

APPLICATION OF ROCKY MOUNTAIN POWER

Docket No. 19-035-01

HEARING

February 04, 2020

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Hearing
February 04, 2020

1 BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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4)Docket No. 19-035-01

In re: Application of Rocky)
Mountain Power to Increase)
the Deferred EBA Rate)
through the Energy Balancing)
Account Mechanism.)

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 HEARING

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 Taken on Tuesday, February 4, 2020

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 at 10:00 A.M.

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 At The Public Service Commission of Utah

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 160 East 300 South

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 4th Floor

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 Salt Lake City, Utah 84111

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 Reported by: Kellie Peterson, RPR, CSR

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1 February 4, 2020 10:00 A.M.

P R O C E E D I N G S

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3 COMMISSIONER LEVAR: Okay. We are here this
4 morning for a Public Service Commission, Docket 19-35-01,
5 application of Rocky Mountain Power to increase the
6 deferred EBA rate through the Energy Balance Account
7 mechanism.

8 Why don't we start with appearances for the
9 utility first?

10 MR. MOSCON: Dan Moscon and Yvonne Hogle for
11 Rocky Mountain Power.

12 COMMISSIONER LEVAR: Okay. Thank you.

13 MR. JETTER: Good morning, I'm Justin Jetter
14 with the Utah Attorney General's Office, representing the
15 Utah Division of Public Utilities.

16 And with me at counsel table is Phil
17 DiDomenico and Brenda Salter, who are the two witnesses
18 the Division intends to call for this hearing.

19 And I'd like to address a preliminary matter,
20 if I might, before we get started.

21 COMMISSIONER LEVAR: Sure, go ahead.

22 MR. JETTER: The Division is going to
23 withdraw its recommendation to make an adjustment on the
24 Lakeside steam bypass valve weld. That was one of the
25 three outages that we contested. And I wanted to go on

1 the record with that before the company presents its
2 case.

3 The reason being, that as the first party to
4 present without a confirmation of that from me, I don't
5 think that they could not present the evidence on that,
6 given that it would be their opportunity to do that
7 before we presented our testimony.

8 COMMISSIONER LEVAR: Okay. Thank you.

9 Anything else preliminary before we move on?

10 MR. MOSCON: Just one thing I'll point out
11 for the Commission and see if there's any concern by the
12 Division or if the Commission has any direction.

13 In this matter, Mr. Robert Meredith and
14 Mr. Michael Wilding filed his direct testimony. Neither
15 is here with us today. We understand there is no
16 objection or need to cross either.

17 Mr. David Webb is going to adopt the
18 testimony of Mr. Wilding, so he is available for that,
19 and I believe Mr. Meredith would be available by
20 telephone if the Commission had any questions. But since
21 they aren't here and I won't be putting them on the
22 stand, I wonder if there is a preliminary matter I could
23 move to enter their testimony as received exhibits, or if
24 the Commission wants me to wait and do that at a
25 different time, I will.

1 COMMISSIONER LEVAR: Why don't we just take
2 the motion now?

3 Mr. Jetter, do you have any objection to the
4 motion?

5 MR. JETTER: I have no objection.

6 COMMISSIONER LEVAR: Okay. It's granted.

7 MR. MOSCON: Great, thank you.

8 COMMISSIONER LEVAR: I have two other things
9 to address before we start. One, we had a motion that
10 was labeled as unopposed filed by the Office last week to
11 vacate the portions of our orders in this docket that
12 were reversed by the Utah Supreme Court. The Office
13 isn't here.

14 I was going to ask if there was any need for
15 timeliness on that or if that objection is granted in
16 connection with our order on this hearing. Is anyone
17 aware of any other timeliness needs on granting that
18 order? I mean, we are announcing our intent to grant it,
19 but if that's rolled into the order in this hearing, is
20 there any problem with that?

21 MR. JETTER: I've had some discussions with
22 the Office, and I'm not aware of any specific deadline
23 for that. My understanding is it's more of a cleanup
24 matter.

25 COMMISSIONER LEVAR: Right.

1 MR. JETTER: But I don't know that the Court
2 has contacted them, but it may be the case that they
3 asked them to follow up, but I think -- I don't think
4 there is a timeliness concern that I'm aware of.

5 MR. MOSCON: The company has no objection to
6 the Commission's proposed plan.

7 COMMISSIONER LEVAR: Okay. And then one
8 other issue I wanted to raise, you know, there is some
9 confidential material in the testimony. As I was looking
10 at it and looking at how we might move in and out of
11 confidential material -- as a general rule, we try to
12 keep as much of the hearing open to the public as
13 possible.

14 If there is a risk that with the amount of
15 confidential material we have today that is going to be
16 onerous and burdensome to the efficient conduct of the
17 hearing. I think we are open to hearing from the parties
18 if there is any interest in closing the whole hearing or
19 if there's any objection to that or if the preference is
20 that we simply move to do so as we get there.

21 I just hate to have a situation where someone
22 starts asking questions and, inadvertently, jumps into
23 confidential material.

24 So let me hear from you first on that.

25 MR. MOSCON: Thank you. We actually were

1 speaking about that, and my understanding, and I hope
2 someone will correct me if this is wrong, is information
3 that was sensitive and confidential at the time, written
4 and pre-filed, that with passage of time may not be as
5 sensitive.

6 And so I think as far as the company's
7 concerned, I don't know that we need to treat anything
8 that is at issue today that -- in the remaining issues
9 that are going to be discussed today with these witnesses
10 as confidential.

11 So I think it's probably easiest to just keep
12 it open without having to worry about anything else, but
13 I haven't had a chance to talk to Justin about that.

14 COMMISSIONER LEVAR: Let me clarify that.
15 So, for example, the materials that in Mr. Ralston's
16 surrebuttal testimony that are marked as confidential are
17 no longer sensitive; is that --

18 MR. MOSCON: I think that's correct.

19 COMMISSIONER LEVAR: Okay.

20 MR. JETTER: The Division, I don't believe,
21 has any claim to confidentiality of anything that we've
22 presented, and so we'd certainly defer to the company's
23 concerns on that and we are happy to keep it open.

24 COMMISSIONER LEVAR: Okay. Well, if we start
25 to move into anything sensitive, please jump in and stop

1 us so we can consider whether or not closing the hearing
2 is appropriate.

3 And with that, I think we are ready to move
4 to your first witness.

5 MR. MOSCON: Okay. Thank you. Just by way
6 of roadmap for the Commission, the company intends to
7 call three witnesses today. First is going to be
8 Mr. David Webb, then Mr. Dana Ralston, and finally,
9 Mr. Neal Grabow.

10 So we will begin by asking Mr. David Webb to
11 come to the stand.

12 DIRECT EXAMINATION

13 DAVID WEBB,

14 called as a witness, having been first duly sworn,
15 was examined and testified as follows:

16 COMMISSIONER LEVAR: Thank you.

17 BY MR. MOSCON:

18 **Q. Mr. Webb, would you please state your name**
19 **and address for the record?**

20 A. Yes. My name is David G. Webb, and my
21 business address is 825 NE Multnomah Street, in Portland,
22 Oregon, and I'm the manager of Net Power Cost for
23 PacifiCorp.

24 **Q. Okay. And, Mr. Webb, have you ever testified**
25 **in front of the Utah Public Service Commission before?**

1 A. No, I have not.

2 Q. Okay. For that reason, could you just give
3 them a very brief summary of your education and
4 employment history?

5 A. Yes. I have worked for PacifiCorp for 15
6 years. I have worked in finance and regulation
7 departments. I'm a certified public accountant. I
8 received a bachelor's degree in finance and a master's
9 degree in accounting. And as I said, I have been with
10 the company for 15 years.

11 Q. Okay. And you've adopted the testimony of
12 Mr. Mike Wilding; is that correct?

13 A. Yes, that's correct.

14 Q. Have you prepared any testimony of your own
15 in this matter?

16 A. I did. I did rebuttal testimony.

17 Q. Okay. And are you aware of any corrections
18 that would need to be made to that testimony?

19 A. No.

20 Q. So if I were to ask you the same questions
21 that are set forth in that, your answers would be the
22 same as that provided in the filing?

23 A. Yes.

24 Q. Okay.

25 MR. MOSCON: With that, we move for the

1 admission of Mr. Webb's testimony as an exhibit.

2 COMMISSIONER LEVAR: Any objections,
3 Mr. Jetter?

4 MR. JETTER: No objections.

5 COMMISSIONER LEVAR: Okay. Granted.

6 BY MR. MOSCON:

7 **Q. Mr. Webb, have you had an opportunity to**
8 **prepare a summary for the Commission?**

9 A. Yes.

10 **Q. Would you please provide that for them?**

11 A. Sure. Good morning, Commissioners.

12 PacifiCorp filed its annual Energy Balancing Account, or
13 EBA application, on March 15, 2019, for the deferral
14 period of January 2018 through December 2018. The
15 company requested recovery of 23.9 million, which
16 consisted of several items, the largest of which, 22.9
17 million, was the deferral of excess EBA related costs
18 which are calculated as the difference between the actual
19 Net Power Cost and wheeling revenue and the base Net
20 Power Costs and wheeling revenue.

21 A 2.9 million credit for savings related to
22 the Deer Creek Mine retiring medical obligation, a 4.8
23 million credit for sales made to a special contract
24 customer, 7.6 million in costs for the Utah allocated
25 amortization expense associated with the closure of Deer

1 Creek Mine, and finally, an additional 1.1 million in
2 costs related to other small items, including interest
3 and other costs and credits.

4 The Division of Public Utilities issued its
5 report on the EBA on November 15, 2019, and proposed a
6 reduction to the company's EBA application of
7 approximately 704,000, consisting of 647,000 for
8 replacement power costs associated with three plant
9 outages, which are now two; 35,000 for an interest
10 adjustment; and 22,000 for an allocation factor update,
11 which was used in the filing. No other parties have
12 taken a position in this proceeding.

13 In my surrebuttal testimony -- or rebuttal
14 testimony, excuse me, responding to the Division's EBA
15 report, the company revised its EBA filing to update the
16 allocation factor. The company disagrees with the
17 proposed adjustment for the plant outages, which will be
18 further explained by company witness Dana Ralston, and
19 Neal Grabow with N-Tec.

20 Additionally, on May 1, 2019, the company
21 began collecting the EBA requested amount of 23.9 million
22 as an interim rate, which was discontinued on August 1,
23 2019. As a matter of process the company recommends that
24 once a Commission order is issued in this case, that
25 determines a final recovery amount, the company file a

1 compliance filing, within seven days to present the
2 rates, to recover the remaining balance over a 12-month
3 period. The company recommends a 14-day review period
4 before those rates become effective.

5 The costs that the company are requesting to
6 be recovered in the EBA are reasonable and have been
7 prudently incurred. And I respectfully request that the
8 Commission approve the EBA recovery request as filed in
9 my response testimony. Thank you.

10 MR. MOSCON: Mr. Webb is available for any
11 questions.

12 COMMISSIONER LEVAR: Okay. Thank you.

13 Mr. Jetter?

14 MR. JETTER: I have no questions, thank you.

15 COMMISSIONER LEVAR: Commissioner Clark?

16 COMMISSIONER CLARK: No questions, thank you.

17 COMMISSIONER LEVAR: Commissioner White?

18 COMMISSIONER WHITE: I have no questions,
19 thank you.

20 COMMISSIONER LEVAR: And I don't have any, so
21 thank you for your testimony this morning.

22 THE WITNESS: Thank you.

23 MR. MOSCON: The company would now call
24 Mr. Dana Ralston.

25 DIRECT EXAMINATION

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DANA RALSTON,

called as a witness, having been first duly sworn,
was examined and testified as follows:

BY MR. MOSCON:

Q. Good morning, Mr. Ralston. Would you please state your full name for the record?

A. Dana Michael Ralston.

Q. And, Mr. Ralston, you have testified in front of this Commission before; is that correct?

A. Yes, I have.

Q. Then we will --

COMMISSIONER LEVAR: I'm sorry to interrupt, I think his microphone needs to be a little closer so the streaming will pick it up.

THE WITNESS: Is that better?

COMMISSIONER LEVAR: I think so.

BY MR. MOSCON:

Q. Is your green light on, Mr. Ralston?

A. Yes, it is.

Q. Okay. Mr. Ralston, did you have any testimony prepared and filed by you in this proceeding?

A. Yes, I did.

Q. What testimony have you filed?

A. I filed rebuttal and surrebuttal testimony.

Q. Are you aware of any changes or corrections

1 that would need to be made to that testimony?

2 A. No, I'm not.

3 Q. So if I were to ask you those same questions
4 right now, your answers would be the same as set forth in
5 those filings?

6 A. Yes, they would be.

7 MR. MOSCON: Okay. The company moves for the
8 admission of both Mr. Ralston's direct and surrebuttal
9 testimony as exhibits.

10 COMMISSIONER LEVAR: Thank you.

11 Any objection, Mr. Jetter?

12 MR. JETTER: No objection.

13 COMMISSIONER LEVAR: Okay. Thank you. It's
14 granted.

15 MR. MOSCON: Thank you.

16 BY MR. MOSCON:

17 Q. Mr. Ralston, have you had the opportunity to
18 prepare a summary of your testimony for the Commission?

19 A. Yes, I have.

20 Q. Would you please share that now?

21 A. My name is Dana Ralston. I'm the senior vice
22 president of thermal generation mining for Rocky Mountain
23 Power.

24 I'm offering testimony with respect to the
25 Daymark Energy Advisors' report on behalf of the Division

1 of Public Utilities. In the report, Daymark recommends
2 adjustments to two outages that in Daymark's opinion
3 shows that the company's actions were improved. In my
4 testimony, I demonstrate the company's actions were
5 reasonable and prudent and that Daymark's conclusion are
6 unreasonable and based on incorrect assumptions.

7 Specifically, the RCA, or root cause
8 analysis, for the Dave Johnson Plant outage identified
9 eight failure scenarios that were investigated. The
10 investigation finding and conclusion determined that the
11 true root cause could not be determined.

12 The RCA did identify six additional
13 observations that were opportunities for improvement that
14 had minimal to no influence on the outcomes of the eight
15 failure scenarios. These are items that are requested to
16 continuously improve, not as Daymark suggests, directly
17 attributable to or played a potential, significant role
18 in the cause and duration of the event.

19 On the second outage with respect to the
20 Blundell outage, Daymark concludes that because the root
21 cause of the -- the root cause was a logic error from the
22 original commissioning in 2007. The company was
23 imprudent in the commission process. As stated in
24 testimony, the company hired experts with turbine driven
25 isopentane experience when this technology was new to the

1 company. These experts included an EPC contractor with
2 significant isopentane turbine experience and the OEM of
3 the equipment, or original equipment manufacturer.

4 They developed and tested the equipment prior
5 to turning over to the company. The entities were the
6 most qualified to develop and perform the commissioning
7 test and did not contemplate the failure mode that
8 occurred at Blundell. The OEM sated they had not
9 experienced a similar failure and the commissioning
10 process has not changed.

11 Daymark's position seems to indicate the
12 company must cover every possible scenario know matter
13 how obscure. Daymark's position on the two outages is
14 unrealistic and unreasonable and should be disregarded.
15 When the information on these two outages are reviewed in
16 its entirety, it shows that the company did act prudently
17 and in the best interest of customers, and Daymark's
18 standard for prudent seems to suggest a perfection
19 standard, not a prudent standard.

20 The cost incurred by the company related to
21 these outages were prudently incurred and in the best
22 interest of the customer.

23 **Q. Thank you.**

24 MR. MOSCON: Mr. Ralston is available for any
25 questions.

1 COMMISSIONER LEVAR: Thank you.

2 Mr. Jetter, do you have any questions?

3 MR. JETTER: Just a few brief questions.

4 CROSS-EXAMINATION

5 BY MR. JETTER:

6 Q. Good morning.

7 A. Good morning.

8 Q. I guess let's discuss briefly the fire out at
9 Dave Johnson Power Plant.

10 It's correct, and it has been in both your
11 testimony and our testimony, I believe, that the actual
12 cause is unknown; is that correct?

13 A. It cannot be conclusively determined.

14 Q. Okay. But what you do know is that there was
15 a fire in a bearing assembly; is that correct?

16 A. And the oil leaked out of the bearing
17 assembly and caught fire.

18 Q. Okay. And some of the fire suppression
19 equipment was not in functional condition; is that
20 correct?

21 A. I believe it was three small fire
22 extinguishers out of over 150.

23 Q. Okay. And even though it is only a few,
24 that's sort of important when that's the fire
25 extinguisher you grab; is that right?

1 A. But that did not impact the duration or the
2 cause of the fire.

3 Q. Okay. And we don't actually know what the
4 cause is. Correct?

5 A. As it said, it was inconclusive.

6 Q. Okay. And so, you know, the company's
7 position is that ratepayers are responsible for the
8 condition when it's an inconclusive report?

9 A. The company's position is that we acted
10 prudentially, we took all the precautions and all the
11 activities that a reasonable utility should take, and
12 that we were prudent in our actions.

13 Q. Okay. And in any instance, however, we don't
14 know what caused the power plant outage, is it your
15 testimony then that the default position should be that
16 customers bear that risk?

17 A. The position is that you look at the events
18 leading up to it, and if all of them were prudent, the
19 company acted in a prudent manner.

20 Q. And that would be even in the case when we
21 don't actually know what happened?

22 A. I would say yes because all our actions
23 leading up to the event were prudent.

24 Q. And in instances like this, where the
25 company, in its root cause analysis investigation, comes

1 up with an inconclusive result, that would make it very
2 difficult for a regulator to know whether the company
3 acted prudentially; is that correct?

4 A. I would say they'd have to look at the
5 actions and the root cause analysis and all the actions
6 and things that were done prior to and determine prudence
7 based on that.

8 Q. Okay. And at that point -- I guess the
9 question I'm trying to get to here is, as a regulator, if
10 the default position is an unknown outage or unknown root
11 cause resulting in an outage, is -- the default position
12 is that risk is borne by customers, wouldn't that create
13 an incentive for the utility to frequently come to the
14 conclusion that the cause is unknown?

15 MR. MOSCON: Before he answers, by the way,
16 can I just generally object? I know there's a lot of
17 leeway here, but to the extent this line of questioning
18 is asking Mr. Ralston to get into the legal standard, the
19 standard of proof, what is the definition of prudence,
20 etc., I mean if the Commission has questions on that and
21 wants Counsel to argue, I'm a little nervous that he's
22 being asked to opine to a legal standard.

23 But if the question is really going to what
24 the company process is, I'm happy to let Mr. Ralston
25 proceed.

1 COMMISSIONER LEVAR: Sure. I understand the
2 objection. I think, though, Mr. Ralston, in the summary,
3 opened that door a little bit by disusing prudence versus
4 perfection standard in its summary. I think with that,
5 I'm going to allow the question to be answered. Thank
6 you.

7 THE WITNESS: So can you repeat the question
8 now?

9 BY MR. JETTER:

10 **Q. I guess my question is really, in short, if**
11 **the default standard is that customers bear that risk,**
12 **what incentives are you aware of for the company not to**
13 **come to that conclusion on a more frequent basis?**

14 A. So first of all, I disagree that it's a
15 default standard. I would expect the Commission to look
16 at all the actions going up to it and determine prudence
17 based on the actions on that. It isn't just because we
18 can't determine the answer. It's an automatic default.
19 I disagree with that.

20 And second of all, on the incentives, I guess
21 you're saying to us that we would not really try to find
22 the root cause and try to improve our operation and not
23 come up with the actual truth and I firmly disagree with
24 that. It is in our employees and customers' best
25 interest to find out what is really happening and correct

1 that situation.

2 **Q. Thank you. So what remedial actions then**
3 **have been taken to avoid this type of an outage again, if**
4 **any?**

5 A. In --

6 **Q. In the fire case at Dave Johnson.**

7 A. Of course we rebuilt the turbine and
8 everything else, and we had a long discussion with the
9 OEM, the general electric, and the other vendor onsite
10 was doing an overhaul on another unit, MD&A, and we had a
11 long discussion about the bearing design and we returned
12 it back to normal because no one could come up with a
13 good conclusion on why it should stay modified.

14 Unfortunately, the people that made that
15 decision in 1969 are no longer with us, so they can't
16 give us information on why that occurred. We've added
17 additional controls and protections systems in addition
18 to this.

19 **Q. Thank you. I'd like to just shift questions**
20 **a little bit then to the Blundell unit.**

21 **Is it reasonably foreseeable that valves in**
22 **generation facilities fail occasionally?**

23 A. Define "fail," I guess, is what --

24 **Q. Either they don't close when a circuit gives**
25 **it the signal to close or they don't open when a circuit**

1 signal is sent to open?

2 A. It is not unheard of but it is not
3 commonplace.

4 Q. Okay. And the valve that failed to close,
5 the sticky valve at the Blundell facility, that valve, in
6 fact, has a sensor in it; is that correct? That would
7 tell the control room whether it's open or closed?

8 A. It has a limit switch.

9 Q. Okay. And so that limit switch, is that
10 correct that that is a binary switch then? It is either
11 on or off?

12 A. Yes, it is open/close, that type of thing.

13 Q. Okay. And you can't assume, I guess, that it
14 opens or closes, is that the reason -- I will withdraw
15 that.

16 Why do you have a limit switch in that valve
17 that is sending a signal to the control room?

18 A. Indication for the control room but also it's
19 part of the -- normally part of the interlock system.

20 Q. And that's because it's important to know if
21 that valve is, in fact, open or closed when you've sent a
22 signal to open or close; is that correct?

23 A. That's correct.

24 Q. And in the overspeed issue that occurred, if
25 we use an analogy, and maybe correct me if you think this

1 is an incorrect analogy, it is sort of the equivalent of
2 driving your car with your foot on the gas and shifting
3 into neutral when it was disconnected from the resistance
4 of the grid; is that accurate, reasonably?

5 A. Sort of. I guess, maybe, the better way to
6 say it is: The valves are supposed to close and shut off
7 the driving force to the turbine, and then three seconds
8 after the valves closed, the generator breaker was
9 supposed to open up. So if the generator breaker opens
10 up before the motive force, it's similar to putting your
11 car in neutral while not taking your foot off the gas.

12 Q. Okay. And in this case, you have a signal
13 from that valve that will tell a person in the control
14 room whether it's open or closed, but the software that's
15 designed to operate that function of disconnecting that
16 generator just wasn't coded in such a way that it could
17 delay the disconnect from the electrical grid until that
18 valve has been confirmed closed; is that accurate?

19 A. The program and the program logic controller
20 that controlled everything, it was supposed to have the
21 position of all three the valves in there, and when all
22 three valves were closed, it was supposed to start the
23 timer to open up the generator breaker. That the link of
24 logic that said the -- supervising by the three valves'
25 position, was missing from 2007 when the plant was built.

1 Q. Okay. And that's a fairly simple logic code
2 to have added to the software; is that correct?

3 A. In singularity, yes, but there's rows and
4 rows and rows of code, and it's a very complex machine.
5 So, I mean, just saying that it's -- you should easily be
6 able to see that is incorrect.

7 Q. Okay. And I guess I wasn't asking if you
8 could look at the code and identify that, but it
9 was -- was it a fairly trivial addition to add that to
10 the code after the fact?

11 A. No, it took a little programming but not a
12 Herculean effort.

13 Q. Okay. Those are the only questions that I
14 have. Thank you.

15 A. Okay.

16 COMMISSIONER LEVAR: Any redirect,
17 Mr. Moscon?

18 MR. MOSCON: Yes, on a couple of topics.
19 Thank you.

20 REDIRECT EXAMINATION

21 BY MR. MOSCON:

22 Q. Mr. Ralston, you recall the questions that
23 were posed to you about the fire, and there were some
24 questions put to you about the incentive of the company
25 and, perhaps, the company simply is better off to not

1 investigate and determine what causes outages.

2 It is your understanding that the company is
3 required to perform a root cause analysis of every
4 incident that causes an outage?

5 A. I'm not sure we're required to. It is our
6 standard.

7 Q. Okay.

8 A. It's the way we're wired.

9 Q. Okay. And so even if it's not an obligation
10 to do that, it's been the practice and custom of the
11 company as long as you have been involved with the
12 company to do so?

13 A. Yes.

14 Q. One of the things that we've noted, in fact,
15 that probably will be highlighted in testimony of two
16 witnesses later today, is that for that unit, that the
17 root cause analysis that was prepared by Mr. Grabow not
18 only reached conclusions to the extent they were
19 available about the cause of the incident but had
20 additional observations which were Paragraph 8.0 of his
21 report.

22 Do you recall what I'm talking about?

23 A. Yes, I do.

24 Q. Do you know why or how Mr. Grabow came to put
25 additional observations in his report?

1 A. We have asked Mr. Grabow, and we asked this
2 in a number of other places that do investigations for
3 us, is: If you see something, we would like to know
4 about it. Now, if it is not part of the root cause or
5 anything else, fine, put it afterwards. But we're
6 continuously looking for ways to improve and make the
7 place safer and more efficient.

8 So we encourage that type of information to
9 be shared with us because if we don't know it, how can we
10 improve on it?

11 **Q. Okay. So to the extent the Commission is now
12 being asked to weigh, with respect to this specific
13 outage, whether the company's position is simply, "We
14 don't want to know what caused it, we just want
15 recovery," is that, in your opinion, a fair
16 characterization of what the company has done here?**

17 A. No. We want to know the answers, and if
18 there are other things that are found during the
19 investigation, we want to know those things so we can
20 evaluate them and decide whether they will be benefits to
21 us and our customers.

22 **Q. Okay. And Mr. Grabow will be able to speak
23 for himself here shortly, but as the company's
24 representative, was it the company's understanding that
25 his report concluded, "We simply have no idea. It could**

1 have been everything or anything that caused this outage
2 or this fire"?

3 A. No. He has a possible scenario there that it
4 is a, for lack of better term, multiple things stacked up
5 that could possible do it in the absence of any
6 definitive prove.

7 Q. Okay. Thank you. I would now like to turn
8 your a attention to the Blundell outage that you were
9 asked about. This was an outage that occurred on
10 December 26, 2018?

11 A. Yes.

12 Q. There was some questioning about, you know,
13 what the company did do or could have done to foresee or
14 prevent that.

15 Could you describe for us the steps that the
16 company went through in selecting and hiring experts to
17 go through the commissioning of that plant?

18 A. Okay. This is what they call a binary or an
19 isopentane unit. That is the mode of force. It is not
20 steam or combustion turbine. And we don't have any other
21 units, other than Blundell 2 like that.

22 So when this was built in 2007, it was an
23 efficiency improvement on top of the existing Blundell 1
24 plant, that is a -- pulls the steam out of the earth.
25 And when you pull that out, there are two forms: There's

1 the steam and then there's brine, which is just hot salt
2 water. And we were using the steam in Blundell 1, and
3 this hot brine was just getting reinjected back into the
4 ground.

5 Well, this binary unit, the isopentane unit,
6 would take the brine and extract energy out of that so we
7 could make electricity, and the Blundell 2 unit is about
8 11 megawatts. It is not huge, but it is 11 megawatts and
9 there are no fuel costs.

10 When we did that, we realized we didn't know
11 a lot about this, and we were concerned about what we
12 didn't know. So we hired an EPC, or an engineer procured
13 construct contractor, with significant experience on
14 building isopentane binary units, and the equipment we
15 bought from Ormat through the EPC contract, they were
16 heavily involved with the installation and commissioning
17 of it.

18 So we were trying to pick the best people we
19 could to be successful on that and had very deep
20 knowledge of that type of equipment, when we didn't.

21 **Q. Can you tell the Commission to the extent you**
22 **know, when the commissioning protocol was put in place in**
23 **2007, were there any kind of overspeed trip tests or**
24 **other testing that should have presumably caught the**
25 **issue that we are talking about today that you are aware**

1 of?

2 A. There was an overspeed trip test, and it was
3 set up between those two entities that I talked about
4 before and it passed. Now, the odd nature of this
5 failure hadn't been experienced by the OEM, and they did
6 not have a specific test to say, "Are the -- is the logic
7 in place? And if the valves don't close, will this thing
8 act appropriately?"

9 They did the overspeed trip test and then
10 they did other trip tests, and there was a whole
11 commissioning book done on this by the OEM and EPC
12 contractor.

13 So there was a -- was every possible scenario
14 tested? No.

15 **Q. Now after this incident happened, can you**
16 **very briefly describe for the Commission the efforts that**
17 **the company went through to identify what the root cause**
18 **was?**

19 A. So this happened the day after Christmas in
20 2018, and it is a catastrophic failure, so the first step
21 is to make the area safe because isopentane is a
22 flammable fluid, so we had to make it safe. And then we
23 tried to do a root cause analysis internally, and at some
24 point in time in February, we decided this was beyond our
25 capabilities to do a good one because of the need to look

1 into the logic and other things.

2 So we hired a third party, and they started
3 to work on it, but then they were purchased by another
4 company and we -- the company had a contract dispute with
5 us. They did not want to do work under the terms and
6 conditions that we had. So for several months, the two
7 parties went back and forth getting contract materials
8 that were accessible to both parties. After that was in
9 place, they did their analysis and the analysis was
10 inconclusive.

11 We were a little unhappy with the level of
12 detail in what they did, so we weren't satisfied with
13 that result and -- because we didn't feel they dove into
14 it deep enough. So we hired another party, which is the
15 RCA that was supplied to the Division, and they were able
16 to come up with the issue with the logic that was missing
17 in the programming.

18 And then we had another contractor we hired
19 to look at our programming to see if it was an error we
20 had done, you know, when we did upgrades or anything else
21 on the equipment, and they were able to trace it back
22 to -- this was an error from 2007, when commissioning
23 happened.

24 So we had quite a few different people
25 involved with expertise. And then the final RCA was done

1 in early December and supplied.

2 Q. Thank you. You were asked questions, getting
3 to the point about -- well, going to the issue of whether
4 the company should have caught this or would have been a
5 big catch, are you aware of whether the RCA actually
6 concluded whether company personnel should have been
7 taking steps to investigate the logic codes?

8 A. There's a statement in the RCA, and I won't
9 get this exactly right, but basically --

10 Q. Actually, let me have you turn to page 4 of
11 your surrebuttal, if you have that. And while you are
12 turning to it, I will tell you that this is one of the
13 ones that was, at one point, highlighted as confidential.
14 I assume you will tell us if you feel like it is.

15 A. The statement in the RCA says, "It is
16 reasonable to conclude that if during a trip event, the
17 system rolled down in a controlled manner, then there
18 would be no justification for personnel to investigate
19 the logic to see if there were errors in timing delays
20 for the generator breaker."

21 And that was a statement out of the
22 third-party RCA report.

23 Q. Okay. Thank you, Mr. Ralston. I have no
24 further questions.

25 COMMISSIONER LEVAR: Thank you.

1 Any recross, Mr. Jetter?

2 MR. JETTER: No. Thank you.

3 EXAMINATION

4 BY COMMISSIONER LEVAR:

5 Q. I think I have just one question. In
6 response to one of Mr. Moscon' questions, you were
7 talking about the overspeed trip test that was conducted
8 in 2007, I think your statement said, "Was every possible
9 scenario tested? No, but that it was an industry
10 standard overspeed trip testing."

11 Can you give any estimate of what kind of
12 time, expertise, expense would have been required to
13 anticipate and conduct additional testing besides the
14 overspeed test?

15 A. I -- it would be -- for that one test, not a
16 lot, but to look at every single possible scenario --

17 Q. Yes, I am asking to identify whether other
18 tests should be done.

19 A. It would be a significant amount of time and
20 effort.

21 Q. Okay. More than \$19,819 worth of effort?
22 That is probably an unfair question. Okay. I think that
23 is all I have.

24 COMMISSIONER LEVAR: Commissioner White?

25 EXAMINATION

1 BY COMMISSIONER WHITE:

2 Q. Good morning.

3 A. Morning.

4 Q. These are a few potential follow-up questions
5 on some of the line of questions from Mr. Moscon.

6 Why does the company do a root cause
7 analysis? Walk me through who makes that decision and
8 what the purpose of it is. What do you do with them?
9 Why do you do them?

10 A. We have a policy in -- that we have -- it's
11 within the thermal generation group that says -- that has
12 criteria on certain events. I mean, if it's a small
13 de-rate, we may not do it, but if it's a larger event, we
14 do it.

15 So we have a policy and I've had my group
16 institute that policy. Okay? The reason we do them is
17 to get better and to avoid a future event in the future.
18 I mean, just having it happen and not knowing and not
19 investigating and driving on is, one, not good for the
20 employees because you don't know what's going to happen
21 and you -- safety environment.

22 But the other thing is, it's not good for the
23 customer because it happens three, four, five times and
24 you don't know what's going on, that's not good for
25 anybody. So we try to only have an event happen to us

1 once.

2 We'd like zero, but if it happens to us, we
3 want to learn from that event so that we can, if
4 practical, not have it happen again.

5 **Q. Is there a threshold? It sounds like it is a**
6 **case-by-case basis.**

7 A. No, there's a threshold for the amount of
8 energy or the amount of energy loss or time offline or
9 whether it was a safety or environmental. There's a
10 whole policy on that. I just can't remember all the
11 details of it right off the top of my head.

12 **Q. And how do you choose a consultant, I guess,**
13 **to perform one of these RCAs?**

14 A. It depends on the event and what you need. I
15 mean, like for us, for the Blundell one, we're looking
16 for somebody with experience with that type of equipment.
17 Okay? And in the case of the DJ one, Neal has -- or
18 Mr. Grabow has a great deal of experience with Hartford
19 Steam Boiler insurance inspections and root cause
20 analysis and that.

21 And from prior experience, I know he dives
22 into the detail in a great deal.

23 **Q. That's all the questions I have.**

24 COMMISSIONER LEVAR: Thank you.

25 Commissioner Clark?

1 EXAMINATION

2 BY COMMISSIONER CLARK:

3 Q. My questions go to the Dave Johnson Unit 1
4 outage, the fire, and in particular to the eight
5 different potential failure scenarios that N-Tec Services
6 considered. Did any of those scenarios exist because of
7 a failure in proper installation, operation, maintenance
8 or inspection of the equipment involved?

9 A. I don't believe so but Mr. Grabow would be
10 able to talk firsthand on that.

11 Q. Thank you. I'll probably have a couple of
12 follow-ups with him. Thank you very much.

13 That's all my questions. Those are all my
14 questions.

15 COMMISSIONER LEVAR: Okay. Thank you for
16 your testimony this morning, Mr. Ralston.

17 THE WITNESS: Thank you.

18 COMMISSIONER LEVAR: Mr. Moscon?

19 MR. MOSCON: Thank you. Our next witness
20 would be Mr. Neal Grabow.

21 DIRECT EXAMINATION

22 NEAL GRABOW,

23 called as a witness, having been first duly sworn,

24 was examined and testified as follows:

25 BY MR. MOSCON:

1 **Q. Mr. Grabow, would you please state and spell**
2 **your name for the Commission?**

3 A. My name is Neal Edmond Grabow. Neal is
4 N-E-A-L and Grabow is G-R-A-B-O-W.

5 **Q. Okay. And what is your business address?**

6 A. PO Box 45, Mineola, Iowa 51554.

7 **Q. And who are you employed by?**

8 A. I'm self-employed by N-Tec Services.

9 **Q. And what is the business that N-Tec provides?**

10 A. N-Tec provides consulting services for large
11 generation facilities, utilities, municipalities,
12 insurance companies and consulting firms.

13 **Q. Okay. And have you ever testified in front**
14 **of the Utah Public Service Commission before?**

15 A. No, I have not.

16 **Q. Since this is your first time in front of the**
17 **Commission, I wonder if you would give us some of your**
18 **background, in terms of the type of experience and**
19 **education that you've had that would allow you to perform**
20 **the root cause analysis that you've done and filed**
21 **testimony about.**

22 A. Good morning. In 1980, I graduated from high
23 school and joined the United States Air Force, where I
24 was assigned to the civil engineering department and was
25 trained and qualified for operation of maintenance for

1 the central steam plants. It is also in the Air Force
2 where I was first trained and experienced in conducting
3 root cause investigations and preserving evidence.

4 In 1986, I went to work for Hartford Steam
5 Boiler Inspection and Insurance Company as a boiler
6 machinery inspector. I was then qualified and
7 commissioned as a nuclear inspector and then certified as
8 an industrial specialist for power generation facilities.

9 As an industrial specialist, I performed
10 equipment inspections, claim investigations, risk
11 assessments, equipment protection surveys, loss
12 prevention audits and testing of equipment.

13 In 2007, I started N-Tec Services to provide
14 consulting services to the utilities, municipalities,
15 independent power producers, consulting companies and
16 insurance companies and the power industry.

17 It mostly consists of performing root cause
18 investigations, failure analyses, equipment risk audits,
19 insurance risk assessments, and power plant operation and
20 maintenance program reviews and cost reviews.

21 **Q. If you were to add all of that up, how many**
22 **years of experience would you say you have doing this**
23 **type of investigation work?**

24 A. Approximately 39 to 40 years.

25 **Q. Okay. Thank you. Would you please describe**

1 for us briefly the assignment that you received from the
2 company related to the incident, the outage that's
3 pertinent today?

4 A. Yes. I was contracted to investigate the
5 fire that occurred at the Dave Johnson Power Plant on
6 April 20th and to provide an investigation report with
7 focus on determining the root cause.

8 Q. Did you have opportunity to provide any
9 testimony that was filed in this matter?

10 A. Yes, I filed a surrebuttal testimony.

11 Q. Are you aware of any corrections or changes
12 that would need to be made to that testimony?

13 A. No, I'm not.

14 Q. So if I were to ask you the same questions
15 that are written down, your answers would be the same
16 here today?

17 A. Yes.

18 Q. Okay. And would that also apply to your
19 report that is appended to that testimony?

20 A. Yes.

21 Q. Okay.

22 MR. MOSCON: We would move for the admission
23 of the testimony of Mr. Grabow, together with exhibits.

24 COMMISSIONER LEVAR: Any objection,
25 Mr. Jetter?

1 MR. JETTER: No objection.

2 COMMISSIONER LEVAR: Okay. It is granted.

3 MR. MOSCON: Thank you.

4 BY MR. MOSCON:

5 Q. Mr. Grabow, have you had an opportunity to
6 prepare a summary that you could share with the
7 Commission?

8 A. Yes, I have.

9 Q. Would you please do so?

10 A. Dave Johnson Power Plant experienced a lube
11 oil fire at the No. 2 bearing for the Unit 1 turbine on
12 April 20, 2018.

13 COMMISSIONER LEVAR: I'm sorry to interrupt,
14 would you bringing your microphone just a little closer
15 to you?

16 THE WITNESS: Sure. Better?

17 COMMISSIONER LEVAR: Yes.

18 THE WITNESS: Following the event, I was
19 contracted to investigate the fire and provide an
20 investigation report with focus on determining the root
21 cause of the event.

22 The site was visited and root cause
23 investigation efforts were initiated to establish the
24 sequence of events and collect all the direct and
25 underlying information pertinent to the event.

1 Based on the information collected and input
2 from plant personnel and onsite contractors, eight
3 probable root cause scenarios were identified. A series
4 of tests and inspections were performed as part of the
5 investigation to confirm or eliminate if the specifics of
6 each scenario had a direct or underlying influence that
7 led to the event.

8 The findings during the investigation process
9 did not support any one of the scenarios by itself to be
10 the root cause. One scenario identified a potential back
11 pressure on the oil return system which could have
12 contributed to the root cause.

13 The No. 2 bearing and the associated seals
14 was severely damaged during the event. Therefore, two of
15 the potential scenarios could not be confirmed or
16 rejected. As a result, the true root cause of the fire
17 could not be conclusively identified.

18 But it was, therefore, determined that the
19 most plausible cause was a combination of a previous
20 bearing modification done by the original manufacturer,
21 which may have changed the oil flow within the bearing,
22 combined with potential changes in the operating
23 conditions that allowed the oil flow -- the oil to flow
24 out through the seals.

25 An observation section was added to the

1 report, after the findings and conclusion section, to
2 provide management of some conditions that could enhance
3 plant operation and practices. These observations were
4 intended to be included -- were included to be -- excuse
5 me, the observations were not included to be relevant to
6 the event and did not affect the oil duration.

7 There were six observations listed and three
8 of these conditions existed since the plant was
9 originally commissioned in the late 1950s. The other
10 three are considered maintenance-related issues. In
11 fact, only one of the observations was considered to have
12 a potential influence on the root cause.

13 I was recently asked to review and respond to
14 statements related to the Dave Johnson outage that were
15 made by witnesses for Daymark Energy Advisers. Daymark
16 asserted that six of the observations listed in Section 8
17 of the report are fundamental deficiencies that if not
18 directly attributed to the root cause of the outage
19 event, most likely played a potentially significant role
20 in both the initial cause and ultimate duration of the
21 outage.

22 I disagree the observations directly
23 attributed to the root cause or to the duration of the
24 outage. As I mentioned, only one of the observations was
25 considered to have potentially contributed to the event,

1 related to an oil seal leak, I guess; is that correct?

2 A. I believe so, yes.

3 Q. And in the course of your investigation, did
4 you have the opportunity or reason to investigate the
5 typical seal replacement schedule and the last time that
6 those oil seals had been replaced or maintenance
7 performed on them?

8 A. As part of the investigation, we did go
9 through the outage reports and previous maintenance
10 records, and we -- the last outage for that unit was in
11 2008, and it would take a full outage to replace the oil
12 bearing seals.

13 Q. Okay. Do you know what a typical lifespan
14 would be for those?

15 A. For bearing seals, it varies from unit to
16 unit, how much it runs and -- you know, that is based on
17 performance, typically.

18 Q. And in this case, because of the damage from
19 the fire, there's no way we could know if those seals
20 were in good condition or bad condition or ready for
21 replacement or not; is that accurate?

22 A. The bearings were severely damaged, so the
23 condition of the seals was undeterminable before the
24 event.

25 Q. And it's, at least, possible that a seal that

1 was due for a maintenance or replacement was still in
2 service and led, in part, to the outage; is that correct?

3 A. Typically, when seals wear to a certain
4 point, they will start to leak oil at the seals. And
5 you'll start to accumulate some oil or residue on the
6 turbine pedestal and in the area. And we didn't find any
7 of that to suggest that that was the case, but it's a
8 possibility that we could not rule out.

9 Q. Okay. Thank you. That's the only questions
10 that I have for you. Thank you.

11 A. Thank you.

12 COMMISSIONER LEVAR: Any redirect?

13 MR. MOSCON: Yes, just one, maybe two.

14 REDIRECT EXAMINATION

15 BY MR. MOSCON:

16 Q. On the point, Mr. Grabow, that you were just
17 discussing, you were asked some questions going in the
18 event -- or to the point of, "Hey, maybe the seals were
19 worn out, but there is no way of telling because they
20 were damaged?"

21 What would a prudent utility look for, and
22 was that evident? Do you know, in your investigation,
23 did you see those telltale signs to indicate whether
24 those indication were there?

25 A. Yes, what you would normally look for would

1 be signs of seal leaking and the airing leakage into the
2 system. And the records that were available didn't show
3 any signs or any indication that there were leaks or that
4 there were a degradation in the lube oil system.

5 **Q. All right. Thank you.**

6 MR. MOSCON: I have no further redirect.

7 COMMISSIONER LEVAR: Okay.

8 Any recross, Mr. Jetter?

9 MR. JETTER: No, thank you.

10 COMMISSIONER LEVAR: Okay.

11 Commissioner Clark?

12 EXAMINATION

13 BY COMMISSIONER CLARK:

14 **Q. Regarding the records that you were able to**
15 **examine with respect to the bearings and the seals in**
16 **question, was there any deficiencies in the**
17 **recordkeeping, or did any records suggest to you that**
18 **there was some reason for the company to have an**
19 **indication or awareness that failure was possible?**

20 A. The only thing that we seen was that the
21 bearing was modified in 1969. And in 2008, it was
22 identified that that wasn't the standard drain ports of a
23 bearing, but after that many years of service, the plant
24 elected not to change it because it hadn't been an issue.
25 But the purpose of the 1969 modification wasn't

1 available.

2 Q. And some of the records, I expect, were
3 inspection records and -- or am I wrong in that?

4 What -- I guess I should ask it this way:
5 What is the nature of the records that exist, and are
6 those the kinds of records that you would expect to see,
7 or was there any recording that you would have expected
8 to see that would be customary that you did not see?

9 A. Like I said, the early outages, the documents
10 weren't really that complete, and so we couldn't get, you
11 know, good information on why they did the things they
12 did back in the '60s. The operating logs and stuff were
13 all complete, and we didn't find anything in there that
14 would suggest that they were aware of a condition that
15 was changing.

16 Q. So more generally, I want to ask you the same
17 question that I asked Mr. Ralston. Among all of these
18 eight different potential failure scenarios that you
19 attempted to investigate, did you find in any of them an
20 element of negligence or improper routine with respect to
21 installation, maintenance, operation or inspection of the
22 equipment involved?

23 Any element of -- you use the word
24 imprudence. I want to -- I'm trying to use some
25 different words. Perhaps the concept is the same for

1 you, but I want to know if there is anything out of
2 customary practice, anything that you would have expected
3 to see that you did not see, that pertained to these
4 failure scenarios?

5 A. Well, I believe, you know, when we went
6 through the operational procedures, one of the items that
7 we noted was that there wasn't a specific point in the
8 procedure to identify whether the vapor extractor was
9 working.

10 But when we interviewed the operators and the
11 plant technicians, they confirmed that they verified it
12 was working. So maybe it wasn't in the procedure, but
13 they were going through the steps. That was probably the
14 main item that I noticed that was, maybe, not something I
15 would have expected.

16 Q. Thank you. That concludes my questions.

17 A. Thank you.

18 COMMISSIONER LEVAR: Commissioner White?

19 EXAMINATION

20 BY COMMISSIONER WHITE:

21 Q. Hi, good morning.

22 A. Morning.

23 Q. I'm just curious if you can, kind of, give me
24 your explanation or the distinction between the -- I
25 guess the body or the conclusion of a root cause analysis

1 **versus the observation.**

2 **Is that typical? Is that something you were**
3 **specifically asked to do? Is that industry standard?**

4 A. It depends on the customer. Usually, when
5 I'm working directly for a utility, it's: If you see
6 something, say something. And we provide that. If it is
7 like an insurance claim, we don't provide that in the
8 report.

9 **Q. Why is that?**

10 A. Because the insurance company doesn't want
11 that in the report. They have their own risk assessors
12 that are -- provide that. We are only there for the root
13 cause.

14 **Q. What is the reason that you were asked to**
15 **perform the root cause analysis?**

16 A. Well, my understanding was to help the plant
17 identify what happened and how they could prevent it.

18 **Q. Thank you. That's all the questions I have.**

19 COMMISSIONER LEVAR: Thank you. I don't have
20 anything else, so thank you for your testimony today.

21 THE WITNESS: Thank you.

22 COMMISSIONER LEVAR: I think we will take a
23 ten-minute break at this point. We will come back when
24 that clock is on 11:15.

25 (Whereupon, a break was taken.)

1 COMMISSIONER LEVAR: Okay. Looks like we are
2 ready to start.

3 Anything else from Rocky Mountain Power?

4 MR. MOSCON: No. Thank you.

5 COMMISSIONER LEVAR: Okay. Thank you.

6 Mr. Jetter?

7 MR. JETTER: Thank you. The Division would
8 like to have called and have sworn in Brenda Salter.

9 DIRECT EXAMINATION

10 BRENDA SALTER,

11 called as a witness, having been first duly sworn,

12 was examined and testified as follows:

13 BY MR. JETTER:

14 **Q. Ms. Salter, would you please state your name**
15 **and occupation for the record?**

16 A. My name the Brenda Salter. I am a utility
17 technical consultant supervisor for the Division.

18 **Q. Thank you. And I would just like to mention**
19 **for the Commission, Dave Thomson is having a health issue**
20 **and couldn't be here today, and that is the reason Brenda**
21 **is testifying on his behalf.**

22 COMMISSIONER LEVAR: Could I ask her to spell
23 her name for the court reporter?

24 MR. JETTER: Thank you.

25 THE WITNESS: S, as in Sam, A-L-T-E-R.

1 BY MR. JETTER:

2 Q. And in the course of your employment with the
3 Division, have you had the opportunity to review the
4 filings and testimony filed by the parties in this
5 docket?

6 A. Yes, I have.

7 Q. And have you reviewed the pre-filed direct
8 testimony from David Thomson?

9 A. Yes, I have.

10 Q. If you were asked the same questions that
11 were asked in that pre-filed testimony, would your
12 answers be the same as those given by Mr. Thomson?

13 A. Yes.

14 Q. And would you also adopt the exhibits that
15 were filed with that pre-filed testimony as your
16 testimony?

17 A. Yes, I would.

18 Q. Thank you.

19 MR. JETTER: I would like to move at this
20 point to enter into the record the pre-filed direct
21 testimony of David Thomson, along with the exhibits which
22 are 1.0 direct through 1.8 direct.

23 COMMISSIONER LEVAR: Okay. Any objection?

24 MR. MOSCON: No objection.

25 COMMISSIONER LEVAR: Okay. It is granted.

1 BY MR. JETTER:

2 Q. Do you have a brief summary of the testimony?

3 A. I do.

4 Q. Please go ahead.

5 A. Good morning, Commissioners. Thank you for
6 the opportunity to address the reported adjustments and
7 recommendations from the Division and consultant Daymark
8 Energy Advisors.

9 The Division recommends the Commission allow
10 the company to recover its energy balancing account
11 amount of approximately 23.5 million for the calendar
12 year 2018. This is less than the recovery amount
13 originally requested by the company based on the
14 Division's adjustment to an updated allocation factor
15 nonfuel FAS 106 and plant outage adjustments.

16 The Division anticipates the company
17 compliance filing, including an interest true-up, once
18 the Commission issues its order in this case. In its
19 audit report, the Division's consultant, Daymark Energy
20 Advisors, made an adjustment for outages. Daymark
21 recommended disallowing replacement power cost resulting
22 from three outages.

23 The company, in its surrebuttal testimony to
24 Daymark's audit report and rebuttal testimony did not
25 agree that the replacement power for these plant outages

1 should be disallowed. The Division's witness, Mr. Phil
2 DiDomenico, will testify to Daymark's EBA review and
3 specifically to the outage adjustment and why replacement
4 power should be disallowed.

5 This concludes my summary.

6 **Q. Thank you.**

7 MR. JETTER: I have no further questions.
8 Ms. Salter is available for cross and questions from the
9 Commission.

10 COMMISSIONER LEVAR: Thank you.

11 Any cross-examination.

12 MR. MOSCON: No cross. Can we simply
13 clarify, I assume it's true that we are still limited to
14 the two outages, rather than the three?

15 MR. JETTER: Yes, that is correct.

16 MR. MOSCON: Yes. No questions. Thank you.

17 COMMISSIONER LEVAR: Thank you.

18 Commissioner White, any questions?

19 COMMISSIONER WHITE: No questions. Thank
20 you.

21 COMMISSIONER LEVAR: Commissioner Clark?

22 COMMISSIONER CLARK: No questions. Thanks
23 for coming today.

24 THE WITNESS: Thanks.

25 COMMISSIONER LEVAR: I don't have any either,

1 so thank you for you testimony this morning.

2 THE WITNESS: Thank you.

3 MR. JETTER: The Division would like next to
4 call Mr. Phil DiDomenico.

5 DIRECT EXAMINATION

6 PHILIP DIDOMENICO,

7 called as a witness, having been first duly sworn,
8 was examined and testified as follows:

9 BY MR. JETTER:

10 Q. Mr. DiDomenico, would you please state your
11 name and occupation for the record?

12 A. Certainly. Phillip DiDomenico, management
13 consultant with Daymark Energy Advisors.

14 Q. Thank you. And can you briefly describe what
15 you were requested to do by the Division in this docket?

16 A. Briefly, we were asked to review the outage
17 events associated with the EBA filing.

18 Q. Thank you. And did you create and cause to
19 be filed with the Commission direct and rebuttal
20 testimony in this docket, along with direct exhibits, 2.0
21 through 2.3, and a single rebuttal testimony; is that
22 correct?

23 A. I did.

24 Q. If you were asked the same questions in your
25 pre-filed direct and rebuttal testimonies, would you

1 **answers be the same?**

2 A. With the exception of the Lakeside situation,
3 yes.

4 **Q. Thank you. And will you address the Lakeside**
5 **position in your opening statement?**

6 A. I will.

7 **Q. Thank you.**

8 MR. JETTER: I would like to move at this
9 time to enter into the record the direct and rebuttal
10 pre-filed testimony by Mr. DiDomenico, along with the
11 exhibits that were attached to those pre-filed
12 testimonies.

13 COMMISSIONER LEVAR: Thank you.

14 Any objection?

15 MR. MOSCON: No objection.

16 COMMISSIONER LEVAR: Okay. It is granted.

17 BY MR. JETTER:

18 **Q. Have you prepared a brief summary of your**
19 **position on the outages in this docket?**

20 A. I have.

21 **Q. Please go ahead.**

22 A. Thank you. One of the specific assignments
23 that the Division staff requested Daymark perform during
24 the 2018 EBA audit was to review all outages and
25 associated causes of plant outages.

1 To maximize efficiency, Daymark focused only
2 on outages and outage extensions, lasting a minimum of 72
3 hours in duration. In total, there were 90 such outages,
4 totalling approximately 22,000 hours in duration and
5 culminating in approximately 6.4 million megawatt hours
6 in lost generation.

7 A detailed review of the outage data as
8 provided in the EBA filing, along with supporting
9 documentation provided by Rocky Mountain Power, yielded
10 14 outages that warranted further investigation. Of
11 these 14 outages, three outages initially demonstrated
12 sufficient imprudence that we recommend reducing EBA
13 costs to reflect associated replacement power costs.

14 Based on the information provided in the
15 company's rebuttal and surrebuttal testimony, we now
16 found that two outages were in disallowance, specifically
17 excluding the Lakeside event.

18 On April 20, 2018, Dave Johnson Unit 1 was
19 brought offline due to major oil fire that occurred at
20 the turbine bearing. It was quickly determined that the
21 pressurized lube oil system was feeding the fire, making
22 it impossible to extinguish. The unit was tripped and
23 the lube oil system was shut -- was immediately shut
24 down. In shutting down the lube oil system while the
25 turbine was still coasting down, the turbine was damaged

1 as a consequence.

2 The company's root cause analysis, RCA,
3 investigated a number of possible scenarios but were
4 unable to identify the specific root cause of the outage
5 due in large part to the catastrophic nature of the
6 event. The RCA also listed several additional
7 observations and deficiencies in its analysis of its
8 events and circumstances. These included, among others,
9 and I'll just highlight a couple:

10 The plant personnel involved in
11 distinguishing the fire commented that a few of the fire
12 extinguishers collected to fight the fire did not work.

13 The operating plant procedure for Unit 1
14 start-up did not include a specific task to verify
15 operation of the vapor extractor or the lube oil system
16 pressure/vacuum.

17 The turbine building exhaust fans were not
18 operable, which made it difficult to clear smoke from the
19 building during the fire. And there were others.

20 While it is difficult to quantify the
21 specific impact of each of these listed deficiencies on
22 the duration and causal implications for this outage,
23 what is clear is that collectively they point to a lack
24 of stringent oversight and focus by the company, which
25 likely contributed to both the initial cause and ultimate

1 duration of this outage.

2 Further, given that it's incumbent on the
3 company to demonstrate the prudence of its actions and
4 since there is no official root cause of this outage,
5 there is no way to make a prudence determination. In
6 such instances, simply defaulting to allocating all costs
7 associated with such events to the customer is not
8 reasonable.

9 As a result, Daymark is warranting a
10 disallowance recommendation. The duration of the outage
11 was approximately 1,470 hours and the total cost to
12 repair was 2.2 million. The calculated replacement power
13 costs associated with this outage is approximately 1.1
14 million on a company-wide NPC basis. The company does
15 not dispute our methodology for estimating these
16 replacement power costs.

17 On August 2, 2018, Lakeside Unit 1 was
18 brought offline due to stream leak that was observed near
19 a high-pressure steam valve. Further inspection revealed
20 cracking on the high pressure side of the bypass valve
21 where the inlet cone was welded to the main body of the
22 valve. Due to severity and potential safety issues,
23 immediate weld repair was necessary. The company hired a
24 third-party contractor to perform the work and weld
25 maintenance on the valve involved in this outage. The

1 company had attributed the failure to known harsh
2 operating conditions under which the valve operates,
3 which prompted a finding of imprudence based on the
4 implied predictable nature of the failure.

5 However, in the surrebuttal, Mr. Ralston
6 further explained, and I quote: The company has not
7 experienced similar failures on valve casings, well
8 points, in parentheses, at any of its other units with
9 similar design. This includes units that are older than
10 Lakeside Unit 1, so there was no reason to expect a
11 failure at this weld location.

12 In addition, discussions with the original
13 equipment manufacturer, OEM, revealed they did not have
14 any knowledge of a similar failure. Neither the company,
15 nor the OEM, could identify any documented cases of
16 similar failures within the industry.

17 The company's actions to repair failed welds
18 and evaluations of possible pending weld failures are
19 based on its historical operating experience. OEM
20 communications addressing specific areas of concern, of
21 which there were none in this case and actual weld
22 failures, end quote.

23 Given this lack of history of similar
24 failures, Daymark withdraws its finding of imprudence
25 relative to this outage and rescinds its request for the

1 associated replacement power costs to be credit to the
2 EBA. The calculated replacement power cost associated
3 with this outage was approximately \$320,000 on a
4 company-wide NPC basis.

5 On December 26, 2018, Blundell Unit 2 was
6 brought offline due to an overspeed event causing
7 significant damage to the generator and turbines.

8 Veizades & Associates, excuse me, were hired to determine
9 the root cause of the outage. The RCA was provided to
10 Daymark on December 12, 2019. The assessment done by
11 Veizades, and I'm probably mispronouncing that, comes to
12 conclusion that, quote: It would appear, based on the
13 information available, the main turbine values did not
14 close prior to the main breaker opening as a result of
15 the control logic missing the permissive requiring all of
16 the main turbine values being closed prior to the main
17 breaker being opened.

18 This resulted in a pressurized motor fluid to
19 continue to drive the turbine and generator. As the
20 generator was no longer connected to the grid, the
21 turbine/generator assembly proceeded to overspeed until
22 the catastrophic failure occurred, end quote.

23 This conclusion was further corroborated by
24 Ethos Energy, when asked to review the control logic.
25 They stated, and I quote: After reviewing the logic, I

1 find no reason to contradict Veizades assessment. The
2 code was written to -- was not written to handle stuck
3 valves or valves not operating properly. There are no
4 permissive for the main valves to be closed before the
5 generator breaker is opened, end quote.

6 It was further determined that the control
7 logic remained unchanged since the unit was originally
8 commissioned. Stuck or sticking turbine valves are a
9 known concern in the industry. Prudence requires that
10 control logic account for such situations in order to
11 avoid the exact catastrophic situation like this outage.

12 The contractor hired by the company to
13 commission the unit failed to account for this well-known
14 contingency. This event was entirely predictable and
15 avoidable, which warrants a finding for this allowance.

16 This outage extends well into 2019, the
17 duration of the outage in 2018 was approximately 120
18 hours and the total repair, through yearend 2018 only, is
19 approximately \$420,000. These costs are not final. The
20 calculated replacement power costs associated with this
21 outage in only 2018 is \$19,800 approximately, on a
22 company-wide NPC basis.

23 In summary, our review of the outages
24 occurring during the EBA deferral period yielded two
25 outages that demonstrated sufficient imprudence that we

1 recommend the EBA costs to reflect replacement power
2 costs related to the outages. The full audit report
3 summarizes our recommendations with respect to EBA
4 adjustments on a company-wide NPC basis.

5 Q. Thank you. I just would like to follow up
6 very briefly. There was a question from the Commission
7 earlier about the, sort of, relationship of value of the
8 lost energy here in the Blundell incident versus the cost
9 of further testing and the \$19,000 value is a little bit
10 misleading; is that correct? Because it was only a few
11 days in 2018 and that outages extended through into 2019?

12 A. That's correct. The outages of 2018 was only
13 four days in duration, four or five days in duration.

14 Q. And do you know approximately how long that
15 outage lasted into 2019?

16 A. I don't have it in front of me. I don't
17 recall.

18 Q. Okay. That's the only questions I have. So
19 thank you for your testimony.

20 MR. JETTER: Mr. DiDomenico is available for
21 cross-examination and Commission questions.

22 COMMISSIONER LEVAR: Thank you.

23 Cross-examination?

24 MR. MOSCON: Thank you.

25 CROSS-EXAMINATION

1 BY MR. MOSCON:

2 Q. Good morning, Mr. DiDomenico.

3 A. Good morning.

4 Q. Before we get into the specifics, and I
5 realize now we are really focused on two outages, I have
6 one quick question about your background. I notice that
7 in one of your resume descriptions, it has you moving
8 into consulting in 1999 and the other one in 1997. But
9 would you agree with me, at least, that whichever is
10 accurate, you have been out of the -- like, on the field
11 and in working in the plants and in the consulting fields
12 for 20-plus years; is that correct?

13 A. I have been a consultant to the electric
14 utility industry for the past 20 years, yes.

15 Q. Okay. If you have in front of you -- do you
16 have a copy of your testimony and report?

17 A. I actually don't have it in front of me,
18 apologies.

19 MR. MOSCON: Do we have a copy that could be
20 provided for Mr. DiDomenico?

21 BY MR. MOSCON:

22 Q. It's exhibit -- it's DPU Exhibit 2.0, which
23 is simply your testimony and report. I'm happy to ask
24 you my questions. I think it may be easier for you if
25 you have it.

1 (Mr. DiDomenico was handed his report.)

2 BY MR. MOSCON:

3 Q. If you could turn to page 28 of your report,
4 and while you are turning to that, I will ask --

5 MR. MOSCON: Is there the surrebuttal, if he
6 has his surrebuttal? Again, I'm happy to ask my
7 questions without it. I'm thinking he may want to look
8 at his surrebuttal before answering the questions. It is
9 not required.

10 THE WITNESS: I don't have exhibits.

11 BY MR. MOSCON:

12 Q. Okay. While we are -- I will continue while
13 she is getting that.

14 A. Sure.

15 Q. Now, on page 28 is where we talk about the
16 Dave Johnson 1 Unit, and that's the fire incident; is
17 that correct?

18 A. Correct.

19 Q. Now before we get into the two outages, I'm
20 going to ask you some questions about the work you did,
21 and I will assume these will apply to both outages but
22 you can tell me if that is incorrect.

23 Am I correct that you, yourself, never
24 inspected any of the plants; is that right?

25 A. That's correct.

1 Q. And you, yourself, didn't conduct what you
2 would call a root cause analysis of any of the outages;
3 is that correct?

4 A. No, I did not.

5 Q. And is it also correct that your review was
6 limited to the report and information that was provided
7 to you by the company; is that correct?

8 A. Primarily, yes. And I say "primarily"
9 because also doing independent research on my own, but
10 for the most part, that's correct.

11 Q. Well, when you say independent research on
12 your own, is it true that you never, for instance,
13 contacted any of the manufacturers of the equipment that
14 are at issue in these two outages to ask them specific
15 questions?

16 A. That's correct.

17 Q. And would you agree with me that none of your
18 testimony or none of your reports references or refers to
19 any outside information, other than testimony and data
20 responses that were provided to Daymark?

21 A. That's correct.

22 Q. All right. Now if we turn specifically to
23 Dave Johnson 1, your testimony in your primary report,
24 before your rebuttal, focuses on the fact that there was
25 this pressurized lube oil that was feeding the fire,

1 making it impossible to extinguish. And you then look at
2 the additional observations that were put forward by
3 Mr. Grabow in his root cause analysis; is that correct?

4 A. That's correct.

5 Q. Would you agree with me, if you have it
6 there, that in your actual report, you never actually
7 referenced Mr. Grabow's actual conclusions, but instead,
8 you were simply focused on his additional observations;
9 is that right?

10 A. In the initial report, yes.

11 Q. Okay. And would you agree with me that the
12 testimony that you have given to the Commission is that
13 you believe that these six identified circumstances or
14 additional observations, in your words, contributed to
15 both the initial cause and ultimate duration of the
16 outage; is that right?

17 A. I raise the question that potentially that's
18 the case, that, likely, that's the case.

19 Q. So as we sit here, are you telling the
20 Commission that you believe that those items, 1 through
21 6, did cause the event?

22 A. I am saying they can't be ruled out.

23 Q. Well, we can rule out, for instance, that not
24 having two among dozens of fire extinguishers didn't
25 cause the event; isn't that correct?

1 A. Certainly, but it contributed to the event,
2 in my opinion.

3 Q. Now when you say that in your opinion, it
4 contributed to the duration of the event, you're basing
5 that not on having inspected it and not on having talked
6 to any of the individuals. You are basing that only on
7 the report of Mr. Grabow. Right?

8 A. Not just the -- the entire sequence of
9 information. It wasn't just Mr. Grabow's report. The
10 initial reporting from the company, there were specific
11 references made that some of the extinguishers that they
12 reached for to fight the fire were not operable.

13 Q. And I assume then you saw the same report
14 saying that when they had extinguishers, that because it
15 was a pressurized lube oil leak, that the extinguishers
16 were ineffective and wouldn't put the fire down; is that
17 correct?

18 A. Yes, it was problematic.

19 Q. And so is it also not correct that you spoke
20 to no one who indicated to you that had they had an
21 additional extinguisher, they believe they could have put
22 out the fire?

23 A. That's correct. That is beyond the scope of
24 what --

25 Q. All right. Then the next thing that you

1 point to in this list of six is that the startup process
2 did not include the specific task to verify operation of
3 the lube extractor. Correct?

4 A. Correct.

5 Q. But you put nothing in your report to
6 contradict the testimony that we heard Mr. Grabow went
7 over earlier that indicated that even though it wasn't a
8 required task, that, in fact, the workers did verify that
9 it was operating; isn't that correct?

10 A. I heard the testimony. It's difficult for me
11 to simply accept that as a fact. I mean, I understand
12 that is what the -- that is what was reported, that is
13 what was told.

14 But it's unusual in an operating environment
15 to simply say, "Yeah, we checked it." I mean, there are
16 procedures that need to be followed. I believe the
17 company has since changed their procedures to make sure
18 that is the case.

19 Q. That is not my question, Mr. DiDomenico. My
20 question is, you are saying that these are the things
21 that cause the fire?

22 A. No, I didn't say that either. I said they
23 contributed potentially either to the cause or duration.
24 That is what I said.

25 Q. Okay. So let's talk about how this

1 contributed to either the cause or the duration.

2 A. Right.

3 Q. The only evidence that is in the record in
4 front of the Commission is the evidence provided by the
5 workers to Mr. Grabow, that, in fact, they heard the unit
6 operating. Right?

7 A. Correct.

8 Q. That they actually felt it to ensure that it
9 was warm, like the engine had been running. Correct?

10 A. Sure.

11 Q. That after the unit was put back online, that
12 it started back up on its own, they didn't have to do
13 anything to turn it on; is that correct?

14 A. Correct.

15 Q. And so the only evidence that is on record in
16 front of the Commission is, in fact, that unit was
17 operating; is that correct?

18 A. Yes, I guess so.

19 Q. Okay. So then we go to the third thing that
20 you list, which is that building exhaust fans were not
21 operable to clear smoke from the building. Would you
22 agree with me that that doesn't cause or contribute to
23 the duration of the fire?

24 A. Well, when you are putting out a fire in
25 room, you can't see where you are going because the smoke

1 is filling up the room. That kind of hinders your
2 ability to put a fire out.

3 Q. Now you don't know that that's the case,
4 though. You didn't talk to anybody that they told you
5 they couldn't see where the fire was and that they had an
6 inability to extinguish --

7 A. There were references to the fact that it was
8 problematic, that they needed to put on gas masks and
9 what have you.

10 Q. Can you tell me anyone that indicated that
11 smoke made it difficult to fight the fire?

12 A. Individually, no.

13 Q. Okay. You've seen the pictures included in
14 Mr. Grabow's report that show the smoke and how high it
15 is, but, in fact, the actual entire turbine unit is
16 clearly visible, have you not?

17 A. I've seen those in the report, but I don't
18 know when exactly that was taken.

19 Q. Okay. So can you tell me or the Commission
20 the entire factual basis upon which you base your
21 conclusion that exhaust fans may have contributed to the
22 cause or duration of the fire?

23 A. I think I'm going to be repetitive here, but
24 the issue -- the issue here is that nobody knows what the
25 cause of this fire was.

1 Q. That is not my question.

2 A. We are getting away from -- I'm trying to
3 give you an answer to your question.

4 Q. I'm talking about one specific thing. I'm
5 not talking about the universe of possible. I am saying,
6 let's go by and eliminate, one by one, or identify, one
7 by one, and you've identified the exhaust fan as being
8 something that could have contributed. I'm saying there
9 is no evidence in the record.

10 And I have asked you if you will identify for
11 me, in the record, what you know that indicates that, in
12 fact, exhaust fans contributed to the cause of the fire.

13 A. Nothing in the record.

14 Q. Okay. Then No. 4, there was "no indication
15 of the lube oil tank pressure in the control room."

16 Do you have -- I will ask the same question.
17 Can you tell me, in the record, any specific piece of
18 evidence that indicates that that lack of information
19 that was in the control room was causative of this event?

20 A. Nothing specific, no.

21 Q. Okay. The next of -- oh the fifth, the
22 "bearing No. 1 vibration indicator [sic] was not
23 functioning."

24 Do you have any specific piece of evidence
25 that would indicate that that was causative of this

1 event?

2 A. No.

3 Q. And finally, No. 6, the lube oil system vapor
4 extractor exhaust vent was facing east.

5 Are you aware of any specific evidence that
6 would indicate that this was causative of this event?

7 A. None, no specific. But there's a reason for
8 that. Would you like to hear it?

9 Q. I'm happy to let -- well, sure, let's hear
10 your reason because -- just to save us the redirect.

11 A. Sure. The issue here is that there is no
12 firm information. That's the problem. Nothing is firm
13 on the record relative to the root cause of this event.
14 There's a lot of "Maybe this, maybe that, maybe this
15 other thing."

16 I simply pointed out that were a number of
17 other factors that potentially could have also
18 contributed. When you have been in this industry as long
19 as I have, it is difficult to look down the list that
20 looks like that and suggest that not having operable fire
21 extinguishers, not being able to clear smoke from a room,
22 not having procedures that specifically requires certain
23 testing, that none of those somehow may have impacted the
24 duration of the event.

25 Q. I know you don't have in front of you the

1 testimony of Mr. Grabow, so I'll simply read a question
2 and tell me --

3 A. Sure.

4 Q. -- if this is your understanding. Isn't it
5 true that Mr. Grabow testified that the most plausible
6 cause was due to a bearing modification performed by the
7 manufacturer, which may have changed the oil flow within
8 the bearing, combined with a possible change in venting
9 of the two oil tanks and potential wear of the bearing
10 seals and oil deflectors over time.

11 A. Agreed.

12 Q. So it is not that we are in this world where
13 know no one has any idea of what happened whatsoever.
14 There -- it could be every and anything.

15 Isn't it true we have a most plausible
16 explanation of what caused the fire by the author of the
17 root cause analysis?

18 A. You have a plausible explanation.

19 Q. Okay. And you, in your report, put -- you're
20 talking about these items that you say, "Hey, this was
21 messy, sloppy, you should have fire extinguishers."

22 But you indicated that you have no specific
23 evidence to indicate that any of those were causative of
24 the fire?

25 A. Correct.

1 Q. Let's turn our attention to the Blundell
2 unit, which, in your report, is on page 30.

3 A. Yes.

4 Q. Okay. Well, actually we will move. So on
5 page 30, it was initially saying that there was no root
6 cause analysis and so --

7 A. Right, exactly.

8 Q. -- disallowance. Then we turn to your -- I
9 don't know if we ever got your rebuttal.

10 A. I did not but I think it is up there.

11 Q. And I will indicate it is on page 5, if that
12 makes it easier to turn to.

13 A. Rebuttal or surrebuttal?

14 Q. This is your rebuttal.

15 A. Oh, mine, I'm sorry, my mistake. Yes.

16 Q. Okay. Now if I'm understanding your
17 position, essentially, what you are saying is that,
18 "Hey" -- I made a note from your summary, which I,
19 coincidentally, did not note in your report. But you,
20 essentially, said that this problem was well-known in the
21 industry, and therefore, this should have been put in
22 place or looked at by the initial contractors that did
23 the commissioning, the company's responsible for its
24 contractors --

25 A. Close enough.

1 Q. Okay. So if we turn to -- well, again, I
2 know you won't have it, so I will simply read it and ask
3 if you have any evidence to dispute it.

4 In the surrebuttal testimony of Mr. Dana
5 Ralston, he testified, and I quote: Discussions with
6 Ormat have confirmed that the commissioning protocol for
7 Ormat design and built geothermal sites have remained the
8 same. Ormat has not experienced the type of failure that
9 occurred at the Blundell Plant. The company acted in a
10 prudent and responsible manner when constructing and
11 commissioning Blundell.

12 You have read that testimony before.

13 Correct?

14 A. Right.

15 Q. You have no evidence to suggest that the
16 statement is incorrect, that Ormat, itself, has indicated
17 that it's not seen this type of failure; isn't that
18 correct?

19 A. I have not spoken to Ormat, no.

20 Q. And so while you're indicating this is a
21 well-known, well-kind of thing that should have been
22 looked for, in fact, Ormat is saying they have never seen
23 this before; isn't that correct?

24 A. Let me be clear, the reference to
25 "well-known" is the notion that valves stick or remain

1 stuck on a regular basis. That is not an unheard of
2 event. That is what I was alluding to specifically.

3 Q. Okay. But since the item that we're looking
4 at or we are judging the company by is whether some kind
5 of programming logic caused that to occur, that the valve
6 didn't just stick, this was caused by a program in logic
7 code; is that correct? Is that your understanding?

8 A. No, that's not what I'm saying. I'm simply
9 saying that the causal effect -- the idea that control
10 mechanism that is fundamental to any power plant's
11 operation, that it look at both the status of the turbine
12 valves before it disconnects the generator. That notion
13 is not revolutionary. Okay? That is what we are talking
14 about.

15 And the idea that if the valves stick, and we
16 know that valves stick, to have control logic that
17 doesn't account for the potential of valve sticking just
18 doesn't make sense to me.

19 Q. Okay. Let's explore then how much notice you
20 claim the company has on that its valves would stick in
21 this circumstance.

22 So you don't dispute the testimony of
23 Mr. Ralston, that both Sentry or Ormat are qualified
24 experts in this field, do you?

25 A. No.

1 Q. And you would agree with me that he
2 testified, and there was no exception taken, in your
3 report, that at the time of commissioning, they didn't
4 run just one but they ran multiple commissioning tests;
5 is that correct?

6 A. I think they ran two, but -- I saw references
7 to two but maybe there were multiple.

8 Q. You don't have any information to contradict
9 the testimony that we read just a minute ago -- well, on
10 the testimony that Ormat indicated that, in fact, the
11 commissioning protocols were followed and they haven't
12 progressed. They have stayed the same up until today; is
13 that correct?

14 A. That's what I've heard. That's what I heard
15 from you.

16 Q. And that, in fact, both the overspeed trip
17 test and the regular trip test that were run at
18 commissioning were both successful; is that correct?

19 A. They didn't identify the specific issue but
20 yes.

21 Q. And that -- and to that point, I'm going to
22 read again -- I know you don't have it. This comes from
23 page 4 of Mr. Ralston's surrebuttal, that according to
24 Sentry, the protocol includes a regular trip test and
25 restart. "This is relevant because unit trips will use

1 the same control logic for tripping the generator
2 breaker."

3 You didn't have anything to contradict that
4 statement, did you?

5 A. No.

6 Q. Okay. So the company has had this unit since
7 2007 and never experienced the type of problem that it
8 had up until this point; is that correct?

9 A. That's correct.

10 Q. And it's hired what everyone agrees are
11 industry experts in the field to do the commissioning for
12 it. Correct?

13 A. Agreed.

14 Q. And those experts indicate that the protocol
15 that they used is the same protocol that's
16 standard -- accepted in the industry standard today.
17 Correct?

18 A. I didn't see anything that said that.

19 Q. It was the quote that I read where Ormat said
20 that it still -- they haven't changed the protocol. They
21 still use it today.

22 A. All right. That would be their choice, I
23 suppose.

24 Q. Okay. You don't have anything to contradict
25 that?

1 A. I am telling you I have a different opinion.
2 I don't understand the notion that this missing control
3 logic, this fundamental missing control logic that we
4 talked about earlier, is not that big a deal to correct.
5 We said it was a relatively straightforward change in the
6 control logic, that that logic wouldn't be prevalent
7 given the consequences of not having it, which is what we
8 just have today with this outage.

9 So I don't understand -- I understand the
10 position of the company. You're right, I don't have
11 anything to challenge what they said. But I
12 fundamentally disagree with what I'm hearing.

13 **Q. So what you are telling me is that even**
14 **though the -- what everyone has conceded, the industry**
15 **experts, Sentry and Ormat, have indicated, "We have never**
16 **seen this before, the protocol was followed at**
17 **commissioning, that same protocol is followed today,"**
18 **that you are saying that the company should have thought**
19 **otherwise by -- in 2007?**

20 A. Yes.

21 **Q. Okay. Let's now look at the root cause**
22 **analysis, the Zadies & Associate thing, where they**
23 **actually did this. So this is now not Ormat or Sentry.**
24 **And you, yourself, are relying on the Zadies' report to**
25 **identify that this is the problem; is that right?**

1 A. I am, yes.

2 Q. I notice that you left out in your report the
3 conclusion by the Zadies, and I quote: It is a
4 reasonable conclusion that if a trip event -- that if
5 during a trip event, the system rolled down in a
6 controlled manner, then there would be no justification
7 for personnel to investigate the logic to see if there
8 were errors in time delays for the generator breaker,
9 closed quote.

10 They stated that, didn't they?

11 A. Sure.

12 Q. And so they indicated that there's no
13 justification for company personnel to go on and just
14 investigate this logic if it's been working every time
15 that it's started up and spun down?

16 A. They didn't say every time. They said one
17 time, it apparently worked properly.

18 Q. And there is no justification to tell them
19 they should be investigating this further under those
20 circumstances?

21 A. To me, that -- it is simply stating the
22 obvious. If everything works in a controlled manner, if
23 everything works properly, everything works fine. I
24 don't even understand the application of what we are
25 talking about here.

1 They are simply saying: If everything worked
2 according to plan, then everything would be fine, and I
3 would agree with that. But it is somewhat of a
4 motherhood statement, I guess.

5 **Q. So this control logic is by -- the thing that**
6 **we are talking about is code that is in the operating**
7 **description for this unit; is that right?**

8 A. Yes.

9 **Q. And, essentially, it's a programming error?**

10 A. Error, omission, I'm not sure what to call it
11 but it was missing. That is all I know.

12 **Q. Right. Something part of the programming.**
13 **And yet, every -- you agree with me that even though that**
14 **that was the case, that the initial commissioning did**
15 **include, among other things, not only a regular test but**
16 **an overspeed trip test and that both of those tests were**
17 **passed upon commissioning?**

18 A. Yes, they tested for something because we
19 talked about it. There's a variety of tests that can be
20 done to check overspeed.

21 **Q. You are not aware, or at least you put no**
22 **testimony in your report, to indicate that this was**
23 **something done by the company, where they said, "We just**
24 **don't want to have that kind of logic in there. We don't**
25 **want to pay the extra 50 bucks to put that code in our**

1 **system"?**

2 A. No. The only reference that is similar to
3 that, I think there is reference in one of the
4 testimonies, that the likely -- this is an unlikely
5 event, and that I was holding them to a perfection
6 standard, I believe was in there or something close to
7 that.

8 And to that I would say, you are asking the
9 Commission to accept the fact that every ten years,
10 generators blow up and that is okay because it is a low
11 probability event. I disagree with that notion.

12 Q. But wouldn't you agree with me that it is
13 reasonable for a utility to say, "We are going to hire
14 not one but two experts that everyone agree are experts
15 in the industry so that we are not just doing it
16 ourselves, that we are going to have them do the protocol
17 for commissioning that they believe is warranted, that we
18 are going to rely on the testing that they did and a,
19 now, 15-year track record that this has not had a
20 problem," that that's not an acceptable industry
21 standard?

22 A. You keep alluding to experts. The answer to
23 the -- the short answer is yes. I'm not taking the issue
24 with the way the company handled the situation. What I'm
25 taking issue with is that their contractor, for some

1 apparent reason, didn't conceive of the notion of the
2 sticking turbine valve, which to me boggles my mind.
3 That is all. It is somewhat complicated in that. And
4 even experts learn, over the years, that even experts
5 make mistakes.

6 Q. And can't the company simply -- aren't we
7 simply trying to determine whether the company, in its
8 selection of experts or contractors and its oversight of
9 them, did what the utility could do? Isn't that what we
10 are trying to determine?

11 A. Regarding oversight, I don't know. There is
12 nothing on the record about the oversight.

13 Q. Okay.

14 A. There are is a lot of information with how it
15 was selected, but I don't have a problem with how it was
16 selected. The oversight, I don't know. I can't answer
17 that question.

18 Q. Okay. Perfect. Thank you. No more
19 questions.

20 COMMISSIONER LEVAR: Any redirect,
21 Mr. Jetter?

22 REDIRECT EXAMINATION

23 BY MR. JETTER:

24 Q. I do have a few fairly brief redirect
25 questions for you. I will go in reverse order with

1 Blundell first since it is just what we were discussing
2 here.

3 You were in the room earlier when the company
4 witness testified that the valve that was sticking has a
5 sensor on it; is that right?

6 A. Yes.

7 Q. Why would you put a sensor on a valve if it
8 doesn't matter if you know if it is open or closed?

9 A. No, it is critical. Understanding the status
10 of a valve is critical in any unit operation, not just a
11 thermal unit.

12 Q. Okay. And reasonably, if you thought it was
13 a critical thing it might be important to build that into
14 your control software?

15 A. Agree.

16 Q. And now a similar question, there was a
17 bearing vibration indicator not functioning at Dave
18 Johnson. Why would you have a bearing vibration
19 indicator?

20 A. Well, fundamentally, it is an indicator of
21 imminent failure, depending on the degree of vibration.

22 Q. And having one in place that is
23 nonfunctioning may or may not have given you some insight
24 into the balance of that --

25 A. Correct.

1 Q. -- shaft spinning in the middle?

2 A. Sure.

3 Q. Same question with regard to the exhaust
4 fans. Is there a reason to have exhaust fans in a
5 generating facility building?

6 A. Certainly.

7 Q. And is clearing smoke in a fire one of the
8 reasons?

9 A. It is.

10 Q. And you wouldn't put them in there
11 intentionally to have them not operate when you need
12 them, would you?

13 A. No.

14 Q. Those are all of my follow-up redirect.
15 Thank you.

16 COMMISSIONER LEVAR: Okay. Thank you.
17 Any recross?

18 MR. MOSCON: No questions. Thank you.

19 COMMISSIONER LEVAR: Okay. Thank you.
20 Commissioner White, do you have any
21 questions?

22 COMMISSIONER WHITE: No questions. Thank
23 you.

24 COMMISSIONER LEVAR: Commissioner Clark?

25 COMMISSIONER CLARK: No questions. Thank

1 you.

2 COMMISSIONER LEVAR: And I don't have
3 anything else. Thank you for you testimony. It's still
4 this morning, barely.

5 THE WITNESS: Thank you.

6 COMMISSIONER LEVAR: Mr. Jetter?

7 MR. JETTER: We have nothing further from the
8 Division, so thank you.

9 COMMISSIONER LEVAR: Okay. Anything further
10 from anyone else?

11 MR. MOSCON: Not from the company.

12 MR. JETTER: No.

13 COMMISSIONER LEVAR: Okay. We are adjourned
14 thank you.

15 (The hearing was concluded at 11:52 A.M.)

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REPORTER'S CERTIFICATE

State of Utah)
)
County of Salt Lake)

I hereby certify that the witnesses in the foregoing hearing were duly sworn to testify to the truth, the whole truth, and nothing but the truth in the within-entitled cause;

That said hearing was taken at the time and place herein named;

That the testimony of said witnesses were reported by me in stenotype and thereafter transcribed into typewritten form.

I further certify that I am not of kin or otherwise associated with any of the parties of said cause of action and that I am not interested in the events thereof.

IN WITNESS WHEREOF, I set my hand this 9th day of February, 2020.



Kellie Peterson, RPR

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