

In the Matter Of:

In Re: DEU - Pass-Through Application

HEARING, DOCKET NO. 17-057-20

June 12, 2018

Job Number: 455355

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

Pass-Through Application)
of Dominion Energy Utah) Docket No. 17-057-20
for an Adjustment in Rates)
and Charges for Natural) Hearing
Gas Service in Utah)
)

Date: June 12, 2018

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 Salt Lake City, Utah

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Certified Shorthand Reporter and Notary Public
Job No. 455355

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1 P R O C E E D I N G S

2 CHAIRMAN LEVAR: Good morning. We're here for
3 Public Service Commission Docket 17-057-20, the passthrough
4 application of Dominion Energy Utah for an adjustment in
5 rates and charges for natural gas service in Utah. We have
6 a hearing today on one portion of that passthrough
7 application, to evaluate the prudence of the peak hour
8 contract with Kern River and Dominion Energy Questar
9 Pipeline.

10 Why don't we start with appearances for the
11 Utility.

12 MR. SABIN: Cameron Sabin from Stoel Reeves on
13 behalf of the Company. I'm here with Jenniffer Clark
14 inhouse counsel for the Company as well as each of our
15 witnesses, Kelly Mendenhall, David Landward, Mike Platt and
16 William Schwarzenbach.

17 CHAIRMAN LEVAR: Thank you. For the Division
18 of Public Utilities.

19 MS. SCHMID: Good morning. Patricia E. Schmid
20 with the Utah Attorney General's office representing the
21 Division of Public Utilities. With me as our witnesses
22 today we have Mr. Douglas Wheelwright, Mr. Eric Orton,
23 Mr. Kenneth Ditzel, Mr. Frank DiPalma who the Commission
24 kindly granted permission to appear by phone because he is
25 ill, and finally Howard Lubow.

1 CHAIRMAN LEVAR: Thank you. Office of Consumer
2 Services.

3 MR. SNARR: Yes. My name is Steven Snarr. I'm
4 an assistant attorney general here on behalf of the Office
5 of Consumer Services. Assisting today as witnesses will be
6 Jerome Mierzwa and Michele Beck.

7 CHAIRMAN LEVAR: Thank you. Utah Association
8 of Energy Users.

9 MR. RUSSELL: Yes. Thank you. Phillip Russell
10 on behalf of UAE. UAE does not have any witnesses to
11 present. I will note for the Commissioners' benefit based
12 on the number of witnesses that are here and are
13 testifying, I'm going to have to leave likely before this
14 is over, but because we don't have any witnesses it
15 shouldn't affect the schedule. I may be able to come back
16 before it's over depending on how long you all drag this
17 out.

18 CHAIRMAN LEVAR: Thank you, Mr. Russell. Any
19 other preliminary matters before we go to the Utility's
20 witnesses?

21 MR. SABIN: I don't think so.

22 CHAIRMAN LEVAR: Okay. Mr. Sabin.

23 MR. SABIN: The Company would first call
24 Mr. Kelly Mendenhall. Ms. Clark is going to handle that.

25 CHAIRMAN LEVAR: Good morning, Mr. Mendenhall.

1 Do you swear to tell the truth?

2 THE WITNESS: I do.

3 CHAIRMAN LEVAR: Thank you.

4 DIRECT EXAMINATION

5 BY MS. CLARK:

6 Q. Good morning.

7 A. Good morning.

8 Q. Would you please state your name and business
9 address for the record?

10 A. Yes. My name is Kelly Mendenhall. My business
11 address is 333 South State Street, Salt Lake City, Utah.

12 Q. What position do you hold with the Company?

13 A. I am the director of regulatory pricing for
14 Dominion Energy of Utah.

15 Q. Mr. Mendenhall, did you file, prefile rebuttal
16 testimony in this matter identified as Exhibit 4.0-R?

17 A. Yes, I did.

18 Q. And do you adopt that testimony as your
19 testimony today?

20 A. I do.

21 MS. CLARK: The Company would move for the
22 admission of Mr. Mendenhall's testimony prefiled DEU
23 Exhibit 4.0-R.

24 CHAIRMAN LEVAR: If any party objects to that
25 motion please indicate to me. I'm not seeing any

1 objection, so the motion is granted.

2 MS. CLARK: Thank you.

3 Q. Mr. Mendenhall, would you please summarize your
4 testimony today?

5 A. Sure. I have a lot of technical expertise to
6 add to the record in this docket, but I just want to
7 briefly speak about process. The Commission has been asked
8 to determine whether the Company was prudent in acquiring
9 firm peak hour contracts for Kern River and Dominion Energy
10 Questar Pipeline. My testimony cites Utah Code
11 54-4-4(4)(a). If you'll turn with me to page 3 of my
12 testimony I quote this statute directly. So in my rebuttal
13 testimony on page 3, line 28, it reads, when the Commission
14 is evaluating the prudence of an action taken by a public
15 utility or an expense occurred by a public utility it
16 should determine whether reasonable utility, knowing what
17 the utility knew or reasonably should have known at the
18 time of the action, would reasonably have incurred all or
19 some portion of the expense in taking the same or some
20 other prudent action.

21 Since the decision to acquire the peak hour
22 contracts was made in early 2017, the Company did not have
23 all of the evidence and analysis that has been presented in
24 this docket and Docket 17-057-09 when the Company made the
25 decision to acquire the peak hour contracts.

1 In early 2017 there were three decisions the
2 Company made that led to the procurement of these contracts
3 and where I believe the prudency statute becomes
4 applicable.

5 The first decision point comes with the
6 Company's calculation of the design peak day. The
7 calculation for the 2017-2018 winter heating season was
8 performed in early 2017 in conjunction with the development
9 of the Company's integrated resource plan. The design day
10 calculation is one of the most difficult and important
11 calculations that the Company performs. It is difficult
12 because we are trying to predict the future and it is
13 important because we rely on the peak day calculation to
14 ensure safe and reliable service for our customers.
15 Because of this the calculation is something we take
16 seriously. The design day calculation is the decision that
17 has received the most criticism in this docket.
18 Mr. Mierzwa, representing the Office of Consumer Services,
19 has offered an alternative approach, which I believe
20 supports the fact that the Company's approach was
21 reasonable because the two calculations fall within a
22 similar range. The Division provided a lot of criticism
23 about the Company's model and why it believes the
24 calculation was overstated, but provided no alternative
25 proposal for the Commission to consider as it makes its

1 prudence determination.

2 The second decision point comes with the
3 calculation of the Company's unsteady state model as
4 explained by Mr. Platt. Mr. Platt's model shows that
5 during extreme cold weather conditions, there is not enough
6 gas supply available to meet customer demands during the
7 peak hour. There are only three witnesses in this docket,
8 Mr. Platt, Mr. Schwarzenbach, and Mr. DiPalma, who have the
9 educational and technical expertise to effectively critique
10 Mr. Platt's model. The only criticism of Mr. Platt's model
11 by these three experts is Mr. DiPalma's criticism that the
12 design day calculation is overstated and that because
13 Mr. Platt uses the design day calculation as an input in
14 this model the Company's design peak hour calculation is
15 also overstated. If the Commission determines that the
16 Company's design day calculation is reasonable and in the
17 public interest then Mr. Platt's model must also be
18 reasonable.

19 The third decision point came after Mr. Platt
20 determined there was a problem and Mr. Schwarzenbach sought
21 a solution. Ultimately it was determined that the peak
22 hour services provided by Kern River and Dominion Energy
23 Questar Pipeline would provide the reliability necessary in
24 the most cost effective manner. While other witnesses have
25 offered other alternatives, the Company does not believe

1 these are viable solutions because they are either more
2 expensive or unreliable.

3 In order to fully address the prudence of the
4 Company in this docket, the Commission will need to make
5 determinations about each of these three decision points
6 that I just mentioned. There has been a lot of evidence
7 provided in this docket that the Company did not have
8 access to when it calculated the design day, developed its
9 unsteady state model results and determined the peak hour
10 contracts were the best solution. That's why it is
11 imperative that as the Commission makes its evaluation it
12 consider what the Company knew or reasonably should have
13 known at the time of the decision.

14 I would also like to briefly address Ms. Beck.
15 She points out in her surrebuttal that I didn't address her
16 recommendation that this proceeding should result in
17 general guidelines regarding the proper process for new
18 issues that arise in future passthrough proceedings. I'll
19 take this opportunity to address her proposal. She
20 recommends that the Company be required in future
21 passthrough applications to identify any new types of
22 contracts or costs so that parties have the opportunity to
23 request a separate schedule similar to how the peak hour
24 contracts were treated in this docket. The Company
25 supports this recommendation and is happy to work with the

1 Office and the Division in the future to make any of these
2 other process improvements to improve the regulatory
3 process. This concludes my summary.

4 Q. Mr. Mendenhall, as part of your involvement in
5 this docket did you review the prefiled testimony of
6 Mr. Lubow?

7 A. I did.

8 Q. Do you recall that he attached as Exhibit 5.1 a
9 response to a data request that you prepared?

10 A. Yes.

11 Q. Would you like to clarify that response?

12 A. I would. So perhaps we can turn to Mr. Lubow's
13 testimony because I don't want to misquote him. If we turn
14 to Mr. Lubow's surrebuttal testimony and we turn to line
15 342. Line 342 it reads, he's talking about the data
16 request that he attached. However, in coming to its
17 determination that this 17 percent differential exists
18 during the time of the peak hour, DEU has included
19 interruptible customer volumes. If these interruptible
20 customer volumes are excluded, the differential is reduced
21 to 7 percent, itself representing that a 60 percent
22 overstatement in firm peaking services needed.

23 I just want to clarify what is in the data
24 request versus what is in Mr. Platt's unsteady state model.
25 There are really three numbers that we are talking about

1 here. We have the 17 percent. The 17 percent was taken
2 from the last docket. What I had done, as you recall the
3 17-057-09 was a docket where we were discussing allocating
4 some of these peak hour costs to transportation customers.
5 So I had created an exhibit that showed the transportation
6 customers peak hour usage versus their average daily usage.
7 How I calculated that is I took the actual usage for those
8 customers for the 2016-2017 heating season, just the
9 transportation customers. Later on in that proceeding, I
10 believe it was the UAE asked me to remove the interruptible
11 volumes, and when I removed the interruptible volumes I
12 ended up with a 7 percent differential between the peak and
13 the average.

14 So how does that relate to Mr. Platt's unsteady
15 state model. Well, we're really comparing apples and
16 oranges. What Mr. Platt has done in his unsteady state
17 model is he takes the last five years of meter reads for
18 all customers. I was just focussed on transportation
19 customers. He is including sales customers and
20 transportation customers, but he's excluding interruptible
21 volumes for both sales and interruptible customers. So he
22 takes the historical five years of data for all customers,
23 all firm customers, and then he uses that to develop an
24 estimate of what the usage will be on a design day. So
25 that's the difference between the two.

1 So I think Mr. Lubow is trying to draw a
2 conclusion that because my two charts, the first one
3 included interruptible volumes and the second one excluded
4 them, that for some reason Mr. Platt was using that data.
5 That's simply not the case. It's incorrect. There are two
6 completely different analyses done on different sets of
7 data.

8 If you look at Mr. Mierzwa's testimony, he does
9 kind of a back of the envelope calculation of Mr. Platt's
10 model. He notes that the mean difference is about 25
11 percent. So really completely unrelated to the 17 percent.
12 The 17 percent was just an example I was trying to use to
13 show that transportation customers used some of these
14 services.

15 **Q. Thank you, Mr. Mendenhall.**

16 MS. CLARK: Mr. Mendenhall is now available for
17 cross examination.

18 CHAIRMAN LEVAR: Thank you. Ms. Schmid, do you
19 have any questions for him?

20 MS. SCHMID: Yes, but could we have a brief one
21 or two or three minute recess?

22 CHAIRMAN LEVAR: Certainly. Any objection to
23 that? Why don't we take a --

24 MS. SCHMID: Or go off on the record for a
25 couple of minutes.

1 CHAIRMAN LEVAR: Yes, if you just need a
2 moment.

3 MS. SCHMID: I do.

4 CHAIRMAN LEVAR: If you need more than that
5 we'll just do a recess.

6 MS. SCHMID: Thank you.

7 (Off the record.)

8 MS. SCHMID: Thank you. The Division has no
9 cross.

10 CHAIRMAN LEVAR: Okay. Thank you.
11 Commissioner Clark promised he would be less than a minute.
12 So before we go to Mr. Snarr we'll wait.

13 MS. SCHMID: Commissioner Clark probably never
14 had reason to believe that I would be so quick.

15 CHAIRMAN LEVAR: Mr. Snarr.

16 MR. SNARR: The Office has no cross
17 examination.

18 CHAIRMAN LEVAR: Thank you. Mr. Russell.

19 MR. RUSSELL: Likewise, UAE has no cross
20 examination of this witness.

21 CHAIRMAN LEVAR: Thank you. Commissioner
22 White, do you have any questions for Mr. Mendenhall?

23 COMMISSIONER WHITE: No questions. Thank you.

24 CHAIRMAN LEVAR: Commissioner Clark.

25 COMMISSIONER CLARK: Mr. Mendenhall, would you

1 review the second decision point that you mentioned in your
2 summary?

3 THE WITNESS: Surely. Thank you for the
4 question. The second decision point was the model, the
5 unsteady state model that Mr. Platt created. I basically
6 summarized and said there are three people in this
7 proceeding that I believe has the expertise to critique and
8 review it, Mr. DiPalma, Mr. Schwarzenbach, and Mr. Platt.
9 The only criticism that had been leveled against his model
10 was the fact he used the design day calculation as an
11 input. Then I drew the conclusion that if the Commission
12 finds the design day calculation just and reasonable, that
13 the model should also be reasonable.

14 COMMISSIONER CLARK: So criticisms about the
15 temperature at the peak hour or the wind speed or those
16 aspects, those inputs, to the model you dismiss because of
17 their source?

18 THE WITNESS: Those inputs go into the design
19 day model. If the Commission were to determine that those
20 were just and reasonable or they weren't just and
21 reasonable, then the design day model would be either
22 accepted or adjusted, and that acceptance or adjusted would
23 then flow into the peak hour model and essentially be
24 corrected. If the input is corrected then the model is
25 correct. That's kind of the conclusion I was drawing.

1 COMMISSIONER CLARK: I see. Thanks for
2 clarifying that for me. Those are all my question.

3 CHAIRMAN LEVAR: Thank you, Commissioner Clark.
4 I have one question. This is probably a question that's
5 better for Mr. Schwarzenbach, but since you've given a high
6 level summary of the decision process I want to see if you
7 can talk about it too. I'm speaking hypothetical. If we
8 were to approve the prudence of both of these contracts,
9 would there be a continuing need for no-notice service from
10 Kern River and DEQP? Or to what extent would there be any
11 continuing need?

12 THE WITNESS: I'm going to give the brief high
13 level regulatory answer and then I will let him give a more
14 technical answer. But yes, because those services meet two
15 different needs on our system I believe we can still need
16 no-notice service in addition to the peak hour service. I
17 do know that he plans to address that in his summary.

18 CHAIRMAN LEVAR: Thank you. I don't have
19 anything else. Thank you, Mr. Mendenhall.

20 THE WITNESS: Thank you.

21 MR. SABIN: The Company calls Mr. David
22 Landward.

23 CHAIRMAN LEVAR: Mr. Landward, do you swear to
24 tell the truth?

25 THE WITNESS: Yes, I do.

1 DIRECT EXAMINATION

2 BY MR. SABIN:

3 Q. Good morning, Mr. Landward.

4 A. Good morning.

5 Q. Could you state your full name for the record?

6 A. My name is David Christian Landward.

7 Q. And your business address?

8 A. My business address is 333 South State Street,
9 Salt Lake City, Utah.

10 Q. Would you please provide your title and area of
11 responsibility within the Company?

12 A. I am a regulatory analyst for Dominion Energy
13 Utah. My responsibilities include forecasting gas demand
14 and customer growth, preparing the estimate of firm sales
15 and transportation demand on a design peak day for the
16 integrated resource plan, and providing analytical support
17 to other department functions.

18 Q. Could you provide the Commission with your
19 background, your education, and your experience?

20 A. Certainly. I have a Bachelor of Science in
21 Mathematics and a Master of Statistics from the University
22 of Utah. I've worked for Dominion Energy Utah for 23
23 years. I began working in regulatory affairs as an analyst
24 in 2008. Prior to that I worked as a computer programmer
25 and systems analyst for the Company. In that role I

1 provided technical support to the regulatory affairs
2 department for a number of years, writing software to
3 acquire, manage, and analyze data in support of regulatory
4 functions.

5 In the summer of last year I was given
6 responsibility for estimating design peak day demand and
7 took ownership of the Company's current model, one that was
8 developed by my predecessor who had left the Company at
9 that time. Prior to that, my involvement in estimating
10 design peak day demand was limited to consultation on
11 general questions regarding modeling approaches.

12 Q. Thank you, Mr. Landward. Did you submit in
13 this docket both direct and rebuttal testimony?

14 A. Yes, I did.

15 Q. And I will just note that your direct testimony
16 is Company Exhibit 1, or DEU Exhibit 1, and then your
17 rebuttal testimony is DEU 1.1-R with exhibits to that 1.1-R
18 and 1.2-R. Is that accurate?

19 A. Yes, sir.

20 Q. Do you have any changes to that testimony?

21 A. I do not.

22 Q. Okay. And do you adopt that testimony today?

23 A. Yes, I do.

24 MR. SABIN: The Company moves for the admission
25 of Exhibits 1.0, 1.0-R, 1.1-R, and 1.2-R.

1 CHAIRMAN LEVAR: If anyone objects to that
2 motion please indicate to me. I'm not seeing any
3 objection, so the motion is granted.

4 MR. SABIN: Thank you.

5 Q. Mr. Landward, have you prepared a summary of
6 your direct and rebuttal testimony in this matter?

7 A. Yes, I have.

8 Q. Would you please provide that to us?

9 A. Yes. The purpose of my testimony in this
10 docket is to explain how the Company currently estimates
11 design peak day demand and to offer my assessments of that
12 approach and the resulting estimated demand. In addition I
13 address concerns raised by the Office of Consumer Services
14 and the Division of Public Utilities regarding the
15 Company's assumptions for design peak day conditions and
16 the Company's modeling approach.

17 Design peak day planning is done to ensure that
18 the Company is prepared to meet demand during an event of
19 extremely low temperature. My role in that process is to
20 estimate gas demand for a complete 24-hour period when the
21 mean temperature for that period is minus 5 degrees
22 Fahrenheit, or 70 heating degree days, the Company's design
23 peak day temperature. The occurrence of this mean daily
24 temperature or one below it is a design peak event.

25 Obviously, there is a range of gas demand that

1 could be seen during a design peak day event. This range
2 is attributable to additional variables that affect demand
3 to different degrees. These include wind speed, the day of
4 the week, winter holidays, and demand on the prior day.
5 The Company seeks to establish the high end of that range
6 and base its gas supply planning at that level.
7 Incorporating these variables into its design peak day
8 modeling allows the Company to isolate the effect of each
9 on demand and then use assumed values for each to construct
10 the high end scenario. The choice of a high end, or worst
11 case, scenario provides an inherent safety factor in the
12 estimation and helps to ensure that adequate supply is
13 available to meet all demand scenarios that fall within the
14 range.

15 Estimating design peak day demand is a
16 challenging task, and it is not an exact science.
17 Utilities employ various methods to derive an estimate,
18 some more rigorous than others. And there is not
19 necessarily one established approach that is superior to
20 all others. Methods may differ with circumstances and
21 foundational goals. One reason for the inherent difficulty
22 of this task is that any estimate is subject to error. The
23 estimate may be higher or lower than what may actually
24 occur under assumed conditions because of the random
25 elements that cannot be predicted. Another challenge is

1 that because of the lower frequency of extreme cold events,
2 the Company is estimating design peak day demand without
3 the aid of recent observations of demand by today's
4 customer base on such a day. In a manner of speaking, the
5 Company is aiming for a target that it cannot see, but that
6 target exists nonetheless, and the Company cannot afford to
7 miss low.

8 To avoid missing low, the design peak day
9 demand estimate in this case was calculated using an
10 assumption of maximum wind speed observed across the winter
11 months in a dataset extending back to 2004. This was done
12 independent of temperature. Unfortunately, the Company
13 lacks wind speed data for the dates on which many of the
14 extreme low temperature occurrences are recorded. In the
15 absence of these data, I believe it was judicious of the
16 Company to assume a worst case scenario because it has
17 occurred during recent winter months.

18 Shortly after I took responsibility for the
19 estimation, questions were raised regarding the Company's
20 selection of wind speed assumptions during the Kern River
21 docket proceedings. Other variables were not questioned at
22 that time. I undertook my own analysis of wind speeds in
23 the Salt Lake Region relative to temperatures similar to
24 that conducted by Mr. Jerome Mierzwa, the consultant
25 retained by the Office. My findings are consistent with

1 his. And I am of the opinion going forward, the Company
2 could consider reducing the wind speed assumptions for its
3 design peak day estimate to the levels suggested by the
4 Office in this docket. But the Commission should recognize
5 that doing so will reduce a portion of the safety margin
6 deliberately built into the process by the Company.

7 Mr. Mierzwa has also suggested alternations to
8 the Company's current design peak day demand model and has
9 used this alternative to estimate daily demand using a set
10 of design peak day assumptions that includes his
11 recommended wind speeds and a higher level of prior day
12 demand that I have recommended in my rebuttal testimony. I
13 have evaluated this model and have found it to produce a
14 reasonable estimate of design peak day demand with
15 appropriate inputs. That said, I believe that the demand
16 number that the Company has calculated is also reasonable.

17 To assess reasonability, I've estimated demand
18 under rare low temperature events that are recorded in the
19 Company's temperature history. I've used Mr. Mierzwa's
20 proposed model for this estimation. I note that these
21 events are even more extreme than what the Company
22 explicitly plans for. These serve as useful scenarios in
23 understanding the gas demand levels reached should
24 temperature conditions exceed those directly assumed for
25 planning. I recognize that all of these events are rare

1 with a low probability of occurrence, but that is the
2 point. We're trying to establish usage levels under
3 extreme conditions that are infrequent but nonetheless a
4 reality. It should be noted that a design peak day event
5 is the occurrence of a mean daily temperature at or below
6 minus 5 degrees Fahrenheit. While the Company estimates
7 demand at a minus 5 degree level for design peak day
8 planning, the occurrence of a design peak day event
9 implicitly includes the possibility of a mean daily
10 temperature that falls below that.

11 I have not done this to advocate the selection
12 of a design peak day temperature below the Company's
13 current choice of minus 5 degrees Fahrenheit. I believe
14 that the Company's current design peak day temperature
15 remains appropriate, and I am not recommending a change.
16 Rather, I've calculated demand under these temperature
17 assumptions to establish perspective and to aid in
18 assessing whether the design peak day estimate in question
19 exceeds even the most extreme case the Company's data show.
20 This comparison was included in my rebuttal testimony. And
21 it leads me to the conclusion that the Company's current
22 estimate, while based on wind speeds that could be relaxed
23 going forward, is still within a range of possibility among
24 the extreme events. Therefore, in my opinion, decisions
25 regarding firm peaking services were based upon a demand

1 level that can be reached. Consequently, those decisions
2 were reasonable and prudent.

3 In addition to sharing the Office's concern
4 over assumed wind speeds, the Division of Public Utilities
5 has suggested that the Company analyze mean temperature
6 data in the context of climate change and consider
7 adjusting the design peak day temperature to a higher one.
8 This is problematic for a number of reasons. No one filing
9 testimony in this docket, including myself, is qualified to
10 make any scientific determination or inference regarding a
11 permanent upward shift in the minimum mean temperatures
12 that are possible along the Wasatch Front. The Company is
13 not aware of any definitive scientific consensus that the
14 occurrence of extremely low temperatures observed in the
15 past in the Salt Lake Region are no longer probable. The
16 Division has not offered any evidence to support the
17 conclusion that a general warming trend precludes the
18 possibility of extreme low or high temperature occurrences.
19 Nor has the Division provided a proposal for a design peak
20 day temperature that they believe would be an appropriate
21 substitute for the Company's selection. The simple
22 regression analysis of mean temperatures relative to time
23 offered by Mr. Ditzel in his surrebuttal testimony does not
24 provide a reliable academic justification for the Company
25 to conclude that it can now safely ignore the extreme low

1 temperatures that have been observed in past years.

2 The Division further contends that the Company
3 should determine the joint likelihood of all its design
4 peak day conditions occurring simultaneously and select an
5 alternate set of assumptions that are more likely to occur
6 jointly. This suggests that the Division fundamentally
7 misunderstands what guides the Company's decision regarding
8 design peak day assumptions.

9 The Company's obligation is to ensure that its
10 customers are provided with the firm gas service that they
11 rely upon under all weather conditions. To meet that
12 obligation, the Company has calculated a mean daily
13 temperature of minus 5 degrees Fahrenheit to base its
14 design peak day planning upon. An estimate of the highest
15 level of daily gas demand that could be realized in that
16 event is necessary to secure adequate gas supply to meet
17 the full range of demand possibilities, thereby avoiding a
18 supply shortfall at the worst possible time. While the
19 likelihood of all ancillary assumptions occurring
20 simultaneously will be lower than the likelihood of the
21 design day temperature occurrence alone, those assumptions
22 nevertheless aid the Company in preparing to meet all
23 demand levels that can be expected on a design peak day.

24 The Division, however, is suggesting that an
25 effective cost should be calculated and used as a basis for

1 decisions regarding design peak day assumptions, much like
2 an actuarial evaluation of an insurance policy. In other
3 words, a probabilistic threshold that renders a cost
4 justification should provide a basis for the Company's
5 decisions regarding design peak day planning and
6 assumptions. The implication of this suggestion is that
7 there exists an acceptable level of loss that could be
8 sustained by the Company's customers should an event with a
9 likelihood below that probability threshold actually occur.
10 My charge is to provide an estimate of gas demand on a
11 design peak day that encapsulates potential demand levels
12 on that day so that has supply and engineering personnel
13 can ensure safe and reliable service under those
14 conditions. The Company believes that is the appropriate
15 foundation for decisions regarding design peak day
16 planning.

17 **Q. Thank you, Mr. Landward. Does that conclude**
18 **your summary?**

19 **A. Yes.**

20 **MR. SABIN:** Mr. Landward is available for cross
21 examination.

22 **CHAIRMAN LEVAR:** Thank you, Mr. Landward.
23 Ms. Schmid, do you have any questions for Mr. Landward?

24 **MS. SCHMID:** Thank you.

25 **

1 CROSS EXAMINATION

2 BY MS. SCHMID:

3 Q. Good morning.

4 A. Good morning.

5 Q. I will preface my questions with a comment that
6 the Division of course desires reasonable service and
7 reliable service. However, there must be a cost benefit
8 analysis I believe at some point or else we would all have
9 redundant gas lines going to our house. With that
10 background, and the emphasis that yes the Division does
11 want reliable service I'm going to launch into my
12 questions. What is HDD?

13 A. Heating degree days.

14 Q. Do you use HDD in your model as an input?

15 A. Yes.

16 Q. How many HDD terms do you use at the Company?

17 A. We apply the heating degree days and then we
18 take an exponentiation of those, a squared term, a cube
19 term, a term raised to the fourth power.

20 Q. So you use a total of four HDD?

21 A. I use a total of four terms based on one
22 heating degree day level.

23 Q. Okay. Thank you for that clarification. Do
24 other companies that you know of use four?

25 A. Four terms the way that this model does?

1 **Q. Yes.**

2 A. Some may, some may not. I haven't examined
3 other companies' regression models to determine whether
4 they do or don't. It's a method to capture inherent
5 nonlinear behavior that can exist in demand. This is
6 something that is done frequently in electric load
7 forecasting. It's called polynomial regression. I first
8 saw it in a conference in a workshop on electric load
9 forecasting. Energy demand, electricity or gas demand does
10 not necessarily behave in a linear fashion across the full
11 range of heating degree days. Of course, as it grows
12 exponentially that may decrease and then may grow again.
13 Polynomial regression is a method so it can capture that
14 inherent nonlinear address and render a more accurate
15 estimate reducing variance.

16 **Q. Do you recall Mr. Ditzel's testimony in which I**
17 **believe he stated that it is uncommon, and I am**
18 **paraphrasing -- that it is uncommon for companies to use --**
19 **I'm going to call them HDD because it illustrates my lack**
20 **of depth of knowledge on this subject.**

21 A. I understand what you mean.

22 **Q. Did you read his testimony where he said that**
23 **it was uncommon that companies use four HDDs as I**
24 **described?**

25 A. I did read his testimony. I don't necessarily

1 agree with that assessment.

2 Q. In connection with your employment at Dominion
3 have you studied all the other companies?

4 A. No.

5 Q. Thank you. In your summary you dismissed the
6 Division's concern about the probability of all peak day
7 assumptions when HDD days, et cetera, occurring
8 simultaneously. Is that a fair paraphrase of your
9 position?

10 A. I don't know that I dismissed the concern. But
11 the simultaneous occurrence of all of these conditions
12 occurring at once is not, one, likelihood for all of them
13 together is not what guides the decisionmaking process
14 about which conditions to include in an overall design day
15 construction.

16 Q. If you will indulge me, were you able to
17 determine the probability of all the design conditions
18 occurring at once?

19 A. I have not been able to do that because I'm
20 missing data points on the wind speed for the extreme cold
21 temperature data points that exist within that dataset we
22 would use to estimate or to calculate the design peak day
23 temperature. So I can't calculate a full joint
24 probability.

25 Q. Because you don't have the data?

1 A. Correct.

2 Q. Turning now to wind speed. How does wind speed
3 affect demand in the Company's model?

4 A. Wind speed is -- well, let me summarize it this
5 way. The harder the wind blows when it's cold, the more
6 heat that escapes the home, and the colder it gets that
7 effect of wind speed intensifies. There is a term called
8 convection that explains it. So the Company's regression
9 model has been constructed to capture not only the effect
10 of wind, but the changing effect of wind as temperature
11 increases. There are different ways to do that. In some
12 cases heating degree days can be calculated in a way that
13 incorporates wind speed into the overall heating degree day
14 number adjusted for wind. Regression can be done on that.
15 I've tried that.

16 The approach that the Company uses is to
17 include what is called an interaction term, one that
18 interacts with the estimated effect of wind itself and
19 allows for that effect to increase as the temperatures
20 increase.

21 Q. If I may let's focus on what the Company does.
22 So the Company includes two wind speeds in its design peak
23 day assumptions; is that right?

24 A. That's right.

25 Q. Are you aware of other utilities or academic

1 studies that endorse, support, or use two wind speeds?

2 A. The maximum wind speed?

3 Q. Yes.

4 A. I'm not aware of any that use wind speeds like
5 that. I mean, that include both of those terms. The
6 purpose of the maximum --

7 Q. That answers my question. I'm afraid that --
8 not afraid. I'm trying to help ensure that we finish
9 today. So I will limit my cross questions and hopefully
10 try and steer you towards just answering the question that
11 I ask, although I know it is typical to want to say as much
12 as possible.

13 A. I understand.

14 Q. Okay.

15 A. I'm not offended.

16 Q. Do you recall in Dominion's response to DPU
17 data request 13.13 you answered that prior day maximum wind
18 speed was assumed to be approximately 54 percent of design
19 peak day wind speeds, or approximately 25 miles an hour,
20 and that the mean wind speed was assumed to be
21 approximately 55 percent of design peak day wind speed or
22 approximately 14 miles an hour?

23 A. That sounds correct.

24 Q. I do have a copy of that if you need to refresh
25 your recollection.

1 A. I'll accept that.

2 Q. Thank you. So you've read Mr. Ditzel's
3 testimony, right?

4 A. Correct.

5 Q. Do you remember where he concluded that in
6 replicating the Company's method there were absolute errors
7 of 21 percent for mean wind speed and 38 percent for
8 maximum wind speed?

9 A. In the construction of those prior day
10 assumptions?

11 Q. Let's turn to his testimony if we may. I think
12 that would probably be more efficient than trying to have
13 me paraphrase it. Do you have his testimony in front of
14 you?

15 A. I do, yes.

16 Q. Perfect. If you could turn to his surrebuttal,
17 I believe pages 13 and 14.

18 A. So it's not in direct?

19 Q. No, it's in his surrebuttal. But you've read
20 that?

21 A. I have, yes.

22 Q. So if we turn to lines 279, 280, 281 in that
23 area -- I apologize. This is in his direct. I wrote it
24 down wrong.

25 MR. SABIN: Could you repeat the lines one more

1 time?

2 MS. SCHMID: Yes. I'm looking at pages 13 and
3 14, but specifically I'm looking at line numbers 279
4 through 281.

5 THE WITNESS: Okay. I'm with you.

6 Q. Do you believe that the level of errors he
7 found, 21 percent and 28 percent, are acceptable levels of
8 error?

9 A. They are in my opinion. I expect a high level
10 of error in that.

11 Q. Turning to Mr. Mierzwa's modeling approach, you
12 said in general terms his modeling approach was reasonable.
13 Is that a fair representation of your general overall
14 impression of his testimony?

15 A. Yes, it is.

16 Q. Mr. Mierzwa's modeling approach resulted in
17 design peak day wind speeds of 17 miles per hour for a
18 maximum speed and 9 for mean. Does that sound about right?

19 A. Yes.

20 Q. Would using these wind speeds that are about 33
21 percent lower than the ones you used, would that lower
22 materially the Company's design peak day demand estimate?

23 A. It does lower the estimate, yes.

24 Q. Let's turn now to prior day demand. I believe
25 that Mr. Mierzwa excluded prior day demands in his model;

1 is that correct?

2 A. No, that's not correct. He has included that
3 variable.

4 Q. Scratch that question.

5 A. Okay.

6 Q. What is the lowest probability event that you
7 think a prudent company would consider in its planning 1 in
8 100 years, 1 in 1,000, 1 in 50, 1 in 10, 1 in 20? Do you
9 have any opinion on that?

10 A. The only opinion I can offer is I think the
11 Company's wanting 20 year recurrence interval for these
12 temperatures is appropriate. There are others that may be
13 appropriate. I can't answer for other utilities. What may
14 be prudent for one utility may be different for another.
15 It depends on foundational goals. The Company's choice of
16 1 in 20 recurrence and reliability is appropriate.

17 Q. When was the last time the Company had a minus
18 5 degree Fahrenheit day, do you recall?

19 A. In December of 1990 temperatures approached
20 that. I think on a midnight to midnight basis the mean
21 temperature was minus 4 degrees. On a gas day basis 8:00
22 a.m. to 8:00 a.m. I believe the data shows about 4.8
23 degrees.

24 Q. Do you recall in your testimony though that you
25 state it was I believe 1943, or 69 years ago -- sorry.

1 1949 when the Company had its last minus 5 degree day?

2 A. There was one that was lower than that I think
3 in 1963. I believe that was about minus 7.

4 Q. My mother was pregnant with me. I'm sure she
5 remembered that day well. Let's talk about -- this is
6 outside my box, but we're going to go here gently. Let's
7 talk about the difference between a model fit and its
8 predicted accuracy. Are you familiar with that form of
9 analysis and critique?

10 A. Yes.

11 Q. Good. Could you explain the difference?

12 A. Generally when you're talking about a model's
13 fit you're looking at how well the variance is explained,
14 and that can be measured in different numbers that we call
15 coefficient of variation. For example, you might have
16 heard it called as an R-squared term. Those are called
17 goodness of fit statistics. Accuracy -- there are other
18 metrics to measure, accuracy, how well the model predicts
19 data points that it's estimated upon. Terms for those
20 might be root-mean-squared error, a mean-absolute-percent
21 error, Schwarz Bayesian Criterion. There are a number --

22 Q. I'm sorry to break out in hives.

23 A. I'll stop.

24 Q. Is one way of determining how to test the
25 predicted power of an estimated equation to use statis for

1 calibration and then data used to test the predicted power?

2 So you use one to calibrate and I think one to test?

3 A. That's a common approach and there are various
4 ways of doing that.

5 Q. If you don't use the calibration part, can you
6 determine the predicted accuracy?

7 A. Well, the accuracy statistic that I mentioned,
8 like the root-mean-squared, that is one way to measure the
9 overall accuracy, how old is the model that you estimated
10 predict all the data points that it was actually based
11 upon. You can go steps further by holding out data points
12 using techniques like cross correlation analysis or hold
13 out sample that is common and developing a forecasting
14 model on a time and series data. That's a good measure to
15 determine if you can predict what hasn't happened yet, what
16 the model hasn't seen yet.

17 Q. So does that give you an idea of the model fit?

18 A. It gives you -- no, it gives you a measurement
19 of how well it predicts data points that it hasn't seen.

20 Q. If a model uses historical data and that model
21 -- can a model that fits historical data well perform
22 poorly when used for a prediction?

23 A. Well, good fit doesn't necessarily guarantee
24 good accuracy. Both assessments need to be made
25 ultimately.

1 Q. Can a statistician do something called
2 overfitting?

3 A. Yes, that can be done.

4 Q. Can you give one or two sentences that talk
5 about what overfitting is, if you can condense it that
6 briefly?

7 A. If we talk about goodness of fit measurements,
8 for example, the R-squared term. Sometimes analysts may
9 continue adding explanatory variables into a model to try
10 to raise the R-squared value. The higher the R-squared
11 value the more the model explains variances observed and
12 the dependent term. The higher R-squared doesn't
13 necessarily mean the predicted power increases along with
14 it.

15 Q. Thank you. Those are all my questions. Thank
16 you for your patience. I obviously should have taken
17 statistic courses in college and probably for the rest of
18 my life.

19 A. They do cause hives.

20 Q. I did not know there were so many people who
21 had a Master of Statistics degree until I started in this
22 field. Thank you very much for your answers.

23 THE WITNESS: Thank you.

24 CHAIRMAN LEVAR: Thank you. Thank you,
25 Ms. Schmid. Mr. Snarr.

1 CROSS EXAMINATION

2 BY MR. SNARR:

3 Q. Good morning, Mr. Landward. How are you?

4 A. Good morning. I'm fine. How are you, sir?

5 Q. Good. I would like to direct your attention to
6 your rebuttal testimony filed in May of 2018. If you would
7 turn to page 3, and I direct your attention to lines 44 and
8 45. There you indicate Mr. Mierzwa's approach is
9 reasonable and provides an estimate of design peak day that
10 is within an appropriate range; is that correct?

11 A. Yes, sir.

12 Q. Also, turning to page 15 of that same
13 testimony, lines 296, 297. You indicate Mr. Mierzwa's
14 model is a reasonable alternative; is that correct?

15 A. Yes, sir.

16 Q. In contrast to those statements you indicate on
17 page 8 of your rebuttal testimony, line 156, the Company's
18 proposed peak day demand estimate falls at the higher end
19 of what you refer to as a range of reasonableness; is that
20 correct?

21 A. Yes.

22 Q. On the following page of your rebuttal
23 testimony you indicate -- I think this captures again some
24 of your comment from this morning, the Company must plan to
25 maintain safe and reliable service to its customers, even

1 on the coldest days and during the most extreme weather
2 events; is that correct?

3 A. Yes.

4 Q. Again, on page 9 of your rebuttal testimony you
5 state that the Company believes it is prudent to use an
6 estimate at the high end of a reasonable range to account
7 for all the extreme outcomes that the Company could
8 experience; is that correct?

9 A. Yes.

10 Q. Page 15, something similar at line 300. You
11 indicate your goal is to cover all possibilities to cover a
12 shortfall; is that correct?

13 A. All possibilities in the context of the design
14 peak day of minus 5 degrees.

15 Q. Turning to page 16, you indicate the Company's
16 challenge is to estimate a demand level that will meet all
17 of the demand possibilities should the daily mean
18 temperature fall to the extreme low level that it has in
19 the past. That's just what you said a minute ago, right?

20 A. Yes.

21 Q. At the top of page 9 you characterize the
22 Company's approach in determining the adequate resources to
23 meet design peak day requirements as a conservative one; is
24 that correct?

25 A. I'm sorry. Which line are you referring to?

1 Q. The top of page 9. You talk about the
2 Company's approach being a conservative one?

3 MR. SABIN: I just want to note that your page
4 numbers don't match the witness' pages. For some reason
5 your page numbers you're citing are different. The line
6 number may be more productive.

7 Q. Well, I missed the line number on that one, but
8 let's --

9 A. I do see the sentence that you're referring to.

10 Q. Okay. You describe the Company's approach as a
11 conservative one, right? That's just a yes or no.

12 A. Conservative approach, yes.

13 Q. Thank you. Today you talked about the
14 Company's goals. You've reaffirmed some of the comments
15 that we've already readdressed here in cross examination.
16 You have indicated the Company's goal is to try to avoid
17 those extreme situations from ever occurring. I believe
18 you also talked about the level of reasonableness depends
19 on the Company's goals. Didn't you say that earlier today?

20 A. Yes.

21 Q. You also made a comment about insurance or an
22 analogy to insurance I believe in your testimony this
23 morning?

24 A. Right.

25 Q. Do you have automobile insurance?

1 A. I do.

2 Q. Do you pay that regularly?

3 A. I do.

4 Q. Have you ever had the event that you've had to
5 make a claim on your automobile insurance?

6 A. I have not.

7 Q. That's wonderful. Other people may have
8 actually had to make a claim on their automobile insurance.
9 Is that fair to say?

10 A. Certainly.

11 Q. So as we pay for the insurance against the
12 events, we hope that they're the least probable events, and
13 in your life you've been able to escape any of those
14 events, right?

15 A. In my adult life. Let me clarify what I meant
16 by that.

17 Q. I'll let it be clarified as you have suggested.
18 My concern today is as customers of Dominion Energy, we're
19 paying basically insurance premiums based upon your design
20 day calculations to avoid the possibility of some
21 disruption to service. Is that a fair analog?

22 A. I don't know that it is. I don't know that I
23 can -- I think a better context is not an insurance policy,
24 but emergency preparedness. I have a fire extinguisher in
25 my home. I hope I never have to use it, but I want to have

1 it just in case.

2 Q. All right. If I were to tell you I have six
3 fire extinguishers in my home, would you suggest that I
4 maybe over planned?

5 A. No, I think I would probably follow your
6 example and think I might be a little short.

7 Q. I'm not sure I'm right. Let's turn to the task
8 of what the Public Service Commission has to undertake
9 today. The Public Service Commission then really probably
10 is not charged with trying to determine how to save
11 Dominion Energy from ever having an extreme event or an
12 outage. Do you agree with me?

13 A. When you say -- okay. Having an extreme event,
14 that's not something we can control. We're planning for
15 extreme events. We don't want to have an outage when an
16 extreme event occurs.

17 Q. I appreciate your clarification. You're
18 suggesting that your planning efforts is to never have an
19 outage?

20 A. Right, that's correct.

21 Q. I want you to focus with me what the Public
22 Service Commission's obligation might be, and that would be
23 what is in the public interest. I'm suggesting to you that
24 it might be that we as a regulatory community here ensure
25 that you're planning well, and if an outage occurs we've

1 planned well for the outage and we've saved enough money
2 through the process that we can deal with the outage and we
3 haven't overcharged the customers for the possibility that
4 the outage will occur. Do you understand my question?

5 A. I understand your question, but you're
6 characterizing the losses -- I guess I'm not sure how
7 you're characterizing the loss. The greatest loss in the
8 event of a system outage under extreme cold conditions is
9 going to be to the customer base. They're going to incur
10 the loss.

11 Q. Have you had some customer base outages before?

12 A. We have.

13 Q. Have you made a calculation of the cost
14 associated with one of those recent outages?

15 A. We have.

16 Q. What is the range of the cost associated with
17 that outage?

18 A. I don't recall. I would have to look up the
19 number. I don't recall off the top of my head. It was
20 substantial, I do know that. And that was only 600
21 customers in Coalville.

22 Q. And the question is whether or not we have
23 collectively collected enough in rates to more than cover
24 the costs you experienced in that outage in Coalville if we
25 consider the past several years of time. Do you understand

1 my question?

2 A. I understand your question.

3 Q. Let me return to a couple specific questions
4 for you. Isn't it true that with the inputs that have been
5 provided into the Company's peak day demand forecasting
6 model concerning the occurrence of extreme cold days, the
7 occurrence of maximum wind speeds, and the occurrence of
8 average wind speeds, that coincident with those days your
9 model could be forecasting the peak design day that might
10 never occur?

11 A. It could be that we're constructing a scenario
12 that is highly unlikely. I don't know that I would go so
13 far as to say that it could never occur, because again I
14 have some blind spots. There are extreme cold days that I
15 don't have observations on. Now keep in mind, we're
16 talking about a 24-hour gas day period. It's not -- it's
17 certainly plausible that strong winds could blow in an
18 extreme cold front and during that early period of the
19 24-hours those strong winds are taking a lot of heat out of
20 the houses before that extreme cold settles in. Could that
21 happen? Could it not happen? I'm not a metrologist.

22 Q. I would like to follow-up from Ms. Schmid's
23 questioning. Do you have a sense of whether or not it's a
24 1 in 1,000 event that you're planning on?

25 A. You're talking about the simultaneous

1 occurrence?

2 Q. Simultaneous occurrence on these things. What
3 is the possibility that they might all occur, come together
4 in one event?

5 A. I don't know. I don't know how I could
6 characterize it in terms of a recurrence interval like
7 you're asking. It would certainly be rare, a low
8 probability. I can characterize it that way.

9 Q. Would you agree that the higher the peak design
10 day the more cost the Company incurs to ensure that the
11 system can meet that peak?

12 A. I think in general I can agree with that
13 statement.

14 Q. You previously indicated that the cost
15 associated with -- isn't it true the cost associated with
16 the Company's actions to secure facilities and resources to
17 meet its conservative design peak day that those planning
18 -- the Company's actions and planning for resources and
19 facilities result in certain costs and those costs are bore
20 with the Company's ratepayers?

21 A. Yes.

22 Q. Isn't it true if we were looking at the
23 facilities and resources necessary to meet Mr. Mierzwa's
24 reasonable alternative design peak day that the cost would
25 be less?

1 A. Potentially, yes. Let me rephrase that answer.
2 I think that depends on what extent the difference between
3 my peak day estimate and that of Mr. Mierzwa translates in
4 a difference in peak hour service needs and what that means
5 in terms of contracting. A lowering of peak hour service
6 needs that results from a lowering of design peak day
7 estimates may not necessarily translate to a savings in
8 cost of contracts to secure the peak hour services, the
9 firm peak hour services that remain required. But that's a
10 contracting question. I'm not able to answer contracting
11 questions. I think that's a better question for
12 Mr. Schwarzenbach.

13 Q. We may ask him.

14 A. Fair enough.

15 Q. But would you agree that if we're shooting at a
16 particular target for design peak day, and I'll describe
17 the target as one that is being very conservative and it's
18 a higher target than one we might call a reasonable
19 alternative, that by shooting for a different target there
20 might be different practices and different costs associated
21 with aiming at one target versus the other?

22 A. Again, I guess I have to answer in the same
23 way. It depends on the extent of the difference. There
24 may be additional costs, there may not be. I'm sorry. I'm
25 not trying to be evasive to your question. I'm not

1 qualified to make -- I am under oath and I don't want to
2 guess. I'm not qualified to speak about contracting costs.

3 Q. Isn't it true from a cost perspective, from the
4 customer's cost perspective point of view that paying for
5 the costs associated with the reasonable approach might be
6 better than paying more for a conservative approach
7 designed to cover events that may not even occur?

8 A. Well, no, I don't necessarily agree with that.
9 Because here is the inherent problem. We're talking about
10 an estimate for an event, a level of demand that we have
11 not been able to observe with today's customer base.
12 Nobody in this room knows what the right answer is. When
13 it occurs we'll have a better feel for how much gas we
14 actually need, but right now we don't know. But we've got
15 to come up with a number and the cost of coming up with a
16 number that's too low are too severe. That's not a gamble
17 that we can afford to take.

18 Q. Let me zero in on that. The cost of --

19 A. To the customer, the cost sustained by the
20 customer who lose service.

21 Q. But I think you said it was too severe and a
22 gamble you didn't want to take. And I took it that you
23 were speaking on behalf of Dominion Energy and not the
24 customers. Am I incorrect?

25 A. Yes, you're incorrect. Let me clarify what I

1 meant. The cost to our customers who depend on that gas
2 service is going to be too severe if they run out of gas
3 when the temperatures are extremely cold. They can't run
4 their furnaces. We're not talking about a power outage
5 during a hot day when people can't run their air
6 conditioners for a few hours during the middle of a hot
7 summer day. We're talking about gas service outage where
8 company personnel have to go to every premise to which we
9 serve gas and turn off the meter to make sure that there is
10 no more gas flowing into that home. It's a safety measure.
11 And then they have to go back, they have to repressurize
12 the system, and then they have to go back out and
13 reinitiate the service to each one of those meters. It
14 could be hundreds, potentially thousands. In the meantime
15 they have no heat source.

16 **Q. But the company would do that to make sure that**
17 **the customers were safe?**

18 A. Absolutely, sure. It could take days,
19 depending on the size of the outage it could take weeks.
20 That can't happen. That cannot happen.

21 **Q. Were there any lives lost in the Coalville**
22 **outage, most recent outage?**

23 A. Not that I'm aware of. I hope not.

24 **Q. Good.**

25 MR. SNARR: I have no other questions.

1 CHAIRMAN LEVAR: Thank you, Mr. Snarr.

2 Mr. Russell, do you have any questions for Mr. Landward?

3 MR. RUSSELL: No, thank you.

4 CHAIRMAN LEVAR: Any redirect?

5 MR. SABIN: Yes, please.

6 REDIRECT EXAMINATION

7 BY MR. SABIN:

8 Q. Mr. Landward, I just have a few questions. You
9 were asked about the wind speed during the initial
10 questioning and you were asked to explain a question and
11 you were answering the question and you were cut off. I'm
12 wondering if you wanted to complete your answer to that
13 question. It had to do with why you think it's important
14 to have two different wind speeds in your modeling if you
15 recall.

16 A. Right. I have do recall. The primary wind
17 speed term is the mean wind speed. That's the term that is
18 interacted with temperature to capture that changing effect
19 of wind speed on demand as the temperature gets lower. The
20 maximum wind speed I assume was inserted into the model as
21 a refinement. I didn't develop the model. I don't know
22 what led my predecessor to add that variable. I imagine
23 because of his qualifications that he found that gave him a
24 better fit, a better accuracy.

25 Q. Given that you've testified about the impact of

1 wind speed on the potential for temperatures to drop, or
2 for the temperature to dissipate more quickly in a home, do
3 you think it's important for those two wind speed data
4 points to be included?

5 A. I think the more we can do to fine tune the
6 effect of wind on demand the better. Wind is a critical
7 variable. It's not one that should be left out of any
8 modeling that is capturing or modeling daily demand.

9 Q. In your mind do you think it would be amiss if
10 this model did not include some factor for wind speed?

11 A. Absolutely. Wind speed has to be in the model.
12 There is too much variance that's going to be left
13 unexplained if we don't capture it. And there is going to
14 be a severe blast introduced and we run the risk of
15 underestimating.

16 Q. Ms. Schmid asked you also about page 15 of
17 Mr. Ditzel's testimony. She showed you two lines of
18 testimony from 280 to 282 range and asked you if you noted
19 that there were some errors that he highlights or
20 percentage of error that comes out of his analysis there.
21 You responded that you would expect a high level of error
22 in that analysis. Can you explain why that would be the
23 case?

24 A. That analysis was done in the context of a
25 criticism of the construction of prior day demand

1 assumptions I believe. Prior day demand is also an
2 important variable in analyzing a time series of daily
3 demands. It's very common to do in this type of analysis.
4 The model I've seen of demand, daily demand, even monthly
5 demand, colleagues that I've spoken with, use that
6 variable. So to, again, gain accuracy and explain this no
7 variance it's occurring in daily demand.

8 I can't leave it out because, again, we're
9 going to introduce greater variance in my estimate and
10 apply it and potentially apply it because there is
11 explanatory power in the inclusion of a prior day demand
12 that can't be captured in other ways. If I'm going to
13 include it in my model, that means I have to provide some
14 sort of an assumption for it when I use that model estimate
15 design peak day demand. There are any number of ways that
16 that can be done. It seems to me a very reasonable way to
17 simply look at the relationship between the variables that
18 I need to construct that prior day demand estimate as they
19 relate in the same fashion as they relate. For example,
20 looking at temperatures on the coldest days and what
21 temperatures proceed those. Looking at wind speeds on the
22 coldest days and what wind speeds proceed those and coming
23 up with some type of an average. There may be other ways
24 to do it, but it seems to me that is as reasonable as any
25 other. Is there potential for a higher degree of

1 difference in variance? Of course, there is. Again, this
2 isn't an exact science. There are a lot of variations
3 inherent in all of this, but by the end of the day I need
4 to come up with an estimate. And so I need to account for
5 the variables that drive demand, have a big impact on
6 demand, wind, prior day demand, in addition to temperature.

7 Q. Thank you. Mr. Snarr pointed out that in your
8 testimony at times you indicate that Mr. Mierzwa's analysis
9 or his model or what he comes up with is in your mind
10 within a reasonable range?

11 A. Yes, that's correct.

12 Q. Does that in your mind mean that the Company's
13 approach is not reasonable?

14 A. No, not at all.

15 Q. So how in your mind can they both be
16 reasonable?

17 A. Because they both fall within the realm of
18 possibility. I created the graph in my rebuttal testimony
19 to add some perspective to that, to show where they fall in
20 the context of demand under extreme events. The Company's
21 current design day estimate falls within that range at the
22 highest end. Mr. Mierzwa's falls within that range at the
23 lower end. So I conclude they're both reasonable.

24 Q. So why might the Company select toward the
25 upper end of that range, maybe not the top, but why would

1 they be above the midline, for example? Why would they
2 want to be in the upper area when you're planning for your
3 design day event?

4 A. Because there is a safety buffer in that event.
5 There are eventualities that even with the best modeling we
6 can't predict. There is always an estimation there. There
7 is a random component that we can't predict. We design our
8 peak day demand estimate for minus 5 degrees. The
9 temperature could get colder than that. It has in the
10 past. There could be severe temperatures back to back.
11 There are things we are not explicitly planning for, but
12 that can still occur. If our final number is at the higher
13 end of the possibilities, there is less risk of missing low
14 because we're encapsulating more that is likely to occur.

15 Q. Is that what you meant in your opening
16 statement when you were referring to margin or margin
17 safety?

18 A. Yes, safety margin, the safety buffer.

19 Q. What do you mean by that? Can you explain to
20 the Commission what that concept is in your mind?

21 A. That concept in my mind is coverage for
22 eventualities that weren't explicitly planned for. For
23 whatever reason gas demand may be higher than what we
24 estimated it would be because of things that we didn't
25 anticipate.

1 Q. For example, if in your design day demand
2 modeling you're planning for a minus 5 degree day, but it
3 actually ends up being a minus 7 degree day like it was in
4 1963, if that happened you're saying your model has built
5 into it some flexibilities because there are things you
6 might not be able to plan for, might not know will happen?

7 A. That is exactly right.

8 Q. Okay. Would you characterize the Company's
9 design day demand at the very top of what you would call
10 the reasonable range?

11 A. No, I wouldn't put it at the very top or
12 outside the top. I would put it on the higher end.

13 Q. I am interested by Mr. Snarr's insurance
14 scenario. It occurred to me you're probably one of the few
15 in the room that hasn't used your insurance as an adult.
16 Why do you still pay for it?

17 A. Because there is always the chance that I'll
18 need it.

19 Q. Even though there is no data point of you
20 actually needing it during your adult life, you're still
21 paying for it?

22 A. That's correct because I don't want be caught
23 without it.

24 Q. Why is that? Why wouldn't you want to be
25 caught without it?

1 A. Because I can't afford the loss.

2 Q. Thank you. I wanted to focus in on you
3 indicated there was this event in Coalville, and I think
4 you indicated it affected about 600 homes?

5 A. Yes.

6 Q. Subject to check, if I represented that the
7 cost per day of that was in the range of \$100,000 per day,
8 does that ring a bell for you? Do you know anything about
9 that?

10 A. Was that cost to the Company?

11 Q. That's a good question actually?

12 MS. SCHMID: Could counsel repeat the question?

13 CHAIRMAN LEVAR: That's a fair request.

14 MR. SABIN: Sorry, I wasn't listening.

15 CHAIRMAN LEVAR: She asked if you would repeat
16 the question.

17 MR. SABIN: Yes.

18 MS. SCHMID: Thank you.

19 Q. So during your questioning it came up that
20 there was this event in Coalville. I think my notes
21 indicate you referenced there were 600 homes affected --

22 A. Yes.

23 Q. -- approximately. Let me just ask, do you have
24 a sense for any of the magnitude of what that cost? Do you
25 know what it cost the Company, or do you know what it cost

1 the customers?

2 A. At one time I knew what it cost the Company. I
3 don't recall what the number is and I hesitate to guess. I
4 don't know what the cost was to the customers.

5 Q. Do you know whether -- do you know whether the
6 Company went out to figure out how much it cost the
7 customers?

8 A. I'm not aware of that.

9 Q. I think my follow-up question was does the
10 \$100,000 figure per day for the Company cost, is that in
11 the range of what you one time knew or if you know?

12 A. That sounds familiar. I hesitate to give a
13 definitive answer, but I know the cost was quite
14 significant to the Company just for the restoration
15 efforts.

16 Q. I want you to follow-up on Mr. Snarr's question
17 also about extreme cold event.

18 A. Yes.

19 Q. If a design day event of minus 5 degree
20 occurred and there was extended outage for multiple days.

21 A. Yes.

22 Q. How would you characterize the damage or the
23 risk that you see from that kind of event?

24 A. For several days I would characterize it as
25 catastrophic. Nobody can run their furnace during that

1 time until services are restored. There is going to be
2 property damage at a minimum, pipes are going to freeze,
3 for vulnerable people there could be loss of life. We
4 assume that's going to happen during extended outage in
5 extreme cold conditions. Keeping in mind this is when the
6 mean temperature for the day is minus 5 degrees or maybe
7 lower. The economic loss would be substantial. People
8 can't run businesses. People can't work. I don't ever
9 want to have to find out what actually happens when gas
10 service stops when it gets that cold.

11 **Q. My final question is this, in your mind is**
12 **there one right answer or one right way that you can think**
13 **that the Company has to go about doing this design peak day**
14 **demand analysis, or has the Company just settled on one of**
15 **several ways that it could possibly be used?**

16 **A.** The Company's is one way it could be used and
17 there are a number of approaches that could be used. I
18 would never agree to one is superior to another. Methods
19 vary from company to company I'm sure. Our approach has
20 evolved over time as we collect more data points, as we
21 learn what is being done in daily demand modeling. But
22 there is not one correct approach. The right answer is the
23 one that keeps the gas flowing when the temperatures are
24 very, very, very cold.

25 **Q. So why do you believe the modeling approach**

1 **that the Company uses is reasonable?**

2 A. Because it's giving an answer that according to
3 my estimate puts us in the range of protecting the
4 customers under extreme conditions. It gives us some
5 safety cushion for eventualities that we plan for.

6 **Q. Thank you, Mr. Landward.**

7 CHAIRMAN LEVAR: Thank you. Any recross,
8 Ms. Schmid?

9 MS. SCHMID: Yes, please. Just two questions
10 if I may.

11 RE CROSS EXAMINATION

12 BY MS. SCHMID:

13 **Q. In your redirect testimony you expanded on the**
14 **importance of wind being included in the model and studies?**

15 A. That's correct.

16 **Q. Would it surprise you that out of the 21**
17 **respondents in 2009 American Gas Association survey only**
18 **two respondents explicitly included wind, and a third**
19 **respondent implicitly included wind as an independent**
20 **variable in their regression equations?**

21 A. I have to -- well, that does surprise me. I've
22 reviewed the survey and --

23 **Q. I just have one more.**

24 MR. SABIN: Could he please be allowed to
25 answer the question? She's cutting him off.

1 THE WITNESS: Well, what I want to say is --

2 CHAIRMAN LEVAR: Let me respond to the
3 objection. I think there is a legitimate argument that his
4 answer yes it does surprise him is an answer, does answer
5 the question. However, I think when we're dealing with
6 expert witnesses I tend to err on giving them a little more
7 latitude to explain their answers. So if he wants to give
8 a little bit more explanation I think I will allow that.

9 THE WITNESS: The literature that I've reviewed
10 on the subject recommends wind speed. As long as I've been
11 involved in looking at models of the Company wind speed has
12 always been a factor to estimate peak demand. I've
13 estimated the model with and without wind speed, and
14 variances introduced by excluding wind speed is significant
15 and it fails to capture that effect of wind on demand as
16 the temperature decreases. It's not a variable that we can
17 leave out. I understand that the survey asks questions
18 regarding both general sales forecasting and peak day
19 forecasting. It may be that some of those respondents were
20 mixing their responses to the two. But if any of those
21 utilities were to consult me on best practices I would
22 strongly recommend that they include wind speed in their
23 models. I would suggest that their models are
24 underspecified, misspecified if they're leaving out wind.

25 Q. I have one more question, and I do apologize

1 for cutting you off. This also requires a yes or no, but a
2 further explanation would be most helpful. So please feel
3 free to do that. Would it surprise you that only two of
4 the 21 respondents in that survey mentioned using lag
5 variables in their regression equation, with one using
6 prior day send out, and one using prior day HDD count?

7 A. I think my response would be the same. If
8 they're not using it, they should be.

9 Q. Thank you very much.

10 MS. SCHMID: Those are all my recross
11 questions.

12 CHAIRMAN LEVAR: Thank you. Mr. Snarr, any
13 recross?

14 MR. SNARR: Just a couple areas if I might.

15 RECROSS EXAMINATION

16 BY MR. SNARR:

17 Q. Mr. Landward, let's go back to your insurance
18 situation. I'm impressed that you're accident free and
19 you've been paying your premiums. If the company came to
20 you and said we're raising your premiums how would you
21 feel?

22 A. I wouldn't be happy, but I wouldn't be inclined
23 to discontinue my insurance.

24 Q. With respect to the target we're aiming at,
25 design peak day, you've explained that you see at least two

1 alternatives that are reasonable and it's difficult to
2 determine what might fall in that range of reasonableness.
3 Could the Company be even more careful and more sure of its
4 coverage for one of these extremely unlikely events by
5 contracting for yet a third contract for peak day services?

6 A. Again, I'm not qualified to talk about
7 contracting. So I don't want to give you an inaccurate
8 answer. I think that's a better question for
9 Mr. Schwarzenbach.

10 Q. Isn't it true that our efforts here in this
11 proceeding is to find the best right answer that would
12 cover the likelihood of those events?

13 A. I don't know that -- no, I don't agree with
14 that. I think the purpose of this proceeding is to
15 determine what the estimate that the Company has based its
16 finding on is a reasonable and prudent one. We're not
17 going to know what the right answer is until the event
18 actually occurs. None of us know what the right answer is.
19 We can't possibly determine it.

20 Q. And yet the responsibility of this regulatory
21 process is to pick a number, hope that it's right, and
22 charge the customers an appropriate amount for that
23 coverage; is that correct?

24 A. Right.

25 Q. Thank you.

1 CHAIRMAN LEVAR: Thank you, Mr. Snarr. I have
2 a couple questions. These questions do go beyond your
3 testimony, but I think the issue has come up in both
4 Mr. Snarr's cross and Mr. Sabin's redirect. Do you know
5 with the approximate 600 customers in Coalville how long it
6 took to make the home visits and get their appliances and
7 gas service reinstated for the approximate 600?

8 THE WITNESS: Unfortunately, Mr. Chairman, I do
9 not.

10 CHAIRMAN LEVAR: You also may not be able to
11 answer this question, but I'll ask it and if you don't tell
12 me. If there were a peak day event along the Wasatch Front
13 and pressures were going to down to a concerning level,
14 does the Utility have the operational flexibility to triage
15 neighborhoods and say we're going to chose a couple
16 neighborhoods where service is totally stopped to those to
17 avoid losing pressure in other areas? Is that a kind of
18 choice that the Utility would be forced to make in that
19 situation?

20 THE WITNESS: I understand that the tariff does
21 define what I might characterize as a triage approach. I
22 can't speak to anymore detail that than because I'm not
23 familiar with peak operational priorities that would be put
24 into place to restore service. Again, I don't mean to be
25 evasive.

1 CHAIRMAN LEVAR: It's beyond testimony. You
2 wouldn't be able to give an answer to say how long it would
3 take to restore service to 1,000 versus 10,000 versus
4 50,000 customers? You wouldn't be able to give a rough
5 estimate of time?

6 THE WITNESS: Outside the context of this
7 proceeding I have tried to do an estimate of that. I'm not
8 sure I can recall the actual numbers, but I was doing an
9 estimate on a widespread outage to hundreds of thousands of
10 customers. Generally speaking I think full restoration I
11 estimated to probably take weeks.

12 CHAIRMAN LEVAR: That was a full restoration of
13 a large scale Wasatch Front event?

14 THE WITNESS: Yes. But a smaller outage I
15 haven't analyzed it at that level.

16 CHAIRMAN LEVAR: Thank you.

17 THE WITNESS: Certainly.

18 CHAIRMAN LEVAR: Commissioner White, do you
19 have any questions?

20 COMMISSIONER WHITE: Thank you. Following up
21 on that line of question and I recognize this isn't
22 necessarily your direct testimony, but it's been discussed
23 at some extent. There has been discussion about costs and
24 there has been discussion about potential harm to
25 customers, loss of potential life, productivity, economic

1 loss.

2 THE WITNESS: Yes.

3 COMMISSIONER WHITE: You touched upon potential
4 cost to the Company. Help me understand a little bit more
5 what that would look like. Are you talking about potential
6 liability or just cost to go out and have folks do
7 restoration? What is that? What did you mean by that?

8 THE WITNESS: Cost to the company would include
9 the cost of restoration of service, wages paid not only to
10 company employees, but potentially employees from other
11 utilities that are brought in to help. There would be
12 costs associated with lodging and food and transportation
13 for all of the employees. There would be costs -- there
14 are probably a lot of other administrative costs that I
15 can't detail off the top of my head. I'm not an
16 accountant. I don't track those costs. Those are what I
17 am characterizing as costs to the Company. There could
18 also be liability certainly. Again, I'm not a legal
19 expert, but I can imagine that's in the realm of
20 possibility. But then I'm differentiating those from costs
21 associated with loss on the customer side, economic loss,
22 property damage, loss of life. I'm quite certain costs on
23 the customer side because of a widespread or prolonged
24 outage would probably exceed those incurred by the Company
25 to full restoration.

1 COMMISSIONER WHITE: Let me ask you the
2 following line of questions.

3 THE WITNESS: I'm sorry. I said restore, I was
4 talking about restore of services.

5 COMMISSIONER WHITE: I understood that.
6 Following up on some of the questions from Ms. Schmid, this
7 methodology, the analysis for peak day design, is there
8 anything specific to Dominion Energy Utah service territory
9 that led you to that or led the Company to choose that
10 methodology? Is there anything that is specific to the
11 topography to differentiate other parts of the country?

12 THE WITNESS: No, nothing specific to this
13 service territory in particular. The variables that have
14 been selected for modeling and for estimated demand are
15 variables that are known generally, that establish
16 generally to affect demand. So the estimated effect on
17 demand of those variables may differ from region to region,
18 but the variables that we selected they affect demand in
19 any case. The degree of the effect may be different based
20 on the data that is being estimated.

21 These are variables that are noted in
22 literature on estimated gas demand, they are variables that
23 the Company has used for a very long time. Other utilities
24 may use a subset of variables. There are variables that
25 the Company isn't using that could perhaps be incorporated,

1 like wind direction. Some companies may be even very
2 vigorous and include things like gas price if they're
3 looking at daily demand across a large spectrum of time.
4 Humidity, that may not be -- that's probably a good
5 example. That may not be a highly significant factor in
6 gas demands along the Wasatch Front, but it could have some
7 effect, may have a much more pronounced effect in areas
8 where humidity is much higher and intensifies the cold.

9 As an analyst I'm always looking at how gas
10 demand can be modeled and how I might be able to refine the
11 model that I have stewardship for. But there is nothing in
12 the model that is specific to Utah or to Wyoming.

13 COMMISSIONER WHITE: Is this model consistent
14 with -- are you aware of the consistency of this model of
15 how peak day demand is modeled for Dominion's facilities in
16 other states, for example, Ohio or West Virginia?

17 THE WITNESS: I believe Dominion East Ohio uses
18 a similar approach, I'm speaking generally, using
19 statistical regression methods. Some of the other -- the
20 West Virginia utility I think uses a slightly different
21 approach, maybe more general correlation between
22 temperature and peak demand. I reviewed those once. I
23 don't recall the details of the models. Both seemed fairly
24 vigorous, maybe slightly different in nature.

25 Again, as I said earlier there is not

1 necessarily one right way to do it. I'm always interested
2 to see how other utilities do it. I have a lot of
3 confidence in the way we're doing it because we're able to
4 isolate the effect of all these different variables that I
5 talked about and bring them to bear and reduce variance in
6 estimation and construct a more precise design day
7 criteria. But I think -- that's probably a very long
8 winded answer to a simple question. But I think we are
9 generally consistent in terms of the variables that we look
10 at as the other utilities under the Dominion Energy
11 umbrella. They may use a subset. They may have some
12 variables that we're not looking at.

13 COMMISSIONER WHITE: I was just trying to maybe
14 explore is this -- I guess it stems from the line of
15 questions of other parties that this is something that may
16 potentially be considered as a novel approach. In your
17 professional estimation is this something that is kind of
18 on the cutting edge, or is this outside the typical norm
19 with how gas distribution utilities model this, or is this
20 something that is on the cutting edge?

21 THE WITNESS: No, I don't think this is novel
22 at all. A lot of utilities use this approach that we're
23 calling regression analysis, statistical regression where
24 we estimate demand on a dependent variable, which is gas
25 demand, based on the isolated effects of number of

1 variables that affect it, temperature of course, wind
2 speed, prior day demand, the day of the week, whether it's
3 a holiday, a weekend. So no, it's not novel. It may
4 differ in the compensation of variables incorporated into
5 the model as some other utilities. As I mentioned, some
6 utilities may look at variables for explanation of demand
7 that we're not using. We may be using variables that other
8 utilities are not. It doesn't necessarily mean that we're
9 right and they're wrong. Good analysts are always looking
10 what other analysts are doing to get ideas of how they
11 might refine their own models.

12 COMMISSIONER WHITE: Is the simultaneous nature
13 of using those variables is that common, or is that
14 something you consider? Is that typical utilities are
15 utilizing for variables?

16 THE WITNESS: Okay. Are you referring to
17 simultaneous as to combination that we're using, wind speed
18 and temperature and day of the week?

19 COMMISSIONER WHITE: Yes.

20 THE WITNESS: That I believe -- those are
21 common variables in just general estimation of daily gas
22 demand. There is software that is written that we actually
23 use within the company that uses those same variables. The
24 way they're used can differ, but those variables are all
25 very common in trying to capture effects and what drives

1 daily demand.

2 COMMISSIONER WHITE: Thank you. Those are all
3 the questions I have.

4 CHAIRMAN LEVAR: Thank you. Let's take a short
5 break and then I believe Commission Clark has some
6 questions.

7 MR. SNARR: May I have one follow-up question
8 to something that was raised by Commissioner White?

9 CHAIRMAN LEVAR: I think we allow that. We try
10 to keep it rare, but why don't you go ahead.

11 MR. SNARR: Thank you.

12 RECROSS EXAMINATION (continued)

13 BY MR. SNARR:

14 Q. Are you familiar with the Company's tariff on
15 file for Utah service?

16 A. Yes.

17 Q. Are you familiar with the liability section
18 wherein it states that the Company will endeavor at all
19 times to provide steady and continuous service that will
20 not be liable to the customer for failure, fluctuations, or
21 interruption to service?

22 A. I'm not familiar with that section.

23 Q. Thank you. That's section 7.02.

24 A. Thank you.

25 MR. SNARR: That's all I have.

1 CHAIRMAN LEVAR: Thank you, Mr. Snarr.

2 Commission Clark has some questions for you, but why don't
3 we take a short break. We'll reconvene at 10:45.

4 (Off the record.)

5 CHAIRMAN LEVAR: We're back on the record.

6 Commission Clark, do you have any questions for
7 Mr. Landward?

8 COMMISSIONER CLARK: Thank you. Good morning,
9 Mr. Landward.

10 THE WITNESS: Good morning, sir.

11 COMMISSIONER CLARK: Regarding the design peak
12 day modeling that is the subject of your testimony, why did
13 you perform that modeling initially? In other words, was
14 it part of an annual or semi-annual process or was there
15 some other driver for the work that you did here?

16 THE WITNESS: The modeling is done annually and
17 the estimate to submit for use in the individual resource
18 plan that is filed each year.

19 COMMISSIONER CLARK: If we were to look at the
20 modeling that was done for the 2015-2016 heating season as
21 opposed to this particular version, which is for 2016-2017,
22 I believe.

23 A. Yes.

24 Q. Would we find that the method was the same? In
25 other words, the same consideration of 1 in 20 year

1 recurrence of temperature and wind treated the same way,
2 non-holidays, all those features?

3 THE WITNESS: I believe so. All those
4 variables would have been used in the modeling. In the
5 2015-2016 peak season of course we were still using the 1
6 in 20 year recurrence method to calculate the minus 5
7 degree Fahrenheit.

8 COMMISSIONER CLARK: Did you use the same wind
9 data point that you used in this modeling exercise?

10 THE WITNESS: I believe so, but I wasn't
11 involved in the modeling. I don't want to give a
12 definitive yes because I'm not entirely sure as far as the
13 wind data points. I assume so, but I don't know for sure.

14 COMMISSIONER CLARK: I believe you mentioned in
15 your testimony that the 1 in 20 year recurrence is a common
16 temperature, common method of identifying the temperature
17 that you would use in the modeling; is that correct?

18 THE WITNESS: Yes. There has been reference in
19 testimony in this hearing to a survey conducted by the
20 American Gas Association, I believe it was in 2009, asking
21 utilities among other things what method they used to
22 design peak day temperature. I believe 4 of the 13
23 respondents that responded to that question use a
24 recurrence interval.

25 COMMISSIONER CLARK: Regarding the use of

1 average wind speed and maximum wind gusts on a particular
2 day, is that also part of the methodology that we would
3 expect to find in literature that you referred to or
4 commonly in use at other companies?

5 THE WITNESS: Certainly to be found in
6 literature, at least that I've reviewed, the use of wind
7 speed when estimating gas demand.

8 COMMISSIONER CLARK: Does the record contain
9 any references to that literature? If it doesn't could you
10 provide them now to us?

11 THE WITNESS: There is a reference to that
12 particular paper that I cite in building my rebuttal
13 testimony.

14 COMMISSIONER CLARK: If it's not too
15 inconvenient would you -- just to make sure I don't miss it
16 and I can identify it later.

17 THE WITNESS: Commissioner, I have a copy of
18 that particular paper if you would like me to provide it to
19 you.

20 COMMISSIONER CLARK: Yes. Let's start with the
21 reference.

22 THE WITNESS: You'll see a reference to it on
23 page 5 of my rebuttal testimony on line 87.

24 COMMISSIONER CLARK: Is that the mathematical
25 model for natural gas forecasting?

1 THE WITNESS: That's correct.

2 COMMISSIONER CLARK: There you're addressing
3 prior day demand?

4 THE WITNESS: Yes.

5 COMMISSIONER CLARK: But I would also expect to
6 find wind, maximum wind gusts and average wind speed.

7 THE WITNESS: You'll find references to this
8 paper to wind in general as a variable. This particular
9 paper recommends one way to capture the effects of wind in
10 modeling gas demand. I believe this paper suggests an
11 adjustment to heating degree days to capture the effect of
12 wind. That's one way to do it. I've done it that way in
13 the past. That's different than what is done in the
14 Company's model, but the Company's model as the paper
15 suggests does treat the effect of wind.

16 I want to emphasize that the effect of wind is
17 not fixed, it changes, it increases as the temperature gets
18 lower. So the Company's model is constructed one way to
19 capture that effect.

20 COMMISSIONER CLARK: Thank you. When you were
21 identifying or considering how you would capture that
22 effect in this modeling exercise, you found that you didn't
23 have data for some of the minus 5 degree days that you
24 identified in the 90 year history or so of temperature that
25 you examined; is that correct?

1 THE WITNESS: That's right.

2 COMMISSIONER CLARK: For how many of those
3 instances did you have wind data available?

4 THE WITNESS: I've been able to recover wind
5 data on two of those instances, the occurrence of minus 4
6 degree as a mean temperature in 1990 and one in 1963.

7 COMMISSIONER CLARK: And it was the -- the wind
8 data associated with the 1990 event that you provided in
9 your testimony; is that right?

10 THE WITNESS: You know, I don't recall if I
11 actually -- did I provide wind speed for that particular
12 data? I don't recall.

13 COMMISSIONER CLARK: I'm looking at page 5 of
14 your direct. Maybe I misunderstood this table.

15 THE WITNESS: You're referring to the table
16 beginning on line 90?

17 COMMISSIONER CLARK: Yes.

18 THE WITNESS: Yes, those are the wind speeds.

19 COMMISSIONER CLARK: June 6, 2017.

20 THE WITNESS: January 6, 2017.

21 COMMISSIONER CLARK: Right. Pardon me. That
22 would make a big difference in January.

23 THE WITNESS: It does.

24 COMMISSIONER CLARK: But in the absence of that
25 data, then you examined 14 years of wind speed data

1 specifically from --

2 THE WITNESS: 2004.

3 COMMISSIONER CLARK: To 2017, right?

4 THE WITNESS: Right.

5 COMMISSIONER CLARK: If I understand it
6 correctly, in that 14 year period you identified the winter
7 day with the highest speed, average speed, and the highest
8 maximum gusts; is that correct?

9 THE WITNESS: Right.

10 COMMISSIONER CLARK: And you assumed that event
11 that had occurred a single time in 14 years happened on the
12 day that the coldest temperature in 20 years occurred as
13 well; is that right?

14 THE WITNESS: No.

15 COMMISSIONER CLARK: That's not correct?

16 THE WITNESS: That was not done with any
17 correlation to temperature. An examination of all the wind
18 speed throughout the dataset was done, and the maximum mean
19 wind speed for the day and maximum gusts for the days were
20 extracted. Those happened to be in the winter months. So
21 it was determined that those would be the assumptions for
22 wind speed in the design day model.

23 COMMISSIONER CLARK: Okay. But this design
24 peak day model is examining the characteristics of a
25 particular hypothetical day, right?

1 THE WITNESS: The model is built on observed
2 data, but its intended purpose is to estimate demand under
3 extreme conditions.

4 COMMISSIONER CLARK: That's what I'm trying to
5 determine. If I'm understanding what the model is telling
6 us, is it telling us that on a day when there is minus 5
7 degrees and the wind is gusting at 47 miles per hour, and
8 has an average speed of 26 miles per hour, and then the
9 other characteristics that are also met on that day, then
10 the demand will be some 300,000 or 400,000 decatherm
11 greater than the January day in 2017 was your point of
12 address?

13 THE WITNESS: Right. Right. Yes, that's
14 right.

15 COMMISSIONER CLARK: And that's what I'm
16 wondering about. Is your assessment of basing a business
17 judgment on the probabilities that a temperature event that
18 occurs once in 20 years, and a wind event that you find
19 occurring once in 14 years coincide on the same day?

20 THE WITNESS: I guess I don't understand.

21 COMMISSIONER CLARK: Is that a reasonable
22 scenario on which to enter contrast?

23 THE WITNESS: Yes, I believe it is because of
24 the overall uncertainty involved in this entire process.
25 Again, we're using data that we've observed and trying to

1 extrapolate that to conditions that have -- at least in a
2 temperature context that has occurred, but we don't
3 necessarily have observations of demand on, or in some
4 cases even wind speed. So there are a lot of unknowns and
5 that creates the potential for a wide margin of error that
6 somehow we have to prepare for. And in the face of demand
7 in that instance we chose to be conservative and to play it
8 safe and to build in a safety cushion, a safety factor.

9 COMMISSIONER CLARK: Thank you. You I think in
10 your rebuttal testimony accepted that Mr. Mierzwa's wind
11 data would also be reasonable although at a lower range
12 than yours; is that right?

13 THE WITNESS: That's right.

14 COMMISSIONER CLARK: If we can look at the
15 table on page 8 of your direct for a moment. Line 4, what
16 I am gathering from this, and correct me if I'm wrong,
17 increasing the average speed from 4.6 miles per hour, which
18 is what you observed on January 6, 2017, to 26 miles per
19 hour, and the maximum gust from 9, again the January 6
20 estimate, to 47, created a change in demand of 283,464
21 decatherm, right?

22 THE WITNESS: Correct.

23 COMMISSIONER CLARK: Can you estimate, or is it
24 in the record anywhere what the change in demand would have
25 been under Mr. Mierzwa's wind assumptions for that day? In

1 other words, assuming that wind speed was 9, not 16, and
2 gust speed was 17, not 47. Do you know what the effect on
3 the decatherm volume would be by making those adjustments?

4 THE WITNESS: I haven't calculated it with the
5 January 6 demand as a basis, but it's been calculated and
6 it's on the record, in fact in Mr. Mierzwa's surrebuttal
7 testimony, the effect of the overall design peak day
8 estimate the difference between the Company's firm estimate
9 and his. I think that's probably the only measurement on
10 the record of the effect of the change.

11 COMMISSIONER CLARK: Do you disagree with his
12 math?

13 THE WITNESS: No, I do not disagree with his
14 math.

15 COMMISSIONER CLARK: Thank you. Those are all
16 the questions I have.

17 THE WITNESS: Certainly.

18 CHAIRMAN LEVAR: Thank you, Mr. Landward. We
19 appreciate your testimony today.

20 THE WITNESS: Thank you.

21 CHAIRMAN LEVAR: Mr. Sabin.

22 MR. SABIN: The Company would now call Michael
23 Platt to the stand.

24 CHAIRMAN LEVAR: Good morning, Mr. Platt. Do
25 you swear to tell the truth?

1 THE WITNESS: I do.

2 CHAIRMAN LEVAR: Thank you.

3 DIRECT EXAMINATION

4 BY MR. SABIN:

5 Q. Good morning, Mr. Platt.

6 A. Good morning.

7 Q. Could you state your full name and business
8 address for the Commission?

9 A. My name is Michael Warren Platt. I work at
10 1140 West 200 South, Salt Lake City, Utah.

11 Q. What is your title and scope of your
12 responsibilities?

13 A. I am a manager of engineering over engineering
14 systems which includes the GIS groups, engineering records
15 management, research and development, and system planning
16 and analysis.

17 Q. How long have you been with the Company?

18 A. I've been there for 10 years.

19 Q. Could you give the Commission a summary of your
20 experience and educational background?

21 A. My educational background, I have a Bachelor of
22 Science and a Master of Science from the University of Utah
23 in Mechanical Engineering. As far as my work experience
24 goes most of my career I've spent in system finding and
25 analysis, analyzing what peak day looks like in terms of

1 our pressures and customers in specific locations.

2 Q. Thank you. Have you in this docket submitted
3 both direct and rebuttal testimony?

4 A. I have.

5 Q. I show that your direct testimony was Exhibit
6 2.0 with some attachments or exhibits to that testimony
7 that are 2.1, 2.2, 2.3, 2.4, and 2.5; is that correct?

8 A. Correct.

9 Q. And then you have also submitted rebuttal
10 testimony, which is Exhibit 2.0-R, correct?

11 A. Correct.

12 Q. Do you have any changes to that testimony?

13 A. I do not.

14 Q. Do you adopt that testimony today?

15 A. I do.

16 Q. Have you prepared a summary of your direct and
17 rebuttal testimony to share with the Commission?

18 A. I have.

19 Q. Please go ahead and do that.

20 A. Meeting the customer needs on a peak day
21 includes every instance of that day, every hour, every
22 minute. I can't afford to assume that our supply plan is
23 going to meet our customers' need on a peak day when our
24 upstream pipelines have told us that they don't have the
25 capacity to do that.

1 Firm peaking services of 340,000 decatherm per
2 day will allow the Company to meet our customers' needs and
3 avoid any widespread outages. Adjustments in design peak
4 day do not eliminate the need for peak hour services. In
5 fact, the adjustments that were proposed only result in
6 minor adjustments to the required firm peaking services.
7 And based on recent historical interruptions, where at
8 least some interruptible customers continue to burn, I feel
9 pretty comfortable being a little high.

10 I've completed and submitted an analysis that
11 shows that 92 of the time all our peak hour is at least 17
12 percent higher than the average daily volume. And in that
13 analysis I included residential, commercial, and industrial
14 customers but no interruptible at all. If we eliminated
15 the transportation customers from that estimate the peak
16 mean would actually increase. But unfortunately, because
17 I'm using send-out data, aid station data, it's hard to
18 separate the customers like that.

19 System pressures drop below operational
20 minimums whenever we do not have the supply to meet our
21 customer demands, which is obvious. Without peak hour
22 services, during the 2017-2018 unsteady state model we
23 would lose five high pressure industrial customers and 44
24 regulator stations. This means that we are not able to
25 serve those customers. We would lose those customers on a

1 design peak day, which would be catastrophic.

2 If the Company does not plan for any volumes
3 above the required daily capacity we have the potential to
4 lose up to 800,000 customers. Failing to obtain peak hour
5 service will result in an inability to meet customer demand
6 on a peak day.

7 Firm peaking service provide benefit even on
8 nonpeak days, or nondesign peak day conditions. System
9 line pack is used to serve a portion of our peak hour
10 demands, and to extent that we can use it. Mr. Mierzwa is
11 under the impression that we can use all of the line pack,
12 but unfortunately if we used all of the line pack we would
13 have no gas left in our pipe. We would have no pressure
14 and we would not be able to serve our customers.

15 The Lake Side power plant is modeled correctly
16 in the unsteady state model and does not contribute to the
17 peak hour requirement. Not only is it reasonable to model
18 Lake Side as we have chosen to at the daily contract limit,
19 anything less would be irresponsible.

20 The Division's expert testimony confirms that
21 our modeling methods and techniques and software are all
22 state of the art and accurate. This concludes my summary.

23 **Q. Thank you. Mr. Platt, you mentioned you were a**
24 **professional engineer and manager of engineering for the**
25 **Company; is that right?**

1 A. Correct.

2 Q. I would appreciate you sharing from an
3 engineering standpoint, and particularly as the manager of
4 engineering for the Company, what is more important when
5 you look at these kinds of estimates? Is it more important
6 to be right on the number, or is it more important that you
7 be conservative, or is it important how conservative you
8 want to be?

9 A. In engineering obviously we want to be
10 accurate. We want to hit the number as close as possible.
11 But anybody whose been to engineering school can tell you
12 that there is also a factor of safety. Because say, for
13 instance, we're designing a bridge. We want to know how
14 much weight that bridge can hold. We're going to do
15 everything that we can do to calculate the amount of stress
16 that that bridge can hold. Then we're going to multiple
17 that by a factor of safety to ensure that that bridge never
18 fails because we don't want to lose customers or have a
19 failure. That's just not good engineering practice.

20 Q. You heard reference today, Mr. Snarr I think
21 referenced this and it may have been mentioned by somebody
22 else, that what we're doing here is trying to shoot a right
23 number. Do you agree with that assessment? Is that what
24 we're really trying to do is shoot a right number, or are
25 we trying to establish whether or not we're within a range

1 of what you would call safe operations?

2 A. I don't believe that there is a right number.
3 I think there is a range of reasonableness. To draw out my
4 point, if you just include customers and none of the other
5 variables, we have over a million degrees of freedom in
6 this calculation. There is no right number. No one can
7 pretend like they can pick a number and say under these
8 conditions it will be exactly this amount because we don't
9 know. So being in a reasonable range is a lot more
10 important.

11 Q. I would like to follow-up on Commissioner
12 Clark's question with you since you and Mr. Landward both
13 prepared different assessments for this purpose of peak
14 hour contract here and other purposes as well. You heard
15 his question I take it about we have two experts that are
16 talking about different wind speeds and different ranges,
17 right, that were included in these models. Do you as you
18 look at those wind speeds and consider in the context of
19 the overall physics of how you keep homes heated when the
20 wind gusts? Do you have anything you would add to
21 Commissioner Clark's question about the difference between
22 those wind speeds that are used by the experts?

23 A. Well, from what I understand from engineering
24 school of heat transfer, convection is not a linear
25 phenomenon. So you're not going to expect the same amount

1 of heat loss at 30 degrees as you would at negative 5. In
2 fact, the way the equation looks, you have a heating
3 coefficient and then you have the difference of
4 temperature. So if you were trying to keep your home at 70
5 degrees and in all of your data is correlated to 30 degrees
6 or on average 30 degrees, and then you're extrapolating out
7 to negative 5, the ratio is the difference of those
8 temperatures. So 70 minus 5 divided by 70 minus 30, you're
9 almost off by a factor of 2.

10 **Q. What does that mean for purposes of when we**
11 **talk about wind speeds, for example?**

12 MR. SNARR: Excuse me. I would like to
13 interpose an objection here. We would like the witness to
14 be available for cross examination to state whatever is
15 necessary, but at this point we're getting an elaboration
16 that is going beyond his filed testimony as part of his own
17 summary. So I would object.

18 CHAIRMAN LEVAR: Would you like to respond to
19 the objection, Mr. Sabin?

20 MR. SABIN: Well, I guess I'm responding to the
21 fact that we have questions coming up and witnesses that
22 aren't necessarily -- there are witnesses here that have
23 the knowledge to answer those questions. I'm just trying
24 to be responsive. If you don't want me to do that I will
25 move on and we can cover other topics.

1 CHAIRMAN LEVAR: Thank you. In another hearing
2 recently we've litigated an issue somewhat heavily on terms
3 of witnesses going beyond their filed testimony. So with
4 that, considering he is presenting his testimony prior to
5 cross examination -- do you want to interject, Commissioner
6 Clark?

7 COMMISSIONER CLARK: Chairman LeVar, I would
8 just say that I'm interested in the information. I would
9 ask the question, but maybe it's better that he present it
10 now so others can cross exam on it in the course of the
11 proceedings. I apologize if I've complicated this.

12 MR. SABIN: I'm willing to do it however you
13 want. I just don't want to leave today without you having
14 your questions answered. That's my point.

15 CHAIRMAN LEVAR: And in balancing both the
16 issues that we litigated somewhat contentiously recently,
17 but also the fact that you don't know what questions
18 commissioners might ask and there are some efficiencies to
19 getting those dealt with in the direct and cross
20 examination. So considering this is an issue that's been
21 raised by Commissioner Clark I think we will allow a little
22 more exploration of it at this point.

23 MR. SABIN: And I'll just note the rest of the
24 questions I have were all brought up in surrebuttal, but we
25 didn't have an opportunity for him to respond to. So I'm

1 trying to put it out there so he can be questioned. Sorry,
2 I don't remember where we were when there was an objection.

3 MR. SNARR: That's exactly the notion of live
4 surrebuttal which we don't usually condone here.

5 MS. SCHMID: And I will echo Mr. Snarr's
6 comments and concerns.

7 CHAIRMAN LEVAR: Let me ask the question.
8 Would you rather save the questions for commissioner
9 questions once cross examination is finished? Is that your
10 preference?

11 MR. SNARR: I think that's more consistent with
12 regular and logical practice.

13 MS. SCHMID: And I agree.

14 CHAIRMAN LEVAR: Okay. Well, if that's both of
15 your positions I think that's appropriate to go forward
16 that way and save the issues for cross examination or
17 commissioner questions if they're outside of your filed
18 testimony.

19 MR. SABIN: I would ask one bit of
20 clarification to the extent there were issues raised that
21 this witness has not had an opportunity to answer, when
22 would that be an appropriate time to deal with those? For
23 example, if one of their witnesses in his surrebuttal said
24 that Mr. Platt said the following thing, but we dispute
25 that he said that and he wants an opportunity to do that.

1 When would you like me to do that? I'm happy to do it now.
2 I just don't want to -- I would rather not do rebuttal
3 testimony at the end of this. I would rather it be done if
4 we can.

5 CHAIRMAN LEVAR: Right. Sometimes our
6 scheduling order allows live testimony to respond to the
7 final round of surrebuttal. In this instance our scheduler
8 did not allow for that. So in the absence of that, we've
9 dealt with objections on a case by case basis, but
10 generally there is always going to be one side of the case
11 who filed the last round of testimony, but that doesn't
12 mean we open the door at the hearing to another round in
13 the absence of the issues being developed in cross
14 examination or commissioner questions. I think that's our
15 typical process and considering the objections that have
16 been raised I think that's the appropriate way to go in the
17 light of the objections.

18 MR. SABIN: That's fine. I was not aware that
19 we needed to specifically say it in the scheduling order.
20 I think from now on we'll make sure that we work that in.
21 With that I will turn Mr. Platt over to cross examination.

22 CHAIRMAN LEVAR: I'm not sure we've had his
23 testimony entered into evidence. At least if we did I
24 don't remember.

25 MR. SABIN: Thank you for bringing that up. I

1 would move to admit DEU Exhibits 2.0 through 2.5 and 2.0-R
2 into the record.

3 CHAIRMAN LEVAR: If there are any objections to
4 that motion please indicate to me. I'm not seeing any
5 objection, so the motion is granted.

6 MR. SABIN: Thank you.

7 CHAIRMAN LEVAR: Ms. Schmid, do you have
8 questions for Mr. Platt?

9 MS. SCHMID: Just a couple.

10 CROSS EXAMINATION

11 BY MS. SCHMID:

12 Q. I'm going to present my questions in the form
13 of a hypothetical. I'm asking you to take those facts as
14 given and then give me a response if you can on what DEU
15 would do if this were the situation. Assuming that DEU has
16 the opportunity to add a new transportation customer, but
17 extensive system re-enforcement would be required to meet
18 the 125 psig at the new customer meter under design day or
19 peak hour condition. So take that as a given in my
20 hypothetical. Then with that would DEU be willing to
21 consider connecting the new transportation customer with
22 the mutual understanding that the minimum pressure at the
23 meter for that customer would be something less, for
24 example 100 psig, so as not to require the system
25 re-enforcement?

1 A. That is not consistent with our current
2 practice, no.

3 **Q. Is it something that DEU would consider as an**
4 **option in the future?**

5 A. I think that -- so hypothetically speaking
6 under this scenario, if a transportation customer drew the
7 system down below operational minimums likely there are
8 other customers, other regulator stations, other locations
9 that would be affected. So I don't think this is a good
10 hypothetical because inherently you would be affecting
11 other customers. And no, we would not allow a new
12 transportation customer to affect our current customer
13 base.

14 **Q. Would it change your answer if the**
15 **transportation customer were at the end of the line? For**
16 **example, lines went through everyone else, to all the other**
17 **businesses, houses, and there were miles and miles of**
18 **desert and then there was an industrial customer. Would**
19 **Dominion considering allowing that customer to connect if**
20 **the customer agreed to accept a lower pressure?**

21 A. I think the answer is there are a number of
22 levels of the Company that this would have to be approved
23 by. Now as far as analysis goes and whether or not we
24 would look at it, we would look at it. But I don't think
25 it's realistic to assume that we would let a high pressure

1 customer come on to our system at less than operational
2 pressures. It's just not standard.

3 **Q. Thank you.**

4 MS. SCHMID: Those are all my questions.

5 CHAIRMAN LEVAR: Thank you. Mr. Snarr, any
6 cross examination?

7 MR. SNARR: We have no cross examination.

8 CHAIRMAN LEVAR: Thank you. Any redirect?

9 MR. SABIN: I don't think I'm within the scope
10 of that, so go ahead.

11 CHAIRMAN LEVAR: Commissioner Clark.

12 COMMISSIONER CLARK: All right. Let's go back
13 to wind. I wasn't sure I was following your testimony
14 about 30 degree temperature, but I think the conclusion I
15 was drawing from what you were saying is that the
16 relationship between the wind speed and its effect in a
17 minus 5 degree environment is that it's not linear, that a
18 higher speed will have an increasing effect or will
19 increase the amount of decatherm that you'll need to
20 achieve a temperature in a nonlinear way. Is that what you
21 were saying?

22 THE WITNESS: Basically what I was saying, if
23 you think about today, the wind isn't causing you to use
24 any gas at your home to heat it. We can have 100 mile an
25 hour wind, the amount of gas you're using doesn't change at

1 all. And if it were 60 degree you would expect just
2 intuitively that you're not going to use the same amount
3 more of gas as you would if it was negative 5. It's
4 obvious. Everybody knows that. It's not linear.

5 COMMISSIONER CLARK: Sure. Regarding your
6 practices as an engineer and meeting safety requirements,
7 if you were designing a bridge, for example, and you wanted
8 -- I think this is an example you used -- and you wanted it
9 to be safe for the anticipated passenger loads or even
10 greater than anticipated to some degree. How would you
11 determine what the zone of reasonableness is for the
12 strength that you would put into that structure? Is there
13 calculus involved, is there in your engineering literature
14 and text books, formulas that are standard that you would
15 apply to determine that?

16 THE WITNESS: Yes, you would apply all the
17 given standards. But I will say that bridge design is a
18 lot more constrained by law. You look at all these design
19 of critical structures and the laws are extensive. It
20 takes a long time to put yourself in a position to be a
21 designer of those things. But it doesn't mean in my
22 opinion that our system is any different. We should be
23 able to calculate how much we're going to use and be sure
24 that we're never going to exceed that because we can't
25 afford a failure. We can't afford to lose customers.

1 I realize there is some discussion about
2 insurance, but in my opinion this is not an insurance
3 question. If I undersize a pipe because I'm not designing
4 to the right design data, that's a flaw in my design.
5 That's a flaw in the approach. So having a higher wind
6 speed in my opinion -- I don't argue with the academics or
7 the theoretical perspective that you can be closer to the
8 center line of regression, but that's not what we're
9 talking about. We're talking about serving our customers
10 in the coldest possible temperatures. In my opinion if we
11 fail that's just not acceptable.

12 COMMISSIONER CLARK: Your objective then would
13 be to have measures in place, contracts in place,
14 arrangements in place, and a physical plant in place so
15 that failure would be impossible?

16 THE WITNESS: Impossible is a stretch. I
17 accept that there are conditions that will fall outside
18 your design criteria or your range of reasonableness. I
19 accept that anything is possible. We could have a third
20 party damage on a very cold day. It's not likely, but it
21 could happen. I don't think it's reasonable to design for
22 that. But within the theoretical design peak day that
23 Mr. Landward comes up with, I find it to be very
24 reasonable. I don't think that we're making it impossible
25 to sale. I think that we're in a range of reasonableness

1 that protects our customers. And I think that's good
2 practice.

3 COMMISSIONER CLARK: Thank you. Those are all
4 my questions.

5 CHAIRMAN LEVAR: Thank you. Commissioner
6 White, do you have any questions?

7 COMMISSIONER WHITE: You may or may not be the
8 right one to answer this, but I just want to follow-up on
9 some questions that Chairman LeVar had earlier about the
10 flexibility in terms of if there is an event and you have
11 to cut gas. In your position what is your opinion or
12 understanding of the use of triage, if you have certain
13 customers, say a hospital versus a business, et cetera, is
14 that something within the control of the Company to do
15 under those circumstances?

16 THE WITNESS: I'm actually -- I've looked at
17 this. Triaging customers, first of all, I don't ever want
18 to have to choose which customers we shut off beyond
19 interruptibles. Interruptibles pay a reduced rate and
20 interrupting them I feel like is an appropriate right and I
21 personally think that's why they get the discount. Once we
22 get into our firm customers and we start talking about
23 isolating sections of the system or isolating certain
24 customers, I don't know where to draw the line.

25 If we want to talk about physically can it be

1 done. We have isolation boundaries and it's possible to
2 start shutting valves in isolated areas. But what I would
3 say about that is if you look at our isolation boundaries,
4 these varying numbers of customers from very little up to
5 about 10,000 I believe, subject to check. But if you
6 isolate any of these areas, 10,000 customers, 10,000
7 residential which would be severely impacted by that,
8 doesn't make up that much gas on a design peak day. You're
9 taking about maybe a thirtieth of what we would need to
10 just cover peak hour. So is 10,000 customers a sacrifice
11 that you're willing to make? I don't think so.

12 But practically speaking could you go shut
13 these valves and could you shut enough valves. Well, we're
14 talking hundreds of valves would be shut in order to
15 isolate these areas. So how much lead time do we have to
16 make that decision and start enacting that and how many
17 people do we have on hand. These are questions -- I don't
18 personally think it's practical.

19 Now from a high pressure standpoint, could you
20 shut one or two high pressure valves and get the same
21 effect. It's possible. But a large high pressure valve,
22 assuming that we have people at that location still takes
23 an hour to shut. Without remote control or automated
24 shut-off valves, which we have very few right now, it's not
25 really practical.

1 COMMISSIONER WHITE: Let me ask you a question
2 about your relationship of what Mr. Landward does and
3 ultimately how that flows into what you do. I guess my
4 question is I'm just wondering about the sensitivity of
5 planning to those estimates and Mr. Landward. For example,
6 if the estimates were 150 percent of the current estimates,
7 what would that mean in terms of the actual decatherm that
8 you would need?

9 THE WITNESS: Just for the record, it's not 150
10 percent. It's not even close to 150 percent. But we -- I
11 guess I have to explain, and stop me if you don't want this
12 explanation. From our processing in engineering system
13 planning what we do is we take monthly meter reads from
14 every customer and we build the system from the bottom up.

15 We take all the necessary variables to verify
16 that we are accurately predicting what pressures and flows
17 will be in the system, anywhere in the system, anywhere we
18 have data in the system. And I think 2018 we had like 190
19 verification points in our IHP model, and another 100 in
20 our high pressure model. We're fairly accurate.
21 Mr. Landward's design peak day we used to gross up the
22 model. So all of the accuracy that we have, we're
23 increasing the demand.

24 So the question is how much would that affect
25 our demand. Well, it is the demand. How much would that

1 affect the outcome, which outcome? We're talking about
2 17,000 miles of pipe and pressures for a million customers.
3 It could affect some outcomes. But generally our models
4 are close enough, we're in a range where if his model is a
5 little high and we have to make an improvement a year
6 early, we make it next year anyway. It's not that
7 significant.

8 COMMISSIONER WHITE: Then the final question,
9 is there anything -- I hate to always go back to the
10 electric load. Is there something similar in the gas world
11 that is some type of standardized, reliability standards,
12 or best practices for design? There was a line of question
13 between you and Commissioner Clark about the acceptability
14 and the lack of acceptability of even loss of one customer.
15 Is there anything that we can look to that is similar to
16 that, some type of national industry standard?

17 THE WITNESS: From my experience every company
18 is utilizing these models in a similar way, but I don't
19 think there is any formal industry standard that's been
20 established.

21 COMMISSIONER WHITE: That's all the questions I
22 have. Thank you.

23 CHAIRMAN LEVAR: Thank you. Recognizing you're
24 an engineer and I'm an accountant, I think some of your
25 discussion raised an issue that I want to ask you about

1 based on some of your earlier answers. We've talked a lot
 2 about risk assessment involves probability, it also
 3 involves consequences. To what extent when you do your
 4 engineer evaluation does it also involve balancing costs?
 5 For example, if you can bring a risk to what you view as a
 6 conservative level to what others might view as an
 7 excessive level, if you can reduce that risk for \$100,000
 8 versus hypothetically \$2.5 million versus \$200 million?
 9 How do you account for that in your engineering role?

10 THE WITNESS: In engineering we're always
 11 looking at costs and we're always looking for the lowest
 12 cost option, or the option that mitigates the risk
 13 sufficiently at a cost that's acceptable.

14 MS. SCHMID: Pardon me. We do have a witness
 15 appearing by phone. It was just brought to my attention
 16 that your mic might not be on, which would make it
 17 difficult for our witness on the phone to hear.

18 THE WITNESS: It looks like it's on.

19 CHAIRMAN LEVAR: I think it's the binder. If
 20 you would move the binder and move the mic closer to your
 21 face that might help. Thank you for pointing that out.

22 THE WITNESS: In engineering we're always
 23 looking at costs and reducing or eliminating risks at the
 24 lowest cost, or as close to the lowest cost as we can.
 25 That's not something that's lost in engineering. But I

1 think that you have an acceptable range of conditions that
2 you're trying to design for. Three percent breaks in the
3 system, is that acceptable? I don't think so. Is that
4 where you're going with this?

5 CHAIRMAN LEVAR: Let me ask it a different way.
6 Would you agree that you might model more conservatively
7 for a 2 or 3 million dollar solution if the 2 or 3 million
8 dollar solution can eliminate a certain level of risk, you
9 might be willing to do that where you might not be willing
10 to spend \$200 million to eliminate the same risk?

11 THE WITNESS: Given that comparison, and I
12 think Mr. Schwarzenbach is going to talk about this
13 particular situation where we had a number of options, some
14 were much more expensive than others. Obviously we're not
15 going to spend 10 or 100 fold to solve one problem that you
16 can solve relatively inexpensively. That's standard
17 engineering practice.

18 CHAIRMAN LEVAR: Thank you. That's as far as I
19 wanted to go with that question. Thank you for your
20 testimony. Mr. Sabin and Ms. Clark?

21 MR. SABIN: I think we're ready for our next
22 witness.

23 MR. SNARR: In an effort to complete the record
24 on some the questions that were asked by the commissioners
25 I would like to perhaps use this witness or even make a

1 proffer of something that would be useful for your
2 consideration.

3 CHAIRMAN LEVAR: Are you asking to ask further
4 cross examination?

5 MR. SNARR: Yes, based on the questions that
6 the Commission asked him.

7 MR. SABIN: I would just object. I think we've
8 been told that we're not allowed to go into these things.
9 He had his round of questions on what I was able to present
10 in direct. There is no difference between me not being
11 allowed to do surrebuttal and him being able to do recross
12 of something that I never got to get out there. I suppose
13 if the commissioners feel like there is something they want
14 to know about, great, that's what we're here for. But I
15 feel like we're putting in a double standard here.

16 CHAIRMAN LEVAR: I'll let you respond to that,
17 but before you do I think I agree with Mr. Sabin
18 considering that we gave the option of doing some of this
19 prior cross examination and the choice was made not to do
20 that. So it concerns me a little bit to make that choice a
21 few minutes ago and then reopen it at this point. Again,
22 these aren't -- we don't have all these procedural issues
23 in stone and in our rules, but considering the ruling we
24 made a few minutes ago I do see a fairness problem with
25 reopening it at this point.

1 MR. SNARR: May I just proffer something for
2 your consideration as the questions have evolved here?
3 I'll submit it after the fact if you want.

4 MR. SABIN: That's the point. I feel like okay
5 if we're going to continue offering additional evidence
6 because we want to make our point, then everybody should be
7 able to do that. Fundamentally, I have no problem with
8 this being a complete open book. But because we're not
9 able to do that here, he's putting something forward that I
10 can't do anything with.

11 CHAIRMAN LEVAR: I appreciate that concern. I
12 think the way to handle this is if you have something that
13 you want to proffer through one of your witnesses in their
14 testimony or if there is a desire for closing statements,
15 we can consider that. But I think with the rulings we've
16 made so far I think we do have a fairness problem to reopen
17 issues related to this witness' testimony at this point.

18 MR. SNARR: Fair enough.

19 CHAIRMAN LEVAR: I overrule the objection of
20 the Utility. Thank you, Mr. Platt.

21 THE WITNESS: Thank you.

22 MR. SABIN: The Company calls Mr. William
23 Schwarzenbach. Ms. Clark is going to be handling that.

24 CHAIRMAN LEVAR: Good morning,
25 Mr. Schwarzenbach. Do you swear to tell the truth?

1 THE WITNESS: I do.

2 CHAIRMAN LEVAR: Thank you.

3 DIRECT EXAMINATION

4 BY MS. CLARK:

5 Q. Good morning.

6 A. Good morning.

7 Q. Can you please state your name and your
8 business address for the record?

9 A. My name is William Frederick Schwarzenbach the
10 Third. My business address is 333 South State Street, Salt
11 Lake City, Utah.

12 Q. Mr. Schwarzenbach, what position do you hold
13 with the Company?

14 A. I'm the manager of gas supply.

15 Q. Can you describe for the Commission briefly
16 your educational and your professional experience?

17 A. Yes. I have a Bachelor's degree in Civil
18 Engineering from Virginia Tech and an MBA from George Mason
19 University. I am a licensed professional engineer in the
20 State of Utah. I have been working for Dominion Energy for
21 over 13 years, seven years in the engineering and system
22 planning, and more than six years now in gas supply. Prior
23 to this I worked for Washington Gas for six years doing
24 primarily system planning and engineering.

25 Q. In your current role with Dominion Energy is

1 contracting for upcoming services part of your
2 responsibility?

3 A. Yes, it is.

4 Q. And if the Commission has questions about cost
5 and contracting, would you be a witness that could answer
6 those questions?

7 A. Yes, I would be.

8 Q. Mr. Schwarzenbach, did you prefile direct
9 testimony in this docket labeled DEU Exhibit 3.0?

10 A. Yes, I did.

11 Q. Did that have attached DEU Exhibits 3.1, 3.2,
12 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, and 3.9?

13 A. Yes, it did. And I believe there was a 3.10.

14 Q. Excellent. Did you also prefile rebuttal
15 testimony in this matter identified as DEU Exhibit 3.0-R?

16 A. Yes.

17 Q. Would you adopt the contents of all those
18 documents as your testimony today?

19 A. Yes.

20 MS. CLARK: The Company would move for the
21 admission of the identified exhibits.

22 CHAIRMAN LEVAR: Thank you. If any party
23 objects to that motion please indicate to me. I'm not
24 seeing any objection, so the motion is granted.

25 MS. CLARK: Thank you.

1 **Q. Mr. Schwarzenbach, have you prepared a summary**
2 **of your testimony to be presented here today?**

3 A. Yes, I have.

4 **Q. Please do so.**

5 A. The purpose of my testimony has been to explain
6 the need for firm peaking services to serve Dominion Energy
7 Utah's system and to discuss the evaluation of alternative
8 options that were considered to meet the identified peak
9 hour demand.

10 Dominion Energy Utah customers do not use gas
11 evenly throughout the day. Demand requirements are highest
12 during the peak hours in the morning. Unfortunately, gas
13 supply and transportation on interstate pipelines are
14 generally based on daily contracts.

15 Historically, these fluctuations in demand
16 during the day have been served with not-ratable supplies
17 from the upstream pipelines on an operational or non-firm
18 basis.

19 As shown in Exhibit 3.10 of my testimony,
20 Dominion Energy Utah has been exceeding the RDC on the
21 upstream pipelines on a number of occasions each year over
22 the past several years.

23 The RDC is the amount of capacity reserved on
24 the upstream pipelines each day through nominations. This
25 is based on scheduled quantities for the day. Since the

1 maximum that can be scheduled on a pipeline each day is
2 equal to the contract limit, the contract limit is the
3 maximum RDC for each shipper.

4 If Dominion Energy Utah does not nominate its
5 full contract amount on any given day, then other shippers
6 may reserve the remaining capacity for that day using
7 interruptible contracts or flexed nominations.

8 Per the upstream pipeline's tariff, any
9 delivery volumes that exceed the RDC are being delivered on
10 an operationally available basis. In other words, these
11 deliveries are interruptible.

12 Three intraday nomination changes are available
13 during the day, but these are only useful if there is
14 available capacity and the gas supply is available and able
15 to be adjusted to match the change. This is generally
16 limited to storage withdrawal/injection adjustments or
17 additional intraday purchases.

18 No-notice transportation services can also be
19 used to adjust nominations, but do not reserve additional
20 capacity for the shippers used, and do not allow for
21 adjustments to exceed the RDC.

22 For example, assume an upstream pipeline has a
23 capacity of 900,000 decatherm and Dominion Energy Utah has
24 a contract limit of 800,000 decatherm. This serves as the
25 upper limit of nominations. Also assume Dominion Energy

1 Utah has 200,000 decatherm of no-notice transportation
2 service. Dominion Energy Utah can nominate up to the
3 800,000 decatherm upper limit. If Dominion Energy Utah
4 nominates at the upper limit of 800,000 decatherm,
5 no-notice transportation cannot adjust the nomination above
6 this limit. Peak hour services however do provide for
7 increases above this upper limit. If Dominion Energy Utah
8 has only nominated 600,000 decatherm this becomes the
9 ceiling for the day, the RDC. No-notice transportation
10 service can be used to adjust the nomination above this
11 ceiling if other shippers have not nominated the remaining
12 300,000 decatherm that was left available on the day. If
13 other shippers have nominated 200,000 decatherm, then
14 no-notice transportation could adjust the nomination up by
15 only 100,000 decatherm. No-notice transportation does not
16 reserve the capacity and would only be able to adjust based
17 on the availability capacity.

18 So to say that in simpler terms. If you have a
19 contract limit here of 800,000 decatherm, you can nominate
20 each day up to that 800,000 decatherm limit. If you only
21 nominated 700,000 decatherm, that's your RDC for the day.
22 That leaves an additional -- if the pipeline could use
23 900,000 decatherm, that leaves an additional 200,000
24 decatherm that anyone else can nominate on and reserve that
25 capacity for the day. If you nominated 700,000 and someone

1 else has nominated the remaining 200,000, your no-notice
2 isn't going to be able to adjust up because that entire
3 pipeline capacity has been reserved. If they haven't
4 nominated on that additional amount, your no-notice could
5 adjust up to the 800,000 decatherm contract limit and
6 that's it.

7 Both Kern River Gas and Dominion Energy Questar
8 Pipeline have told Dominion Energy Utah that deliveries
9 above the RDC are becoming a concern and have threatened
10 actions.

11 The FERC has also been actively working on this
12 issue. In their order 809, the FERC stated, except for
13 special services, pipeline services are generally based on
14 the assumption of uniform hourly flows over the gas day.
15 During much of the year, most interstate pipelines can
16 accommodate significant variations in hourly flow rates.
17 However, during high demand periods when pipeline
18 capabilities are being fully utilized to provide firm
19 transportation services, a pipeline may announce a critical
20 notice period, where shippers are expected to stay in
21 balance. Some pipelines offer enhanced services that
22 permit subscribing shippers more variable hourly flow
23 rates.

24 Dominion Energy Utah and other similar LDCs in
25 our area have signed up for these enhanced services on

1 upstream pipelines.

2 Prior to signing up for firm peaking services,
3 Dominion Energy Utah considered a number of options to
4 ensure deliveries for increased volumes during the peak
5 hours of the design peak day will be delivered on a firm
6 basis. Dominion Energy Utah considered the following
7 solutions, separately or in combination: Demand response
8 programs; contracting for additional firm upstream
9 transportation capacity and supply purchases; contracting
10 for additional firm upstream transportation capacity and
11 additional off-system storage; backhaul on interruptible
12 upstream transportation capacity and supply purchases;
13 upstream hourly firm peaking services; on-system storage;
14 and contracting for storage and extending pipelines to
15 eliminate the need for upstream transportations.

16 These options were discussed and vetted in
17 Exhibit 3.7 of my testimony.

18 Dominion Energy Utah determined that firm
19 peaking services are the most cost effective and reliable
20 solution going forward.

21 The firm peaking service on Kern River allows
22 Dominion Energy Utah to pack their pipe with additional
23 supply prior to the peak hours, and then draft that
24 additional supply during the peak hours.

25 The firm peaking service on Dominion Energy

1 Questar Pipeline is more complicated. Contracting for the
2 service will allow Dominion Energy Questar Pipeline to
3 reserve additional capacity on Overtrust Pipelines that can
4 be used to reroute gas on their system to increase line
5 pack. The service also allows Dominion Energy Questar
6 Pipeline to utilize additional withdrawals from the
7 aquifers to increase line pack on their system. This
8 additional line pack capacity will be reserved for Dominion
9 Energy Utah as part of the firm peaking service.

10 These firm peaking services both allow the
11 Company to receive additional supplies during peak hours.

12 No-notice transportation does not provide
13 additional supply during peak hours. Instead no-notice
14 services are a mechanism to adjust nominations on the
15 upstream pipeline, when available, to allow for additional
16 supply to be transported. The supply to be used with
17 no-notice transportation must come from storage and also be
18 available. During a peak day, all storage withdrawals are
19 planned to be at their contractual maximum for all hours of
20 the day and will be available to support additional
21 deliveries through no-notice transportation adjustments.

22 The firm peaking services contracted with Kern
23 River Gas Transportation and Dominion Energy Questar
24 Pipeline are the most reliable and cost effective solutions
25 based on Dominion Energy Utah's evaluation. Therefore, the

1 Company's decision to enter into these contracts was just,
2 reasonable, prudent, and in the public interest.

3 Q. Mr. Schwarzenbach, I only have two more
4 questions. Before I ask this question, I want to caution
5 you that if there is a way to answer it without divulging
6 confidential information I would like you to do so. If you
7 feel you can't answer it without doing so, let me know and
8 we'll have some dialogue about how to protect it. Okay?

9 A. Okay.

10 Q. You testified just now that you had evaluated
11 all of the options at the time this decision was made to
12 determine what you believed to be the best option; is that
13 correct?

14 A. Yes.

15 Q. And did you also evaluate options or an option
16 available from Magnum Energy?

17 A. We did evaluate an option from them. It was
18 the option that was presented at the time. We have since
19 gotten other proposals. The option at the time was for a
20 traditional storage service with an off-system delivery
21 point and at a high rate.

22 Q. One more question. I apologize it's a cleanup
23 question. I want to make sure we have a clear record and
24 we've admitted all of Mr. Schwarzenbach's exhibits. So I
25 will ask you this, you testified earlier that you had

1 prepared Exhibit 3.0-R and 3.10-R. Did you also prepare
2 Exhibit 3.11-R and 3.12-R?

3 A. Yes.

4 MS. CLARK: We would move to have those
5 admitted as well.

6 CHAIRMAN LEVAR: If anyone objects to those, to
7 that motion, please indicate. I don't see any objection,
8 so the motion is granted.

9 MS. CLARK: Mr. Schwarzenbach is available for
10 questions.

11 CHAIRMAN LEVAR: Thank you. Ms. Schmid.

12 MS. SCHMID: Thank you.

13 CROSS EXAMINATION

14 BY MS. SCHMID:

15 Q. I have very limited questions. In your direct
16 testimony beginning about line 218 you start discussing
17 options to peak hour contracts. Then if we flip the pages
18 to lines 284 to 287 you say something like demand response
19 programs may be a way to reduce the peak hour requirements
20 in the future. The Company will need to evaluate their
21 effectiveness before considering their value in addressing
22 peak hour demand. Do you see that?

23 A. Yes.

24 Q. Would DEU be willing to commit to initiate a
25 comprehensive study on demand response programs currently

1 in effect at other utilities to reduce design day and/or
2 peak hour requirements?

3 A. I'm not sure I have the ability to commit to do
4 anything. I would be happy to participate in that. I
5 think it is something that is of value to look at the
6 demand response programs. We have looked and evaluated
7 existing demand response programs and have not found
8 anything that we feel would be reliable enough to serve
9 this need at this point. We would be happy to continue to
10 look at it going forward.

11 Q. Thank you.

12 MS. SCHMID: Those are my only questions.

13 CHAIRMAN LEVAR: Thank you. Mr. Snarr.

14 MR. SNARR: Yes.

15 CROSS EXAMINATION

16 BY MR. SNARR:

17 Q. Good morning. How are you?

18 A. Good.

19 Q. I would like to direct your attention to your
20 rebuttal testimony in May of 2018. If you would, could you
21 please turn to page 4?

22 MS. SCHMID: Pardon me, Mr. Snarr. Again,
23 because we have a witness on the phone if you could become
24 very familiar with your microphone.

25 MR. SNARR: I'll do that.

1 Q. Commencing at line 65 you address questions
2 that the Division raised concerning no-notice
3 transportation service; is that correct?

4 A. Yes.

5 Q. When did the distribution company first secure
6 no-notice transportation service from the pipeline?

7 A. Subject to check, I believe it was back in late
8 80's or early 90's.

9 Q. Would you accept 1993, with a minor amendment
10 as to size in 1994?

11 A. Yes, I would.

12 Q. The Company pays an additional rate or fee for
13 such service; isn't that correct?

14 A. Yes.

15 Q. As far as you know are the basic terms of the
16 no-notice service still in place that were executed back in
17 1993?

18 A. Yes.

19 Q. Isn't it true that since the initial no-notice
20 service agreement was executed there have been significant
21 changes in the daily and intraday pipeline nominating
22 processes that are required by FERC for the basic firm
23 transportation service?

24 A. Yes, I would agree with that.

25 Q. Isn't it true that the Company's utilization of

1 opportunities to update nominations of its firm
2 transportation service throughout the gas day could offset
3 some of the use of the no-notice transportation service?

4 A. It is possible.

5 Q. Have there been any changes in how the Company
6 is utilizing this no-notice service agreement since it has
7 executed the two new peaking service contracts?

8 A. No, the no-notice service is completely
9 separate from the peaking contracts. So it is still being
10 utilized as it originally was.

11 Q. Let me direct you to page 13 of your direct
12 testimony. This question primarily deals with demand
13 response and options the Company has I believe to try to
14 deal with a peak day situation as it interfaces with
15 customers that have a lesser priority service; is that
16 correct?

17 A. Can you repeat the question? I was flipping to
18 the page.

19 Q. I think this question is primarily directed at
20 the demand response and how the Company might use its
21 options to cut some customers to meet a peak day need; is
22 that right?

23 A. Yes.

24 Q. We've also had discussion here today about
25 customers being cut, not because they're taking a lesser

1 service but because we've had some sort of an emergency or
2 a significantly cold day. Do you recall that testimony?

3 A. I do.

4 Q. Are there provisions in the Company's tariff
5 that govern how those customers might be cut in an
6 emergency situation?

7 A. We do have procedures for emergency shutoff
8 with customers. We go in order of type. So we would cut
9 off large industrial users before we do others. That is
10 assuming that it's not an isolated geographically type
11 situation. In an emergency situation in which we just
12 don't have enough gas supply for customers, we may not have
13 the option to go and selectively choose large commercial
14 customers to turn off. Those pressures in the system might
15 dictate that. We have to turn off geographic areas. That
16 gets into more of Mr. Platt's expertise as to how the model
17 determines which areas are going to need to be shut off
18 first. If we're just looking ahead of time determining
19 which customers would be curtailed, we could do that ahead
20 of time. But sometimes if the pressure is the issue it
21 could be determined by the system, not necessarily by us
22 picking and choosing which customers.

23 Q. Would you accept, subject to check, that
24 Section 7.03 governing this emergency service restriction
25 might apply only to the area that would be effected by an

1 outage?

2 A. Should be, yes.

3 Q. And that there is a priority of who you would
4 cut, including residential service last, and isolated by an
5 area that might get effected; is that right?

6 A. Yes. If the opportunity was available to do
7 that on an customer by customer basis, yes.

8 Q. And in restoring the service you would bring
9 the hospital and similar customers back on just before
10 residential, et cetera; is that right?

11 A. Yes.

12 Q. Thank you. I have just a few more questions.
13 Isn't it true that Mr. Mierzwa's peak day demand results in
14 a reasonable lower number than the Company's conservative
15 approach?

16 A. Yes, I do believe the two numbers were in a
17 close range when you looked at the peak hour demand need.
18 I think they were within 27,000 decatherm.

19 Q. If this Commission were to determine that
20 Mr. Mierzwa's reasonable approach and his numbers were in
21 fact what we ought to be using for the peak day model,
22 could that affect your contracting practices in some slight
23 way?

24 A. Actually they could. You would try and
25 contract for less peak hour services if you were to reduce

1 the peak hour demand. However, if you look at our peak
2 hour contracts, the Kern River contract is at a negotiated
3 rate. So implying that a slight reduction in volume on
4 that contract would result in an equal reduction in cost is
5 not necessarily true because it is a negotiated rate. So
6 we would have to renegotiate a lower volume, which could be
7 at a higher rate. The Dominion Energy Questar Pipeline
8 contracts, those contracts are -- the primary cost
9 associated with those contracts are for the Overthrust
10 capacity that they have to go and reserve. So assuming
11 that they would or would not have to alter that contract
12 with the Overthrust Pipeline, that may not result in any
13 reduction of cost. While the contracting practices may
14 change, and you may contract for a slightly lower number,
15 the costs of those contracts would not necessarily change
16 dramatically anyway. They may have a slight reduction.

17 **Q. But there is no reason currently for you to be**
18 **looking for additional contracts to try to satisfy a**
19 **possible need that's in the higher than reasonable or**
20 **higher than conservative approach that we're talking about**
21 **in the range of reasonableness; is that right?**

22 **A.** I think the -- I believe that both estimates
23 are within the range of reasonableness. I would think that
24 you would want to have a reasonable level of contracts. In
25 fact, if you go back to your analogy and your question from

1 earlier about insurance. If you hadn't used your insurance
2 and your premium goes up, would you consider keeping that
3 insurance. I believe what you would do is you would
4 compare it to other companies insurance and see the cost of
5 that insurance. Well, if you compare our supplier nongas
6 cost overall with other similar companies, we are at the
7 lower end of rates. So to say that we are at an
8 unreasonable level of contracting to match an unreasonable
9 level of demand, I don't think that's accurate because
10 you're obviously within a reasonable level of contracting
11 costs when you compare it to other similar companies.

12 **Q. As you might understand representing the**
13 **residential and small commercial customers that the Office**
14 **does, we're in a world here in Salt Lake City where those**
15 **customers that we represent have one option. We're here**
16 **before the Public Service Commission to ensure that the**
17 **regulated answer might be reasonable as opposed to allow my**
18 **clients, my contingents, to seek other options that don't**
19 **exist in their community for gas services; isn't that true?**

20 **A.** That is very true. My point was just that our
21 costs are reasonable and when you compare them to other
22 companies it's easy to see that our costs for contracting
23 are reasonable. And to lower those contracting costs by a
24 slight amount and increase the risk that those same
25 customers that you're looking out for would be subject to,

1 I don't think is reasonable. I think the cost versus risk
2 is the key thing you have to look at here. Increasing the
3 risk is not acceptable as we've pointed out a number of
4 times today.

5 MR. SNARR: Thank you.

6 CHAIRMAN LEVAR: Is that all of your cross
7 examination?

8 MR. SNARR: Yes.

9 CHAIRMAN LEVAR: Any redirect?

10 MS. CLARK: Yes, just briefly.

11 REDIRECT EXAMINATION

12 BY MS. CLARK:

13 Q. Mr. Schwarzenbach, Mr. Snarr was asking you
14 about the tariff and about the emergency shutoff
15 procedures. I would like to follow-up on that if I may.

16 A. Sure.

17 Q. Let me preface this by going back to your
18 experience. Prior to your time in the gas supply
19 department you were an engineer; is that correct?

20 A. Yes.

21 Q. And you have some familiarity with the system
22 modeling and operations, do you not?

23 A. Absolutely.

24 Q. Is it practical to believe, Mr. Schwarzenbach,
25 that during a peak hour the Company could cut select

1 customers, or even select regions in a timely fashion, and
2 is it reasonable to expect that, for example,
3 transportation customers would have volumes that would be
4 helpful in this situation?

5 A. No, I don't think that's reasonable to expect.
6 As I said, the system would somewhat dictate because of
7 timing. It's all going to happen very quickly, especially
8 in terms of a peak hour where if our peak hour supply were
9 reduced to match our contract limit for a day, or the RDC
10 for the day, that would be an almost immediate reduction in
11 matching our demand. Our customers, even the interruptible
12 customers that are on an interruptible rate get two hours
13 to interrupt at this point and have trouble meeting that
14 two hour requirement. To expect that large commercial
15 customers that are not interruptible and are not familiar
16 with an interruptible procedure are going to shutoff
17 quickly, I don't think that's a reasonable expectation. We
18 would probably in that situation have to get to the point
19 where we sent crews out to shut those customers off rather
20 than just making phone calls. We might not even have a
21 proper contact number to call those customers to say that
22 we need them to go off. So to expect anything like that
23 type of instantaneous reduction in demand from those large
24 commercial customers, I don't think that is reasonable to
25 expect on a short term time period like that.

1 Q. My follow-up questions is in a similar vain,
2 given the time constraints that you've been describing,
3 would the Company know or be able to identify which
4 customers had high usage and which customers should be
5 shutoff to aid in the system maintenance or maintaining the
6 system? Would you know what they're burning?

7 A. I would not know what individual customers are
8 burning on a particular day. We are aware of
9 transportation customers what they have nominated, and we
10 can expect that their nominations are somewhat close to
11 what they're burning. But we don't know exactly what a
12 customer would be burning.

13 MS. CLARK: I don't have anything further.
14 Thank you.

15 CHAIRMAN LEVAR: Thank you. Any recross,
16 Ms. Schmid?

17 MS. SCHMID: Nothing further from the Division
18 for this witness.

19 CHAIRMAN LEVAR: Thank you. Mr. Snarr.

20 MR. SNARR: Nothing further.

21 CHAIRMAN LEVAR: Commissioner White, do you
22 have any questions for Mr. Schwarzenbach?

23 COMMISSIONER WHITE: Yes. Going back to your
24 summary and job history and what precipitated this new
25 contracting mechanism. You mentioned this concern that was

1 brought up by the pipelines which was roughly around 2015.
 2 Is there something historically that changed significantly
 3 that created this concern on the part of the pipelines that
 4 was different than past?

5 THE WITNESS: Well, I think from an LDC
 6 standpoint it's been a growing concern for the pipelines,
 7 hour peak in particular has been growing. So that concern
 8 from them is getting more and more. But it's really been
 9 pushed throughout the industry by a lot of the electric
 10 generation facilities. As these electric generation
 11 facilities have gotten more to the point where they want to
 12 turn on and off throughout the day and not flow their gas
 13 evenly, it's really become more of an issue across the
 14 board, which is why you've seen more and more of the
 15 pipelines submitting for these enhanced services, which is
 16 why you see FERC Order 809.

17 The electric generation doesn't burn evenly.
 18 The pipelines have to treat all of their customers similar.
 19 So by not allowing electric generators to burn unevenly,
 20 they can't allow LDCs to do the same thing on their
 21 pipelines that the electric generators want to do and
 22 they're telling them no.

23 So that's become more of an issue in the
 24 industry. They have to treat all shippers similarly. So
 25 they've come to us and said we're basically not allowing it

1 for these other shippers, we can't allow it for you.
 2 They've come to us and said your load isn't even, you have
 3 to even out your load or you have to do something about it
 4 to keep it on a firm basis, otherwise it's on an
 5 interruptible basis.

6 COMMISSIONER WHITE: I think what you are
 7 describing, tell me if I mischaracterize, it seemed like
 8 you were describing almost like head room in a no-notice
 9 transportation, some days are available, some days are not
 10 that you can float on?

11 THE WITNESS: Yes.

12 COMMISSIONER WHITE: Typically how often is
 13 that available? Is that like a very sporadic based on the
 14 time of year? How often can you count on it?

15 THE WITNESS: I think it's completely feasible
 16 based on the demand of the pipeline. On what would be our
 17 peak day, I expect there would be nothing available on the
 18 pipeline. That would be a day where basically all of their
 19 customers are using as much gas as they possibly can that
 20 the pipeline capacity would be in high demand. I would
 21 expect that on those particular days you're going to see
 22 very little available for the use of no-notice.

23 COMMISSIONER WHITE: That's all the questions I
 24 have. Thank you.

25 CHAIRMAN LEVAR: Commission Clark.

1 COMMISSIONER CLARK: Just a couple questions
2 about demand response and the degree which you tested that
3 concept with large industrial users, canneries or other
4 processes that use gas in large volumes. In your
5 discussion and your testimony I note the pessimism about
6 customers willingness to interrupt and the histories.
7 We've all lived through some of that history I think. So I
8 understand that piece of the testimony. What I'm wondering
9 about is the degree at which you tested, what kinds of
10 financial incentives you need to provide so that it would
11 be worthwhile and we can have confidence that a particular
12 industrial process would agree to cease operations at your
13 direction within an hour notice or something like that?
14 Have any of those conversations taken place?

15 THE WITNESS: Yes, they have. We've done a
16 couple of things. One, we surveyed a number of our largest
17 customers to ask them what type of interest. Most of them
18 said they would not be interested in that type of service.
19 Some of them did come back and say it depends on what
20 you're willing to -- what's in it for them, what type of
21 cost is in it for them. We've also looked at this has to
22 be reliable, so we would have to look at the cost of the
23 equipment in order to have an automatic shutoff type
24 situation. Then we looked at it and said the only way we
25 can rely on those customers shutting off to impact our

1 supply for the day is if those customers have supply coming
2 to our system. If you're a large customer for some reason
3 your process is shut down, everybody is on vacation that
4 day, and you have no gas nominated, then telling them to
5 turn off is not going to help us in any way. We have no
6 control over how much gas a customer nominates and has
7 scheduled for them for a day. So those are really the
8 three main issues we looked at with this proposal.

9 And then when you start adding up costs. The
10 cost for the equipment alone to have automatic shutoffs on
11 the number of large customers it would take to match this
12 demand compared to the cost of the firm peaking service
13 just didn't seem to match up. Your firm peaking services
14 were a lot less expensive then when you started calculating
15 cost. Then you consider that you're going to have to add
16 in some type of cost for how much we would pay them to be
17 on a service schedule to allow them to do that. So that's
18 about as far as we went with that analysis.

19 COMMISSIONER CLARK: So it's your view that
20 that kind of arrangement would only be practical or would
21 only present a solution if you had the mechanical ability
22 to shut off and you were not just relying on the customers'
23 commitment to do it and to accept the financial payment?

24 THE WITNESS: Yes. And that goes back a lot to
25 our historical practice. Even the interruptible customers,

1 I think as you know, we've had issues with them also. To
2 except firm customers on a very short term timeframe to be
3 able to turn around and do that, I have trouble. And then
4 you have to consider our side of things where we have to
5 notify all of those customers. Even the timing to notify
6 them, for a peak hour type situation, you have a really
7 short timeframe. You're going to be calling these
8 customers and saying we need you to turn off, but we need
9 you to turn off not two hours from now, we need you to turn
10 off now, or within 15 minutes to turn off. That's a lot
11 bigger ask in my mind of customers that are interruptible
12 customers that are expecting to be turned off as we give
13 them warning now, and calling them and saying you have to
14 turn off in two hours. I think calling a process directed
15 customer and saying you have to turn off in 15 minutes, I
16 don't care if you have something in your furnace or you
17 have customers that need to stay warm or whatever it may
18 be, we need you to turn off. I think those are two
19 different acts.

20 COMMISSIONER CLARK: In terms of reacting to a
21 potential peak hour situation, that wouldn't be something
22 that you would pull a trigger on a day in advance based
23 upon a weather forecast of minus 5, for example, or
24 something like that? Is that also how the Company thinks?

25 THE WITNESS: I think it would depend how often

1 you really wanted to do this to those customers. If you're
2 going to have to do it and want to provide more notice,
3 you're going to be a lot more conservative in calling. So
4 assuming that the pipeline is not going to be able to
5 provide an interruptible basis the day before, that tells
6 me that pretty much any time our hourly demands would
7 exceed our contractual limit or RDC for the day, if you're
8 going to do it ahead of time, you're going to have to call
9 any time that's going to exceeds that, which I think we
10 calculated was 70 times over the past five years or
11 something around that.

12 COMMISSIONER CLARK: Thank you. I appreciate
13 it.

14 CHAIRMAN LEVAR: Thank you. I want to
15 follow-up on one issue that I believe Mr. Snarr asked you
16 about. Assuming current conditions where you have
17 no-notice transportation contracts and you also have firm
18 peaking service contracts. Can you describe a situation
19 for me where you would need to use the no-notice contracts
20 where you could not use the firm peaking service contract
21 to meet that same need?

22 THE WITNESS: That's kind of a complicated
23 question because they're two very different services. The
24 no-notice contracts really is more of an imbalance
25 management tool. Whereas, the firm peaking contract really

1 provides additional supply during the day. So the
2 no-notice at the end of the day makes an adjustment to your
3 nomination and adjusts your storage withdrawal accordingly.
4 If there is no additional storage withdrawal available
5 you're not going to be able to make that adjustment. If
6 you use firm peaking services, those services should
7 balance out. The way they work is they will provide more
8 supply during the peak hours, and then during the nonpeak
9 hours they provide less. So it should even itself out.
10 Does that mean you're not going to need your no-notice.
11 That's not necessarily true because overall on the day your
12 usage of gas could still be different. No-notice is really
13 an overall on the day type service. Where you've either
14 nominated for the day too much or too little, no-notice
15 will adjust your storage to accommodate that if it can. So
16 it's more of an imbalance on the day tool, where the firm
17 peaking really provides you that hourly supply. Does that
18 clarify or make it more confusing?

19 CHAIRMAN LEVAR: Let me ask this. The firm
20 peaking service contracts are being used for more reasons
21 than simply responding to peak hour/peak day situations,
22 correct? Am I remember a previous docket correctly?

23 THE WITNESS: Yes and no. Let me clarify that.
24 They're designed for the peak hour of a design peak day.
25 So they're being contracted for based on the volume that is

1 needed to meet the peak hour needs on a design peak day.
2 They are being used on nondesign peak days, so cold days
3 during the winter, to meet the peak hour demands on that
4 day. Everyday has a peak hour demand. Even today had a
5 peak hour demand. There is still more gas usage in the
6 morning, even in the summer than there is in the winter.
7 It's definitely a lot bigger swing in the winter than it is
8 now, but there is always a peak hour. We use that service
9 -- because it's available during those months, we've used
10 it to meet the peak hour needs for nonpeak days. But the
11 volume that it is contracted for, the reason it is
12 contracted is to meet those peak hour days that would
13 exceed our contract limit during the peak hours.

14 CHAIRMAN LEVAR: I'm risking asking this
15 question the wrong way, but I'll go ahead and take the
16 risk. If you had a situation where you needed to adjust
17 your nomination where you would normally use no-notice
18 service to extract, do the firm peaking contracts with Kern
19 River and Questar Pipeline allow any use that could be used
20 to meet that same kind of need? Do those contracts have
21 any provisions?

22 THE WITNESS: They really don't because the
23 firm peaking service will balance out on the day, on the
24 Questar Pipeline side. The firm peaking service, whatever
25 extra supply we pull during the morning hours will put that

1 line pack back into their system in the afternoon hours.

2 So on the day you're not getting any additional supply.

3 CHAIRMAN LEVAR: So those contracts have to
4 balance out on a daily basis?

5 THE WITNESS: Yes. Except for the Kern River
6 contract, which that you preload the pipe the morning
7 before, basically the day before you preload that gas and
8 you still have to take that gas on the day. It doesn't
9 really change your nomination. That's all still in the
10 nomination as well. So it doesn't change the amount of gas
11 you're going to get on the day. You still have to match
12 your nomination. Whereas, the no-notice service really
13 adjusts your daily amount of supply that you have coming to
14 your system on the day, not during the hours.

15 CHAIRMAN LEVAR: Thank you. I appreciate those
16 answers. Thank you for your testimony today. Anything
17 further from the Utility?

18 MR. SABIN: No, we don't have anything further.

19 CHAIRMAN LEVAR: Why don't we take a one hour
20 break and we will reconvene in an hour.

21 (Off the record.)

22 CHAIRMAN LEVAR: We're back on the record. We
23 will go to Ms. Schmid for the Division of Public Utilities
24 first witness.

25 MS. SCHMID: Good afternoon. As our first the

1 Division would like to call Mr. Frank DiPalma. The
2 Division would like to express its gratitude to the parties
3 and to the Commission for allowing Mr. DiPalma to testify
4 by phone as he is quite ill, but I am sure recovering
5 rapidly. So with that, could Mr. DiPalma please be sworn?

6 CHAIRMAN LEVAR: Mr. DiPalma, do you swear to
7 tell the truth?

8 THE WITNESS: I do.

9 CHAIRMAN LEVAR: Thank you.

10 DIRECT EXAMINATION

11 BY MS. SCHMID:

12 **Q. Could you please state your full name and**
13 **business address for the record?**

14 A. Frank T. DiPalma. My business address is 702
15 Pine Grove Avenue, Jupiter, Florida.

16 **Q. By whom are you employed?**

17 A. I am employed by Williams Consulting. And I am
18 part of the Overland Consulting team supporting Utah
19 Division of Public Utilities.

20 **Q. As other witnesses have done, could you please**
21 **briefly describe your experience and qualifications to be**
22 **the Division's witness in this case?**

23 A. I would be happy to. I am an energy industry
24 management consultant with over 30 years of experience in
25 assessing and working for gas and electric utilities. In

1 addition to Williams Consulting, my consulting experience
2 includes employment with Jacobs Consultancy as director and
3 Stone & Webster Consultants as associate director. My
4 direct utility operating experience has been gained from
5 being employed as an officer, manager, or engineer at
6 Mountaineer Gas Company and at Public Service Electric and
7 Gas Company. My experience as it relates to this
8 proceeding, results from reviewing the planning, load
9 forecasting, and system engineering practices of numerous
10 gas utility delivery functions as part of Commission
11 required reliability and safety related assessments.

12 Q. Did you prepare and cause to be filed what has
13 been premarked for identification as DPU Exhibit 4-Direct,
14 and that was filed in both confidential and redacted form,
15 and Exhibit 4.1-Direct, which accompanied those
16 representative filings which is your CV? And also did you
17 prepare and cause to be filed what has been premarked as
18 DPU Exhibit 4-SR, your prefilled supplemental testimony
19 certificate of service filed on May 31st of this year?

20 A. I did.

21 Q. Do you have any changes or corrections to that
22 prefilled testimony?

23 A. I do not.

24 Q. With that do you adopt the prefilled testimony
25 as your own today?

1 A. I do.

2 MS. SCHMID: Accordingly, the Division would
3 like to move for the admission of DPU Exhibit 4-Direct with
4 Exhibit 4.1-Direct, and DPU Exhibit 4.0-SR, the direct and
5 supplemental testimony of Mr. DiPalma.

6 CHAIRMAN LEVAR: Just to clarify. I heard you
7 refer to both confidential and nonconfidential versions of
8 the direct. I do not have a confidential version of the
9 direct. The one I have, both of his testimonies appear to
10 be nonconfidential.

11 THE WITNESS: I believe that's correct.
12 Neither are marked confidential.

13 MS. SCHMID: Then that was an error on our
14 part. I apologize for that. Thank you for catching that.

15 CHAIRMAN LEVAR: Or I may have misheard.

16 MS. SCHMID: No.

17 CHAIRMAN LEVAR: If there is any objection to
18 the motion please indicate to me. I'm not seeing any, so
19 the motion is granted. Thank you.

20 **Q. Mr. DiPalma, do you have a summary to present**
21 **today?**

22 A. Yes, I do.

23 **Q. Please proceed.**

24 A. The purpose of my testimony is to support
25 Overland Consulting in assisting the Utah Division of

1 Public Utilities in assessing three areas.

2 First, DEU's distribution system planning with
3 respect to the transmission and distribution facility
4 requirements needed to accommodate design day and peak hour
5 demands.

6 Second, the engineering impact on DEU's
7 distribution system at design day and peak hour conditions
8 in terms of operating pressures and the Company's ability
9 to meet customer requirements.

10 And third, to evaluate the operational issues
11 associated with serving all of DEU's utility customers with
12 reliable and safe service on design day and peak hour
13 conditions.

14 To initial the assessment of these areas, my
15 testimony starts with a simple comparison of DEU's load
16 growth, comparing where available 14 years of actual
17 experience to 10 years of forecast growth. The load growth
18 areas I compared were system sales, peak design day, and
19 peak hour demand. As a result of making this
20 straightforward comparison three concerns surfaced.

21 First, firm sales peak design day appears to be
22 projected too high. As the firm sales peak day forecasted
23 for the 2017-2018 winter is 50 percent greater than the
24 previous five year average.

25 Second, forecasted peak hour growth is

1 projected to increase 30 percent greater than what was
2 experienced in the last five winter seasons.

3 And third, the projected firm sales peak hour
4 growth rate is almost 2.5 times faster than the forecasted
5 firm sales peak design day growth rate.

6 These concerns have a direct implication on the
7 unsteady state flow models used for the gas system network
8 design. Because the design peak day flow estimate is input
9 into the unsteady state flow models, the models' results
10 would then underestimate the actual system pressures and
11 overestimate the need for system capacity to meet the
12 forecasted peak hour demand.

13 Key findings contained in my testimony include
14 the following:

15 With respect to distribution system planning
16 DEU designs its distribution system to meet maximum flow
17 conditions, which by definition implies peak hour loads.

18 The company uses state-of-the-art software in
19 its steady state and unsteady state flow condition analysis
20 models.

21 DEU appropriately engages a variety of model
22 inputs and employs a skilled workforce in its system
23 planning and analysis engineering group.

24 DEU annually verifies design day system
25 pressures with what is actually occurring in the gas

1 distribution network, with the vast majority of actual
2 pressures as compared to model pressures found to be within
3 five percent of the actual pressure.

4 DEU annually prepares an integrated resource
5 plan which identifies any areas where the projected
6 distribution system pressures are near the 125 pound
7 minimum. The 2017 IRP contained a new chapter titled, Peak
8 Hour Demand and Reliability, where for the first time the
9 company describes forecasts indicating that peak hour
10 demand across the entire system will materially exceed the
11 total firm capacity on the peak day for the next ten
12 heating seasons.

13 DEU has stated that peak hour flow will be at
14 least 17 percent higher than design peak day flow. This
15 assumes transportation customers, including Lake Side Power
16 Station, have uniform loads throughout the day are modeled
17 at their daily contract limit and transportation customers
18 with consistent and predictable hour quantities are modeled
19 consistent with their demand profiles.

20 If transportation customers and Lake Side Power
21 load were removed from the design peak day calculation, the
22 peak hour flow would be 5,205 decatherm or 7.3 percent
23 higher than design peak day flow.

24 Traditionally, hourly load fluctuations during
25 peak periods have been met on an operationally available

1 basis utilizing available upstream capacity. As these
2 fluctuations, still within available firm capacity but
3 above the required daily capacity, or RDC, have become
4 greater, DEU believed there was a need to explore
5 alternative ways of providing service during peak hours.

6 In response, Dominion Energy Questar Pipeline
7 and Kern River Pipeline have offered firm peak service. To
8 offer this service DEQP states that it utilizes capacity on
9 the Overthrust Pipeline as well as dedicated use of
10 injection/withdrawal capacity at the Aquifer Storage. Kern
11 River states that it utilizes capacity on its pipeline by
12 allowing DEU to store gas through line pack and withdraw
13 that supply from line pack during peak hours on a firm
14 basis.

15 To support its position that it needs firm peak
16 hour service, DEU presented a list of transportation
17 customers and regulator stations connected to the high
18 pressure system that would fall below operational pressures
19 on a design peak day without firm peak hour supply.

20 It has been DEU's policy to maintain 125 pounds
21 at the inlet to a transportation customers' piping.
22 Maintaining the 125 pressure is critical to transportation
23 customers as their internal fuel runs and processes have
24 been configured to receive gas at this minimum pressure.

25 On one-way feed systems where the regulator

1 station feeding the community is near design capacity,
2 customers on the system may experience outages when the
3 inlet pressure goes below 125 pounds as any reduction below
4 this level would reduce the capacity and/or outlet pressure
5 and although gas will continue to flow the reduced flow
6 rate may not be enough to sustain customer demand.

7 In conclusion, as I initially mentioned I am
8 not confident about the accuracy of DEU's design peak day
9 projections. This provides a weak foundation for the
10 unsteady state flow model, since the design peak day flow
11 estimate is input into the unsteady state flow models, the
12 results would be to underestimate the actual system
13 pressure and overestimate the need for system capacity to
14 meet the design peak hour demand.

15 **Q. Thank you.**

16 MS. SCHMID: That concludes Mr. DiPalma's
17 summary. He is now available for cross examination and
18 questions from the Commission.

19 CHAIRMAN LEVAR: Thank you, Ms. Schmid.
20 Mr. Snarr, do you have any questions for this witness?

21 MR. SNARR: No questions.

22 CHAIRMAN LEVAR: Thank you. Mr. Sabin and
23 Ms. Clark.

24 MR. SABIN: The Company has no questions as
25 well.

1 CHAIRMAN LEVAR: Commissioner White.

2 COMMISSIONER WHITE: No questions. Thank you.

3 CHAIRMAN LEVAR: Commissioner Clark.

4 COMMISSIONER CLARK: No questions. Thank you.

5 CHAIRMAN LEVAR: I don't have any further.

6 Thank you for your testimony today, Mr. DiPalma.

7 MS. SCHMID: If I may, Chairman LeVar, may I
8 ask that Mr. DiPalma be excused? I believe we most likely
9 could contact him by phone if we need him. But I think it
10 would be appropriate and kind if he didn't have to listen
11 to the rest of this.

12 CHAIRMAN LEVAR: Certainly. Any party or
13 commissioner that objects to that please indicate to me.
14 I'm not seeing any objection. Thank you, Mr. DiPalma. I
15 hope the rest of your afternoon will be better than ours.

16 THE WITNESS: Thank you so much. It's actually
17 past my bedtime.

18 MS. SCHMID: The Division would like to call
19 its next witness and that would be Mr. Kenneth H. Ditzel.
20 Could he please take the stand?

21 CHAIRMAN LEVAR: Good afternoon, Mr. Ditzel.
22 Do you swear to tell the truth?

23 THE WITNESS: I do.

24 CHAIRMAN LEVAR: Thank you.

25 **

1 DIRECT EXAMINATION

2 BY MS. SCHMID:

3 Q. Please state your full name and business
4 address for the record.

5 A. Sure. My full name is Kenneth Hooper Ditzel.
6 And my full address is 8251 Greensboro Drive, Suite 1111,
7 McLean, Virginia, 22102.

8 Q. By whom are you employed and in what capacity?

9 A. FTI Consulting is my employer and I'm a
10 managing director.

11 Q. Can you briefly describe your duties at the
12 consulting firm?

13 A. Sure. At FTI I am in the economic and
14 financial consulting segment where I lead FTI's North
15 American energy markets forecasting team. My team and I
16 focus on providing short and long term outlooks for supply,
17 demand, and prices for electricity, natural gas, and coal
18 markets. We employ a wide range of models to develop our
19 forecasts, such as linear programming models, valuation
20 models, multivariate regression models, and general
21 spreadsheet models. I provide advisory and expert witness
22 services across the energy value chain from fuel producers,
23 fuel transportation companies, project developers,
24 utilities, merchant generators, end consumers, and
25 regulatory bodies.

1 Q. Could you please provide us with details of
2 your education that support your performance at the
3 consulting firm?

4 A. Sure. My background is I have a Mechanical
5 Engineering degree from the University of Virginia where I
6 practiced engineering three years at Dow Chemical. And I
7 also have a MBA from Georgetown University.

8 Q. Thank you. Did you prepare and cause to be
9 filed what has been premarked as DPU Exhibit 3-DIR with
10 accompanying exhibits 3.1-Direct, your CV, and then your
11 surrebuttal premarked as DPU 3.0-SR?

12 A. I did.

13 Q. Do you have any changes or corrections to that
14 prefiled testimony?

15 A. I have one change on page 4 of my direct where
16 I called Mr. Landward Mr. Lawrence. It should be
17 Mr. Landward.

18 Q. Thank you. With that do you adopt your
19 prefiled testimony as your testimony here today?

20 A. I do.

21 MS. SCHMID: Accordingly, the Division would
22 like to move for the admission of the previously identified
23 DPU Exhibits 3.0-Direct, 3.1-Direct, and 3.0-SR.

24 CHAIRMAN LEVAR: If any party objects to that,
25 please indicate to me. I'm not seeing any objection, the

1 motion is granted.

2 MS. SCHMID: Thank you.

3 Q. Mr. Ditzel, do you have a summary to provide
4 today?

5 A. I do.

6 Q. Please proceed.

7 A. FTI Consulting is part of the Overland
8 Consulting team that has been retained by the Division of
9 Public Utilities to review the DEU filing in this
10 proceeding. My role in the Overland Consulting team has
11 been to provide a comprehensive review of the multivariate
12 regression model used by DEU to forecast design peak day
13 firm sales demand. I also have provided a limited review
14 of the unsteady state model. I focus mainly on the design
15 peak day model in my testimony because it contains many
16 assumption inputs and methodological flaws. Given these
17 many flaws and that the design peak day model informs the
18 design peak hour model, I conclude that the results from
19 unsteady state model are not reliable.

20 The major assumption input flaws that I have
21 discussed in my testimony include the selection and use
22 maximum daily average wind speed, maximum hourly wind
23 speed, temperature, prior day usage, and the lack of
24 information on the joint probability of the input
25 assumptions occurring simultaneously. For peak day design

1 temperature, DEU assumes an average daily temperature of
2 negative 5 degrees Fahrenheit. The last time average daily
3 temperatures were negative 5 degrees or less, regardless of
4 the day of the week, was January 12, 1963, which was 55
5 years ago. This was on a Saturday, which would not be a
6 design peak day, because a design peak day by definition is
7 only Monday through Thursday. The last non-weekend day,
8 nonFriday day, with temperatures at or below negative
9 degrees was January 5, 1949, which was 69 years ago. I
10 showed in my surrebuttal that there has been a
11 statistically significant warming trend in the Salt Lake
12 City region since 1948, with temperatures rising about .5
13 degrees Fahrenheit per decade.

14 For wind speed, DEU uses a maximum daily
15 average wind speed of 26 miles per hour, which occurred on
16 January 27, 2008, a maximum hourly wind speed of 47 miles
17 per hour, which occurred on February 16, 2011 and was three
18 years later than the daily average wind speed maximum. DEU
19 applied these values regardless of the temperatures for the
20 days in which these maximums occur. This is a basic
21 misapplication of statistics, because it ignores the fact
22 that temperature and wind speed are correlated, and instead
23 assumes that they are independent. I show in my testimony
24 that the maximum average wind speed during the coldest ten
25 days from January 1, 2004 to January 31, 2018 was 10 miles

1 per hour, or 37 miles per hour lower than the DEU's
2 assumptions. Similarly, the average wind speed during
3 these same ten coldest days was 5 miles per hour, or 21
4 miles per hour lower than the DEU's assumptions. My
5 analysis shows that very cold days tend to have very low
6 wind speeds. Therefore, picking a combination of the
7 lowest temperature days and the highest wind speeds does
8 not make any statistical sense.

9 Applying prior day usage is uncommon among
10 utilities when forecasting design peak day usage. The
11 American Gas Association survey showed that only two of the
12 21 respondents mentioned using lagged variables in their
13 regression equation, with one using prior day send out, and
14 one using prior day HDD count. Mr. Landward attempts to
15 argue that it is reasonable to apply prior demand day usage
16 by asserting there is some type of inertia effect.
17 However, he never shows any reasonable statistical analysis
18 to support this assertion.

19 Finally, on the input side, DEU is unable to
20 quantify the joint probability or likelihood of all
21 assumptions occurring simultaneously. My direct testimony
22 states that the joint probability of the design peak day
23 assumptions occurring simultaneously should be much lower
24 than the 5 percent that Mr. Landward has suggested.
25 Imposing five more conditions in addition to the design

1 peak day temperature would only lower the joint
2 probability. Even Mr. Landward states in discovery DPU
3 2.47 that "without a complete set of data on all variables
4 at those points in time, a reliable computation is not
5 possible."

6 In terms of the DEU's methodology for model
7 parameterization, there are many flaws. The first flaw is
8 in not partitioning the dataset used for analysis in order
9 to test the robustness of the model calibration. One part
10 of the dataset should be used for calibration. The other
11 part should be used for testing the quality of the
12 calibration.

13 The second flaw is the DEU's misunderstanding
14 of the model's fit. Often the statistical term adjusted
15 R-squared is used to describe this fit. A high adjusted
16 R-squared value does not indicate how well a model performs
17 on data that is outside of the sample data. The model only
18 explains how well it can predict conditions within the
19 calibrated dataset. In fact, one can construct a model
20 that has an extremely high adjust R-squared but has little
21 predictive power when given new data that was not used for
22 calibration.

23 The third flaw is in using data for calibration
24 that does not even remotely encompass potential design day
25 conditions. The lowest temperature in the dataset is 4.46

1 degrees Fahrenheit as compared to negative 5 degrees
2 Fahrenheit used for the assume design peak day conditions.
3 Also, the maximum and mean wind speeds on January 6, 2014
4 during this 4.46 degree Fahrenheit day event were 9 miles
5 per hour and 4.58 miles per hour respectively as compared
6 to 47 miles per hour and 26 miles per hour for assumed
7 design peak day maximum and mean wind speed conditions
8 respectively. Because the DEU model was constructed with
9 data that excludes conditions at or near design peak day,
10 it is unclear whether it has adequate predictive power for
11 design peak day firm demand.

12 The four flaw is that Mr. Landward's testimony
13 does provide a justification for four HDD terms in the
14 regression analysis. While it is accepted that energy
15 demand responses to temperature changes can be nonlinear,
16 this nonlinearity can be approximated simply with two
17 terms. While the addition of two more terms are
18 statistically significant, they do so at the expense of
19 likely overfitting.

20 The fifth flaw is that the DEU model does not
21 appear to be correctly specified. I attempted to replicate
22 the DEU model coefficients from Mr. Landward's testimony
23 and the data provided by the DEU. A plot of the error
24 terms is concerning as they show high correlation with one
25 another and exhibit strong seasonality. This phenomenon is

1 known as autocorrelation. Autocorrelation of the errors
2 violates the assumptions of the Gauss-Markov theorem,
3 meaning that the ordinary least squares regressor is no
4 longer the best linear unbiased estimator. Mr. Landward
5 stated in OCS 2.02 that "it is likely that Mr. Landward's
6 predecessor tested the model specification for
7 multicollinearity and autocorrelation" and that
8 "Mr. Landward has not duplicated those evaluations."

9 The sixth major flaw is that the model does not
10 allow for the effects of temperatures about 65 degrees
11 Fahrenheit to be estimated, as it only includes HDD terms,
12 and not cooling degree day terms even though the
13 calibration data includes summer months.

14 I conclude that DEU's input assumptions and
15 methodology used in its design peak day model are not
16 reasonable, thus making the results from that model
17 unreliable and potentially making the design peak hour
18 modeling unreliable as well. This concludes my summary.

19 **Q. I have just one clarifying question. So if the**
20 **inputs are not reliable, the results are not reliable.**
21 **Does that make sense?**

22 A. That's correct.

23 MS. SCHMID: With that, Mr. Ditzel is available
24 for cross examination and questions from the Commission.

25 CHAIRMAN LEVAR: Thank you, Ms. Schmid.

1 Mr. Snarr, do you have any questions for Mr. Ditzel?

2 MR. SNARR: No questions from the Office.

3 CHAIRMAN LEVAR: Thank you. Mr. Sabin.

4 MR. SABIN: Give me one moment.

5 CROSS EXAMINATION

6 BY MR. SABIN:

7 Q. I just have three questions. I want to be
8 clear. I think from reading your testimony, I don't see
9 anywhere in there where you identify a correct approach for
10 calculating design day demand or an approach that is
11 industry accepted. Have I understood your testimony
12 correctly?

13 A. I think you partially understood it correctly
14 in that I do point out what the results are of the American
15 Gas Association survey, and in that survey how many firms
16 actually use wind speed and HDD terms and prior day demand.

17 Q. I don't think that's really my question. My
18 question is -- let me break it apart. So this will be more
19 than three questions. You don't identify anywhere some
20 sort of industry accepted approach or government directed
21 approach for how a utility should assess design peak
22 demand, do you?

23 A. I don't point to a specific industry approach
24 beyond what the AGA survey showed.

25 Q. And even the AGA survey, you're not advocating

1 that there is any one of those approaches is the right
2 approach, are you?

3 A. I'm not saying that one approach in particular
4 is the correct approach.

5 Q. You would agree with me that there are lots of
6 different approaches taken by companies in the AGA survey,
7 right?

8 A. The AGA survey approaches all were multivariant
9 regression and with limited amount of terms used.

10 Q. But different variances were applied by
11 different utilities, right?

12 A. They were small variances.

13 Q. Well, different variables and the way they
14 applied them was different, was it not?

15 A. They mostly use HDD terms, a few used wind
16 terms, and then a few used lagged variables.

17 Q. And as you sit here today you're not saying
18 that any one of those is the right way to do this, right?

19 A. That's correct. I'm not saying any one in
20 particular is the correct one.

21 Q. Okay. Two more questions. In criticizing
22 Mr. Landward you're also criticizing Mr. Mierzwa's
23 approach, aren't you, as well? Don't you by extension have
24 to be?

25 A. I am criticizing any approach that uses the

1 current model as it's designed.

2 Q. Is it your understanding that Mr. Mierzwa does
3 in fact use essentially the same model as Mr. Landward with
4 some tweaks?

5 A. Yes, that's correct.

6 MR. SABIN: No further questions.

7 CHAIRMAN LEVAR: Thank you. Any redirect,
8 Ms. Schmid?

9 MS. SCHMID: Yes. May I have just one moment?

10 CHAIRMAN LEVAR: Yes.

11 REDIRECT EXAMINATION

12 BY MS. SCHMID:

13 Q. You were asked some questions about industry
14 practice. Could you remind me and remind us how long you
15 have been a consultant in this industry?

16 A. I've been working professionally for 20 years,
17 three years at Dow Chemical and about 17 years in
18 consulting.

19 Q. And you were also asked some questions about
20 small variances between gas company models. Those
21 questions in part related to the AGA survey. Could you
22 remind us what those variances were?

23 A. Sure. Let me pull up my direct testimony. I
24 stated on page 4 of my direct testimony starting on line
25 94, first, one out of 21 respondents, two respondents

1 explicitly include wind and a third respondent implicitly
2 includes wind as an independent variable in their
3 regression equations. DEU used two different wind
4 variables in its model.

5 And I would like to add there they used a third
6 wind variable in a sense because it also multiplied HDD
7 times wind as another variable. And then I go on to say,
8 second, only two of the 21 respondents mention using lagged
9 variables in their regression equation, with one using
10 prior day send out and one using prior day HDD count.

11 I would say in total DEU used four HDD terms,
12 two wind terms, a combination of wind and an HDD term, and
13 a lagged variable plus binary indications for holiday,
14 Fridays, and weekends.

15 **Q. And so if the inputs are suspect and the model**
16 **perhaps overutilizes some variance, and perhaps**
17 **underutilizes others, are then the results uncertain and**
18 **subject to question?**

19 **A.** The results are certainly subject to question.
20 Mainly because of the way the inputs were selected and the
21 way the model was parameterized. On the input side I make
22 it very clear that the wind selection inputs do not make
23 statistical sense given that typically on very cold days
24 you have very low wind speeds. And I show that very
25 explicitly on line 166, table 4 of my direct, where I take

1 the top ten coldest days with an average of 56 for HDD and
2 show that the max wind speed was 10 miles per hour and the
3 average mean was 5, which was significantly different than
4 what Mr. Landward used in his model.

5 Q. Thank you.

6 MS. SCHMID: Those are all my redirect
7 questions.

8 CHAIRMAN LEVAR: Thank you. Any recross?

9 MR. SABIN: I don't think so.

10 CHAIRMAN LEVAR: Commissioner Clark, do you
11 have any questions?

12 COMMISSIONER CLARK: Mr. Ditzel, do you work
13 routinely with design peak day modeling?

14 THE WITNESS: I wouldn't say that I work
15 routinely with it.

16 COMMISSIONER CLARK: In your consulting
17 practice and engagements that you've had over the 20 years
18 roughly, how many times have you worked directly either --
19 well, in cases like this one where the design peak day is
20 at issue and you've had an opportunity to tease apart the
21 modeling to evaluate it, to critique it, or even to perform
22 it?

23 THE WITNESS: Sure. In a case like this one,
24 or very close to this one, I have not participated in
25 another case. But I would like to say that myself and my

1 team members functionally have done a number of statistical
2 analyses outside of design peak day analyses that pick and
3 criticize other analyses apart to understand where they're
4 satisfactory and where they're not.

5 COMMISSIONER CLARK: You mentioned in your
6 summary the concept of overfitting. Would you remind me at
7 least what that means and the statistics?

8 THE WITNESS: Sure. The idea of overfitting is
9 pouring in as many different variables as possible into
10 multivariant regression in order to get a very high
11 R-squared value, which the DEU accomplishes in its model.
12 So it gets a very high R-squared by putting in all these
13 different variables. The issue with that is particularly
14 if your dataset does not contain data with which you're
15 trying to predict, such as a design peak day, because there
16 is nothing in the dataset that's even remotely close to a
17 design peak day that DEU uses as assumptions, then
18 overfitting of the model may tend to not be one that
19 produces a model that has high predicted accuracy.

20 COMMISSIONER CLARK: Just a final question
21 regarding the survey results. I don't know in what detail
22 you were able to review them. Do you know whether or not
23 any of them, any of the utilities that responded, used a
24 methodology that involved both wind and lagged variables
25 together in conjunction with a temperature element?

1 THE WITNESS: Sure. It's not clear to me and I
2 would have to go back and look at the survey again.

3 COMMISSIONER CLARK: Those are all my
4 questions. Thank you.

5 CHAIRMAN LEVAR: I would like to follow-up on
6 that question he asked before going to Commissioner White.
7 As I am trying to evaluate what weight to give to this
8 American Gas Association survey and why. Our statutory
9 responsibility is to answer the question did the Utility
10 act as a prudent utility would have done. We look at
11 respondents and we see some methodologies that a small
12 minority used, two or one respondents used a methodology on
13 one particular issue similar to Dominion. Does that alone
14 say that those two utilities plus Dominion acted
15 imprudently, or that one utility plus Dominion acted
16 imprudently, or would three or four utilities and their
17 response change that. How should we evaluate a finding or
18 at least some evidence that some, but not most utilities
19 did things in a similar way?

20 THE WITNESS: Sure. Maybe I can rephrase the
21 question to see if I understand it correctly. Are you
22 asking whether or not I should be solely relying on the AGA
23 paper as an indicator for good multivariant regression
24 modeling for peak day design?

25 CHAIRMAN LEVAR: I'm not sure I'm asking if you

1 or we should solely rely on it. I'm trying to figure out
2 what weight we should give to it. If you can supplement
3 the question with what was going to be my follow-up
4 question, for example, would you expect a natural gas
5 utility in Utah to evaluate the same peak day factors as
6 say one in Miami, Florida or San Diego, California or
7 Billings, Montana?

8 THE WITNESS: There were multiple sources for
9 testing or benchmarking your model in dataset to others.
10 One obviously I mentioned was the AGA survey. Another
11 would be to work with affiliates to understand how they do
12 their modeling. So for DEU to speak with its affiliates
13 and understand whether or not the different affiliates are
14 using similar modeling approaches. And then there are also
15 academic journals or papers. Mr. Landward prefaces one,
16 the paper from 2009 that speaks about the usage of wind
17 variables and temperature variables and to some degree
18 lagged variables.

19 CHAIRMAN LEVAR: Thank you. Commissioner
20 White.

21 COMMISSIONER WHITE: I'm just curious if you
22 have any knowledge of the background that is behind the AGA
23 study, or what was that emphasis that the survey started
24 off studying?

25 THE WITNESS: I'm not aware of the actual

1 emphasis behind the study. I've only seen the results from
2 what has been provided in the meeting room. But no, I
3 don't know what the emphasis was. Typically the AGA and
4 other organizations like to do benchmarking studies as a
5 way of creating industry awareness. That would be my guess
6 as to why they did that.

7 COMMISSIONER WHITE: That's all the questions I
8 have. Thank you.

9 CHAIRMAN LEVAR: Thank you for your testimony,
10 Mr. Ditzel.

11 THE WITNESS: Thank you.

12 CHAIRMAN LEVAR: Ms. Schmid.

13 MS. SCHMID: Thank you. The Division would
14 like to call its next witness Mr. Howard Lubow. Could he
15 please be sworn?

16 CHAIRMAN LEVAR: Mr. Lubow, do you swear to
17 tell the truth?

18 THE WITNESS: I do.

19 CHAIRMAN LEVAR: Thank you.

20 DIRECT EXAMINATION

21 BY MS. SCHMID:

22 Q. Could you please state your name and business
23 address for the record?

24 A. Howard E. Lubow. My business address is 11551
25 Ash Street, Suite 215, Leawood, Kansas, 66211.

1 **Q. As with other witnesses that have presented**
 2 **testimony today, could you please describe your educational**
 3 **background?**

4 A. I have a BA in Accounting and I did graduate
 5 work in Quantitative Analysis.

6 **Q. Could you then describe your duties as a**
 7 **consultant with Overland?**

8 A. Yes. I am president of Overland Consulting.
 9 Myself and my firm generally represents state regulatory
 10 commissions, as well as on occasion, utilities throughout
 11 the United States. Over the last 20 years, this work has
 12 been principally focussed on utility management audits,
 13 mergers and acquisitions, and utility rate determinations.
 14 My consulting experience, as it relates to this proceeding,
 15 includes gas planning and procurement reviews, including
 16 hedging strategies, corporate governance and strategic
 17 planning, gas cost of service and rate design. Aside from
 18 this consulting experience, I have held the positions of
 19 chief financial officer and chief operating officer of a
 20 transmission pipeline located in the Midwest. I have
 21 addressed the application of the prudence standard in
 22 regulatory proceedings and in industry publications. I
 23 have appeared as a witness on behalf of the DPU last year
 24 in Docket 17-057-09.

25 **Q. In connection with your employment at the**

1 Division in this docket did you prepare and cause to be
2 filed what has been premarked as DPU Exhibit 5.0-Direct,
3 and I believe that was filed in both confidential and
4 redacted form, with accompanying Exhibits 5.1-Direct,
5 5.2-Direct, 5.3-Direct, 5.4-Direct, 5.5-Direct? And then
6 did you also prepare and cause to be filed in both
7 confidential and redacted form your surrebuttal testimony
8 with accompanying Exhibits 5.1-SR, 5.2-A, 5.2-B, 5.3-SR and
9 your surrebuttal testimony identified as 5.0-SR?

10 A. I did.

11 Q. Do you have any changes or corrections?

12 A. I do. In my direct at page 11, at line 280, I
13 refer to Exhibit 5.3-Direct, which should be 5.4. And
14 similarly on a couple pages later, page 13, line 324,
15 Exhibit 5.4 should be 5.5. Finally, based on surrebuttal
16 testimony I made a correction that would affect my direct
17 at page 17, line 416, the first line on that page. 193,470
18 decatherm should be 111,988. In my rebuttal --

19 Q. Your surrebuttal?

20 A. My surrebuttal, thank you. At page 18, line
21 465, I refer to termination priority number 1 being the
22 most likely to be curtailed, that really to be more
23 accurate about it should be termination priority number 1
24 and/or 2 being most likely to be curtailed.

25 Q. With those corrections do you adopt your

1 **prefiled testimony as your testimony here today?**

2 A. I do.

3 MS. SCHMID: The Division would like to move
4 for the admission of Mr. Lubow's testimony 5.0-Direct, then
5 Exhibits 5.1 through 5.5-Direct, Exhibit 5.0-SR and
6 Exhibits 5.1-SR, 5.2-A, 5.2-B, and 5.3-SR.

7 CHAIRMAN LEVAR: If anyone objects to that
8 motion please indicate to me. I'm not seeing any
9 objection, so the motion is granted.

10 MS. SCHMID: Thank you.

11 **Q. Mr. Lubow, do you have a summary to present**
12 **today?**

13 A. I do.

14 **Q. Please proceed.**

15 A. Overland Consulting was retained by the
16 Division of Public Utilities to review the Dominion Energy
17 Utah application in this proceeding. My testimony, along
18 with Mr. Frank DiPalma and Mr. Ken Ditzel, represents the
19 scope of analysis performed by Overland. Our review
20 generally included an examination of the reliability of the
21 forecast models employed by DEU as conducted by Mr. Ditzel;
22 the planning and operating requirements on the DEU system
23 during peak conditions as conducted by Mr. DiPalma; the
24 current and alternative options available to meet DEU peak
25 demand; and finally, industry planning and best practices

1 associated with these subject areas. Specifically, I
2 reviewed the historic experience of the Company in meeting
3 customer needs during peak conditions; alternatives
4 available to meet these customer demands; and industry
5 practices employed by gas distribution companies in meeting
6 peak period requirements.

7 The basis for DEU's decision to enter into peak
8 hour service agreements was initially addressed in Docket
9 17-057-09, and the evidence provided by DEU to support
10 these agreements in this proceeding is largely unchanged
11 from prior record evidence. The DPU scope of review in
12 this case, however, has been expanded to include an
13 engineering analysis of DEU planning and operations, as
14 well as a review of the peak hour and peak day models
15 relied upon by DEU in defining its peaking requirements.

16 Key findings contained in my testimony include:

17 The actual conditions of service to DEU from
18 Kern River and DEQP have been relatively unchanged in
19 recent years, with no interruptions of service, or
20 operational or financial impacts due to pipeline
21 restrictions being imposed during peak periods.

22 There are no comparable examples of upstream
23 pipeline peak hour services elsewhere in the country. And
24 more specifically, aside from DEU no other shippers have
25 requested peak hour services on these pipelines since the

1 tariffs became effective.

2 DEU is currently paying approximately \$2.4
3 million per year for peak hour services, over half of which
4 is paid to its affiliate DEQP. To date, there have been no
5 conditions where these services were needed to meet peak
6 period demands.

7 DEU has not experienced a design peak day since
8 1963, about 55 years ago. However, DEU has represented
9 that the probability of a design peak occurrence in a 50
10 year period is 92 percent, which in fact did not occur.

11 DEU has made little, if any, effort to consider
12 load control options for large customers or Lake Side,
13 though such options, if and whenever needed, could be a
14 significantly more economical alternative to the peak hour
15 contracts or other longer term considerations.

16 DEU fails to follow industry practices relevant
17 to peak period planning, and as a result, comes to
18 ill-founded and unnecessary planning conditions it
19 represents must be met.

20 Aside from the above findings, I would like to
21 summarize the following facts, which are helpful in
22 evaluating DEU's alleged need for peak hour services.

23 Over the last 21 years, the excess capacity
24 available based on a comparison of actual peak conditions
25 to a DEU design day period was about 30 percent. DEU

1 states that it is not reasonable to simply look at these
2 historical outcomes. However, most utilities, in fact,
3 look at the most recent 30 years of data. In extending
4 this comparison to 30 years would produce a similar result,
5 that there has always been capacity available in excess of
6 peak period customer demands. In fact, this comparison if
7 extended to 50 years would produce a similar result and can
8 be demonstrated consistent with the analysis provided in my
9 testimony.

10 If additional capacity were needed, for
11 arguments sake, limiting a small group of large customer
12 loads could be accomplished at a substantial cost savings
13 to the peak hour agreements.

14 The Lake Side generating facility currently has
15 210,000 decatherm of firm load. However, it does not take
16 this level of capacity at the time of the DEU peak hour.
17 DEU includes this contract level for planning purposes,
18 contributing to a material component of the alleged peak
19 hour deficiency. The negotiation of a revision in the Lake
20 Side agreement would likely be highly cost beneficial
21 compared to the peak hour agreements or other options.

22 Based upon industry practice, most utilities
23 rely on temperature only, based upon the most recent 30
24 year period, when developing peak period estimates. In
25 contrast, DEU also considers wind and wind speed, day of

1 the week, prior day conditions, dramatically increasing the
2 estimate of peak day demand.

3 In developing the design day peak, DEU uses
4 weather data from one location in its service area over a
5 90 year period, ignoring warming trends in its forecast.

6 Cumulatively, these flaws in the model design
7 and input data have led to a material overstatement of
8 design peak day customer needs.

9 Aside from peak day and peak hour estimation
10 issues, DEU has included interruptible volumes in
11 developing the hourly excess demand over average usage.
12 Clearly, interruptible usage should be excluded in
13 developing estimates of peak day and peak hour
14 requirements.

15 My conclusion regarding these peak hour
16 transportation agreements is unchanged from the conclusion
17 reached from the more limited analysis conducted in Docket
18 17-057-09. Namely, that there was no need for the peaking
19 contracts. DEU resources currently available, absence the
20 peaking services agreements, are and have been sufficient
21 to provide safe, adequate and reliable service. There is
22 no credible evidence that the peaking services agreements
23 are necessary to continue to meet this standard.

24 I do not believe that either the firm sales or
25 firm transportation customers need or benefit from the peak

1 hour services agreements, and that DEU customers should not
2 bear the imprudent and unnecessary costs associated with
3 them.

4 It is my recommendation that the Commission
5 deny recovery of costs associated with the pipeline peaking
6 services agreements, and that DEU be directed to modify its
7 design peak day and peak hour models to correct current
8 deficiencies and unreasonable assumptions currently
9 employed, and that it adopt a process consistent with
10 industry practice.

11 Q. Thank you.

12 MS. SCHMID: He is now available for cross
13 examination questions and questions from the Commission.

14 CHAIRMAN LEVAR: Thank you. Mr. Snarr, do you
15 have any questions?

16 MR. SNARR: We have no questions.

17 CHAIRMAN LEVAR: Thank you. Mr. Sabin and
18 Ms. Clark.

19 CROSS EXAMINATION

20 BY MR. SABIN:

21 Q. I would like to pick up right where you left
22 off. You said a quote that I think is interesting. You
23 said at the end that you encourage the Commission to modify
24 the contracts in a way to correct the deficiencies in the
25 model. Did I get that right?

1 A. I don't believe I said the contracts should be
2 modified. I said the methodology and input data to the
3 model be modified.

4 Q. I'll take that. I'll take that. You were not
5 proposing any proposed model, are you?

6 A. No, other than the testimony that was provided
7 by Mr. Ditzel.

8 Q. Right. And Mr. Ditzel as you just heard he
9 said he wasn't proposing any model either, right?

10 A. That's correct.

11 Q. So what exactly are you telling the Commission
12 when all is said and done and the dust settles here that
13 the DPU is saying that should be done?

14 A. Well, I think I've been pretty clear about what
15 I think should be done. I've said it in my direct and
16 rebuttal testimony, as well as the conclusion that I've
17 just completed. But more specifically, I indicated that if
18 you look at the forecast of the peak day requirements
19 exclusive of the additional variables that have been
20 addressed, such as wind, prior day, day of week, and so on,
21 that that results in a delta of more than the incremental
22 amount associated with the peak hour agreements.

23 Q. So what you're saying if I understand you right
24 is you would say don't do any amount of peak hour service,
25 period, correct?

1 A. That's correct.

2 Q. Great. I would like to talk with you about
3 your testimony on -- I think I wrote your quote down
4 correctly. You said there are no comparable services in
5 the country that are being used by any other utilities. Do
6 I have that right?

7 MS. SCHMID: Could you please give me a line
8 reference so I can keep up?

9 MR. SABIN: That was in his statement. He just
10 read it, his summary.

11 MS. SCHMID: Okay.

12 MR. SABIN: I do think it appears, by the way,
13 in his direct at page 4 as well, line 85 to 87.

14 Q. Did I state that correctly, Mr. Lubow?

15 A. That's right.

16 Q. I would like to know if in the course of doing
17 your work in this case if you went and researched the
18 publicly available contracts that are with pipelines around
19 the country to make that statement?

20 A. What I did do was the following, I asked in
21 discovery for any known comparable forms of service. The
22 Company initially in the 09 case said they were not aware
23 of any comparable forms of service. And then there were a
24 couple FERC cases, I believe, that ultimately the Company
25 provided that had -- one of the Company's witnesses

1 indicated today, had to do with really the coordination of
2 pipelines with electric generators, not the need to make a
3 specific provision through a peak hour agreement for
4 peaking services occurring on a peak day.

5 Aside from that I've done, I don't know, dozens
6 of projects involving gas utilities, none of whom have had
7 a similar service to that has been entered into by DEU as
8 included in this case.

9 Q. Let me go back to my question because I don't
10 think you answered my question. You didn't go out and do
11 any research independently on your own to look up the
12 publicly available contracts that are entered into by
13 utilities with pipelines; is that right?

14 A. Not independently, no.

15 Q. And the question you asked -- what you did is
16 you asked the Company in a data request if they were aware
17 of anybody else; is that fair?

18 A. It is fair.

19 Q. Wasn't that request only with regard to the
20 Kern River and DEQP pipelines?

21 A. No. There were two requests. One of them did
22 have to do with that, are there any other shippers since
23 this tariff has been made available that have taken
24 advantage of this service. And separate from that there
25 was some discovery request dealing more broadly with

1 comparable services.

2 MS. SCHMID: I would like to just add that if
3 the Company knows of other similar contracts, it does have
4 an obligation to supplement the data request. And I'm not
5 aware that it did so in this case.

6 MR. SABIN: I appreciate that. I don't think
7 the data request that was sent to the Company asked for
8 anybody in the country. I think it asked for specific
9 pipelines. But I'm happy to check.

10 Q. I would ask you subject to check if you went
11 out -- if you agree that Southwest Gas has entered into an
12 hourly peaking contract. Do you know whether they have?

13 A. I do not.

14 Q. If I represented to you that they have, how
15 does that change your testimony?

16 A. I would hate to sit here today taking that into
17 consideration since I did ask in the record, and I can
18 provide that as a late filed exhibit where we did ask
19 specifically for the Company to provide that information.
20 I've been involved in Southwest Gas proceedings in the last
21 several years, and it did not exist at that time. So to
22 the best of my knowledge I don't have any personal
23 knowledge of that.

24 Q. Let me just represent to you that using
25 internet --

1 MS. SCHMID: I would like to object at this
2 point. The witness has already answered. He said he
3 doesn't have any personal knowledge. And despite the fact
4 that we all know that everything we can find on the
5 internet is true, I would object to this question.

6 CHAIRMAN LEVAR: Do you want to respond to the
7 objection?

8 MR. SABIN: Sure. I don't think it's an
9 inappropriate objection. I can ask subject to check. If
10 he wants to answer that he's not aware of any of these
11 companies, then he can be known on the record what his
12 answer is.

13 CHAIRMAN LEVAR: I think these are appropriate
14 follow-up questions to his answer that he's not aware of
15 any. There is a bit of a factual dispute within his
16 testimony of proffer statement about what the data request
17 said. If there is any need to clarify that, I think we can
18 do that. But I think this line of follow-up questions is
19 appropriate based on the earlier response.

20 Q. To save time let me just say without a lot of
21 work Southwest Gas, Public Service Company of New Mexico,
22 ATMOS Energy, Texas Gas Service Company, Southwestern
23 Public Service Company, and Arizona Public Service Company
24 all have contracts, that are filed publicly available
25 contracts, where they have required hourly peaking

1 **services.**

2 A. Now you just said hourly peaking services,
3 which is not the same as what we are discussing today.
4 There were conditions for terms of service during periods
5 of time during the day where agreements have been made,
6 which I am aware of, but not specifically where the goal
7 was to accommodate a peak hour on a design day by peaking
8 services from an upstream pipeline supplier. And I think
9 if you were to enter those into the record you would find
10 that they don't precisely fit the terms of service or the
11 purpose of those agreements with the hourly peaking
12 services that have been addressed in this proceeding.

13 **Q. Let me just ask to just kind of wrap this up on**
14 **this point. What are you trying to distinguish? What is**
15 **your basis for distinguishing those contracts that you are**
16 **aware of now, and you say you're away of, from the**
17 **contracts that are being assessed here?**

18 A. I didn't mean to imply that I'm now aware of
19 those specific references that you made.

20 **Q. No. I'm talking about the ones you said.**

21 A. But what I am aware of is there are contracts
22 that do exist around the country that talk about periods of
23 time where there is a nonuniform commitment to delivery of
24 service.

25 **Q. So for example, if the Company's peak hour is**

1 from 6:00 a.m. until 9:00 a.m., and in choosing its peaking
2 service contract let's say for that period of time on a
3 design peak day, you think that's different from a contract
4 by a company who has specified the hours in which they need
5 to go above their contract limit?

6 MS. SCHMID: And I will qualify or request that
7 the question be amended to include if those are the only
8 facts he needs to make a determination and representation.

9 Q. I think my question was just -- the contracts
10 you're talking about are specifying the hours in which the
11 utility can exceed its existing contract limit, right?

12 A. I don't want to incorrectly leave the record
13 open to somehow that these are directly comparable.
14 Because if they were, I would wonder why the Company itself
15 didn't provide this in evidence at an earlier point in
16 time.

17 Q. Do you agree with me that Mr. Schwarzenbach in
18 his testimony notes Kern River, DEQP, Panhandle Eastern
19 Pipeline Company, Gulf Crossing Pipeline Company, Gulf
20 South Pipeline Company, El Paso National Gas Company,
21 Equitrans LP and Gas Transmission Northwest LLC all are
22 pipeline companies that offer this service?

23 A. I don't recall that.

24 Q. It's on page 21 of Mr. Schwarzenbach's direct
25 testimony if you would like to look there.

1 A. I do recall him reciting two cases in which
2 there were similar service, and I commented on those in my
3 testimony as to why they were not directly comparable.

4 MS. SCHMID: Do you happen to have
5 Mr. Schwarzenbach's testimony in front of you?

6 THE WITNESS: I do not.

7 MS. SCHMID: May I approach and give him a
8 copy?

9 MR. SABIN: I believe it's in that binder.

10 THE WITNESS: This is my binder.

11 CHAIRMAN LEVAR: Yes, Ms. Schmid.

12 MS. SCHMID: I have the binder. Thank you. It
13 should be here. Could you please tell us what exhibit
14 number in the Dominion book it is that you're referring to?

15 MR. SABIN: I will do both of those for you.

16 MS. SCHMID: Thank you.

17 MR. SABIN: It's Exhibit 3.0 on
18 Mr. Schwarzenbach's direct testimony and we're going to go
19 to page 21 and we're going to start on line 434.

20 **Q. Would you like to read that to yourself. Do**
21 **you agree with me that if you read that page and over to**
22 **the next page, the companies I just summarized are**
23 **companies that he represents offer this service?**

24 A. I believe this is exactly what I was referring
25 to, which is just an extension of the issue associated with

1 electric generators, scheduling electric generators with
2 upstream pipeline providers.

3 Q. Isn't that what Mr. Schwarzenbach has said that
4 has resulted in a lot of this change in the market, the
5 requirement of peak hour services is because you have
6 electric generators coming on that are unpredictable and
7 their usage is driving pipelines to require people to be
8 more even in their contract use?

9 A. My recollection of the FERC proceeding was it
10 came about as a fairly localized issue in the PKM, which is
11 a competitive market on the East Coast and in the
12 Northeast. I don't recall it being particularly applicable
13 to other areas of the country.

14 Q. I'll just point as an example on page 21,
15 Equitrans in their tariff filing for the right to provide
16 the service on line 44 says, in response to the increase in
17 natural gas consumption by the electric energy market as
18 well as existing customer interest for firm hourly
19 flexibility and the ability to negotiate receipt and
20 delivery pressures, Equitrans is proposing a new tariff to
21 offer these services, right?

22 A. But from that -- it's an erroneous
23 extrapolation to get to the point of LDCs entering into
24 peak hour services agreements as a result of that. It just
25 hasn't happened.

1 Q. I think we have a disagreement about that, but
2 that's okay. I'll move on. I want to talk briefly about
3 you criticize Mr. Schwarzenbach because you claim that Kern
4 River and DEQP, while they have expressed concern about the
5 Company's imbalanced usage, especially during those peak
6 hours of the day, that that really shouldn't matter, that
7 there is no reason the Company should respond to that by
8 taking any action because those pipelines haven't done
9 anything to the Company yet. Is that a fair summary of
10 your critique?

11 A. I don't think so. I'll stand by my testimony
12 as filed.

13 Q. Okay. What I'm trying to get at is -- let me
14 just ask it this way. You haven't contacted Kern River,
15 have you, and met with anybody about their concern on this
16 point?

17 A. I have not.

18 Q. And you haven't contacted anybody at DEQP about
19 their concern?

20 A. That's correct.

21 Q. So you don't know what they're planning on
22 doing and how strenuously they're pushing this issue, do
23 you?

24 A. Other than the documents that were provided by
25 the Company in its testimony and the responses it made in

1 discovery, that's what it is based on.

2 Q. And you think it's prudent for the Company,
3 despite having received these communications from two
4 pipelines, that they should nevertheless ignore those
5 concerns expressed by the pipelines and do nothing?

6 A. I didn't say that. I don't believe I said that
7 in my testimony and I'm certainly not saying that today.

8 Q. Well, okay, fair enough. You would say that
9 they shouldn't pursue peak hour services even though these
10 pipelines are concerned about that very issue?

11 MS. SCHMID: Objection. I think this question
12 has been asked and answered many times.

13 CHAIRMAN LEVAR: I think it's a little bit
14 different question than the one he just answered. I think
15 there is a difference.

16 MS. SCHMID: Could he please repeat the
17 question then?

18 MR. SABIN: Sure. I will repeat it.

19 Q. Here is the point. I just asked you a few
20 minutes ago what is your recommendation here. Your
21 recommendation is not to seek these contracts, right?

22 A. That's correct.

23 Q. So in response to these pipelines expressing
24 concern, you are at least saying that doesn't warrant you,
25 the Company, in going and getting these peak hour

1 **contracts, correct?**

2 A. You're taking one item out of context, where my
3 testimony of course is accumulative with respect to my
4 conclusions. I've said there is no actual history of any
5 operational or financial penalty as a result of any
6 comments that the pipelines have made to DEU and/or other
7 shippers.

8 Q. I understand that. But you are saying that
9 even though these pipelines have expressed concern that the
10 Company shouldn't have to go and get peak hour services to
11 address those concerns?

12 MS. SCHMID: Again, I object.

13 CHAIRMAN LEVAR: Yes, I think at this point I'm
14 going to sustain the objection.

15 MR. SABIN: I'll just go on record I don't
16 think he answered the question, but that's okay.

17 MS. SCHMID: Fortunately, counsel isn't under
18 oath, nor am I, so we get to be attorneys, not witnesses.

19 MR. SABIN: That's okay.

20 Q. I would like to talk about industry best
21 practices here for a moment. You are not an expert in
22 design peak day modeling, correct?

23 A. I would agree with that characterization.

24 Q. In fact, it's true, isn't it, that you haven't
25 done any design peak day modeling in your career, correct?

1 A. That's not true.

2 Q. You have done design day peak modeling?

3 A. I have done forecasting modeling in my past. I
4 don't hold myself out as an expert in that area.

5 Q. You did forecasting, but you did forecasting
6 for design peak day purposes?

7 A. The experience that I had more specifically in
8 that area really was with regard to electric forecasting.

9 Q. For design peak day, or not design peak day?

10 A. It was capacity and load.

11 Q. So not design peak day, correct?

12 A. Well, in electric it's not a design peak day,
13 it's a design peak hour.

14 Q. Thank you. Would you agree with me that there
15 isn't any one industry approach to determining the proper
16 design peak day calculation?

17 A. At a microlevel I certainly would agree with
18 that.

19 Q. Would you agree with me that as we go out into
20 the world of utility operations that you're not aware of
21 any industry body or case or order that requires that
22 design peak day analyses be done in a particular manner?

23 A. That's correct.

24 Q. Other than the AGA information that you may
25 have reviewed, my understanding from your testimony is you

1 **didn't independently research how other LDCs determined**
 2 **their design peak day demand amount?**

3 A. That's not entirely correct. I didn't put this
 4 in my testimony, however my consulting practice puts me in
 5 touch with gas LDCs around the country on a fairly
 6 continuous basis.

7 **Q. I just mean for purposes --**

8 A. And I have researched in each and every one of
 9 those cases over the last couple of years since this matter
 10 first came up here in Utah, and I've yet to find any
 11 utility executive who has followed a similar practice with
 12 regard to his gas LDC company.

13 **Q. Which similar practice?**

14 A. The practice of acquiring peak hour services to
 15 meet an hourly demand as differentiated from looking at
 16 design day requirements.

17 **Q. I guess my original question was did you for**
 18 **your retention purposes in this matter, did you**
 19 **independently research how other LDCs are doing their**
 20 **design peak day analyses?**

21 A. I just answered that question.

22 **Q. Is the answer no because I'm sorry if I missed**
 23 **it?**

24 A. Well, since I became aware of this practice by
 25 DEU I have in a number of occasions asked senior officers

1 of other utilities if they were familiar with this practice
2 or employed it themselves.

3 Q. And you haven't included that in any of your
4 testimony here though?

5 A. I have not.

6 Q. Thank you. Were you here for
7 Mr. Schwarzenbach's and Mr. Mendenhall's testimony?

8 A. I was.

9 Q. I'm sorry. Mr. Platt's and Mr. Mendenhall's
10 testimony, excuse me.

11 A. I was.

12 Q. You in your testimony and your surrebuttal
13 testimony refer to this 17 percent issue, you challenge the
14 Company by saying there is this 17 percent figure that you
15 say when you remove interruptible customers that that
16 brings it down to 7 percent. I'm referring specifically to
17 your surrebuttal at page 13 if you want to turn there.

18 A. I am looking at it.

19 Q. So you say -- the question here, Mr. Lubow, in
20 his direct testimony, Mr. Platt provides the DEU analysis
21 of its alleged peak hour requirements, it is represented as
22 being at least 17 percent higher than the design peak day
23 flow. Based on this analysis, then concludes that the
24 required firm peaking services that are required for the
25 2017-2018 heating season total to approximately 340,375

1 decatherm per day. The question is is this analysis
2 credible.

3 Then further down on the page beginning on line
4 342 you say, incoming to its determination that this 17
5 percent differential exists during the time of the peak
6 hour, DEU has included interruptible customer volumes. If
7 these interruptible customer volumes are exclude, the
8 differential is reduced to 7 percent. Do you see that?

9 A. I do.

10 Q. Did you hear Mr. Mendenhall and Mr. Platt
11 indicate that the analysis you're doing here is not related
12 to the peak hour usage, but is related to the prior docket
13 and how the amount was to be allocated between
14 transportation customers?

15 A. Well, that's a good question which of course
16 since I was here listening to Mr. Mendenhall earlier today,
17 I have refocussed on the underlying information that led to
18 that testimony. In looking at that it's become somewhat
19 confusing. So let me tell you what I base my testimony on
20 and see if that clears up the record somewhat.

21 In the 09 case Mr. Mendenhall was the only
22 witness in direct. His analysis was what he indicated
23 earlier when he took the stand in his preliminary comments
24 and how he came to the 17 percent differential. The
25 exhibit that I included in my surrebuttal that references

1 the 7 percent versus 17 percent wasn't really the only
2 response to discovery that also makes that same adjustment.
3 There were two other ones in the 09 case. OCS 4.07 and OCS
4 5.02.

5 I'm not trying to be argumentative, but I'm not
6 sure I can clearly state that I was wrong or Mr. Mendenhall
7 was right and here is why. Because as I believe it was
8 Mr. Platt indicated, and I understand why there is some
9 basis for doing so, but he included in the Lake Side
10 delivery at the contract level without regard to the actual
11 delivery during the peak hour. The adjustments that have
12 been made in some of these responses have to do with
13 interruptible and Lake Side. Some of the other firm
14 customers that have been included in his analysis I believe
15 they also, the large customers, if you use the contract
16 level or the level that they may have received delivery on
17 those dates, or at least some of them, would have included
18 some interruptible as well as firm.

19 So I thought about, well, it would be easy to
20 agree with Mr. Mendenhall that there is some basis to
21 believe that the 17 percent really is the more accurate
22 analysis for purposes of the proceeding.

23 Q. I think you heard here today Mr. Platt say that
24 that is not the same -- the analysis Mr. Mendenhall did in
25 the 09 proceeding had nothing to do with his own analysis?

1 A. I know he had a different period of analysis.
2 I believe it's five years versus Mr. Mendenhall's which was
3 a shorter period.

4 Q. I don't want to mince words here or argue with
5 you, but Mr. Platt was saying the 17 percent calculation
6 Mr. Mendenhall did in the 09 proceeding has nothing
7 whatsoever to do with what he did in his analysis. Do you
8 have any basis for disputing what Mr. Platt said earlier in
9 his testimony?

10 A. Well, Mr. Platt's analysis as it exists in this
11 proceeding is exactly the same as what he put in the
12 rebuttal evidence in the 09 case.

13 Q. Which is different than the analysis that
14 Mr. Mendenhall did himself, correct?

15 A. He comes to the same number, but it's a
16 different analysis. If I had time to look at it more
17 thoroughly I might be able to respond more precisely about
18 it.

19 Q. The Lake Side contract is a firm contract,
20 isn't it?

21 A. It is a firm contract.

22 Q. Do you know whether or not the Company has ever
23 approached PacifiCorp to discuss the potential of a
24 negotiated solution with them to solve this issue?

25 A. I do not.

1 Q. Let me ask you this. If they have approached
2 PacifiCorp and PacifiCorp simply didn't respond to the
3 request, do you still think that's a viable option?

4 A. Well, of course, since I wasn't a party to that
5 negotiation, if it did occur, I have no idea what kind of
6 representation or incentive the Company might have made in
7 order to induce Lake Side or PacifiCorp to consider
8 altering its agreement.

9 Q. I think let me be clear. The Company reached
10 out to PacifiCorp, and PacifiCorp did not respond, did not
11 engage, did not want to discuss. How does that change --
12 that is not a viable option then, is it?

13 A. Well, if that were part of the record evidence
14 as opposed to your asking me about this as a representation
15 of counsel, I might be able to respond in a more precise
16 way.

17 Q. I'm only including it because you said it in
18 your surrebuttal testimony. I don't recall ever getting a
19 question in discovery about the Company ever being asked to
20 disclose whether it had this kind of discussion and you're
21 assuming that it has not. I'm asking you let's just assume
22 that took place and that there was no interest from
23 PacifiCorp's point of view. That is not an option to
24 consider to solve this problem that we're dealing with
25 today; isn't that true, if that were the case?

1 A. The question is an oversimplification, of
2 course. When you look at -- and I have in my testimony a
3 fair amount of discussion about the nature of the operation
4 of the Lake Side Generating facility. It's not used as a
5 base load unit. If it were used as a base load unit I
6 might be more inclined to believe that they would be much
7 more rigid about any kind of revision to their agreement.
8 But it's an intermediate load unit that has a quick start
9 capability. And so under the appropriate economic
10 circumstances I don't know why PacifiCorp wouldn't consider
11 at least listening to some proposal from the Company.

12 **Q. We'll leave it there. Thank you.**

13 CHAIRMAN LEVAR: Does that conclude your cross
14 examination?

15 MR. SABIN: Yes.

16 CHAIRMAN LEVAR: Why don't we take a 10 minute
17 break and then we'll move to redirect from the Division.

18 (Off the record.)

19 CHAIRMAN LEVAR: We are on the record.
20 Mr. Snarr.

21 MR. SNARR: Yes, we would like to call on
22 behalf of the Office of Consumer Services Michele Beck as a
23 witness.

24 CHAIRMAN LEVAR: Ms. Beck, do you swear to tell
25 the truth?

1 THE WITNESS: I do.

2 CHAIRMAN LEVAR: Thank you.

3 DIRECT EXAMINATION

4 BY MR. SNARR:

5 Q. Good afternoon. Would you please state your
6 name and business address and your role with the Office of
7 Consumer Services?

8 A. Yes. My name is Michele Beck. My business
9 address is 160 East 300 South, Salt Lake City. I am
10 director of the Office of Consumer Services.

11 Q. In connection with those responsibilities did
12 you prepare and file direct testimony on April 23, 2018 and
13 surrebuttal testimony on May 31, 2018 in this docket?

14 A. Yes, I did.

15 Q. Do you have any corrections to your testimony?

16 A. No corrections.

17 Q. If you were asked those same questions would
18 your answers be the same today?

19 A. Yes, they would.

20 MS. SCHMID: We would ask that those two
21 submissions of testimony be admitted as evidence on the
22 record.

23 CHAIRMAN LEVAR: If any party objects please
24 indicate. I'm not seeing any objections, so the motion is
25 granted.

1 Q. Do you have a summary of your testimony?

2 A. Yes, I do.

3 Q. Would you please present it?

4 A. In this case I presented the Office's policy
5 recommendations and introduced our expert witness
6 Mr. Jerome Mierzwa, who will be appearing after me. The
7 Office supports the process of evaluating prudence of these
8 two peak hour contracts in the separately scheduled
9 proceeding, but also recommends more guidance on how to
10 address similar issues that may arise in future passthrough
11 dockets.

12 The Office's position is that while the Company
13 provided some necessary evidence, it was inadequate for us
14 to recommend that those level of peak hour contracts
15 presented in this proceeding is in the public interest.

16 Also, I noted that we would typically
17 anticipate a prudence case to include a more robust cost
18 benefit analysis with accompanying modeling and sensitivity
19 analysis.

20 In surrebuttal I replied to the lack of
21 response to our process recommendations and provided a more
22 detailed recommendation. I also noted that in my view
23 Dominion's response to the Division's question about
24 no-notice service was insufficient. In addition to the
25 questions raised by the Division about no-notice service,

1 the Office's evidence that Dominion's design day forecast
2 overstates demands raises important questions about whether
3 customers are paying for more resources than are necessary
4 to reliably serve their needs.

5 It is important for the Commission to require
6 these prudence related issues to be addressed within the
7 remainder of this passthrough proceeding even if it may
8 necessitate any additional phase to this docket.

9 We have identified issues that go beyond the
10 scope of the current phase of the proceeding, and also go
11 beyond the issues that are usually reviewed in a standard
12 audit by the Division.

13 MR. SNARR: Thank you. Ms. Beck is available
14 for cross examination or questions from the Commission.

15 CHAIRMAN LEVAR: Thank you. Ms. Schmid, do you
16 have any questions for Ms. Beck?

17 MS. SCHMID: No questions.

18 CHAIRMAN LEVAR: Thank you. Mr. Sabin.

19 MR. SABIN: We do not.

20 CHAIRMAN LEVAR: Commissioner White.

21 COMMISSIONER WHITE: Yes. Thank you. That
22 suggestion about potentially other phase, can you provide
23 more detail on what that would look like in terms of our
24 decision? Are you suggesting that we would suspend the
25 decision here and then further -- help me understand.

1 THE WITNESS: No. In my view this current
2 decision is are the peak hour contracts prudent. So you're
3 making a final determination as to the rates associated
4 with the peak hour contracts. But I note that this is a
5 subpart of a passthrough docket. I also noted in my
6 testimony that although what I think is the most recent
7 passthrough docket from a couple of years ago where the
8 Division indicated at the completion of its audit, the
9 Commission came back and said are you testifying -- maybe
10 I'm putting words in your mouth -- but that these rates are
11 just and reasonable and the expenses were prudently
12 incurred, and then the Division came back and said they
13 were. Well, now we're in the middle of a passthrough
14 docket where I think outside the scope of this phase of the
15 proceeding some issues of prudence has been raised. And in
16 order for the Commission to make a determination of
17 prudence something will have to happen. So perhaps it
18 would be sufficient inside of the Division's audit, that
19 they will do the work they need to do, or perhaps
20 additional work would be necessary. So what I'm asking for
21 is a Commission order that says these issues need to be
22 looked at inside the passthrough docket.

23 COMMISSIONER WHITE: Thank you. That's all the
24 questions I have.

25 CHAIRMAN LEVAR: Commissioner Clark.

1 COMMISSIONER CLARK: I have no questions.

2 Thanks for that clarification. It helps me too.

3 CHAIRMAN LEVAR: I have just a couple policy
4 level questions and also related to your comments that you
5 view the modeling done by the Company is adequate to
6 establish prudence. I'm going to stop pretending -- I've
7 been speaking hypothetically -- since we have another
8 analysis docket in front of us. How would you describe the
9 difference in the Public Service Commission's role in
10 evaluating a future resource division where the statute
11 says we must find it's within the public interest
12 considering the statutory factors that are listed versus a
13 backwards look like we are right now saying did the Utility
14 act in a prudent way, like a reasonable prudent utility
15 would have when they entered into these contracts. How
16 would you describe the difference between that one forward
17 look and that one backward look?

18 THE WITNESS: That's a very good question. I
19 do generally agree with the statement that was made by
20 Mr. Mendenhall earlier in the hearing about doing it based
21 on what was known or should have been known. In my view
22 Dominion took that too far because if knowing or should
23 have known means nobody has raised questions about our
24 model to date so that means we're right and there is no
25 reason we should have known we weren't. I feel like that

1 would wipe out a lot of issues of rate case after rate
2 case. So I feel that goes too far. But nonetheless, I
3 still support the underlying principle of that, which is
4 it's one thing if you're looking back and it's another
5 thing if you're looking forward. And to me Utah law gives
6 utilities a lot of flexibility that not all states have in
7 terms of if you don't want to take the risk of prudence,
8 come in and ask. So to me there is a lot of difference in
9 terms of who bears the risk because when a utility goes
10 ahead and engages in a contract, they're carrying the risk
11 that it will be found prudent, whereas here on the LNG one
12 they're coming and saying this one is big, we don't want to
13 carry the risk. I don't know if the standard of prudence
14 is any different.

15 CHAIRMAN LEVAR: Let me ask a follow-up to that
16 then. Is the level of rigor with regard to due diligence
17 any different with respect to a \$2.4 million expense
18 compared to an expense that's between \$150 and \$200
19 million?

20 THE WITNESS: Now, that I think is the case. A
21 large capital expenditure that's going be in rates for many
22 years I think deserves more additional scrutiny.

23 CHAIRMAN LEVAR: But your testimony in this
24 docket is that the modeling that was done is inadequate for
25 a \$2.4 million -- well, actually you're contesting just the

1 DEQP peak model is inadequate for that.

2 THE WITNESS: If I can clarify. I did say in
3 that -- I cited the Commission's order from the IRP and
4 said, well, this isn't quite that circumstance. I think
5 that circumstance, specifically if LNG, which is what the
6 Commission's order was, and I would assert also generically
7 into situations of a large capital investments that we do
8 need a much more robust analysis. But back to the idea of
9 what should we have as peak hour, we don't think it was
10 sufficient -- it wasn't sufficient to convince us that all
11 of it was needed. Part of that is because we challenge the
12 design day forecast, and part of that is we don't think
13 that -- and these are things that our expert has raised, so
14 they would be subject to cross examination later. But we
15 don't think that the use of line pack was well enough
16 explained, and we just don't think that cost then that was
17 provided was very robust. I'm not saying it needs to be on
18 the exact same level, for example, an LNG plant. I
19 apologize if I kind of implied that.

20 CHAIRMAN LEVAR: Thank you. Those are all of
21 my questions. Thank you for your testimony today.

22 MR. SNARR: May Ms. Beck be excused?

23 CHAIRMAN LEVAR: Yes.

24 THE WITNESS: Thank you for your
25 accommodations.

1 CHAIRMAN LEVAR: We will bring Mr. Lubow back.
2 You're still under oath. And we will continue with
3 Ms. Schmid's redirect.

4 MS. SCHMID: The Division has no redirect.

5 CHAIRMAN LEVAR: Okay. Let us try to refresh
6 our memories a moment while we go to our questions.
7 Commission Clark, do you have any questions for Mr. Lubow?

8 COMMISSIONER CLARK: No questions.

9 CHAIRMAN LEVAR: Commissioner White.

10 COMMISSIONER WHITE: Let me go back to the
11 issue of the current trends let's call it, how pipelines --
12 let's call it the concern I guess about utility pipelines
13 and I guess the messaging or signals that they're putting
14 forward to their shippers. The reason why I ask is I
15 recognize the Division has questions about the way to
16 approach these concerns, and certainly the inputs of the
17 modeling that Dominion has utilized. But you are a chief
18 operating officer of a pipeline and you're familiar with
19 the industry. Is that a real concern right now?

20 THE WITNESS: Of course in order to answer this
21 there are kind of interrelated subjects that come up to
22 clear up the point. Pipelines are always concerned about
23 delivery to shippers on extreme peak days. However, as you
24 get to more extreme temperature you have less flexibility,
25 which is consistent with what the Company has been saying.

1 But in any event when you're looking at an annual peak
2 period that is not a design once in 50 year experience,
3 pipelines generally are not rigid about how they meet the
4 demand on their pipeline in the sense that they -- to the
5 extent that they can be flexible in meeting loads at
6 particular delivery points or to shippers, they will be.
7 If there is no flexibility on the system to accommodate,
8 then that's where they take a more rigid position.

9 COMMISSIONER WHITE: Is it safe to say -- let
10 me back up. Do you have any reason to disagree that there
11 is an actual issue, a concern, that your real disagreement
12 is with how it's approached or followed I guess?

13 THE WITNESS: It's really both. It's not as
14 rigid as the Company has represented in my opinion, or at
15 least as it comes across in the evidence now. It is a
16 legitimate concern. It has come up zero times so far. So
17 a lot of the testimony tends to be hypothetically what may
18 happen going forward if in fact we hit a design peak day.
19 The experience is the pipeline fully subscribed, and if it
20 is what is the diversity of the shippers at the time of
21 meeting the load during that day.

22 COMMISSIONER WHITE: How would you respond I
23 guess to the messaging of these particular pipelines to
24 Dominion? I guess I put that in the context of the order
25 809.

1 THE WITNESS: These are warnings that -- to put
2 it in the proper context, pipelines would always be warning
3 shippers at the time of peak periods on what level of range
4 of delivery they should expect to be provided. They would
5 have always said that. That has been true ten years ago.

6 COMMISSIONER WHITE: Is there anything
7 significant about how electric utilities are utilizing gas
8 in relationship to renewables that would change things in
9 the world?

10 THE WITNESS: It's made it more complex. I'm
11 not so familiar with the market area here. It's not a
12 competitive market. I'm not sure to what extent that
13 matters particularly. But the generation markets in the
14 East and the Northeast, there have been issues with the way
15 electric generators want to cycle their plants. And during
16 peaking periods it's led to problems for the pipelines and
17 FERC has addressed those. But I don't think you can take
18 that and translate that to LDCs going out and securing peak
19 hour agreements for incremental capacity based on those
20 circumstances. It just hasn't happened.

21 COMMISSIONER WHITE: That you're aware of?

22 THE WITNESS: That I'm aware of, yes. You can
23 cite, and the Company has, in my opinion not particularly
24 on point. If you ask any utility executive running a gas
25 operation, because I have asked, are they looking at

1 planning any differently today aside from peak day
2 planning, are they introducing peak hour planning into
3 their models. The answer is no.

4 COMMISSIONER WHITE: That's all the questions I
5 have. Thank you.

6 CHAIRMAN LEVAR: Thank you. I just have one
7 narrow question about your surrebuttal on page 6, just a
8 line in there. And I will say first I recognize this is a
9 fairly minor point in your testimony, but I just want to
10 clarify.

11 THE WITNESS: In the surrebuttal?

12 CHAIRMAN LEVAR: In the surrebuttal, page 6.

13 THE WITNESS: I'm there.

14 CHAIRMAN LEVAR: I don't believe I'm reading
15 anything confidential, so I'm just going to read the
16 sentence, and someone stop me, because it's not
17 highlighted. But lines 147 and 148, since DEQP is an
18 affiliate, this cost would be largely offset in
19 consolidation of subsidiary financial results. Can you
20 explain that statement a little further?

21 THE WITNESS: Yes.

22 CHAIRMAN LEVAR: I know it's a minor point, but
23 I would like to know exactly what point you're making.

24 THE WITNESS: Of course. Disallowances, if you
25 assume that DEU is the only entity and that there is no

1 unregulated affiliate, if there was a disallowance at the
2 utility level, all as equal, it would suffer the net tax
3 effect on that disallowance in its financial statements.
4 However, in this case you have two pipelines. One is an
5 unaffiliated third party and the other one is a sister
6 company. So in consolidation of what would occur -- let's
7 just say hypothetically if there was a million and a half
8 dollar disallowance that was associated with DEQP, the
9 utilities and subsidiaries in the actual statement would
10 show a million and a half dollar loss net of tax in that
11 period, and DEQP would have the offside of that, the other
12 side of that, which would be a million and a half dollars
13 of net income, net of tax. So in consolidation it would be
14 a wash. I have said it's not really quite a wash because
15 while there would be no substantial incremental costs being
16 incurred by DEQP for this particular service, there may be
17 some. Does that help?

18 CHAIRMAN LEVAR: Your testimony is there may be
19 incremental costs if DEQP needed to provide this service
20 that may go beyond that?

21 THE WITNESS: Intuitively you think not. There
22 really -- they haven't reconfigured -- intuitively, I think
23 their system is substantially unchanged, and therefore I
24 come to the conclusion that there would not be any material
25 incremental costs.

1 CHAIRMAN LEVAR: I think just one point of
2 clarification. You're not suggesting anything
3 inappropriate with respect to the procurement process that
4 Dominion Energy Utah engaged in to acquire these?

5 THE WITNESS: Not at all. I was simply making
6 an observation about what the financial effect of that
7 would likely be.

8 CHAIRMAN LEVAR: Thank you. That's all my
9 follow-up questions. Thank you for your testimony.
10 Ms. Schmid.

11 MS. SCHMID: As its next witness the Division
12 would like to call Mr. Eric Orton.

13 CHAIRMAN LEVAR: Good afternoon, Mr. Orton. Do
14 you swear to tell the truth?

15 THE WITNESS: I do.

16 CHAIRMAN LEVAR: Thank you.

17 DIRECT EXAMINATION

18 BY MS. SCHMID:

19 Q. Good afternoon. Could you please state your
20 full name, title, employer, and business address for the
21 record?

22 A. My name is Eric Orton. I'm a technical
23 consultant. My business address and employer, Division of
24 Public Utilities at 160 East 300 South in Salt Lake.

25 Q. Thank you. In connection with your employment

1 at the Division have you participate on behalf of the
2 Division in this docket?

3 A. I have.

4 Q. In connection with that analysis that you
5 performed for the Division, did you cause and have filed
6 what has been premarked as DPU Exhibit 2.0-Direct in both
7 confidential and redacted form with Exhibits 2.0-Direct
8 through 2.6-Direct. I believe that Exhibit 2.6-Direct was
9 provided in both confidential and redacted form. Did you
10 prepare and cause to be filed that prefiled testimony?

11 A. I did prepare it and have it filed.

12 Q. Do you have any changes or corrections to that?

13 A. I don't.

14 Q. Similarly, did you also prepare and cause to be
15 filed your prefiled surrebuttal testimony on May 31st of
16 this year, and that's premarked as DPU Exhibit 2.0-SR?

17 A. That's right, I did.

18 Q. Do you have any changes or corrections to that?

19 A. I do not.

20 Q. With that do you adopt your prefiled direct and
21 surrebuttal testimony, along with accompanying exhibits, as
22 your testimony here today?

23 A. I do.

24 MS. SCHMID: The Division would like to move
25 for the admission of DPU Exhibit 2.0-DIR with accompanying

1 Exhibits 2.1 through 2.5, and then also the confidential
2 and redacted version of Exhibit 2.6. And I did fail to
3 mention that his direct testimony was filed in redacted and
4 confidential form. Then also we would like to move for the
5 admission of DPU Exhibit 2.0, Mr. Orton's prefiled
6 surrebuttal testimony with its accompanying certificate of
7 service.

8 CHAIRMAN LEVAR: If any party objects please
9 indicate to me. I'm not seeing any objection, so the
10 motion is granted.

11 Q. Do you have a brief summary to give today?

12 A. I do.

13 Q. Please proceed.

14 A. Thank you. In my research of this issue I
15 spent many hours with Company representatives, issued
16 several rounds of data requests, and researched both
17 Dominion Energy Questar Pipeline and Dominion Energy
18 Overthrust Pipelines tariffs. From that I discovered that
19 the Company downplayed the usefulness of current avenues
20 that were already available and instead persuaded Dominion
21 Energy Questar Pipeline to initiate a new tariff to sign up
22 to that service and commit prepaid funds to support it,
23 which if approved by this Commission would create
24 unnecessary costs for ratepayers.

25 For this reason and those discussed by other

1 Division witnesses the Company should not be reimbursed for
2 peak hour service costs. That's all.

3 Q. Thank you.

4 MS. SCHMID: Mr. Orton is now available for
5 cross examination questions and questions from the
6 Commission.

7 CHAIRMAN LEVAR: Thank you. Mr. Snarr, do you
8 have any questions for Mr. Orton?

9 MR. SNARR: We have no questions.

10 CHAIRMAN LEVAR: Thank you. Mr. Sabin.

11 MR. SABIN: No questions.

12 CHAIRMAN LEVAR: Thank you. Commissioner
13 White, do you have any questions for Mr. Orton?

14 COMMISSIONER WHITE: Just one. I was wondering
15 if you have an opinion --- I had a couple questions for
16 Mr. Lubow addressing the question of whether there is
17 actually a potential concern putting aside the disagreement
18 on how to address those concerns. Do you have an opinion
19 as to whether or not the pipelines identified is a concern
20 that the Company needs to address?

21 THE WITNESS: I assume you're talking about
22 tariff 809.

23 COMMISSIONER WHITE: Well, that and also I
24 guess the messaging that the two pipelines have provided to
25 Dominion.

1 THE WITNESS: Thank you. I'm not aware of
2 concerns that either Kern or Dominion Energy Questar
3 Pipeline asked Dominion Energy about. From my research
4 into the joint operating agreement, it appears that the
5 nexus for the peak hour service was initiated by Dominion
6 Energy Utah by the pipelines. So I'm not sure what sort of
7 concerns we're really discussing.

8 COMMISSIONER WHITE: So let me put it a
9 different way. Is it your testimony that there is not a
10 problem that needs to be addressed by a solution?

11 THE WITNESS: There is not a problem by the
12 pipelines to address the solution, if that makes sense. Do
13 you want me to elaborate?

14 COMMISSIONER WHITE: Yes, if you wouldn't mind.

15 THE WITNESS: I would be happy to. It's been
16 mentioned a little while ago that the pipelines maybe
17 brought concerns to Dominion Energy Utah about not being
18 able to meet their flow, the required pressures at certain
19 times of the day. From my research it looks like Dominion
20 Energy Utah was the one that asked questions initially
21 saying we want to do this, how can you help us. And either
22 together or singularly Dominion Energy came up with the
23 peak hour service contracts. So is there a problem? If
24 there is there is not one that can't be met already by
25 current tariff provisions, such as imbalance provisions

1 that require to be within plus or minus 5 percent, any
2 shipper plus or minus 5 percent by the end of the month, or
3 other provisions like increasing pressure. Those sort of
4 he things are already in place.

5 COMMISSIONER WHITE: Thank you. That's all the
6 questions I have.

7 CHAIRMAN LEVAR: Commissioner Clark.

8 COMMISSIONER CLARK: You may have just answered
9 this question, but if you have anything more to offer I
10 would like to hear it, and that is if you're the utility
11 and it's minus 5 degrees and the wind is blowing hard, what
12 would you do? I think the last answer that you gave would
13 be at least part of the explanation. But more detail or is
14 there any other options? What flexibility does the company
15 have under its current arrangement as you understand it?

16 THE WITNESS: Thank you for that. I mentioned
17 this briefly in one of my testimonies. But basically those
18 sort of things don't happen immediately, the 5 degrees, the
19 cold wind. We know those things are coming. A prudent
20 utility would make plans ahead to increase their capacity,
21 to make other plans, online purchases, other purchases,
22 those sort of things to prepare for those events. So there
23 would be some preparation involved in that.

24 COMMISSIONER CLARK: If I can stop you, you say
25 purchases. What would the nature of that purchase be?

1 What kind of a purchase are you referring to there?

2 THE WITNESS: Well, they've done a couple times
3 in the past that I assume they would do again. Those would
4 be purchasing gas on the market with transportation or
5 separately and pipe transportation separately, or they can
6 buy city gate purchases. They've done that in past as
7 well, meaning they buy the gas at the city gates already
8 transported. So those are some options.

9 COMMISSIONER CLARK: I didn't mean to cut you
10 off in your answer. Is there anything else that you want
11 to say?

12 THE WITNESS: No, I think my mind stopped.

13 COMMISSIONER CLARK: My mistake. Sorry. Thank
14 you for your answers.

15 THE WITNESS: Thank you.

16 CHAIRMAN LEVAR: I think just a little bit more
17 follow-up on that same line of question. Do you have any
18 disagreement with the discussion in the room this morning,
19 I assume you were here --

20 THE WITNESS: I was here.

21 CHAIRMAN LEVAR: -- about the consequences of
22 loss of pressure event as compared to the consequences of
23 an electrical outage? With the answers you've just given,
24 where are your thoughts on that discussion we had on that
25 issue?

1 THE WITNESS: If there was a major issue, a
2 major outage, there would be problems that would take a
3 long time to solve. That would be a major issue,
4 earthquake, some disruption of service. But I have no
5 reason to doubt the calculations of Mr. Platt and
6 Mr. Schwarzenbach that if it were to fall to those levels
7 there would be problems. That's true. There would be. It
8 seems to me that a prudent utility would make plans ahead
9 of time to make sure that didn't happen, including
10 purchases and transportation contracts.

11 CHAIRMAN LEVAR: Okay. I think you answered
12 the question. Thank you, Mr. Orton. We appreciate your
13 testimony.

14 THE WITNESS: Thank you.

15 CHAIRMAN LEVAR: Ms. Schmid.

16 MS. SCHMID: The Division would like to call
17 its final witness Mr. Douglas Wheelwright. Could he be
18 sworn?

19 CHAIRMAN LEVAR: Good afternoon,
20 Mr. Wheelwright. Do you swear to tell the truth?

21 THE WITNESS: Yes, I do.

22 CHAIRMAN LEVAR: Thank you.

23 DIRECT EXAMINATION

24 BY MS. SCHMID:

25 Q. Good afternoon.

1 A. Good afternoon.

2 Q. Could you please state your full name, title,
3 employer and business address for the record?

4 A. My name is Douglas E. Wheelwright. I'm a
5 technical consultant with the Division of Public Utilities.
6 My address is 160 East 300 South in Salt Lake City.

7 Q. In connection with your employment by the
8 Division have you participated on behalf of the Division in
9 this docket?

10 A. Yes, I have.

11 Q. Did you prepare and cause to be filed what has
12 been premarked for identification as DPU Exhibit 1.0-DIR in
13 both confidential and redacted form, and then your
14 surrebuttal testimony premarked as DPU Exhibit 1.0-SR and
15 that is also filed in redacted and confidential form?

16 A. Yes, that's correct.

17 Q. Do you have any changes or corrections?

18 A. I have one correction. On the last page of my
19 direct testimony, line 214 should read -- the question
20 should read, what conclusions have you reached concerning
21 the peak hour contracts? The rest of that question to be
22 stricken.

23 Q. Thank you. With that change do you adopt your
24 prefiled testimony as corrected today as your testimony
25 here today?

1 A. Yes, I do.

2 MS. SCHMID: With that the Division would like
3 to request the admission of DPR Exhibit 1.0-DIR in
4 confidential and redacted form, DPU Exhibit 1.0-SR also in
5 confidential and redacted form.

6 CHAIRMAN LEVAR: If anyone objects to that
7 please indicate to me. I'm not seeing any objection, so
8 the motion is granted.

9 MS. SCHMID: Thank you.

10 Q. Mr. Wheelwright, do you have a summary to
11 present today?

12 A. I do.

13 Q. Please proceed.

14 A. Thank you. Good afternoon, Commissioners. In
15 Docket 17-057-20 known as the 191 passthrough application,
16 the Commission approved the recommended changes to customer
17 rates on an interim basis and established a separate
18 extended schedule to allow parties additional time to
19 address concerns with the peak hour transportation
20 contracts. Since the concept of a peak hour contract was
21 originally presented, Division representatives have
22 participated in numerous meetings and discussions with
23 Company representatives and have submitted numerous data
24 requests to gain a better understanding of the purported
25 need for this type of service.

1 In order to better understand these issues, the
2 Division hired Overland Consulting to help with the
3 analysis and provide industry perspectives related to these
4 issues. Representatives from Overland Consulting have
5 reviewed the testimony of Company witnesses and have
6 submitted numerous data requests. Mr. Howard Lubow,
7 Mr. Frank DiPalma, and Mr. Kenneth Ditzel have each filed
8 direct and surrebuttal testimony and today have provided
9 summary comments of their individual findings.

10 Division witnesses as well as the outside
11 consultants have identified specific areas of concern
12 relating to the underlying assumptions used by the Company
13 to calculate the peak day requirement and the purported
14 need for peak hour contracts. In summary, based on
15 significant concerns with the accuracy of Dominion Energy's
16 underlying assumptions for defining its design models, the
17 Division remains unpersuaded that approval of the peak hour
18 contracts would be just, reasonable, and in the public
19 interest. The peak hour contracts appear to be an
20 expensive, unnecessary purchase to forestall a problem that
21 may not exist and for which other solutions might be found.
22 And that concludes my summary.

23 MS. SCHMID: Mr. Wheelwright is now available
24 for cross examination questions and questions from the
25 Commission.

1 CHAIRMAN LEVAR: Thank you. Mr. Snarr, any
2 questions?

3 MR. SNARR: We have no questions.

4 CHAIRMAN LEVAR: Thank you. Mr. Sabin or
5 Ms. Clark?

6 MR. SABIN: No questions. Thank you.

7 CHAIRMAN LEVAR: Commissioner White.

8 COMMISSIONER WHITE: No questions. Thank you.

9 CHAIRMAN LEVAR: Commission Clark.

10 COMMISSIONER CLARK: Your last sentence
11 referred to a problem that may not exist and other
12 solutions that might be found. Maybe as a way to provoke
13 you to summarize a little further what you have provided in
14 your direct testimony, how would you enumerate the problem
15 that does exist, or is there one that exists, and what
16 other solutions ought to be employed in lieu of the one the
17 Company employed?

18 THE WITNESS: One of the things that I believe
19 Mr. Lubow was talking about is having the Company look more
20 at demand response options. They haven't really addressed
21 that. They stated that they've talked with these
22 companies, but it was not well received. We don't know the
23 extent of what they were offering them. If someone came to
24 me and said we want to turn off your gas, I wouldn't be too
25 excited about that either. But I don't know if there were

1 economic incentives offered. There has been no information
2 provided concerning that. I think there is maybe some
3 other options that may be available to the Company instead
4 of just these contracts.

5 COMMISSIONER CLARK: Regarding the first
6 question, to what degree are you persuaded there is a
7 problem? You say it may exist. I'm hoping you can put a
8 little finer point on that for us.

9 THE WITNESS: Let me refer to some information
10 in my testimony concerning the degree of instances where
11 the Company has actually gone over their contract limit.

12 MS. SCHMID: Mr. Wheelwright, would you provide
13 a reference?

14 THE WITNESS: This is in my surrebuttal
15 testimony beginning on line 39. This is information that
16 came from the Company's Exhibit 3.10. What I've done is
17 isolated the information that was contained in their
18 exhibit to look at the number of times where they've
19 actually gone over their contract limit during a heating
20 season. So if you look at beginning on line 40 I guess it
21 is, it identifies each year of heating season the maximum
22 flow amount, the total contract amount, and then the number
23 of instances that they've actually exceeded that contract
24 amount. What that represents is that each instance where
25 it represents one hour where they've exceeded the contract

1 limit.

2 So if we look at the 2016-2017 year there were
3 13 instances, or 13 hours where the Company exceeded the
4 contract limit during an entire heating season. Now that
5 13 hours spread out over an entire heating season is not an
6 extreme occurrence of happening every single day. As the
7 Company would -- I think it's represented it's a very
8 frequent occurrence, they're constantly exceeding their
9 contract limits. So that puts some meat on the bone or the
10 number of times. This is information presented by the
11 Company.

12 If you look also at the prior years going back
13 to 2012-2013 there were 98 times or instances where the
14 Company had exceed the contract. So it doesn't appear to
15 be occurring more frequently as has been represented by the
16 Company.

17 COMMISSIONER CLARK: Thank you.

18 CHAIRMAN LEVAR: Just a couple follow-up to
19 that. Is the question before us to evaluate the likelihood
20 of one of those 13 hours being a situation where the
21 pipeline could not provide what was needed through its NNT
22 contracts?

23 THE WITNESS: No, I don't believe we're talking
24 about the no-notice contracts in this situation. As
25 Mr. Orton talked about the pipeline had the ability to flow

1 plus or minus 5 percent. So for these -- for example, in
2 2016-2017 13 hours, and those were not consecutive hours.
3 There may have been an hour here or an hour there during
4 the heating season. So the pipeline would be able to
5 fluctuate for an hour or two during those peak hour
6 demands.

7 CHAIRMAN LEVAR: This isn't a follow-up, but a
8 separate question. Do you remember Mr. Schwarzenbach's
9 testimony this morning about the different ways in which a
10 utility using its no-notice contracts and its current firm
11 peak contracts?

12 THE WITNESS: Yes.

13 CHAIRMAN LEVAR: Do you believe that those uses
14 could supplement, or one could negate based on the
15 explanation you heard this morning?

16 THE WITNESS: I think we need to do some
17 further investigation into the amount of no-notice service.
18 One of the things we found out is, again, based on the
19 testimony today, it appears that no-notice service only
20 works if you've overnominated and there is excess gas, but
21 they can't -- it won't if you've undernominated. So I
22 think we need to do an evaluation and review the amount of
23 no-notice service that's available, that's currently being
24 made available.

25 CHAIRMAN LEVAR: One other question on a

1 separate topic. Commissioner Clark just asked you about
2 your statement with respect to other options, assuming the
3 need to address these other services, have you evaluated
4 the costs of other options and where those costs might fall
5 in comparison to what is being spent on the two contracts
6 we're looking at in this docker?

7 THE WITNESS: I've looked at that a little bit,
8 but I haven't done extensive research on that. Yes, I have
9 looked at that. I don't think the options have been fully
10 explored. I think, going back to this, we need to
11 understand the need of how much -- going back to the model,
12 and our witnesses identified specific concerns with that
13 model. So we don't really know how much of a need there
14 really is on the system.

15 CHAIRMAN LEVAR: Thank you. I appreciate those
16 answers. Thank you for your testimony this afternoon.
17 Ms. Schmid, anything else from the Division?

18 MS. SCHMID: Nothing further from the Division.

19 CHAIRMAN LEVAR: Mr. Snarr.

20 MR. SNARR: Thank you. The Office would like
21 to call Mr. Jerome Mierzwa as its next witness.

22 CHAIRMAN LEVAR: Mr. Mierzwa, do you swear to
23 tell the truth?

24 THE WITNESS: I do.

25 CHAIRMAN LEVAR: Thank you.

1 DIRECT EXAMINATION

2 BY MR. SNARR:

3 Q. Good afternoon.

4 A. Good afternoon.

5 Q. Would you please state your name, and your
6 employment and your relationship with the Office of
7 Consumer Services?

8 A. My name is Jerome D. Mierzwa. I'm a principal
9 and vice president at Exeter Associates. I was engaged at
10 the Office to review the Company's design day and need for
11 peak hour services.

12 Q. Thank you. Did you prepare direct testimony,
13 including two attached exhibits, and surrebuttal testimony,
14 including one attached exhibit in connection with this
15 proceeding?

16 A. Yes, I did.

17 Q. Do you have any corrections to any of those
18 exhibits today?

19 A. I have two corrections to my direct testimony.

20 Q. Go ahead and provide those.

21 A. They are the same correction. They can be
22 found on page 11, lines 239 and 240. On both of those
23 lines the date 1974 should be changed to 2004.

24 Q. Thank you. With those corrections, if we asked
25 the same questions would you provide the same answers

1 today?

2 A. Yes, I would.

3 Q. Does your direct testimony contain a summary of
4 your experience as an expert?

5 A. Yes, it does.

6 MR. SNARR: With that the Office would move for
7 the admission of Mr. Mierzwa's exhibits, direct testimony
8 and two exhibits, surrebuttal testimony and one exhibit.

9 CHAIRMAN LEVAR: If anyone objects to that
10 please indicate to me. I'm not seeing any objection, so
11 the motion is granted.

12 Q. Mr. Mierzwa, do you have a summary of your
13 testimony that you would like to present today?

14 A. Yes, I have a brief summary of my testimony.

15 Q. Would you proceed?

16 A. My testimony primarily addresses the Company's
17 design day forecast. In my direct testimony I noted that
18 the Company's current design day weather criteria, which
19 consisted of a data with 70 heating degree days, a maximum
20 wind speed of 47 miles per hour, and an average wind speed
21 of 26 miles per hour, were reasonable. I recommended that
22 the Company's design day maximum wind speed be revised to
23 17 miles per hour and the average wind speed should be
24 revised to 9 miles per hour. In his rebuttal testimony
25 Mr. Landward agreed with these revised criteria.

1 With respect to the Company's design day
2 forecasting model, I found that the Company design day
3 model underestimated design day demands. I found that this
4 was likely because the number of customers served there was
5 not any independent variable included in the Company's
6 design day forecasting model.

7 In my direct testimony I presented a design day
8 forecast model which incorporated my revised wind speed
9 criteria, and found that the Company's design day forecast
10 was overstated by 126,206 decatherm.

11 In my surrebuttal testimony I revised my
12 estimate to the extent to which the forecast was overstated
13 to 89,381. This adjustment was related to a revision to
14 the prior day demand independent variable included in my
15 design day forecast. This adjustment was a suggestion by
16 Mr. Landward in his rebuttal testimony.

17 With respect to the reasonableness of the
18 Company's firm peak hour service contracts, I found that
19 the Company's claim need for 350,000 decatherm per day of
20 these services was overstated. This is partially
21 attributable to the Company's overstated design day
22 forecast. I estimated the Company's claim need of 350,000
23 decatherm per day of peak hour service was overstated by
24 27,000 decatherm due to the Company's overstated design day
25 forecast.

1 As I explained in my surrebuttal testimony, the
2 Company should have known that its design day forecast was
3 overstated at the time it entered into its peak hour
4 service contract.

5 I also found in determining need for peak hour
6 service the Company had not adequately accounted for system
7 line pack. In failing to fully account for line pack
8 overstated the need for peak hour service by an additional
9 80,000 decatherm per day. That concludes my statement.

10 **Q. Thank you.**

11 MR. SNARR: Mr. Mierzwa is available for cross
12 examination or commissioner questions.

13 CHAIRMAN LEVAR: Thank you, Mr. Snarr.
14 Ms. Schmid, do you have any questions for Mr. Mierzwa?

15 MS. SCHMID: Very few.

16 CROSS EXAMINATION

17 BY MS. SCHMID:

18 **Q. Is my understanding correct that you did not**
19 **have your own model, but you used the DEU model?**

20 A. I used -- I explored my own models and ended up
21 using the DEU model just for practical purposes for this
22 proceeding. As I suggested in my testimony that model can
23 be approved by when I put something practical on the record
24 for this proceeding for forecast. I found out the model
25 with DEU and my revisions appear to be reasonable.

1 Q. DEU uses a negative 5 degrees Fahrenheit as
2 well; is that correct?

3 A. Yes, as one of their criteria in their
4 forecast.

5 Q. But if we were to look at the coldest
6 temperature over 30 years it would be a negative 4 rather
7 than a negative 5; is that right?

8 A. That's correct.

9 Q. Given that based on the AGA survey 80 percent
10 of the utilities surveyed used the coldest temperature over
11 the last 30 years, shouldn't DEU do the same?

12 A. I would not oppose them using minus 4 as
13 opposed to minus 5, but it's one degree.

14 Q. Then let's turn to wind speed. In your
15 surrebuttal testimony you suggest the Company use a maximum
16 wind speed of 17 miles per hour and a mean wind speed of 9
17 miles per hour instead of the 47 and 26 miles per hour
18 respectively that the Company used; is that correct?

19 A. That is correct.

20 Q. Did your estimate of the 1,216.139 decatherm
21 take the changed wind speeds into account?

22 A. I just want to check that number.

23 Q. Thank you. Please do.

24 A. Could you repeat that number?

25 Q. 1,216,139.

1 A. Yes, those take in account my recommended wind
2 speeds.

3 Q. But don't you also state that you used the same
4 prior day demand input that Mr. Landward used?

5 A. Yes, I did.

6 Q. So if he used more or greater wind speeds, the
7 model when you ran it it didn't account for that change in
8 proposed wind speeds; is that correct?

9 A. He didn't use those wind speeds on the prior
10 day.

11 Q. Did you use your wind speeds or his wind
12 speeds?

13 A. I used his prior day demand number as a
14 variable input.

15 Q. If that prior day number had been adjusted for
16 your proposed wind speed, wouldn't that have an effect on
17 prior day demand usage?

18 A. Offhand I don't recall what he used for his
19 prior day wind speeds.

20 Q. I have just a couple more. These pertain to
21 the temperature used. If I turn to Mr. Ditzel's testimony,
22 his direct at page 5, lines 119 through 121 -- I'll just
23 read this to you. I can provide you with your own copy if
24 you would like. May I just read it?

25 A. Just read it please.

1 Q. There he states, in the last 30 years, the
2 lowest mean daily temperature recorded for the Salt Lake
3 Region between Monday to Thursday was 1.5 degrees
4 Fahrenheit or 6.5 degrees above the design peak day
5 temperature assumption. Would you take it, subject to
6 check, that I read that correctly?

7 A. Subject to check, yes.

8 Q. Why didn't you use a 1.5 degrees?

9 A. I felt that was rather warm and I believe the
10 Division's witness in the last 809 case thought that minus
11 5 was acceptable. I did not change that given the history
12 -- if you look at table 1 on page 7, you'll see that -- 30
13 years is not a hard and fast number. It's used for a
14 guideline. These are estimates. So I stuck to the little
15 more conservative number.

16 Q. So if I recall correctly, you along with
17 Mr. Lubow were witnesses in the 09 docket; is that correct?

18 A. That is correct.

19 Q. Do you recall that much of the Company's
20 substantive testimony came in in rebuttal, not with the
21 application?

22 A. Yes, I do.

23 Q. And with that timing would you agree that the
24 opportunity for analysis was more limited than if the
25 information had been provided with the application?

1 A. There was more time in this proceeding to do
2 the analysis.

3 Q. That was what I wanted to ask. Thank you very
4 much.

5 MS. SCHMID: Those are all my questions.

6 CHAIRMAN LEVAR: Thank you, Ms. Schmid.
7 Mr. Sabin and Ms. Clark.

8 Ms. CLARK: I do have some questions.

9 CROSS EXAMINATION

10 BY MS. CLARK:

11 Q. Good afternoon. I want to draw your attention
12 -- I want to ask a few clarifying questions, but first I
13 would like to draw your attention to page 17 of your
14 testimony. Beginning on line 374 you state,
15 Mr. Schwarzenbach states the firm peaking services are the
16 most reliable and cost effective solutions based on this
17 evaluation. And I need to state, I take no issue with this
18 conclusion. Is it fair to say that while you do take issue
19 with the level of contracting, you don't take issue with
20 the fact that the Company has contracted for some peak hour
21 services?

22 A. That is true.

23 Q. Another point of clarification, when you were
24 speaking a moment ago with Ms. Schmid she was talking about
25 your peak day forecast, your design peak day forecast. I

1 wanted to clarify that your forecast was roughly 89,000
2 decatherm below the Company's projected 1.3 million
3 decatherm for that design peak day. Does that sound right
4 to you, subject to check?

5 A. That is correct.

6 Q. Then also I heard in your summary reference to
7 the Company's 350,000 decatherm peak hour need. I wanted
8 to clarify that. I want to take you now to your
9 surrebuttal testimony if I could. I am on page 4 of 10. I
10 am looking at line 93 where you have identified that as
11 340,000 --

12 A. I'm sorry. It should have been 304,000.

13 Q. Okay. I wanted to make that clarification.
14 Thank you. And then again for clarification on that same
15 line you do the calculation, your calculation of peak hour
16 need would be 27,000 decatherm below that?

17 A. That's correct.

18 Q. And those are both a fraction, less than 10
19 percent?

20 A. It's around 10 percent.

21 Q. It's a little less, wouldn't you say?

22 A. Yes, it's a little less.

23 Q. Fair enough. So when you're doing a design
24 peak day calculation or forecast, you're not looking --
25 would you agree with me when I say you're not looking for

1 an exact correct number, you're forecasting and you're
2 making your best estimate; is that fair?

3 A. You are making your best estimate.

4 Q. And you were here when Mr. Ditzel was examined
5 earlier today when he testified earlier today?

6 A. Yes, I was.

7 Q. And you wouldn't purport, would you, to have
8 the one true number that one could come up with for a
9 design peak day forecast number, there are probably a
10 variety of numbers or maybe a range of numbers, would you
11 agree?

12 A. I think my number is a pretty reasonable
13 estimate.

14 Q. So we'll assume that it is reasonable, but
15 would you --

16 A. Plus or minus a few hundred or a thousand.
17 You're never going to hit it exactly.

18 Q. You're never going to hit it exactly. In fact,
19 the AGA survey showed 21 companies with 21 slightly
20 different, some more dramatically, different approaches;
21 isn't that right?

22 A. Yes, utilities use different approaches.

23 Q. And those different approaches you would expect
24 might come up with different numbers?

25 A. Yes, and I look at those all the time.

1 **Q. Would you purport or argue today, or would you**
 2 **testify today that any of those approaches are imprudent or**
 3 **unreasonable?**

4 A. I would have to look at each individual one. I
 5 can't say if one was imprudent or unreasonable just by the
 6 AGA survey.

7 MS. SCHMID: And I would object to this line of
 8 questioning because it appears to be friendly cross, which
 9 is not generally permitted by the Commission.

10 CHAIRMAN LEVAR: Do you want to respond to the
 11 objection?

12 MS CLARK: Yes, I would. I think what we're
 13 getting at here -- I don't purport to argue that it's
 14 friendly or not friendly, it is clarifying and could be
 15 perceived as unfriendly depending on how he answers. I'm
 16 really just trying to get to the bottom of it.

17 CHAIRMAN LEVAR: I think considering the nature
 18 of his testimony that he has presented modeling, that he
 19 has testified to the reasonableness, and considering the
 20 recommendations he's made in his testimony, I think the
 21 line of questioning is appropriate. So I'm willing to
 22 allow you to continue.

23 MS. CLARK: Thank you. And I'm almost done. I
 24 don't have much left.

25 **Q. So given that -- I think I heard you say a**

1 moment ago there is some range, and we can disagree or
2 agree on what that range is, but you can come up with more
3 than one number that is a reasonable number for a design
4 peak day forecast. Did I hear you correctly?

5 A. It depends on how far apart they are. If you
6 see something with 50 percent apart, something is wrong
7 with one of those.

8 Q. Sure. For example, again, looking at the AGA
9 survey there was at least one company that used the coldest
10 temperature on record?

11 A. Yes, but we don't know how long ago that
12 occurred or the forecast model that they used.

13 Q. Fair enough. Fair enough. If you were to use
14 that number -- and I'm going to present for the sake of
15 this question that for Dominion Energy Utah the lowest
16 temperature on record is 11 degrees below zero. That would
17 produce a lower result than what you saw with the Company's
18 forecast?

19 A. It would produce a higher result than the
20 Company's forecast.

21 Q. I'm so sorry. Lower temperature, higher
22 result; that's correct?

23 A. Yes.

24 Q. And if you were to use the lowest actual wind
25 speed, for example, I think we've already talked about that

1 producing a higher forecast result?

2 A. I'm sorry. I'm not following you on that.

3 Q. If the Company were to use a higher wind speed
4 in its calculation as one of its criteria than what you
5 have recommended, for example, or even what the Company
6 recommended, speaking hypothetically, that would produce a
7 higher result?

8 A. Yes, the higher the wind speed the higher the
9 projection.

10 Q. So each of these criteria the Company
11 considered, and that you in your model considered, can move
12 up and down depending on how the evaluating company chooses
13 to look at it?

14 A. If you change the input, the final product
15 number will change.

16 MS. CLARK: Okay. I don't have anything
17 further.

18 CHAIRMAN LEVAR: Thank you. Before I go back
19 to any redirect, I do want to make one more comment on your
20 previous objection. As I've thought about it I probably
21 should have swapped the order of both witness presentation
22 and cross examination of Division and Office in this
23 hearing. I'm past that point now, but I recognize it
24 probably would have been better to go in the other order
25 and I apologize for not recognizing that sooner in the

1 hearing. With that, do you have any redirect for
2 Mr. Mierzwa?

3 MR. SNARR: Yes, just a bit.

4 REDIRECT EXAMINATION

5 BY MR. SNARR:

6 Q. Mr. Mierzwa, you were here when Mr. Landward
7 testified that your design day model presentation resulted
8 in a reasonable result; is that correct?

9 A. That's correct.

10 Q. Is there any reason the customers of this
11 system should have to pay for costs associated with a
12 different higher estimate of a design peak day?

13 A. Not that I'm aware of.

14 Q. Thank you.

15 CHAIRMAN LEVAR: Any recross from Ms. Schmid
16 first and then Ms. Clark?

17 MS. SCHMID: No recross.

18 CHAIRMAN LEVAR: Ms. Clark.

19 MS. CLARK: No. Thank you.

20 CHAIRMAN LEVAR: Commissioner Clark, do you
21 have any questions?

22 COMMISSIONER CLARK: Mr. Mierzwa, from the
23 description of your background and your direct testimony
24 and from what you said here, I think -- I'm inferring that
25 you would have deep experience with design peak day

1 modeling, that you do it routinely. Is that true or not?

2 THE WITNESS: Yes, it is true. I review on an
3 annual basis maybe between 12 and 15 design day forecasts a
4 year.

5 COMMISSIONER CLARK: And you're critically
6 evaluating them when you do that, you're just not -- it's
7 not just light reading, it's you're examining them for --

8 THE WITNESS: I'm examining them for
9 reasonableness and proposing alternatives whenever I find
10 that to be appropriate.

11 COMMISSIONER CLARK: Right. And so the method
12 that you examined here, the model, you accepted the
13 temperature and the 20 year recurring value, I guess, or
14 the 20 year recurrence value, the minus 5 degrees. I think
15 you accepted that as --

16 THE WITNESS: I accepted the minus 5 and I
17 should have pointed out that there are two ways to look at
18 probability of occurrence. One is you count the number of
19 -- you examine the number of years that the event has
20 occurred and divide by the number of years. Another way is
21 to do a statistical analysis where you look at standard
22 deviations. The utilities use one or the other.

23 So while the design that Dominion is using is
24 when you go by absolute count is less than 1 in 30 years.
25 When you look at the statistical standard deviation method

1 it's 1 in 20 years.

2 COMMISSIONER CLARK: The way that the model
3 treated the wind data, is that -- you gave some information
4 about HDD, EDD, EDD incorporating a similar concept of the
5 wind effect?

6 THE WITNESS: Yes.

7 COMMISSIONER CLARK: Is that a reasonable
8 approach or appropriate approach to consider not only the
9 temperature on a design peak day, but the wind conditions
10 on that day?

11 THE WITNESS: Yes, it is reasonable to consider
12 both. Some utilities do use wind, others don't. I don't
13 know the exact split, but it's probably close to 50/50 from
14 the companies that I've looked at. I can't comment on all.
15 But sometimes wind just doesn't seem to play a big factor
16 in heating load, maybe because it's not that cold. For
17 whatever reason sometimes the coefficient turns up the
18 negative, meaning the winder it is the less gas you use,
19 which doesn't make any rational sense so you don't include
20 a variable in the model.

21 COMMISSIONER CLARK: And your conclusion with
22 respect to the way it was dealt with in this model is fill
23 in the blank. How did you -- I'm asking you to summarize
24 for us how you felt about or what your view is.

25 THE WITNESS: I think the model that I proposed

1 comes up to reasonableness of design day demand. In my
2 surrebuttal I took the three highest degrees of three
3 highest days -- or coldest days or highest days, and
4 compared to what the actual versus projected forecast would
5 be and they were within two and a half percent.

6 COMMISSIONER CLARK: What page are you on
7 there?

8 THE WITNESS: Page 8 of my surrebuttal. If you
9 look at the three coldest days.

10 COMMISSIONER CLARK: And then the use of the
11 day before as the model employed, is that also -- is that a
12 common technique? Prior day I think is the right
13 terminology.

14 THE WITNESS: It's not common. I don't know if
15 I've run across it once or twice or not at all, but more
16 frequently what is used is prior day temperature which
17 corresponds to prior day load. Again, I don't know the
18 exact percentage, but it's not used by most utilities, but
19 it's used -- I don't find it uncommon to be used.

20 COMMISSIONER CLARK: Having accepted these
21 general elements of the analysis and using inputs that you
22 considered to be reasonable, you determined that the values
23 that you expressed on page 10 of your surrebuttal for peak
24 hour services or peak hour demand deficit I'll call it.
25 Counsel for the company was asking you about the difference

1 between your model result and the Company's. Is that a
2 reasonable difference? Is that in the zone of
3 reasonableness as you would interpret it? If your value is
4 in the zone, is the Company's value outside the zone?

5 THE WITNESS: Value for what?

6 COMMISSIONER CLARK: I'm sorry. I'm talking
7 about the peak hour service requirements.

8 THE WITNESS: No. The Company's number is
9 based on its design day forecast, which I found to be
10 unreasonable. The difference is not large, but I think
11 it's based on an unreasonable forecast and so I think
12 340,000 is unreasonably high. Plus, I do also recommend
13 adjustment for line pack. I don't believe the Company has
14 adequately explained why they are using 180,000 of line
15 pack, on system line pack.

16 COMMISSIONER CLARK: Thank you. Those are all
17 my questions.

18 CHAIRMAN LEVAR: I think I may want to reask
19 his question in maybe a less sophisticated way. Our job is
20 to -- we have to answer the question were the Utility's
21 action in 2017 prudent and reasonable. Would there have
22 been any apparent industry standard for modeling on this
23 issue in 2017?

24 THE WITNESS: I can't speak to an industry
25 standard being published. But what I find is that when you

1 look at the Utility's design day forecast they look to see
2 how accurate are we on the forecast on our coldest day.
3 And here the Company's forecasts were underestimated and
4 significant. So that should indicate a problem that they
5 should have been aware of I believe.

6 CHAIRMAN LEVAR: Thank you. I appreciate the
7 answer. Commissioner White.

8 COMMISSIONER WHITE: Let me ask you an even
9 less sophisticated question. If I understand the Office's
10 testimony frankly it's essentially the Company has
11 prudently identified some type of need, it's just how big
12 that need is?

13 THE WITNESS: Yes, that's my testimony.

14 COMMISSIONER WHITE: And that's based upon the
15 questions about the design day forecast?

16 THE WITNESS: Design day and line pack.

17 COMMISSIONER WHITE: Do you have any other
18 opinion as to other potential solutions or whether
19 utilizing this solution is something that's trending in the
20 industry right now to address this?

21 THE WITNESS: I have seen no other gas utility
22 contracting for peak hour services. But some utilities
23 have on-system storage that they use to meet these peak
24 hours. But there has not -- I have not seen a movement in
25 contracting for peak hour services.

1 COMMISSIONER WHITE: But you don't take issue
2 with at least -- based upon your analysis of the design day
3 or your forecast you don't take issue with that solution,
4 at least one of the contracts to address that?

5 THE WITNESS: That's true.

6 COMMISSIONER WHITE: That's all the questions I
7 have. Thank you.

8 CHAIRMAN LEVAR: Thank you for your testimony
9 today. Any final matters before we adjourn this afternoon?

10 MR. SABIN: None from the Company.

11 MS. SCHMID: Nor from the Division.

12 MR. SNARR: Nothing further from the Office
13 Thank you.

14 CHAIRMAN LEVAR: Thank you for all of your
15 testimony and participation today. We will take this under
16 advisement and we will issue a written order in a
17 reasonable time.

18 (The hearing concluded at 4:30 p.m.)
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C E R T I F C A T E


STATE OF UTAH)
 :
COUNTY OF SALT LAKE)

I, Melinda J. Andersen, Certified Shorthand Reporter
and Notary Public in and for the County of Salt Lake and
State of Utah, do hereby certify:

That the foregoing proceedings were taken before me at
the time and place herein set forth, and were taken down by
me in shorthand and thereafter transcribed into typewritten
under my direction and supervision:

That the foregoing 233 pages contain a true and
correct transcription of my shorthand notes so taken.

WITNESS MY HAND and official seal at Salt Lake City,
Utah this 25th day of June, 2018.



My Commission Expires:
February 10, 2022

Melinda J. Andersen, C.S.R.

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