</b> [1] - 446:5 <b>reliant</b> [1] - 528:18	<b>relied</b> [4] - 443:22, 468:13, 471:22, 547:19 <b>relief</b> [1] - 478:7 <b>relies</b> [1] - 479:21 <b>reluctance</b> [1] - 488:9 <b>rely</b> [8] - 460:12, 471:1, 481:9, 491:16, 521:4, 551:19, 551:24 <b>relying</b> [1] - 521:4 <b>remain</b> [1] - 535:24 <b>remaining</b> [4] - 438:12, 444:10, 452:10, 462:13 <b>remember</b> [3] - 450:21, 503:3, 503:19 <b>remembering</b> [1] - 546:12 <b>removes</b> [2] - 444:1, 529:17 <b>renewable</b> [20] - 448:17, 449:5, 465:25, 466:11, 466:16, 466:20, 466:23, 467:1, 467:10, 467:17, 481:1, 481:24, 482:17, 492:5, 517:23, 535:17, 551:15, 555:21, 555:23, 555:25 <b>renewable-type</b> [1] - 555:25 <b>renewables</b> [14] - 441:6, 450:13, 467:8, 514:10, 528:23, 536:4, 554:21, 555:2, 555:5, 555:10, 555:19, 556:7, 556:8 <b>repeat</b> [1] - 482:3 <b>replace</b> [4] - 444:16, 478:16, 480:3, 486:16 <b>replaced</b> [9] - 479:16, 479:17, 479:18, 479:24, 480:21, 487:9, 493:6, 495:18, 505:19 <b>replacement</b> [5] - 480:6, 480:14, 487:21, 495:16, 508:5 <b>replaces</b> [1] - 481:11 <b>replacing</b> [2] - 482:20, 527:6 <b>replies</b> [1] - 476:21 <b>reply</b> [6] - 476:20, 536:16, 537:22, 538:13, 538:17, 556:12 <b>report</b> [18] - 462:24, 463:2, 463:5, 464:2, 464:14, 464:16, 464:20, 464:22, 479:1, 479:4, 479:8, 479:20, 483:8, 496:16, 520:12, 520:14, 539:9, 547:19 <b>report's</b> [1] - 463:12 <b>reported</b> [1] - 483:10 <b>Reporter</b> [4] - 437:18, 437:19, 557:14, 557:20 <b>reporter</b> [1] - 522:7 <b>reporters</b> [3] - 523:9, 536:7, 556:19 <b>reports</b> [3] - 478:23, 479:22, 489:23 <b>represent</b> [1] - 485:25 <b>representations</b> [2] -	499:3, 513:17 <b>representative</b> [1] - 498:18 <b>representatives</b> [12] - 495:21, 498:25, 499:3, 503:19, 503:21, 504:7, 505:9, 507:2, 507:5, 507:10, 509:11, 521:5 <b>reputable</b> [3] - 504:3, 540:1 <b>request</b> [9] - 442:24, 481:9, 500:8, 500:14, 505:10, 515:1, 515:8, 515:9, 549:14 <b>requested</b> [1] - 477:13 <b>requests</b> [2] - 475:24, 503:13 <b>require</b> [3] - 446:19, 480:2, 543:4 <b>required</b> [9] - 445:15, 448:22, 449:20, 452:12, 453:25, 476:16, 512:3, 516:1 <b>Requirement</b> [1] - 438:25 <b>requirement</b> [6] - 449:7, 449:13, 472:18, 473:4, 485:13, 516:12 <b>requirements</b> [14] - 443:7, 444:6, 444:17, 445:10, 447:13, 451:12, 453:18, 454:17, 465:1, 467:5, 484:14, 484:25, 510:8, 510:12 <b>requires</b> [3] - 447:20, 501:6, 529:15 <b>reservoir</b> [3] - 492:13, 492:14, 515:22 <b>resilience</b> [1] - 527:15 <b>resource</b> [15] - 451:11, 465:25, 466:17, 472:9, 509:23, 510:11, 534:5, 548:13, 548:18, 548:21, 550:6, 550:7, 550:18 <b>Resource</b> [3] - 495:4, 495:15, 519:16 <b>resources</b> [4] - 479:20, 517:10, 527:19, 534:10 <b>respect</b> [22] - 468:5, 477:25, 478:21, 480:13, 481:3, 482:22, 483:22, 488:23, 489:6, 494:20, 496:4, 497:3, 508:18, 510:4, 513:24, 518:20, 519:1, 519:13, 519:16, 544:17, 549:8, 552:25 <b>respectfully</b> [1] - 516:18 <b>respective</b> [1] - 496:21 <b>respectively</b> [1] - 466:14 <b>respond</b> [1] - 497:2 <b>responds</b> [2] - 528:4 <b>response</b> [12] - 458:20, 469:8, 476:23, 493:2,	496:11, 496:12, 496:24, 497:4, 500:13, 515:8, 520:3, 544:10 <b>RESPONSE</b> [6] - 438:18, 439:10, 441:23, 558:14, 558:16, 558:18 <b>responses</b> [4] - 475:23, 493:14, 503:17, 514:25 <b>responsibility</b> [2] - 509:12, 524:3 <b>rest</b> [3] - 469:8, 515:17, 532:19 <b>result</b> [5] - 464:17, 486:8, 486:11, 493:12, 515:25 <b>resulting</b> [1] - 475:13 <b>results</b> [1] - 546:24 <b>reticent</b> [1] - 478:21 <b>retire</b> [2] - 473:3, 525:12 <b>retired</b> [2] - 444:12, 452:10 <b>retirement</b> [3] - 451:21, 451:24, 469:16 <b>retirements</b> [3] - 439:4, 452:13, 471:25 <b>returns</b> [1] - 529:18 <b>revelation</b> [2] - 545:9 <b>revenue</b> [1] - 518:7 <b>reversed</b> [1] - 524:11 <b>review</b> [9] - 451:11, 454:11, 456:7, 463:1, 465:13, 477:12, 541:20, 542:3, 542:4 <b>reviewed</b> [4] - 451:10, 464:13, 490:9, 515:13 <b>revised</b> [1] - 463:10 <b>revolution</b> [1] - 488:12 <b>rhetorical</b> [1] - 551:21 <b>riding</b> [1] - 491:23 <b>rig</b> [2] - 470:2, 471:6 <b>rigging</b> [1] - 468:8 <b>rights</b> [1] - 488:14 <b>rise</b> [1] - 505:7 <b>risk</b> [16] - 457:16, 457:17, 460:11, 462:7, 462:22, 463:21, 465:20, 484:22, 487:11, 497:11, 498:10, 517:17, 517:21, 528:6, 539:2 <b>risks</b> [13] - 440:25, 452:18, 452:19, 452:24, 477:16, 477:22, 482:24, 497:6, 499:18, 515:17, 517:2, 517:10, 531:1 <b>River</b> [1] - 524:9 <b>Riverdale</b> [2] - 526:13, 528:8 <b>ROBERTS</b> [5] - 522:23, 523:2, 523:7, 523:10, 558:9 <b>Roberts</b> [5] - 437:17, 522:20, 536:13, 537:7, 538:11 <b>robust</b> [2] - 474:2, 474:8 <b>robustness</b> [1] - 476:7 <b>rocket</b> [1] - 509:1
---	---	---	--	--

## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p><b>rocks</b> [2] - 508:24  <b>room</b> [2] - 438:7, 439:20  <b>Ross</b> [1] - 524:9  <b>rosy</b> [1] - 485:20  <b>rough</b> [2] - 512:1, 516:3  <b>rule</b> [1] - 489:19  <b>rules</b> [4] - 489:16, 544:8, 552:23, 552:24  <b>ruling</b> [3] - 538:25, 539:6, 549:23  <b>rulings</b> [1] - 444:20  <b>run</b> [9] - 469:14, 470:4, 470:16, 482:9, 489:5, 494:6, 497:12, 498:3, 550:17  <b>running</b> [5] - 455:16, 469:21, 470:5, 500:3, 530:11  <b>runs</b> [1] - 469:23</p>	<p><b>secondly</b> [3] - 482:11, 487:19, 545:16  <b>Secretary</b> [1] - 437:10  <b>section</b> [2] - 448:5, 506:7  <b>Section</b> [1] - 440:21  <b>sector</b> [1] - 487:7  <b>secure</b> [6] - 446:12, 446:17, 449:3, 453:4, 453:12, 454:11  <b>secured</b> [2] - 453:7, 456:17  <b>securing</b> [1] - 455:11  <b>security</b> [5] - 452:25, 464:1, 499:10, 499:17, 532:18  <b>see</b> [23] - 438:13, 439:16, 440:16, 440:21, 441:5, 450:9, 456:12, 463:21, 472:6, 474:8, 486:18, 489:18, 501:19, 502:5, 507:8, 510:7, 512:16, 513:1, 515:20, 528:23, 530:13, 530:14, 538:18  <b>seem</b> [3] - 482:12, 507:10, 530:15  <b>seismic</b> [1] - 513:24  <b>self</b> [1] - 516:16  <b>self-fulfilling</b> [1] - 516:16  <b>sell</b> [3] - 449:4, 510:13, 511:3  <b>sense</b> [7] - 491:11, 492:5, 500:1, 517:21, 522:25, 523:4, 540:15  <b>sensitivity</b> [1] - 476:9  <b>sent</b> [1] - 440:8  <b>sentence</b> [1] - 516:11  <b>separate</b> [1] - 539:19  <b>serious</b> [1] - 455:14  <b>seriously</b> [1] - 457:13  <b>serve</b> [1] - 508:1  <b>served</b> [1] - 448:12  <b>Session</b> [1] - 491:3  <b>session</b> [1] - 464:6  <b>set</b> [10] - 442:10, 447:4, 448:8, 453:7, 484:14, 488:17, 490:6, 497:3, 510:10, 550:6  <b>setting</b> [3] - 489:7, 527:12, 535:11  <b>settled</b> [1] - 522:21  <b>seven</b> [1] - 483:20  <b>several</b> [3] - 470:13, 519:4, 548:7  <b>shale</b> [1] - 529:15  <b>shape</b> [3] - 471:25, 472:7, 541:13  <b>shared</b> [2] - 526:5, 526:7  <b>shareholders</b> [2] - 520:24, 520:25  <b>shave</b> [1] - 507:22  <b>sheet</b> [1] - 441:17  <b>Shell</b> [4] - 500:15, 531:4, 532:10, 532:17  <b>shift</b> [2] - 507:23, 513:13  <b>shifting</b> [1] - 508:12  <b>shifts</b> [2] - 513:17, 513:20</p>	<p><b>shocked</b> [2] - 525:15, 525:21  <b>shocks</b> [1] - 525:19  <b>short</b> [9] - 450:25, 454:17, 460:5, 479:24, 481:16, 483:24, 499:12, 533:23, 548:4  <b>short-term</b> [5] - 479:24, 481:16, 483:24, 499:12, 548:4  <b>shortfall</b> [12] - 443:12, 444:7, 445:9, 445:16, 446:18, 448:2, 451:21, 452:3, 452:4, 466:18, 468:9, 473:8  <b>shortfalls</b> [2] - 452:8, 452:12  <b>shorthand</b> [2] - 557:5, 557:6  <b>shortly</b> [3] - 456:3, 456:10, 462:14  <b>shortsighted</b> [1] - 529:7  <b>show</b> [7] - 461:22, 505:5, 505:25, 535:16, 540:5, 547:24, 553:24  <b>showed</b> [1] - 451:9  <b>showing</b> [5] - 458:5, 479:9, 484:8, 488:14, 524:18  <b>shown</b> [3] - 445:19, 446:20, 457:20  <b>shows</b> [4] - 446:24, 452:9, 460:6, 476:7  <b>shut</b> [2] - 532:23, 533:15  <b>side</b> [4] - 506:14, 507:12, 508:8, 535:7  <b>sides</b> [1] - 512:22  <b>significant</b> [15] - 446:9, 461:23, 464:17, 480:25, 481:1, 482:4, 486:18, 487:21, 523:12, 523:13, 531:22, 543:17, 544:17, 553:15, 555:21  <b>significantly</b> [1] - 456:14  <b>similar</b> [3] - 459:8, 502:7, 521:18  <b>similarly</b> [2] - 502:25, 508:18  <b>simple</b> [1] - 508:22  <b>simplistic</b> [2] - 529:7, 546:4  <b>simply</b> [10] - 441:16, 485:9, 487:16, 551:7, 551:10, 552:12, 552:19, 553:1, 553:13  <b>sit</b> [1] - 450:12  <b>site</b> [3] - 529:11, 550:22, 550:24  <b>situation</b> [7] - 461:4, 500:3, 503:23, 524:9, 527:11, 552:12, 553:5  <b>situations</b> [1] - 461:17  <b>six</b> [4] - 457:22, 457:24, 458:1, 474:24  <b>Skagway</b> [1] - 527:1  <b>skill</b> [2] - 517:9, 557:6  <b>sky</b> [1] - 483:25  <b>sleeping</b> [1] - 470:15  <b>slowly</b> [1] - 549:21  <b>small</b> [9] - 453:11,</p>	<p>454:6, 488:11, 495:11, 533:22, 536:4, 545:4, 554:4  <b>smart</b> [1] - 535:15  <b>smarter</b> [1] - 535:7  <b>smokescreen</b> [2] - 553:12, 553:23  <b>so-called</b> [3] - 531:21, 532:10, 551:16  <b>sober</b> [1] - 535:2  <b>social</b> [10] - 518:15, 518:16, 518:20, 518:22, 519:1, 519:11, 520:9, 523:22, 524:5, 524:7  <b>Society</b> [1] - 437:15  <b>solid</b> [3] - 524:18, 524:20, 537:10  <b>solution</b> [4] - 493:12, 521:13, 521:15, 535:16  <b>sometimes</b> [1] - 524:6  <b>somewhat</b> [1] - 521:18  <b>somewhere</b> [1] - 526:6  <b>soon</b> [1] - 542:2  <b>sooner</b> [1] - 493:13  <b>sorry</b> [7] - 438:2, 446:12, 461:5, 475:8, 476:23, 480:12, 526:22  <b>sort</b> [4] - 441:16, 489:16, 493:7  <b>sources</b> [1] - 448:18  <b>soured</b> [1] - 482:14  <b>southern</b> [2] - 448:20, 448:25  <b>speaker</b> [1] - 477:1  <b>speaking</b> [6] - 438:20, 441:2, 442:3, 442:20, 473:15, 512:12  <b>special</b> [1] - 494:10  <b>specific</b> [6] - 442:10, 460:12, 466:16, 510:9, 538:5, 551:22  <b>specifically</b> [10] - 449:11, 449:14, 453:24, 500:7, 519:17, 520:7, 543:13, 545:23, 549:16, 549:21  <b>specious</b> [1] - 551:7  <b>speculation</b> [2] - 459:14, 460:3  <b>speculative</b> [2] - 487:11, 531:1  <b>spend</b> [1] - 526:1  <b>spending</b> [1] - 527:17  <b>spent</b> [1] - 525:22  <b>spike</b> [1] - 529:10  <b>spills</b> [1] - 464:23  <b>spoken</b> [1] - 530:3  <b>spot</b> [6] - 455:1, 499:6, 499:7, 499:9, 532:11, 546:14  <b>spread</b> [1] - 504:19  <b>stable</b> [1] - 527:21  <b>stack</b> [1] - 516:25  <b>stacking</b> [1] - 530:15  <b>staff</b> [11] - 438:7, 439:15, 439:20, 440:12, 454:13, 471:3, 491:16, 522:6, 534:5, 556:20  <b>Staff</b> [2] - 437:11,</p>	<p>437:12  <b>stage</b> [1] - 467:15  <b>stakeholder</b> [1] - 459:22  <b>stakeholders</b> [2] - 458:14, 541:4  <b>stand</b> [3] - 485:10, 542:9, 543:12  <b>standard</b> [2] - 506:19, 517:13  <b>start</b> [14] - 437:23, 442:6, 443:12, 443:13, 443:14, 444:3, 451:19, 452:25, 462:15, 469:4, 491:24, 492:2, 533:6  <b>start-ups</b> [1] - 469:4  <b>started</b> [1] - 496:19  <b>starting</b> [3] - 445:9, 451:21, 483:16  <b>starts</b> [1] - 469:9  <b>startup</b> [2] - 495:10, 496:23  <b>state</b> [2] - 465:17, 494:21  <b>statement</b> [5] - 440:6, 440:18, 440:24, 441:10, 505:2  <b>statements</b> [7] - 459:12, 542:13, 544:21, 552:14, 554:15, 554:24, 554:25  <b>states</b> [2] - 452:19, 518:25  <b>States</b> [6] - 497:20, 500:11, 504:9, 504:21, 505:8, 540:2  <b>station</b> [2] - 452:16, 472:24  <b>status</b> [1] - 479:21  <b>stay</b> [4] - 529:2, 529:3, 537:17, 548:7  <b>stead</b> [1] - 437:17  <b>step</b> [2] - 452:14, 500:20  <b>Steve</b> [1] - 556:19  <b>Stewart</b> [4] - 467:14, 548:22, 549:3, 555:16  <b>still</b> [12] - 456:13, 461:16, 463:20, 463:22, 472:6, 474:20, 503:7, 516:4, 525:24, 530:11, 544:6, 552:18  <b>stop</b> [3] - 446:13, 518:16, 531:19  <b>storage</b> [10] - 466:13, 472:19, 482:18, 492:13, 492:14, 508:8, 527:21, 528:7, 535:7, 535:14  <b>store</b> [1] - 512:8  <b>storm</b> [1] - 484:24  <b>story</b> [1] - 512:10  <b>stranded</b> [1] - 529:11  <b>Street</b> [1] - 437:2  <b>strictly</b> [1] - 498:22  <b>strong</b> [6] - 513:13, 513:16, 513:17, 514:2, 534:21  <b>strongly</b> [2] - 531:2, 535:22  <b>study</b> [1] - 535:9  <b>subject</b> [6] - 453:11, 463:1, 476:20, 492:11, 497:8, 545:19  <b>submission</b> [16] -</p>
<b>S</b>				
<p><b>safe</b> [1] - 465:6  <b>safest</b> [1] - 528:12  <b>safety</b> [7] - 464:6, 464:10, 464:12, 464:17, 465:7, 465:9, 528:6  <b>sale</b> [1] - 498:21  <b>sat</b> [2] - 532:13, 532:17  <b>satisfied</b> [1] - 486:9  <b>saved</b> [1] - 461:23  <b>saving</b> [1] - 529:5  <b>savings</b> [36] - 444:22, 445:5, 445:25, 446:9, 456:16, 456:21, 457:20, 458:5, 459:1, 460:8, 467:2, 474:4, 474:7, 474:12, 474:15, 475:7, 475:11, 475:14, 475:16, 476:8, 476:11, 476:13, 476:14, 476:17, 483:9, 483:10, 483:15, 484:9, 485:21, 486:4, 486:11, 487:4, 488:4, 500:2, 538:25, 553:16  <b>SCADA</b> [1] - 507:17  <b>scale</b> [2] - 527:12, 536:4  <b>scattered</b> [1] - 538:14  <b>schedule</b> [3] - 462:8, 464:3, 537:5  <b>Schedule</b> [1] - 498:23  <b>Schmitz</b> [1] - 437:13  <b>science</b> [1] - 509:1  <b>scope</b> [2] - 501:8, 518:10  <b>screeching</b> [1] - 535:13  <b>screening</b> [7] - 462:24, 463:12, 464:2, 464:14, 464:16, 464:20, 520:11  <b>seated</b> [3] - 437:22, 491:5, 537:20  <b>second</b> [7] - 438:23, 447:3, 447:4, 479:25, 510:7, 535:2, 555:2  <b>secondhand</b> [2] - 482:11, 482:15</p>				

## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p>453:3, 454:18, 458:14, 460:2, 471:23, 472:1, 496:22, 540:4, 540:18, 542:13, 543:8, 543:10, 544:14, 546:9, 547:14, 547:18</p> <p><b>SUBMISSIONS</b> [10] - 441:24, 477:10, 491:8, 522:23, 537:23, 558:6, 558:7, 558:8, 558:9, 558:10</p> <p><b>submissions</b> [9] - 442:11, 442:25, 443:4, 476:20, 489:9, 539:16, 539:17, 540:4, 556:11</p> <p><b>submit</b> [5] - 445:3, 456:1, 467:21, 474:22, 516:18</p> <p><b>subsidiary</b> [1] - 521:20</p> <p><b>substance</b> [2] - 546:23, 547:4</p> <p><b>substantial</b> [2] - 460:8, 460:18</p> <p><b>subtract</b> [1] - 502:4</p> <p><b>succinctly</b> [1] - 468:12</p> <p><b>sudden</b> [3] - 514:1, 548:6, 552:9</p> <p><b>suddenly</b> [1] - 530:9</p> <p><b>sufficient</b> [7] - 449:24, 476:14, 485:15, 515:22, 537:1, 540:11, 546:17</p> <p><b>suggest</b> [13] - 440:2, 471:25, 484:6, 488:4, 488:17, 540:10, 545:4, 545:13, 547:2, 549:5, 551:7, 556:2, 556:5</p> <p><b>suggested</b> [4] - 488:23, 489:4, 547:20, 548:12</p> <p><b>suggesting</b> [2] - 489:3, 540:13</p> <p><b>suggestion</b> [3] - 488:22, 490:8, 493:22</p> <p><b>suggestions</b> [1] - 459:16</p> <p><b>suggests</b> [2] - 471:23, 471:24</p> <p><b>suitable</b> [1] - 527:20</p> <p><b>Sumanik</b> [1] - 526:4</p> <p><b>Sumas</b> [1] - 505:19</p> <p><b>summarize</b> [2] - 451:8, 521:1</p> <p><b>summarizing</b> [1] - 494:12</p> <p><b>sunk</b> [3] - 514:6, 541:12, 554:20</p> <p><b>superficial</b> [1] - 540:14</p> <p><b>superior</b> [2] - 473:10, 553:25</p> <p><b>supervising</b> [1] - 507:16</p> <p><b>supplied</b> [2] - 467:18, 555:17</p> <p><b>supplier</b> [3] - 531:24, 532:1, 532:24</p> <p><b>suppliers</b> [2] - 532:1, 533:1</p> <p><b>supply</b> [38] - 452:6, 453:1, 453:4, 453:17, 453:18, 454:10, 454:11, 455:5, 456:25, 457:5,</p>	<p>457:14, 458:12, 464:1, 466:13, 468:17, 474:17, 492:13, 497:14, 497:15, 498:1, 498:8, 498:11, 498:13, 498:19, 499:1, 499:6, 499:9, 499:11, 499:17, 519:25, 520:6, 531:5, 531:25, 532:15, 532:22, 532:24, 533:9</p> <p><b>supply-related</b> [1] - 457:14</p> <p><b>supplying</b> [1] - 455:18</p> <p><b>support</b> [12] - 468:18, 469:1, 472:22, 488:25, 489:11, 490:8, 514:2, 518:18, 520:9, 520:24, 539:17, 542:14</p> <p><b>supported</b> [2] - 465:7, 544:21</p> <p><b>supposed</b> [5] - 516:6, 516:7, 516:20, 530:10, 531:6</p> <p><b>sureness</b> [1] - 532:6</p> <p><b>surplus</b> [4] - 449:5, 550:2, 555:18, 555:19</p> <p><b>surprise</b> [1] - 507:20</p> <p><b>Surprise</b> [9] - 509:3, 509:13, 509:22, 510:10, 510:13, 525:17, 550:4, 550:10, 552:15</p> <p><b>surprised</b> [3] - 509:4, 528:22, 553:4</p> <p><b>surrounding</b> [1] - 511:10</p> <p><b>suspect</b> [2] - 473:15, 536:18</p> <p><b>sustain</b> [1] - 460:8</p> <p><b>sustained</b> [3] - 458:7, 458:16, 459:3</p> <p><b>switch</b> [2] - 447:3, 536:2</p> <p><b>switching</b> [1] - 504:8</p> <p><b>system</b> [30] - 440:23, 447:20, 448:3, 450:8, 450:10, 452:4, 460:22, 460:24, 461:1, 461:6, 467:18, 473:4, 478:8, 478:10, 487:8, 492:20, 494:7, 494:13, 507:17, 510:22, 510:25, 514:7, 540:5, 540:6, 540:25, 542:17, 543:15, 556:3, 556:4</p> <p><b>systemically</b> [1] - 464:24</p> <p><b>systems</b> [9] - 447:20, 448:19, 448:25, 449:14, 449:23, 450:2, 494:3, 508:11, 543:4</p>	<p><b>talks</b> [4] - 545:10, 545:22, 546:21, 553:3</p> <p><b>talk</b> [2] - 512:6, 527:23</p> <p><b>target</b> [1] - 507:13</p> <p><b>tariff</b> [4] - 499:2, 499:7, 499:13, 510:22</p> <p><b>Tariff</b> [2] - 506:1</p> <p><b>tax</b> [3] - 518:13, 553:3, 553:4</p> <p><b>tear</b> [1] - 479:9</p> <p><b>technical</b> [1] - 468:18</p> <p><b>technologies</b> [1] - 530:3</p> <p><b>technology</b> [3] - 485:3, 485:5, 488:21</p> <p><b>ten</b> [4] - 467:25, 482:14, 530:4, 550:6</p> <p><b>tendered</b> [2] - 462:12, 462:14</p> <p><b>term</b> [42] - 440:16, 443:5, 443:7, 444:21, 445:10, 445:12, 454:17, 454:18, 454:23, 455:3, 456:24, 457:4, 457:19, 458:3, 466:9, 466:14, 466:24, 474:13, 475:2, 475:4, 476:8, 479:24, 481:16, 483:24, 486:19, 499:12, 504:18, 507:8, 507:9, 508:23, 515:10, 515:14, 515:17, 523:20, 525:8, 539:1, 548:4, 549:9</p> <p><b>terms</b> [77] - 440:8, 442:1, 442:25, 443:2, 447:4, 447:5, 448:1, 452:3, 452:18, 452:19, 454:16, 455:5, 461:2, 461:18, 461:24, 463:2, 463:12, 463:22, 464:1, 465:15, 465:17, 467:19, 468:25, 470:11, 472:16, 473:12, 473:18, 478:5, 486:8, 493:18, 494:17, 496:2, 496:15, 497:11, 497:16, 497:19, 498:7, 498:10, 498:17, 499:1, 499:18, 501:23, 503:3, 503:13, 504:10, 504:13, 504:19, 505:3, 506:6, 506:10, 506:12, 506:18, 507:8, 508:17, 508:22, 509:8, 509:9, 509:15, 514:23, 516:1, 516:3, 516:20, 516:23, 517:6, 517:12, 519:7, 519:11, 520:9, 520:19, 523:4, 541:18, 542:5, 554:10, 554:11</p> <p><b>Territories</b> [1] - 456:20</p> <p><b>territory</b> [2] - 534:24, 554:6</p> <p><b>Territory</b> [1] - 557:9</p> <p><b>terror</b> [1] - 479:17</p> <p><b>test</b> [6] - 461:10, 477:19, 490:2,</p>	<p>495:24, 495:25, 544:8</p> <p><b>tested</b> [1] - 474:11</p> <p><b>testified</b> [2] - 549:17, 549:20</p> <p><b>testifying</b> [1] - 489:23</p> <p><b>testimony</b> [7] - 443:24, 444:24, 459:5, 466:2, 469:6, 475:24, 481:5</p> <p><b>tests</b> [2] - 476:9, 496:2</p> <p><b>Texas</b> [1] - 534:7</p> <p><b>text</b> [1] - 541:2</p> <p><b>thankfully</b> [1] - 551:14</p> <p><b>themes</b> [1] - 523:24</p> <p><b>themselves</b> [2] - 478:20, 517:2</p> <p><b>thereabouts</b> [1] - 490:16</p> <p><b>thereafter</b> [2] - 460:15, 542:2</p> <p><b>therefore</b> [2] - 452:5, 553:11</p> <p><b>thermal</b> [40] - 447:10, 447:18, 447:21, 448:2, 448:14, 448:20, 449:8, 449:13, 449:20, 450:3, 450:9, 450:15, 450:25, 451:4, 452:15, 460:22, 467:2, 468:2, 472:23, 473:4, 494:2, 494:3, 494:4, 494:7, 494:13, 494:16, 514:5, 517:18, 517:20, 517:21, 517:22, 517:23, 518:3, 535:14, 542:16, 543:4, 543:14, 556:3, 556:4</p> <p><b>Thermal</b> [1] - 448:7</p> <p><b>they've</b> [1] - 439:16, 453:23, 453:24, 455:16, 467:8, 480:4, 489:23, 510:23, 549:4, 550:3, 555:14</p> <p><b>thinking</b> [2] - 500:19, 537:11</p> <p><b>thinks</b> [1] - 504:4</p> <p><b>third</b> [7] - 440:25, 452:17, 467:13, 509:8, 540:8, 551:12</p> <p><b>thoughtful</b> [1] - 537:9</p> <p><b>thoughts</b> [1] - 442:19</p> <p><b>thousands</b> [2] - 527:4, 527:5</p> <p><b>thread</b> [1] - 489:17</p> <p><b>three</b> [5] - 458:8, 459:4, 472:5, 495:17, 540:4</p> <p><b>throughout</b> [6] - 467:18, 476:18, 486:2, 514:12, 523:24, 552:7</p> <p><b>throw</b> [1] - 484:18</p> <p><b>tight</b> [1] - 522:8</p> <p><b>til..</b> [1] - 537:18</p> <p><b>Tilbury</b> [10] - 453:5, 455:12, 457:11, 474:17, 498:10, 498:15, 498:20, 505:18, 531:25, 546:2</p> <p><b>timeframe</b> [1] - 473:14</p> <p><b>timeframes</b> [1] -</p>	<p>522:8</p> <p><b>timer</b> [1] - 508:15</p> <p><b>timing</b> [3] - 442:1, 478:18, 480:14</p> <p><b>today</b> [13] - 447:21, 448:12, 462:10, 476:16, 493:3, 493:21, 524:4, 525:5, 530:13, 542:11, 550:21, 552:4</p> <p><b>toe</b> [1] - 481:3</p> <p><b>together</b> [1] - 479:20</p> <p><b>tomorrow</b> [2] - 525:5, 532:23</p> <p><b>tone</b> [2] - 488:18, 489:7</p> <p><b>took</b> [8] - 467:14, 467:15, 472:5, 476:24, 503:18, 527:2, 555:10, 555:16</p> <p><b>top</b> [3] - 439:21, 496:5, 500:18</p> <p><b>toppled</b> [1] - 484:11</p> <p><b>torn</b> [1] - 524:10</p> <p><b>total</b> [4] - 476:14, 512:11, 516:5, 550:25</p> <p><b>totally</b> [2] - 544:14, 544:25</p> <p><b>tough</b> [2] - 506:22, 507:3</p> <p><b>towards</b> [2] - 493:12, 507:14</p> <p><b>Town</b> [1] - 455:12</p> <p><b>town</b> [1] - 550:24</p> <p><b>track</b> [1] - 464:3</p> <p><b>tracks</b> [1] - 518:16</p> <p><b>tradition</b> [1] - 488:14</p> <p><b>train</b> [2] - 455:24, 456:16</p> <p><b>trained</b> [1] - 469:25</p> <p><b>trains</b> [2] - 456:2, 533:14</p> <p><b>transcribed</b> [2] - 442:5, 557:5</p> <p><b>Transcript</b> [1] - 557:1</p> <p><b>transcript</b> [21] - 438:11, 438:25, 439:1, 442:4, 443:17, 449:11, 469:9, 471:19, 479:12, 480:15, 481:18, 481:20, 486:5, 492:22, 495:22, 496:14, 496:18, 497:9, 546:1, 557:4</p> <p><b>transit</b> [1] - 485:13</p> <p><b>transition</b> [1] - 485:7</p> <p><b>transmission</b> [6] - 447:9, 492:11, 494:14, 542:22, 549:4, 551:5</p> <p><b>Transmission</b> [2] - 548:23, 555:16</p> <p><b>transport</b> [5] - 455:6, 501:15, 503:2, 503:5, 527:1</p> <p><b>transportation</b> [7] - 474:19, 501:11, 501:15, 502:24, 528:2, 545:11, 545:13</p> <p><b>transported</b> [1] - 503:6</p> <p><b>transporting</b> [1] - 502:6</p> <p><b>trend</b> [1] - 504:10</p> <p><b>trends</b> [1] - 504:23</p> <p><b>tribunal</b> [4] - 447:2, 459:15, 539:20, 544:11</p>
<b>T</b>				
<p><b>Ta'an</b> [2] - 531:8, 531:14</p> <p><b>table</b> [6] - 438:23, 438:25, 439:5, 480:9, 483:18, 511:22</p> <p><b>Table</b> [5] - 438:24, 441:11, 445:19, 446:21, 510:6</p> <p><b>tables</b> [1] - 485:23</p>				

## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p><b>tridem</b> [1] - 455:24  <b>tridems</b> [2] - 455:19, 456:13  <b>tried</b> [4] - 504:17, 512:9, 512:10, 538:3  <b>tries</b> [2] - 544:22, 553:9  <b>trite</b> [1] - 485:3  <b>troublesome</b> [1] - 480:7  <b>truck</b> [6] - 472:19, 501:15, 502:19, 512:8, 527:3, 533:7  <b>trucking</b> [1] - 512:4  <b>trucks</b> [4] - 533:4, 533:11, 533:18, 534:1  <b>truly</b> [1] - 501:7  <b>truth</b> [1] - 544:1  <b>truthful</b> [1] - 544:7  <b>try</b> [9] - 442:10, 500:8, 500:17, 500:21, 506:20, 533:9, 538:12, 541:19, 542:15  <b>trying</b> [15] - 450:7, 473:1, 480:10, 507:21, 509:14, 522:25, 523:3, 523:24, 526:17, 526:21, 534:25, 536:20, 543:8, 545:3  <b>turbine</b> [2] - 467:13, 540:8  <b>turn</b> [11] - 437:25, 448:4, 477:9, 491:7, 501:18, 503:4, 508:14, 508:20, 536:1, 539:9, 556:5  <b>turning</b> [1] - 524:14  <b>turns</b> [2] - 508:16, 514:14  <b>two</b> [19] - 438:8, 439:12, 456:22, 458:8, 459:4, 462:5, 467:16, 478:4, 484:3, 502:4, 506:7, 517:20, 528:9, 539:20, 539:23, 540:7, 546:17, 546:24, 554:5  <b>tying</b> [1] - 476:5  <b>type</b> [4] - 460:2, 461:17, 552:25, 555:25  <b>types</b> [1] - 508:11</p>	<p>468:25, 531:19  <b>uncertainties</b> [1] - 531:1  <b>uncertainty</b> [2] - 458:3, 459:13  <b>unchallenged</b> [1] - 551:18  <b>under</b> [13] - 443:6, 445:18, 446:19, 448:6, 451:23, 453:7, 474:11, 477:13, 510:21, 514:24, 515:23, 518:14, 544:8  <b>underground</b> [4] - 463:8, 463:16, 483:5, 534:16  <b>underline</b> [2] - 526:10, 533:11  <b>underlying</b> [1] - 489:17  <b>undersigned</b> [1] - 557:3  <b>understandable</b> [1] - 482:21  <b>undertaken</b> [1] - 519:15  <b>undertaking</b> [12] - 438:10, 438:13, 438:19, 439:1, 439:2, 453:19, 472:6, 496:11, 496:13, 496:15, 497:2, 543:18  <b>UNDERTAKING</b> [6] - 438:18, 439:10, 441:23, 558:14, 558:16, 558:18  <b>undertakings</b> [3] - 438:5, 438:8, 439:14  <b>underway</b> [1] - 488:12  <b>undue</b> [1] - 541:9  <b>unfair</b> [1] - 544:13  <b>unfortunately</b> [4] - 486:21, 528:14, 554:6  <b>uninformed</b> [1] - 468:6  <b>unit</b> [1] - 452:13  <b>United</b> [6] - 497:20, 500:11, 504:9, 504:21, 505:8, 540:2  <b>units</b> [9] - 444:11, 452:10, 455:24, 456:16, 456:18, 472:17, 473:9, 500:24  <b>unless</b> [2] - 502:18, 509:21  <b>unlike</b> [1] - 467:25  <b>Unlike</b> [1] - 448:24  <b>unlikely</b> [3] - 465:5, 485:25  <b>unload</b> [1] - 472:19  <b>unpredictable</b> [1] - 527:17  <b>unsupported</b> [1] - 459:11  <b>unusual</b> [2] - 503:23, 541:22  <b>unwarranted</b> [1] - 493:7  <b>up</b> [33] - 438:14, 439:3, 439:6, 442:20, 448:5, 450:24, 454:22, 456:19, 457:14, 468:9, 468:23, 472:22, 485:10, 485:24, 486:23, 488:14, 490:18, 497:2, 503:18, 508:19, 508:23, 508:24,</p>	<p>517:1, 522:20, 523:22, 527:11, 532:13, 535:11, 536:20, 538:14, 542:9, 555:17  <b>update</b> [3] - 441:12, 441:13, 457:20  <b>updated</b> [8] - 441:11, 441:14, 445:7, 445:19, 446:20, 474:15, 474:18, 474:19  <b>upfront</b> [1] - 483:2  <b>ups</b> [1] - 469:4  <b>urge</b> [1] - 536:1  <b>urgency</b> [1] - 493:6  <b>usable</b> [2] - 493:10, 494:21  <b>uses</b> [1] - 507:18  <b>UTILITIES</b> [1] - 436:1  <b>utilities</b> [2] - 521:17, 524:2  <b>Utilities</b> [8] - 437:10, 437:16, 477:13, 494:11, 521:19, 521:23, 522:1, 522:2  <b>utility</b> [11] - 488:11, 497:12, 498:24, 499:1, 506:19, 507:1, 507:4, 507:21, 508:9, 520:22  <b>utilize</b> [2] - 444:16, 455:23</p>	<p><b>volatility</b> [6] - 483:20, 484:8, 484:12, 484:25, 485:17, 486:22  <b>Volume</b> [9] - 436:20, 437:4, 481:19, 491:1, 492:21, 492:22, 495:21, 497:9  <b>VOLUME</b> [1] - 558:3</p>	<p>514:22, 515:24, 515:25, 527:2, 538:11, 545:2, 545:3, 545:12, 545:18, 545:23, 545:24, 551:22, 555:19, 556:20, 557:8  <b>whole</b> [12] - 456:18, 482:14, 486:15, 496:18, 497:3, 512:13, 525:4, 535:12, 537:9, 537:11, 548:24, 549:14  <b>wide</b> [1] - 474:11  <b>wife</b> [1] - 525:11  <b>willing</b> [2] - 511:5  <b>willy</b> [1] - 545:20  <b>willy-nilly</b> [1] - 545:20  <b>wind</b> [4] - 448:18, 526:4, 530:5, 535:8  <b>Winnipeg</b> [1] - 449:16  <b>winter</b> [8] - 444:17, 449:21, 451:13, 461:3, 471:10, 505:8, 505:22, 505:23  <b>withdrawal</b> [1] - 519:11  <b>withdrawn</b> [3] - 519:8, 531:7, 531:10  <b>withdrew</b> [2] - 531:11, 531:16  <b>witness</b> [2] - 489:22, 523:16  <b>witnessed</b> [1] - 524:8  <b>witnesses</b> [5] - 475:24, 489:23, 503:24, 546:23, 547:8  <b>wonder</b> [1] - 536:17  <b>Wood</b> [1] - 437:2  <b>word</b> [1] - 495:22  <b>words</b> [7] - 445:22, 457:24, 482:8, 504:2, 508:13, 541:10, 546:1  <b>works</b> [3] - 454:2, 500:23, 513:1  <b>Workshop</b> [1] - 519:24  <b>workshop</b> [2] - 520:5, 535:14  <b>world</b> [12] - 458:15, 459:6, 497:17, 500:10, 500:19, 502:1, 502:10, 502:14, 504:19, 504:20, 515:16, 525:14  <b>worry</b> [1] - 527:24  <b>wrestle</b> [1] - 499:21  <b>wrestling</b> [1] - 500:9  <b>written</b> [1] - 501:12</p>	
<b>U</b>					
<p><b>U.S.</b> [6] - 458:19, 458:23, 459:7, 504:4, 504:11, 546:24  <b>UCG</b> [10] - 458:20, 477:19, 480:7, 483:14, 489:4, 490:14, 538:7, 538:11, 538:19  <b>UCG's</b> [1] - 490:10  <b>UCG-YEC-1-12</b> [1] - 519:21  <b>UCG-YEC-1-12(a)</b> [1] - 519:14  <b>UCG-YEC-1-5(c)</b> [1] - 484:13  <b>UCG-YEC-1-9</b> [1] - 516:10  <b>unacceptable</b> [1] - 445:8  <b>unanswered</b> [1] - 531:3  <b>unaware</b> [1] - 478:25  <b>uncertain</b> [2] -</p>	<p>485:25, 531:19  <b>uncertainties</b> [1] - 531:1  <b>uncertainty</b> [2] - 458:3, 459:13  <b>unchallenged</b> [1] - 551:18  <b>under</b> [13] - 443:6, 445:18, 446:19, 448:6, 451:23, 453:7, 474:11, 477:13, 510:21, 514:24, 515:23, 518:14, 544:8  <b>underground</b> [4] - 463:8, 463:16, 483:5, 534:16  <b>underline</b> [2] - 526:10, 533:11  <b>underlying</b> [1] - 489:17  <b>undersigned</b> [1] - 557:3  <b>understandable</b> [1] - 482:21  <b>undertaken</b> [1] - 519:15  <b>undertaking</b> [12] - 438:10, 438:13, 438:19, 439:1, 439:2, 453:19, 472:6, 496:11, 496:13, 496:15, 497:2, 543:18  <b>UNDERTAKING</b> [6] - 438:18, 439:10, 441:23, 558:14, 558:16, 558:18  <b>undertakings</b> [3] - 438:5, 438:8, 439:14  <b>underway</b> [1] - 488:12  <b>undue</b> [1] - 541:9  <b>unfair</b> [1] - 544:13  <b>unfortunately</b> [4] - 486:21, 528:14, 554:6  <b>uninformed</b> [1] - 468:6  <b>unit</b> [1] - 452:13  <b>United</b> [6] - 497:20, 500:11, 504:9, 504:21, 505:8, 540:2  <b>units</b> [9] - 444:11, 452:10, 455:24, 456:16, 456:18, 472:17, 473:9, 500:24  <b>unless</b> [2] - 502:18, 509:21  <b>unlike</b> [1] - 467:25  <b>Unlike</b> [1] - 448:24  <b>unlikely</b> [3] - 465:5, 485:25  <b>unload</b> [1] - 472:19  <b>unpredictable</b> [1] - 527:17  <b>unsupported</b> [1] - 459:11  <b>unusual</b> [2] - 503:23, 541:22  <b>unwarranted</b> [1] - 493:7  <b>up</b> [33] - 438:14, 439:3, 439:6, 442:20, 448:5, 450:24, 454:22, 456:19, 457:14, 468:9, 468:23, 472:22, 485:10, 485:24, 486:23, 488:14, 490:18, 497:2, 503:18, 508:19, 508:23, 508:24,</p>	<p>517:1, 522:20, 523:22, 527:11, 532:13, 535:11, 536:20, 538:14, 542:9, 555:17  <b>update</b> [3] - 441:12, 441:13, 457:20  <b>updated</b> [8] - 441:11, 441:14, 445:7, 445:19, 446:20, 474:15, 474:18, 474:19  <b>upfront</b> [1] - 483:2  <b>ups</b> [1] - 469:4  <b>urge</b> [1] - 536:1  <b>urgency</b> [1] - 493:6  <b>usable</b> [2] - 493:10, 494:21  <b>uses</b> [1] - 507:18  <b>UTILITIES</b> [1] - 436:1  <b>utilities</b> [2] - 521:17, 524:2  <b>Utilities</b> [8] - 437:10, 437:16, 477:13, 494:11, 521:19, 521:23, 522:1, 522:2  <b>utility</b> [11] - 488:11, 497:12, 498:24, 499:1, 506:19, 507:1, 507:4, 507:21, 508:9, 520:22  <b>utilize</b> [2] - 444:16, 455:23</p>	<p><b>valid</b> [1] - 472:2  <b>value</b> [4] - 470:8, 502:6, 515:3, 553:10  <b>Vancouver</b> [4] - 456:18, 498:16, 521:22, 531:25  <b>vaporization</b> [1] - 472:19  <b>vapourization</b> [1] - 528:7  <b>vapourizer</b> [1] - 512:6  <b>variability</b> [1] - 539:2  <b>variable</b> [1] - 514:8  <b>variety</b> [1] - 481:23  <b>various</b> [9] - 439:3, 443:6, 458:10, 485:23, 506:3, 506:23, 524:14, 524:15, 538:4  <b>vast</b> [1] - 529:17  <b>vent</b> [1] - 527:22  <b>verbatim</b> [2] - 541:9, 555:12  <b>version</b> [1] - 496:22  <b>versus</b> [1] - 457:25, 458:6, 459:2, 460:12, 461:12, 499:19, 499:21, 499:23, 507:9, 545:2, 553:7  <b>viability</b> [3] - 460:12, 460:14, 539:4  <b>Vice</b> [1] - 437:7  <b>Vice-chair</b> [1] - 437:7  <b>view</b> [7] - 439:13, 446:9, 449:21, 468:6, 478:1, 514:2, 524:15  <b>viewpoint</b> [1] - 460:11  <b>views</b> [2] - 459:1, 549:25  <b>vigour</b> [1] - 525:20  <b>virtually</b> [1] - 495:9  <b>vis-à-vis</b> [1] - 546:3</p>	<p><b>W</b></p> <p><b>wane</b> [1] - 487:2  <b>wants</b> [3] - 499:10, 509:21, 544:24  <b>Ward</b> [1] - 437:11  <b>warm</b> [5] - 508:19, 508:23, 508:24, 515:22  <b>warp</b> [1] - 514:17  <b>Washington</b> [1] - 528:14  <b>wasteful</b> [1] - 529:16  <b>wasting</b> [1] - 484:4  <b>water</b> [10] - 449:23, 481:3, 495:17, 507:19, 510:3, 515:23, 529:17, 531:13, 531:15, 539:2  <b>water-based</b> [1] - 449:23  <b>ways</b> [3] - 507:15, 508:19, 529:7  <b>WD1</b> [15] - 443:16, 443:19, 443:25, 451:21, 451:24, 452:2, 467:21, 468:5, 468:7, 468:10, 495:3, 495:24, 496:4, 543:19, 552:17  <b>WD2</b> [15] - 443:17, 443:19, 443:25, 451:22, 451:24, 452:2, 467:21, 468:5, 468:7, 468:10, 495:3, 495:24, 496:4, 543:19, 552:17  <b>WD3</b> [1] - 438:12  <b>wear</b> [1] - 479:9  <b>weather</b> [1] - 515:21  <b>weave</b> [1] - 538:12  <b>week</b> [2] - 528:13, 539:19  <b>weeks</b> [1] - 524:9  <b>weight</b> [5] - 498:20, 498:21, 499:4, 505:4, 505:15  <b>Western</b> [2] - 458:12, 532:8  <b>Westmark</b> [1] - 437:1  <b>whatsoever</b> [1] - 545:15  <b>whereas</b> [1] - 532:7  <b>WHITEHORSE</b> [1] - 436:7  <b>Whitehorse</b> [48] - 436:22, 437:1, 437:2, 444:2, 444:11, 450:24, 452:10, 452:15, 472:23, 476:3, 476:22, 478:12, 497:7, 497:21, 497:22, 497:25, 498:4, 498:5, 499:23, 499:24, 499:25, 501:1, 501:12, 501:24, 502:4, 502:6, 502:17, 502:18, 503:2, 503:5, 503:6, 506:25,</p>	<p><b>Y</b></p> <p><b>YCS</b> [5] - 515:9, 543:6, 547:1, 547:13, 549:7  <b>YCS/LE</b> [8] - 493:5, 499:13, 503:13, 503:14, 503:15, 515:7, 519:7, 539:9  <b>YCS/LE-1-14</b> [1] - 500:6  <b>YCS/LE-11(d)</b> [1] - 493:15  <b>YCS/LE-YEC-1-21(c)</b> [1] - 518:25</p>

## YUB - YEC LNG Project, Volume 3, April 2, 2014

<p><b>year</b> [7] - 439:2, 470:14, 471:2, 471:14, 485:15, 492:17, 530:10</p> <p><b>years</b> [57] - 439:3, 443:21, 444:12, 452:11, 455:16, 458:17, 459:9, 459:20, 460:13, 460:15, 460:25, 461:8, 461:12, 461:21, 461:25, 462:2, 462:6, 466:19, 467:7, 467:25, 468:11, 472:5, 473:2, 475:9, 475:17, 475:21, 476:13, 481:6, 482:14, 483:21, 484:15, 485:14, 486:24, 487:3, 510:8, 512:19, 512:24, 519:4, 523:25, 525:6, 526:14, 528:24, 530:4, 530:11, 531:5, 546:17, 547:25, 548:5, 548:7, 550:1, 553:14, 553:19, 554:2, 554:8, 554:16, 555:25</p> <p><b>years'</b> [1] - 484:3</p> <p><b>YEC</b> [87] - 438:20, 445:1, 453:16, 454:11, 458:4, 460:17, 463:8, 467:22, 469:24, 476:2, 492:19, 492:25, 493:13, 493:15, 495:21, 496:12, 496:21, 497:1, 498:18, 499:2, 499:3, 499:5, 499:10, 503:11, 503:19, 503:20, 503:24, 504:3, 504:7, 505:9, 505:20, 506:10, 507:10, 509:11, 509:21, 510:4, 510:15, 511:3, 511:7, 511:23, 513:8, 515:10, 516:13, 516:14, 516:24, 517:20, 518:20, 518:22, 519:3, 519:5, 521:5, 521:11, 523:19, 524:20, 524:23, 525:16, 525:22, 526:9, 526:23, 527:9, 528:25, 530:14, 531:24, 532:3, 532:9, 533:20, 533:25, 534:4, 535:5, 535:12, 541:3, 541:8, 541:12, 541:15, 546:5, 547:20, 547:22, 548:12, 548:17, 549:1, 549:2, 549:5, 549:23, 550:12, 550:19, 555:3</p> <p><b>YEC's</b> [17] - 440:17, 447:13, 451:7, 475:24, 492:7, 495:6, 498:24, 503:8, 503:15, 505:2, 510:7, 510:21, 512:24, 514:25, 520:23, 554:22, 555:1</p> <p><b>YEC-1-13</b> [1] - 458:21</p>	<p><b>YEC-LE-1-21(c)</b> [1] - 518:21</p> <p><b>YECL</b> [3] - 481:4, 549:13, 549:24</p> <p><b>YESAB</b> [16] - 462:24, 463:9, 463:15, 464:7, 464:15, 464:20, 465:12, 465:14, 483:4, 483:8, 488:1, 519:19, 520:11, 520:14, 521:3, 534:17</p> <p><b>yesterday</b> [12] - 439:12, 451:16, 454:8, 463:15, 498:17, 525:18, 529:9, 541:6, 543:12, 549:17, 549:20, 553:1</p> <p><b>yield</b> [1] - 476:13</p> <p><b>yo</b> [2] - 486:23</p> <p><b>yo-yo</b> [1] - 486:23</p> <p><b>YUB</b> [7] - 496:24, 523:11, 529:19, 529:22, 535:2, 543:19, 556:20</p> <p><b>YUB-13(b)</b> [1] - 544:9</p> <p><b>YUB-130</b> [1] - 440:22</p> <p><b>YUB-YEC-1-13(b)</b> [1] - 494:25</p> <p><b>YUKON</b> [2] - 436:1, 436:6</p> <p><b>Yukon</b> [119] - 436:22, 437:2, 437:10, 437:13, 437:15, 439:22, 440:23, 444:6, 445:15, 446:5, 446:6, 447:2, 448:6, 448:11, 448:24, 449:6, 449:9, 450:8, 450:15, 450:16, 450:17, 450:21, 450:23, 451:10, 451:18, 453:4, 453:14, 454:6, 454:15, 454:16, 454:19, 455:6, 455:7, 455:8, 455:18, 455:23, 456:3, 456:4, 456:6, 456:15, 456:19, 456:23, 458:18, 459:5, 459:24, 460:6, 460:16, 460:24, 461:8, 461:20, 461:22, 462:25, 463:6, 463:11, 463:25, 464:2, 465:23, 466:9, 467:8, 471:4, 472:21, 473:7, 473:24, 474:5, 475:3, 476:4, 476:6, 478:9, 479:5, 479:11, 488:10, 519:25, 520:22, 522:2, 523:18, 525:4, 525:6, 525:9, 525:12, 525:14, 526:10, 526:11, 526:18, 529:3, 529:15, 533:6, 533:19, 533:21, 535:8, 535:10, 535:16, 535:17, 535:23, 535:24, 540:5, 540:9, 540:24, 542:8, 545:13, 548:15, 550:2, 551:5, 551:10, 552:3, 552:5, 554:4, 555:12, 555:22, 555:24, 556:5, 557:8</p> <p><b>Yukon's</b> [5] - 444:13,</p>	<p>447:18, 447:19, 447:22, 527:15</p> <p><b>Yukoner</b> [2] - 471:21, 526:25</p> <p><b>Yukoners</b> [18] - 461:23, 476:7, 520:23, 523:14, 523:25, 524:4, 524:7, 524:23, 525:5, 525:9, 525:11, 526:2, 526:5, 526:19, 530:24, 535:1, 535:21</p> <p><b>Yukon's</b> [2] - 448:16, 449:1</p> <hr/> <p style="text-align: center;"><b>Z</b></p> <hr/> <p><b>zero</b> [2] - 503:23, 541:5</p>
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