

# **PUBLIC SERVICE COMMISSION OF UTAH**

Docket No. 16-035-36

## **PUBLIC HEARING PROCEEDINGS**

April 28, 2021

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Public Hearing Proceedings  
April 28, 2021

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH  
-o0o-

In the Matter of the )  
Application of Rocky Mountain )  
Power to Implement Programs )  
Authorized by the Sustainable )  
Transportation and Energy Plan )  
Act )  
\_\_\_\_\_ )

DOCKET NO. 16-035-36

PUBLIC HEARING PROCEEDINGS

TAKEN VIA GOOGLE MEET

THROUGH ADVANCED REPORTING SOLUTIONS

Taken on Wednesday, April 28, 2021

9:00 a.m. to 10:33 a.m.

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FOR ROCKY MOUNTAIN POWER:

Emily Wegener

FOR THE DIVISION OF PUBLIC UTILITIES:

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FOR THE OFFICE OF CONSUMER SERVICES:

Robert Moore            rmoore@agutah.gov

ALSO PRESENT:

Abdinasir Abdulle  
Bela Vastag  
Bob Davis  
Chris Parker  
James Campbell  
Jason R.  
John Harvey  
Marc Mansfield  
Marie Durrant  
Melissa Paschal  
Michael Hammer  
Michele Beck  
Patricia Schmid  
Stephanie Barber-Renteria

\* \* \*

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

2 -o0o-

3 MR. HAMMER: ...occasion to implement  
4 programs authorized by the sustainable transportation  
5 and energy plan. It's Commission Docket  
6 No. 16-035-36. My name is Michael Hammer, and I'm  
7 the Commission's designated presiding officer. Let's  
8 go ahead and take appearances beginning with Rocky  
9 Mountain Power, please.

10 MS. WEGENER: Good morning. This is  
11 Emily Wegener for Rocky Mountain Power. With me  
12 today, I have James Campbell, a company employee who  
13 will be adopting our comments and providing a  
14 summary. I have cocounsel Marie Durrant, Jana Saba.  
15 And then, also, I have with me Marc Mansfield, who  
16 will be adopting the study that was attached to the  
17 application and providing a summary, and Robert  
18 Hammer, who is participating and helping with the  
19 study, a consultant with SLR Consulting, who's  
20 available for questions but will not be providing a  
21 summary.

22 MR. HAMMER: Thank you.

23 And for the Division of Public Utilities?

24 MR. JETTER: Good morning. I'm Justin  
25 Jetter with the Utah Attorney General's Office, and

1 I'm here today representing the Utah Division of  
2 Public Utilities. With me today, I have Robert  
3 A. Davis who will testify for the Division at today's  
4 hearing. For the folks on the call who are not  
5 familiar, he'll show up on your screen as Bob Davis.

6 MR. HAMMER: Thank you.

7 One -- one moment. Ms. Harrison, were you  
8 trying to say something -- Ms. Harmon? I'm sorry.

9 Ms. Harmon, you can't hear us?

10 Melissa, can you contact her by text and let  
11 her know that we're all able to hear each other just  
12 fine?

13 Okay. We'll go ahead and proceed since this  
14 is being recorded.

15 Thank you, Mr. Jetter.

16 And the Office of Consumer Services?

17 MR. MOORE: Yes. The Office of Consumer  
18 Services. I am Robert Moore. I rep- -- am from the  
19 AG's office representing the Office of Consumer  
20 Services. With me is Bela Vastag. He's a utility  
21 analyst from the Office.

22 MR. JETTER: Mr. Hammer, I think you are on  
23 mute now.

24 MR. HAMMER: That was inadvertent.

25 Are there any preliminary issues before the

1 Company calls its first witness?

2 MS. WEGENER: Yes. Before we begin, I have  
3 a couple of corrections to make to the application.  
4 In the application, the Company moves for approval of  
5 STEP funding under two different provisions, Section  
6 54-20-105 for innovative utility programs and Section  
7 54-20-107 for other programs.

8 The first correction I need to make is that  
9 the specific subsection under 54-20-105, which is  
10 stated as (1)(h) in the Company's application, is  
11 actually 54-20-105(1)(i).

12 The second correction I would like to make  
13 is that the Company is no longer pursuing approval  
14 under Section 54-20-107. While the Company believes  
15 the program is cost-effective in the sense that the  
16 potential benefits exceed the cost of the program,  
17 the Company has not performed a detailed analysis of  
18 these benefits, and so we'll just proceed under  
19 Section 54-20-105(1)(i) only.

20 MR. HAMMER: Thank you.

21 All right. Is there anything else before  
22 Ms. Wegener calls her first witness?

23 (No response.)

24 MR. HAMMER: Go ahead, Ms. Wegener.

25 MS. WEGENER: The Company calls James



1 Campbell.

2 MR. HAMMER: Mr. Campbell, do you swear to  
3 tell the truth?

4 THE WITNESS: I do.

5 MR. HAMMER: Go ahead.

6

7 Thereupon --

8 JAMES CAMPBELL,  
9 was called as a witness, and having been first duly  
10 sworn to tell the truth, the whole truth, and nothing  
11 but the truth, testified as follows:

12

13 DIRECT EXAMINATION

14 BY MS. WEGENER:

15 Q. Mr. Campbell, will you please state and  
16 spell your name for the record?

17 A. Yes. My name is James Campbell, J-A-M-E-S  
18 C-A-M-P-B-E-L-L.

19 Q. What's your business address?

20 A. 1407 West North Temple, Suite 310,  
21 Salt Lake City, Utah.

22 Q. By whom are you employed, and in what  
23 capacity?

24 A. I'm employed by Rocky Mountain Power, and I  
25 am currently the director of innovation and

1 sustainability policy.

2 Q. What other roles have you had leading up to  
3 this position?

4 A. I joined the Company in 2007, initially as  
5 an environmental analyst in the environmental policy  
6 and strategy group. I've also worked in government  
7 affairs and customer innovations within the Company.  
8 I've been in my current role since 2019.

9 And prior to joining Rocky Mountain Power, I  
10 worked at the Utah Division of Air Quality.

11 Q. Thank you. What has your involvement been  
12 with the STEP legislation, the legislation that is --  
13 that we are pursuing approval of the program today,  
14 and other programs that have been approved under the  
15 STEP legislation?

16 A. Yeah. So I was involved with the initial  
17 STEP filing and the application and in a lot of the  
18 program development and analysis. I've also  
19 participated in legislative community hearings, both  
20 prior to the passage of the STEP legislation, and  
21 after, sharing with legislature some of the successes  
22 and progress of the STEP program.

23 Q. Thank you.

24 Have you ever testified in front of the Utah  
25 Public Service Commission before?

1           A.    Yes, I have.  I've -- I filed testimony in  
2 support of other STEP projects, including the Gadsby  
3 Curtailment Program and -- which is an innovative  
4 project that addressed emissions in a non-attainment  
5 area.  And most recently, I provided testimony on the  
6 Intermodal Hub Project, which is a innovative  
7 technology project that looks at developing a power  
8 balance and demand control system with the  
9 university.

10           Q.    Have you reviewed the application filed by  
11 the Company on March 3rd, 2021, and the reply  
12 comments filed on April 23rd, 2021, by the Company in  
13 this proceeding?

14           A.    Yes, I have.

15           Q.    Do you adopt those reply comments as your  
16 testimony?

17           A.    Yes, I do.

18           MS. WEGENER:  At this time, I'd like to move  
19 to admit the Company's reply comments.

20           MR. HAMMER:  They're admitted.

21                   (Rocky Mountain Power Company Reply  
22                   Comments were admitted.)

23 BY MS. WEGENER:

24           Q.    Mr. Campbell, can you please provide a  
25 summary?

1           A.     Sure. Well, good morning, Mr. Hammer,  
2 counsel, and parties. It's great for me to be back.  
3 I see a lot of welcome faces. I've been out for a  
4 while, so it's good to see everybody.

5                     But on March 3rd, 2021, the Company filed an  
6 application requesting STEP funding to support a Utah  
7 State University study on "Projecting the Impact of  
8 the Electrification of the Uintah Basin Oil and Gas  
9 Fields on Air Quality." The Company is requesting to  
10 provide the Uintah Basin Study project with an amount  
11 of \$200,715. And as supported in the Company's  
12 application, sufficient STEP funds are unallocated  
13 that can be used for this project.

14                     The Company has identified the study as  
15 providing a variety of benefits including, one,  
16 identifying what pollutants to target to most  
17 effectively reduce ozone events in the Uintah Basin  
18 area of Utah; two, identifying ways electrification  
19 can facilitate reduction in the emissions  
20 contributing to the high ozone events in the basin;  
21 and, three, producing data on the general feasibility  
22 and potential benefits of increasing the supply of  
23 electricity to a rural area with high oil and gas  
24 production and associated high ozone levels.

25                     My testimony focuses on the appropriateness

1 of the study as a candidate under the enabling STEP  
2 statutes and provides an overview of the Company's  
3 response to the positions taken by the Division of  
4 Public Utilities and the Office of Consumer Services.

5 With me today is Dr. Marc Mansfield, who is  
6 a research professor in the department of chemistry  
7 and biochemistry for Utah State University.

8 Dr. Mansfield's testimony will focus on the details  
9 of the project proposal, including the Company's  
10 application as Appendix A.

11 Also with us today is Mr. Robert Hammer with  
12 SLR Consulting, who will be partnering with  
13 Dr. Mansfield at Utah State University to complete  
14 this study. Mr. Hammer will not provide a summary  
15 today but is available for questions pertaining to  
16 the certain aspects of the study and, in particular,  
17 the benefits of the study for the Company's oil and  
18 gas customers in the region.

19 The Office of Consumer Services stated in  
20 their comments that they found the Uintah Basin Study  
21 to be very promising, and they support providing STEP  
22 funding to move forward with the study subject to two  
23 recommended conditions: a phased funding approach  
24 and a reduction to the funding level. The Company  
25 respectfully requests that the Commission not adopt

1 either of these recommendations. Dr. Mansfield will  
2 address why a phased funding approach is not feasible  
3 for this project.

4 With respect to the reduction in the funding  
5 level, to remove indirect costs, I reiterate that the  
6 indirect costs are typical for a university study.  
7 In fact, there are other approved STEP projects that  
8 provide funding for studies conducted by the  
9 university that are included with similar levels of  
10 indirect costs, including the coalbed methane, which  
11 also included indirect cost --

12 MR. MOORE: I'd like to pose an objection  
13 here. That's outside of his comments and, therefore,  
14 constitutes live surrebuttal, which is not called for  
15 in the scheduling order.

16 MR. HAMMER: Ms. Wegener?

17 MS. WEGENER: The studies that Mr. Campbell  
18 is referring to are on the record in this docket, but  
19 I agree they're not in the comments. So if -- if you  
20 would prefer, he can skip the part referring to other  
21 portions of the record in this docket.

22 MR. HAMMER: I think that would be  
23 appropriate, Mr. Campbell.

24 THE WITNESS: It would be appropriate for me  
25 to skip it or appropriate for me to --

1 MR. HAMMER: To skip it. I don't think the  
2 other parties were noticed that those issues were  
3 going to be discussed today, and the record's quite  
4 extensive going back to 2016. So I'll --

5 THE WITNESS: Okay.

6 MR. HAMMER: -- go ahead and sustain the  
7 objection.

8 Then you can proceed with the rest of your  
9 testimony.

10 THE WITNESS: Okay.

11 The Division of Public Utilities recommends  
12 against approval of the Company's application for  
13 several reasons. They claim that the study benefits  
14 will flow to not only RMP customers, but also the  
15 other customers of Moon Lake Electric. This is not a  
16 reason to deny STEP funding to the study, as it adds  
17 an important piece of information for a relatively  
18 small amount of money. Furthermore, the STEP pilot  
19 program was intended to support these types of  
20 projects. Dr. Mansfield addresses the Division's  
21 other arguments, including the additional information  
22 the Division claims is lacking from the study.

23 I recommend the Commission approve the  
24 Company's application as filed. The Uintah Basin  
25 Study is a prudent use of available STEP funds and

1 will provide valuable information to aid ozone  
2 reduction efforts in the basin.

3 Thank you for your time allowing me to  
4 present my testimony in support of the Uintah Basin  
5 Study. This concludes my summary.

6 MR. HAMMER: You're on mute, Ms. Wegener.

7 MS. WEGENER: Thank you. I have nothing  
8 further for Mr. Campbell, and he is available for  
9 cross-examination and questions from the  
10 Commission -- or from the hearing officer.

11 MR. HAMMER: Mr. Jetter?

12

13 CROSS-EXAMINATION

14 BY MR. JETTER:

15 Q. Hi, good morning. I do have a few  
16 questions, Mr. Campbell.

17 In the comments that you've adopted this  
18 morning, the Company's been -- and by "Company," I  
19 mean Rocky Mountain Power -- has been critical of the  
20 Division in its comments recommending disapproval,  
21 and as part of that, those comments that the Division  
22 has been critical of the Company for not providing  
23 all of the pieces to a complex puzzle; is that  
24 correct?

25 A. The -- that the Division -- that the Company



1 has not provided pieces to a complex puzzle?

2 Q. Yeah. That was the Company's description of  
3 the Division's objections.

4 A. Oh, okay. Yes.

5 Q. And I'd like to ask you a few questions  
6 along those lines.

7 Do you think that it would be reasonable for  
8 utility ratepayers to pay for a study of something  
9 that is either impossible or highly unlikely to  
10 become reality?

11 A. I believe that it is reasonable for  
12 ratepayers to provide funding for the -- the utility  
13 to work on innovative programs to -- especially since  
14 the electric industry is in massive transformation.  
15 And so it -- I do think it is reasonable for  
16 ratepayers to provide -- particularly under the STEP  
17 statute, to provide some funding for innovative  
18 programs so it can -- so the Company can be  
19 positioned to address current issues.

20 Q. Okay. But I'm not sure that quite answered  
21 my question. My question goes to, what about the  
22 scenario where the -- the item being studied is  
23 either extremely unprobable or impossible? So  
24 let's -- maybe I'll give you a hypothetical of --  
25 would it be reasonable for customer ratepayers to pay

1 for the study of a cold fusion reactor with today's  
2 information we have?

3 A. With today's information -- I'm not an  
4 expert on cold fusion, so I do not know. If cold  
5 fusion was a good, innovative project, then maybe it  
6 would be, but I -- I don't know. If you look back to  
7 maybe 1989, I -- when the -- when cold fusion came  
8 about, but I'm not an expert on cold fusion. So I --  
9 I don't know if that would be reasonable. I'd have  
10 to look at the actual prospect of it and it -- to  
11 determine if it was reasonable, but right now, I  
12 don't know.

13 Q. And in making that determination, wouldn't  
14 you think it would be reasonable to perform at least  
15 some high-level or background look at whether the --  
16 the cold fusion in this example were a plausible  
17 technology?

18 A. It -- in -- so should I do a background --  
19 if I was trying to apply -- if your question is if I  
20 was trying to apply the -- to do a cold fusion  
21 project, should I do background work on cold fusion?  
22 Is that what your question is?

23 Q. Well, shouldn't you, at least at a base  
24 level, before you spend money researching the effects  
25 of it, get some high-level view of does it work?

1 A. So I would --

2 (Simultaneous speaking.)

3 BY MR. JETTER:

4 Q. -- does it work?

5 A. So I think it is appropriate to do a certain  
6 review of a technology, which is -- which is really  
7 what we're proposing to do right now, is a very  
8 preliminary assessment of this electrification.

9 Electrification is not cold fusion. I mean, those  
10 are completely two different types of technologies in  
11 terms of -- out there. But doing a very  
12 preliminary -- I mean, I think that's kind of what  
13 we're proposing right now, is to do a very initial  
14 assessment to determine whether or not this is a --  
15 really, if this is a stepping-stone to go down the  
16 path.

17 Q. Okay. And -- but as part of that sort of  
18 just basic background, high-level review, the Company  
19 didn't ask any of the -- the oil and gas mining  
20 operators of these wells if they were interested in  
21 electrification, did it?

22 A. Well, I -- you know, in terms of the  
23 specifics, that's what we have Dr. Mansfield and --  
24 and also his colleagues here today, who could really  
25 answer some of the very specific questions related to

1 that. So if we wanted to talk really specifically  
2 about that, we can have -- about the project, about  
3 its role, I know Mr. Hammer is an expert with and  
4 does work with oil and gas customers. So I'm pretty  
5 confident that oil and gas customers are familiar  
6 with this technology and are looking forward to it.

7 Q. Okay. And so I'm going to read to you -- I  
8 don't know if you have the DPU comments with you or  
9 the data request responses from the Division. If  
10 not, I can simply read to you what Rocky Mountain  
11 Power told the Division when we asked this question.

12 And what I'm looking at --

13 A. I'm sure he has it.

14 Q. -- is the DPU Data Request 15.6 where the  
15 Company asked if Rocky Mountain Power, Utah State  
16 University, or SLR had had any correspondence with  
17 well developers regarding the changeover from oil and  
18 gas to electrification, and Rocky Mountain Power's  
19 response was that Rocky Mountain Power "has not  
20 communicated with well developers regarding the  
21 potential changeover from natural gas-powered pumps  
22 to electric pumps that is being evaluated in the  
23 study." And that's part of the complete answer. It  
24 goes on to -- I'll summarize that Utah State or/and  
25 SLR have not had any formal discussions but maybe

1 have had some informal discussions and no  
2 correspondence formally with the well owners.

3 Doesn't that seem like it would be something  
4 reasonable to ask the well owners, whether they're  
5 interested in this?

6 A. So electrification of wells is a pretty  
7 common -- it's not -- it's not cold fusion. So it's  
8 one of those things that there's definitely been  
9 interest with other oil and gas. I know nationally  
10 this has been a topic that -- of discussion, so it's  
11 not like this is an imaginary conversation that would  
12 be a complete surprise to those -- to our oil and gas  
13 customers up there. And we've had various levels of  
14 conversations, but not -- maybe not specifically to  
15 this specific project.

16 But there's been other types of  
17 conversations in general related to -- to  
18 electrification, especially, as I mentioned,  
19 nationally. This is an ongoing type of evaluation,  
20 especially as we see nationally a push towards  
21 electrification and broader areas related to fugitive  
22 emissions and other types of applications like this.  
23 So it's not a -- it's not like this is a foreign  
24 topic that would be a complete surprise to these  
25 operators.

1 Q. Sure. But -- but you didn't actually ask  
2 these operators if they were interested in doing  
3 this?

4 A. Did -- I personally did not.

5 Q. And Rocky Mountain Power did not, that  
6 you're aware of?

7 A. I'm not aware of -- of -- of very specific  
8 conversations for this project. I know that there's  
9 been other types of conversations with customers, but  
10 I'm not aware of specific conversations for this  
11 project.

12 Q. And --

13 A. But as I said, Mr. Hammer with SLR is an  
14 expert in this area and does have and is very  
15 familiar with the oil and gas customers in the area.

16 Q. Okay. And would you imagine that it would  
17 be primarily based on the economics whether an oil  
18 and gas pump operator would switch their oil pump  
19 mode of force from the combustion engines to  
20 electric?

21 A. There -- there's a lot of factors that goes  
22 into it, and, again, Mr. Hammer can elaborate on  
23 that. But economics is definitely one, and -- but  
24 part of that economics is the regulatory aspect of  
25 it. And operating in a non-attainment area is a

1 major challenge, and especially for our customers  
2 that live in the Uintah Basin. Oil and gas is one of  
3 the primary kind of economic activities out there,  
4 and being in a non-attainment area for ozone is a  
5 really big deal for both those individual operators,  
6 but also all of our customers that are out there.

7 So when you talk about the economics, it's a  
8 combinate- -- it's the direct economics, but also the  
9 economics with -- associated with the regulate- --  
10 complying with the regulations and the different  
11 regulatory requirements.

12 Q. Okay. But Rocky Mountain Power, in this  
13 case, did not have any estimates of the costs, either  
14 at an individual well basis or in general, for the  
15 electrification of these pumps. Is that accurate?

16 A. Correct. This is the very beginning. So  
17 before you want to go down this full path of do we  
18 start making major investments and electrification,  
19 one thing you want to make sure is, well, is it going  
20 to matter? Is electrification actually going to make  
21 a difference for the broader non-attainment area  
22 classification? So that's why this is really the  
23 first step.

24 And then if this passes, so to speak, where  
25 it will make a difference, then you can begin to

1 start going down that next path of evaluating the  
2 economics and the actual specifics of the  
3 electrification of those wells.

4 Q. And before you spend \$200,000 studying the  
5 chemistry of the air quality, wouldn't it make sense  
6 to do a back-of-the-envelope calculation to see if  
7 the economics are even in the realm of plausibility?

8 A. And I -- again, on the specifics related to  
9 the oil/gas, I believe Mr. Hammer can -- could answer  
10 some of -- can answer some of that.

11 Q. Okay. And wouldn't Rocky Mountain Power  
12 be -- isn't Rocky Mountain Power in a good position  
13 to be able to do those back-of-the-envelope  
14 calculations on the cost of Rocky Mountain Power's  
15 infrastructure that would be necessary to reach these  
16 pumps?

17 A. Well, there's a lot of factors that would go  
18 into them, a lot of assumptions that would go into  
19 it. What are some of the future regulations?  
20 There's -- so you can kind of start getting into this  
21 analysis creep. Like, where do you draw the lines  
22 and whatnot?

23 But really, before you want to go down that  
24 path, you'd want to make the determination, does it  
25 even make a difference in terms of the air quality?



1 Because this is really about studying, does  
2 electrification make a difference in the air quality  
3 in that region? If it doesn't and it could come out  
4 where electric won't make a difference, then it's --  
5 we don't have to, you know, address any of those  
6 other issues of doing those analyses and that  
7 further -- that further study.

8 So this is really just that beginning  
9 analysis step, and even where you could -- you know,  
10 as you're talking about some of those  
11 back-of-the-envelope -- well, this is the beginning  
12 of that.

13 Q. Okay. Well, but if you can't economically  
14 provide electricity to the wells, the air quality  
15 really doesn't matter, does it?

16 A. If you -- well, I don't -- I wouldn't say  
17 you can't economic -- I want to say that you can't do  
18 that. Basically, I --

19 Q. Well, what's your basis for that? Because  
20 Rocky Mountain Power --

21 A. I --

22 Q. -- has told us in data responses that  
23 they've done no analysis of that.

24 A. That's what I'm saying. I couldn't say yes  
25 or no either way.

1 Q. Okay. So we don't know if it's economically  
2 possible to provide --

3 A. Right. If you were asking me to hypothesize  
4 about something that I don't -- you know, we have --  
5 that hasn't been done. And before -- and that's a  
6 pretty, pretty extensive analysis. But before you do  
7 that, what we want to do is do this study to make --  
8 to make the determination it may -- it's relevant to  
9 do.

10 Q. Okay. And you haven't even tried at any  
11 high level to even get a ballpark of what that would  
12 look like?

13 A. I -- I have not.

14 Q. Okay. And Rocky Mountain Power hasn't  
15 either, that you're aware of?

16 A. That I'm aware of -- not that I'm aware of.

17 Q. Okay.

18 A. I know that there's some broader evaluations  
19 for electrification, but there's so many -- so many  
20 assumptions and factors that go into -- so when you  
21 look at some of these broader things, it may --  
22 unless your -- you really got to do it detailed, very  
23 specific to have it be relevant.

24 Q. Within the study, at least as I understand  
25 it -- and correct me if I'm wrong -- part of the

1 study would review the -- or provide analysis of the  
2 distribution of costs between the oil and gas  
3 industry and Rocky Mountain Power.

4 How would you suggest that that can be done  
5 without any information on the costs of providing  
6 that electric service?

7 A. So some of the analysis of the proposed  
8 study would look at that. Is that what you're -- I'm  
9 sorry. I'm trying to --

10 Q. Yes. That's what Rocky Mountain Power told  
11 us in a data response, and I'm curious how -- how you  
12 would suggest that that's going to happen without  
13 some information on the costs of providing the  
14 electric service. I don't know how you analyze the  
15 distribution of costs without knowing what the costs  
16 are.

17 MS. WEGENER: I guess --

18 THE WITNESS: Well, you'd have to --

19 MS. WEGENER: Can I -- can I object to the  
20 general reference to our data responses? If you're  
21 going to point Mr. Campbell to a specific data  
22 response, that's fine, but just saying that that's  
23 what Rocky Mountain Power provided in the data  
24 response isn't --

25 MR. JETTER: No, this is Data Response 15.3,

1 and it's about midway through the responsive  
2 paragraph.

3 MS. WEGENER: And additionally -- sorry.  
4 Excuse me -- Mr. Campbell was not necessarily  
5 involved in preparing these data responses and may  
6 not have the information about them completely -- he  
7 adopted the comments and not the data responses. So  
8 I would object to questions assuming that he has  
9 knowledge on the data responses as well.

10 MR. JETTER: Okay. I -- maybe I'll ask --

11 MR. HAMMER: Mr. Jetter, you're certainly  
12 allowed to ask about the data request responses.

13 But, Mr. Campbell, to the extent you don't  
14 know the answer, of course, you should answer  
15 truthfully.

16 So the objection is overruled.

17 THE WITNESS: So I don't know the -- I don't  
18 know the answer.

19 BY MR. JETTER:

20 Q. Okay. Maybe I'm going to change gears to a  
21 little bit of a different couple of questions.

22 When you discuss the potential benefits of  
23 this study and potentially even the benefits of the  
24 electrification of these oil and gas wells, those  
25 benefits are primarily air quality benefits for the

1 Uintah Basin; is that right?

2 A. For our customers?

3 Q. For -- I guess it would be residents of the  
4 Uintah Basin, which are largely -- some customers of  
5 Rocky Mountain Power, as I understand it, and some of  
6 Moon Lake and --

7 A. Yeah. I would say the benefits -- there's  
8 kind of -- I'd call it three -- three layers of  
9 benefits. There's -- there's -- there's the air  
10 quality benefits. There is some, also, direct  
11 economic benefits for our oil and gas customers.  
12 There's some other benefits -- economic benefits as  
13 well for our Uintah Basin customers, like in the  
14 Vernal area, because their economy is creek  
15 dependent, but then there's also -- for all of our  
16 customers, I think having more familiarity and  
17 experience working with electrification in general  
18 and seeing where some of these -- these -- by  
19 electrifying to eliminate -- or improve air quality  
20 benefit, we're going to be posed to do that more and  
21 more as a society. I think if you look at just the  
22 current administration, just the current trends that  
23 are happening.

24 So the more exposure and experience we get  
25 working on that does have a -- an additional benefit.

1 Obviously, it's not as direct as some of the direct  
2 benefits of air quality in the basin, but there's  
3 still some tangential benefit to the Company of just  
4 getting experience working on that.

5 Q. Okay. And so those are -- you know, we're  
6 talking about air quality and potentially job  
7 creation benefits.

8 None of those benefits you mentioned are  
9 customer utility rate benefits, are they? They  
10 don't -- they don't -- there's no projection that  
11 utility rate customers will see lower rates as a  
12 result of this?

13 A. No. No. The -- these are benefits that are  
14 basically in the interest of our -- of our customers  
15 and under the STEP statute. That's really what we're  
16 talking about, under innovative utility programs, is  
17 whether or not these types of programs are in the  
18 interest of our customers.

19 And actually, if you look at -- in the  
20 statute where they talk about whether the types of  
21 programs that the legislature, you know, directed or  
22 at least authorized us to work on, those include --  
23 if you look in there, there's economic development.  
24 That's a -- that's the type of project. And -- and  
25 then there's also -- you know, they talk about solar

1 generation, but they also -- battery storage. But  
2 there's also a program to curtail emissions in  
3 non-attainment areas.

4 So those are the types of programs the  
5 legislature intended for the utility to work on under  
6 the innovative utility program section. And so this  
7 Uintah Basin Study is consistent with both an  
8 economic development, and it's consistent with both a  
9 air quality project and a non-attainment area.

10 Q. Okay. And I think that I understand that  
11 these are -- right -- these are -- these are sort of  
12 general benefits to the public at large --

13 A. Correct. Yeah, this is in our customers'  
14 interest.

15 Q. And the public at large happens to include  
16 some of your customers?

17 A. Yes. If -- yes. Our customers in Vernal,  
18 in particular, which is the largest community in the  
19 area, we -- we -- a lot of our -- that's most of our  
20 customers in there, and they are -- it is definitely  
21 in their interest, this project, definitely.

22 Q. Because of the economic job creation  
23 benefits?

24 A. The combination of the economic  
25 development --

1 Q. Okay.

2 A. -- and the emissions and address -- a  
3 program to help address the emissions in a  
4 non-attainment area.

5 Q. Okay. And just to make sure it's clear on  
6 the record, the emissions problems in the  
7 non-attainment area are not the result of Rocky  
8 Mountain Power's emissions. These are a result of  
9 oil and gas fields and other source emissions?

10 A. Well, that's what I think we want to --  
11 that's what the study would evaluate.

12 Q. Okay. But there -- Rocky Mountain Power  
13 doesn't have a generation --

14 A. I --

15 Q. -- facility in the basin, does it?

16 A. Rocky Mountain Power does not, but there is  
17 a question about, you know, transport of NOx and  
18 ozone and all that kind of stuff, and -- which is  
19 part -- part of the basis of the study is to evaluate  
20 what is the source of the air quality challenges in  
21 the basin. And -- and the good doctor -- the good  
22 professor could probably get into that a little bit  
23 more than I can, but yeah. But we'll -- but we don't  
24 know, and that's one of the reasons why we want to do  
25 the study.



1 Q. Okay.

2 A. But -- but you're correct. We -- Rocky  
3 Mountain Power does not have a generation facility in  
4 the Uintah Basin.

5 Q. And it's -- Rocky Mountain Power is not at  
6 risk of environmental rules in the Uintah Basin  
7 causing it to have to shut down a generator or  
8 discontinue service or change -- change its own  
9 service; is that right?

10 A. Not that I'm aware of, but you can kind of  
11 go down this whole path of how you do environmental  
12 regulations. And if there is, there could be down  
13 the road. If our other -- if it's determined that  
14 our other facilities are impacting these -- the area,  
15 then there could be an impact on our facilities, but  
16 I'm not aware of it right now. But there is that  
17 potential.

18 Q. Okay. I'm going to ask you just a few  
19 questions about Moon Lake Electric.

20 It's -- is it accurate that Moon Lake  
21 Electric is another electric utility that serves a  
22 large portion, geographically, of the Uintah Basin?

23 A. Yes.

24 Q. And are you familiar with or were you  
25 involved in any of the conversations that occurred

1 between Rocky Mountain Power and Moon Lake Electric  
2 about this study?

3 A. I -- I was not involved in any of that.

4 Q. Okay. Do you have any knowledge of whether  
5 Moon Lake Electric has either the ability or the  
6 interest to build facilities out to serve the oil  
7 pumps that are in Moon Lake Electric's service  
8 territory?

9 A. I -- I don't know. I wasn't involved -- I  
10 wasn't involved in that. I do know that there was --  
11 there was a meeting with -- with Moon Lake Electric,  
12 and they did not oppose this project.

13 Q. Okay. And that -- that would have happened  
14 sometime between when the Division asked you about  
15 that in DPU Data Request 15.5 --

16 A. I believe that's correct. I believe --

17 Q. -- and your --

18 A. -- that was that. I believe that was  
19 accurate.

20 Q. Okay. So all we know at this point is the  
21 other electric service provider doesn't oppose this  
22 study?

23 A. That -- that's -- that's my understanding.

24 Q. Okay.

25 Those are all of the questions that I have

1 for you this morning. Thank you for your time. I  
2 appreciate it.

3 MR. HAMMER: Mr. Moore?

4 MR. MOORE: Just a few questions.

5

6 CROSS-EXAMINATION

7 BY MR. MOORE:

8 Q. Hello, Mr. Campbell.

9 A. Good morning.

10 Q. I would like you -- direct your attention to  
11 the section of your reply comments that is the  
12 purpose of the Uintah Basin project. On page 2 under  
13 the heading "Purpose of the Study," could you please  
14 read the last and concluding paragraph of that  
15 section into the record starting with there has --  
16 "There are now supportable"?

17 A. Okay. What -- what -- I didn't get the  
18 first part. I apologize. I had difficulty hearing  
19 you. What --

20 Q. I'm sorry. Let me ask it again.

21 I'm just directing your attention to page 2,  
22 under the heading Purpose of the Project or Project's  
23 Purpose.

24 A. Okay.

25 Q. There are three paragraphs. Could you

1 please read the last paragraph into the record  
2 starting with "There are now supportable indications  
3 that NOx emissions have become a controlling factor."

4 A. Yeah, I would defer the specifics to the  
5 project to the professor who's here and Dr. Mansfield  
6 who can address that directly. I don't have his  
7 right -- I'd have to pull it up. I don't have it  
8 right in front of me.

9 Q. Well, this is a portion of the comments I'm  
10 asking you to quote that you adopted of your -- from  
11 your --

12 A. No, I -- no, I understand. If you'll  
13 allow -- I don't have it memorized. I've got to pull  
14 it up. I apologize.

15 Q. Yes. Would you -- would you please read it?  
16 Thank you.

17 A. And that was in the --

18 Q. No, that was --

19 A. -- Appendix A, I'm assuming, in the --

20 Q. No, no, no. I'm talking about your actual  
21 comments on page 2.

22 A. The -- not the reply comments, but what  
23 we --

24 Q. No, you only have reply comments. I'm  
25 sorry.

1 A. Oh, okay.

2 Q. I should --

3 A. Sorry. That's what --

4 (Simultaneous speaking.)

5 BY MR. MOORE:

6 Q. I apologize.

7 A. Yeah. No, I -- okay. I've got them. I  
8 apologize for the delay there.

9 Q. Could you read the last paragraph in the --  
10 under the heading Project's Purpose starting with  
11 "There are now supportable indications"?

12 A. And what -- I'm sorry. What page was that  
13 on again?

14 Q. Page 2.

15 A. Oh, okay. All right. The last -- so the  
16 last paragraph before the response to OCS comments?

17 Q. I believe so, yes.

18 A. Okay. Yes, it says:

19 "There are now supportable indications that  
20 NOx emissions have become a controlling  
21 factor after years of reducing VOC emissions.  
22 Indications of a change from VOC control to  
23 NOx control should be examined to see if they  
24 prove to be true, to what degree the NOx  
25 control theory is true, why it might be true,

1 and if NOx emissions reductions will be  
2 effective and plausible going forward. If  
3 the study's working hypothesis is confirmed,  
4 results will change both the focus and  
5 efficacy of ozone reduction and regulatory  
6 efforts in the basin."

7 Q. Thank you.

8 Could you turn to page 4 of your reply  
9 comments? The last paragraph, second -- second  
10 sentence, you state:

11 "Electrification could effect more pollutants  
12 than NOx. In particular, could play -- it  
13 could play an important role in further  
14 reducing VOCs emissions."

15 Did I read that correctly?

16 A. You said on page 4?

17 Q. Page 4. Your reply comments. Tell me when  
18 you're there.

19 A. Yeah, I'm on page 4.

20 Q. On the last paragraph? I'm just going to  
21 read it to you.

22 A. Oh, okay. Yeah, okay. "Additionally, OCS's  
23 comments imply that feasibility of electrification is  
24 only" -- okay. Go. I'm in -- I'm there.

25 Q. Okay. Electric -- you state:

1 "Electrification could affect more pollutants  
2 than NOx. In particular, it could play an  
3 important role in further reducing VOCs  
4 emissions."

5 Is that correct? Did I read that correctly?

6 A. Yeah.

7 Q. This role of electric -- the role of  
8 electrification to reduce VOCs emissions -- not part  
9 of the paragraph -- is the purpose of the study that  
10 you read into the record; is that correct?

11 A. It's not the -- your question is that VOCs  
12 are not part of the original study?

13 Q. I'm asking the -- well, no, I'm asking  
14 whether it's part of the purpose of the study that  
15 you just read.

16 A. About VOC emissions?

17 Q. About NOx emissions, where you said now  
18 there's supportable indications that NOx emissions  
19 have become a controlling factor after years of  
20 reducing VOCs emissions. That paragraph that you  
21 just read is -- states the purpose of the study.

22 And my question is, did the role in  
23 electrification to reduce VOC -- to reduce VOCs  
24 emissions, that's not part of the paragraph of the  
25 purpose of the study that has been read into the

1 record; isn't that true?

2 A. Yeah. I'd have to defer to the professor  
3 who's going to do the study on -- on that.

4 Q. Again --

5 A. I don't --

6 Q. Again, I'm quoting from your comments that  
7 are -- you test -- that you've put into the record.  
8 So you must have some understanding of what the  
9 purpose of the study is since you adopted comments  
10 that discuss the purpose of the study.

11 A. Maybe I'm confusing what -- because you --  
12 are you -- you're saying NOx, and then you're calling  
13 it VOC. Are you referring --

14 Q. No, I might -- I --

15 A. -- to VOCs? Because that's not a term of  
16 art. There's no such thing as "a VOC." They're  
17 referred to as "V-O-C."

18 Q. Okay.

19 A. So that's why I was getting confused. I  
20 apologize. I just didn't know what you were talking  
21 about.

22 Q. I apologize. That's my fault. So let's try  
23 it one more time.

24 This role in electrification to reduce VOC  
25 emissions is not part of the paragraph of the purpose



1 of the study that's been read into the record; isn't  
2 that correct?

3 A. It -- well, there -- it does talk about  
4 VOCs.

5 Q. But is it part of the purpose of the study  
6 that you just read into the record?

7 A. Of the purpose of the study? It -- I'd say  
8 it's a side benefit.

9 Q. Right.

10 A. I -- it's -- and what I read into the record  
11 did include the reference to VOCs and reducing VOC  
12 emissions.

13 Q. Well, that's after years of reducing VOC  
14 emissions, so that's not -- that's referring to past  
15 attempts to reduce ozone by reducing VOC levels.  
16 Is -- that part of the quote is not related to the  
17 purpose of the study?

18 A. Yeah. I mean, I think there's a lot of --  
19 yeah, there's -- it's an additional benefit of the  
20 study.

21 And, again, I'd like to defer to  
22 Professor Mansfield on the specifics of the study  
23 since he's the one who's doing the study. But -- and  
24 what I read into the record, the paragraph you had me  
25 read into the record, did refer to VOC emissions.

1 Q. The only -- the only reference to VOC  
2 emissions comes in the following sentence:

3 "There are now supportable indications that  
4 NOx emissions have become a controlling  
5 factor after years of reducing VOC  
6 emissions."

7 Isn't that the only place in the paragraph  
8 on the purpose of the study that you read into the  
9 record that mentions VOC emissions?

10 A. Yes, that's what -- that mentions VOC  
11 emissions, what I read into the record, yes.

12 Q. Well, I -- I think your testimony speaks for  
13 itself.

14 In fact, the VOC emissions have been  
15 reduced, but how VOC emissions are reduced by  
16 electrification was not included as part of the  
17 purpose and the goal of the Uintah Basin Study, which  
18 was filed with your application; isn't that correct?

19 A. I don't think you can -- I mean, you're  
20 talking about -- these emissions don't happen in  
21 isolation. They're connected.

22 Q. Yes. But, again, you have a section in the  
23 comments that comes under the topic of purpose of the  
24 study.

25 A. Uh-huh.

1 Q. And I'm just asking, is it the general  
2 purpose of the -- goal or the purpose of the Uintah  
3 Basin Study that -- to reduce VOC emissions?

4 A. The purpose of the study is related to ozone  
5 reduction because that's the non-attainment status,  
6 and what contributes to ozone is both this NOx  
7 emissions and VOC emissions. But there's a -- highly  
8 complicated chemical reactions and dynamics that's  
9 going on that the professor can talk -- that's  
10 definitely more qualified to talk about than myself,  
11 but they're -- but they're related because those  
12 are -- these are all emissions and byproducts of  
13 fossil fuel combustion. So these are -- they're  
14 related.

15 Q. I didn't ask you if they were related.

16 MR. MOORE: I'm going to -- I'm going to  
17 finish this off, Mr. Hammer.

18 BY MR. MOORE:

19 Q. I didn't ask you if they were related.

20 A. Okay.

21 Q. I asked, is reduced VOC emissions part of  
22 the purpose of the statute as you set out in your  
23 comments?

24 MR. HAMMER: Do you want me to rule on your  
25 motion to strike, Mr. Moore?

1 MR. MOORE: I won't make a motion to strike  
2 now. If he continues, I will.

3 THE WITNESS: So the question is VO- -- are  
4 VOCs the purpose of the study?

5 BY MR. MOORE:

6 Q. Is --

7 A. Is the reduction of VOCs the purpose of the  
8 study?

9 Q. Yes.

10 A. I think it -- they're related. So it is  
11 part of the purpose, but it's a secondary benefit.  
12 But the primary -- and, again, I'll -- you know, the  
13 professor can talk to it, but primary is related to  
14 the -- these NOx control -- you know, NOx is the  
15 primary controlling factor.

16 Q. Isn't the study meant to determine whether  
17 it -- whether the controlling factor in the Uintah  
18 Basin for ozone pollution is NOx emissions and not  
19 VOC emissions as previously assumed?

20 A. I think -- I think so.

21 Q. Okay.

22 A. I think that --

23 Q. I don't want to cut you off. I'm sorry.

24 A. Oh, no, no. I -- I -- I apologize. I was  
25 just having difficulty, and it could be the -- the

1 microphone or the speaker on my phone. I'm having  
2 difficulty hearing you, so I apologize.

3 Q. Oh, I apologize. I'll see if I can speak  
4 louder and more clearly. I think we got your answer.

5 I -- I want to move on to a specific  
6 statement you made on page 4 of your reply comments.

7 A. Okay.

8 Q. You stated:

9 "VOCs emissions from tanks are often  
10 controlled with flares, which reduces  
11 emission to about 5 percent of the potential  
12 tank emissions. Using electricity to control  
13 the emissions would increase the efficiency  
14 by twentyfold, reducing the emissions to only  
15 .25 percent of the potential tank emissions."

16 Did I read that correctly?

17 A. Yes.

18 Q. It's true, then, isn't it, that only  
19 5 percent of the VOCs emissions remain after flaring?

20 A. Yes.

21 Q. And that means electric could not be helpful  
22 to remove -- would only be helpful to remove a  
23 portion of the remaining 5 percent of the VOC; isn't  
24 that correct?

25 A. That what -- I -- what would be?

1 Q. Electrification.

2 A. Okay. Electrification.

3 If there's flaring. Well, the -- for VOCs,  
4 correct, but VOCs have a big -- a bigger -- have a  
5 big impact. But I'll -- again, I'll defer to the  
6 professor in chemistry. But, yes, there would be  
7 5 percent left.

8 Q. Finally, these percentages on VOC emissions  
9 that I just mentioned, they do not appear in the  
10 application or anywhere in the record before they  
11 appeared in your reply comments; isn't that correct?

12 A. I believe that is correct.

13 Q. All right. Thank you, Mr. Campbell. I have  
14 no further questions.

15 MR. HAMMER: Before we go to redirect from  
16 Ms. Wegener, I'll just apologize. I've had a few  
17 network issues. I don't know if you-all noticed me  
18 popping in and out of the call. I think I've heard  
19 everything. I think I'm still hearing all of the  
20 testimony, so don't be concerned about that. We  
21 should be getting it all on the record. If it  
22 continues to be a problem, I may have to dial in, and  
23 you'll just hear my voice.

24 With that, please go ahead, Ms. Wegener.

25 MS. WEGENER: Thank you.

1 REDIRECT EXAMINATION

2 BY MS. WEGENER:

3 Q. I just have a few questions, Mr. Campbell.

4 When Mr. Jetter was asking you about  
5 "impossible or unlikely to become reality" programs,  
6 would you characterize the electrification of the  
7 Uintah Basin oil and gas wells as something that is  
8 impossible or unlikely to become reality?

9 A. I would not characterize electrification of  
10 oil wells -- oil and gas wells in the Uintah Basin as  
11 unlike -- improbable, or I would not characterize it  
12 like that.

13 Q. Do you know whether the Company currently  
14 provides electric service to oil and gas sites within  
15 the Uintah Basin?

16 A. I think there might be some, but I'm not  
17 too -- I'm not aware. I think there might be. I  
18 know we do provide electric service to oil and gas  
19 wells in other areas.

20 Q. Would -- would you agree with me that if --  
21 if there is electric service to oil and gas wells  
22 within the Uintah Basin and in other places, that  
23 that would indicate that at least in some  
24 circumstances, it's economic to provide electricity  
25 or to electrify oil and gas well sites?

1           A.    Yes.  I -- it -- electrification can be  
2 economic to provide that for oil and gas wells.  
3 It -- it can be, definitely.

4           Q.    And Mr. Jetter asked you questions about  
5 analysis that the Company's performed concerning  
6 electrification of the basin.

7                    Are you familiar with all of the  
8 electrification analysis performed by the Company?

9           A.    I am not aware of all of it.

10          Q.    And then, finally, Mr. Jetter talked to you  
11 about the STEP statute and benefits to customers.

12                   Is it your understanding of the STEP statute  
13 that programs need to benefit customers as ratepayers  
14 or -- well, yeah, just that.  Is that your  
15 understanding, that it must benefit them as  
16 ratepayers?

17          A.    No.  That -- that is not my under -- my  
18 understanding.  My understanding of the statute is  
19 that these innovative utility programs just need --  
20 the Commission just needs to determine that they're  
21 in the interest of Rocky Mountain Power customers,  
22 not that -- not as the traditional ratepayer, but  
23 just the kind of general interest.

24          Q.    So it's your understanding that the economic  
25 interest or the air quality interest with customers



1 would satisfy the statute?

2 A. Yes. Yes, that is my understanding, and  
3 that is consistent with hearings -- public hearings  
4 with the legislature and -- yes, that is my  
5 understanding.

6 MS. WEGENER: Thank you. I have no further  
7 questions for Mr. Campbell.

8 MR. HAMMER: I have nothing for you,  
9 Mr. Campbell. Thank you.

10 Ms. Wegener, would you like to call your  
11 next witness?

12 MS. WEGENER: Yes. The Company calls --

13 MR. JETTER: May I --

14 MS. WEGENER: -- Dr. Mansfield.

15 MR. HAMMER: Would you like to do recross,  
16 Mr. Jetter?

17 MR. JETTER: I would, yes.

18 MR. HAMMER: All right. Go ahead.

19 MR. JETTER: Thank you. I'll try to keep it  
20 brief.

21

22 RE CROSS-EXAMINATION

23 BY MR. JETTER:

24 Q. You were asked on redirect about an  
25 inference that because there are existing electrified

1 wells, maybe ten on the Rocky Mountain Power system  
2 in that area, that it would -- that must mean that  
3 it's economical to do so.

4 Do you have any knowledge of those wells or  
5 the economics of those wells?

6 A. No. No, I don't. I -- what I was -- my  
7 indication that it can be economic. I think it would  
8 have to obviously be so -- it's site specific. But  
9 as a general rule, technology electrification can be  
10 economic for -- to support oil and gas wells. That  
11 was what I was trying to say.

12 Q. Okay. And -- but Rocky Mountain Power  
13 didn't reach out to even the existing customers? It  
14 hasn't asked them about that?

15 A. I -- I did not.

16 Q. Okay.

17 A. I'm not aware of.

18 Q. And then, with -- quickly, with respect to  
19 the benefit as ratepayers, would you say as a policy,  
20 it's appropriate for customers of the electric  
21 utility to pay higher rates to create jobs in the  
22 community?

23 A. I think the legislature created the STEP Act  
24 to allow -- to encourage the utility to work on  
25 innovative utility programs to look at a whole host

1 of types of technology program that will benefit our  
2 customers and -- in their general interests, and so I  
3 think that's appropriate.

4 Q. Okay. So --

5 A. It's appropriate for --

6 Q. So you do think in some situations, it's  
7 appropriate for utility ratepayers to pay higher  
8 rates to create jobs in the community, generally?

9 A. As part of the STEP Act, I think it's  
10 appropriate.

11 MR. JETTER: Okay. Thank you. That's all  
12 of my recross.

13 MR. HAMMER: Mr. Moore, do you want an  
14 opportunity to ask any additional questions?

15 MR. MOORE: No, Mr. Hammer. Thank you very  
16 much.

17 MR. HAMMER: All right. We'll go back to  
18 you, Ms. Wegener.

19 MS. WEGENER: Thank you. The Company calls  
20 Dr. Marc Mansfield.

21 MR. HAMMER: Dr. Mansfield, do you swear to  
22 tell the truth?

23 Is Dr. Mansfield on the line?

24 MS. WEGENER: Let me check.

25 DR. MANSFIELD: Yes. I'm sorry. It took me

1 a minute to unmute.

2 MR. HAMMER: We all make that mistake.

3 Do you swear to tell the truth,

4 Dr. Mansfield?

5 DR. MANSFIELD: Yes, I do.

6 MR. HAMMER: Thank you. Go ahead.

7

8 Thereupon --

9 MARC MANSFIELD,

10 was called as a witness, and having been first duly

11 sworn to tell the truth, the whole truth, and nothing

12 but the truth, testified as follows:

13

14 DIRECT EXAMINATION

15 BY MS. WEGENER:

16 Q. Good morning, Dr. Mansfield. Will you  
17 please state your name for the record?

18 A. My name is Marc Mansfield. That's M-A-R-C  
19 M-A-N-S-F-I-E-L-D.

20 Q. And what is your business address,  
21 Dr. Mansfield?

22 A. Bingham Research Center, Utah State  
23 University, Uintah Basin, 320 North Aggie Boulevard,  
24 Vernal, Utah 84078.

25 Q. By whom are you employed and in what

1 capacity?

2 A. I'm a research professor in the chemistry  
3 and biochemistry department of the Utah State  
4 University.

5 Q. Have you ever testified before any Public  
6 Service Commission before this?

7 A. No. This is my first time.

8 Q. Well, welcome.

9 Did you prepare the research proposal  
10 attached as Appendix A to the Company's application  
11 entitled "Projecting the Impact of the  
12 Electrification of the Uintah Basin Oil and Gas  
13 Fields on Air Quality," which was filed on March 3rd,  
14 2021?

15 A. Yes, I did.

16 Q. Do you adopt that Appendix A as your  
17 testimony in this matter?

18 A. Yes.

19 MS. WEGENER: I move to admit Appendix A  
20 into the -- into evidence.

21 MR. HAMMER: It's admitted.

22 (Appendix A was admitted.)

23 BY MS. WEGENER:

24 Q. Did you also assist with the preparation of  
25 the reply comments filed by the Company filed on

1 April 23rd, 2021, which were admitted earlier in this  
2 proceeding?

3 A. Yes.

4 Q. And have you prepared a summary of your  
5 research proposal and a portion of the comments that  
6 you would like to share with the Commission?

7 A. Yes.

8 Q. Please proceed.

9 A. Good morning, Mr. Hammer, counsel, and  
10 parties. I appreciate this opportunity to address.

11 I am a research professor and scientist at  
12 Utah State University and the author of the research  
13 proposal that is attached to the Company's March 3rd,  
14 2021 application entitled "Projecting the Impact of  
15 the Electrification of the Uintah Basin Oil and Gas  
16 Fields on Air Quality." The purpose of my testimony  
17 is to explain the scope of the study and the impact  
18 it could have on the electrification of the Uintah  
19 Basin.

20 I have an extensive background researching  
21 and modeling ozone in the Uintah Basin. I have  
22 worked on many projects and published many papers and  
23 reports on ozone and its relationship to the oil and  
24 gas industry. I live and work in the Uintah Basin,  
25 which means I have both a professional and a personal

1 interest in improving air quality in the basin, all  
2 the while supporting the most important industry in  
3 the basin to the -- most important industry to the  
4 basin economy, the oil and gas -- oil and natural gas  
5 industry.

6 Over the past decade, USU has worked in  
7 partnership with the oil and gas industry, the Ute  
8 Tribe, and state and federal regulators to attack the  
9 ozone problem. Since 2010, we have seen a general  
10 decline in ozone levels for various reasons.  
11 However, the basin is currently designated as  
12 non-attainment for ozone, and it appears very likely  
13 that the designation -- in fact, not very likely. It  
14 seems mathe- -- mathematic -- a mathematical  
15 certainty that the designation will be bumped up to  
16 the next level with more stringent controls in the  
17 coming years. The study was designed as an important  
18 next step to make sure the controls are targeted as  
19 effectively as possible to reduce ozone in the basin.

20 The study will test the following  
21 hypotheses: whether the reduction of nitrogen  
22 oxides, also known as NOx, or volatile organic  
23 compounds, also known as VOCs, will lead to greater  
24 ozone reductions in the Uintah Basin area of Utah;  
25 two, whether electrification of oil and gas fields in

1 the basin will permit significant long-lasting  
2 reductions in winter ozone -- in winter ozone levels;  
3 three, whether the benefits of electricity can offset  
4 other NOx emissions, such as drilling; and four,  
5 whether electrification can provide an additional  
6 option that allows the oil and gas industry to  
7 continue successfully operating in the basin.

8 I'm prepared to answer any questions from  
9 the Division of Public Utilities, the Office of  
10 Consumer Services, or the Commission about how the  
11 research fits into the broader area of research in  
12 the basin as well as costs and performance of the  
13 study. I can also answer questions about the effects  
14 of the Office's recommendations on the research  
15 study.

16 The Office has stated that the Uintah Basin  
17 Study is very promising, and they support providing  
18 STEP funds -- excuse me -- providing STEP funds for  
19 the study subject to two recommended conditions: a  
20 phased funding approach and reduction to the funding  
21 level. The Division recommends the Commission reject  
22 the study and raises concerns about the limited focus  
23 of the study and the overall value of the study. As  
24 someone who has conducted and participated in most of  
25 the air quality studies that have taken place in the



1 basin, I can assure the Commission that this study  
2 will provide valuable information that builds upon  
3 and supplements other past studies on Uintah Basin  
4 pollution.

5 The study has a discrete focus on NOx as  
6 the -- as the controlling pollutant and the  
7 relationship of electrification to reducing NOx  
8 emissions. No study like this has been completed,  
9 and the findings of the study will add valuable data  
10 to the body of research on the basin and on air  
11 quality and on ozone, in general. The Uintah Basin  
12 Study on its own will provide the Company with solid  
13 evidence to inform further pursuit of electricity in  
14 the basin.

15 The Office's recommendation for a phased  
16 funding approach would pose challenges to both the  
17 research design and the timeline we have proposed for  
18 the study. First, dividing the study into two phases  
19 would require USU to reorder and divide its goals,  
20 which would be especially difficult considering the  
21 timing constraints of the funding. This would  
22 significantly and unnecessarily increase the amount  
23 of work for the study. For example, it would require  
24 twice as many modeling runs. In addition, several of  
25 the goals for the study are integrated, and knowledge

1 gained from one goal will inform and improve other  
2 goals.

3           The increased work caused by phasing the  
4 research would also lead to increased costs. The  
5 indirect costs are typically included in research  
6 study budgets. The study and budget have been  
7 designed and reviewed by professionals at Utah State  
8 University, USU, a state-owned, nonprofit research  
9 university. The USU Sponsored Programs Office has  
10 verified that the proposal meets all necessary  
11 professional research criteria and addresses all  
12 required legal and ethical compliance issues,  
13 including compliance with Title 2 of the Code of  
14 Federal Regulations which governs USU's  
15 administration of grants. All overhead and indirect  
16 costs are set by the Sponsored Programs Office and  
17 align with standard rates accepted by government and  
18 private funding sources.

19           I'm happy to answer your technical questions  
20 about the study. My colleague, Robert Hammer, who is  
21 also contributing to this study, is also available to  
22 answer questions within his technical expertise,  
23 which includes operations of the oil and gas industry  
24 and use of electricity for oil and gas industry  
25 equipment in the basin. Thank you for your

1 attention. This concludes my summary.

2 MS. WEGENER: Thank you, Dr. Mansfield.

3 I have no further questions for this  
4 witness, and he is available for cross-examination  
5 and any questions from the hearing officer.

6 MR. HAMMER: Mr. Jetter?

7

8 CROSS-EXAMINATION

9 BY MR. JETTER:

10 Q. Hi. Good morning, Mr. Mansfield.

11 A. Morning.

12 Q. I have a few questions I'd just like to run  
13 through with you briefly.

14 Is it accurate that part of this study will  
15 evaluate the economics and the economic impact of the  
16 conversion of the pumps to electric -- electric  
17 pumping motors?

18 A. That is correct. We've written that into  
19 the proposal, but the intention is for it to be a  
20 high-level study.

21 Q. Okay. And you don't have any information on  
22 the cost of converting a typical well to electric, do  
23 you?

24 A. No, I do not.

25 Q. Okay. And you don't have any information

1 from Rocky Mountain Power on the costs or timeline of  
2 extending electric service to serve the wells, do  
3 you?

4 A. No.

5 Q. Okay. And how do you -- do you intend to  
6 research those as part of your study, or how do you  
7 plan on doing an economic analysis without those --  
8 without the costs?

9 A. I guess the best way to answer that is that  
10 that's one of the things we intend to study as the  
11 study proceeds. Mr. Robert Hammer, who we've already  
12 referred to, S- -- his organization, SLR, would be  
13 hitting up that part of the study, and so he may be  
14 better able to answer that particular question.

15 Q. Okay. Thank you.

16 MR. JETTER: Those are the only questions I  
17 have. Thank you for your time.

18 MR. HAMMER: Mr. Moore?

19 MR. MOORE: The Office has no questions.  
20 Thank you.

21 MR. HAMMER: And I have none. Thank you,  
22 Dr. Mansfield.

23 THE WITNESS: Thank you.

24 MR. HAMMER: Ms. Wegener?

25 MS. WEGENER: I have nothing further for

1 Dr. Mansfield. And unless any -- anyone has  
2 questions for Mr. Hammer, the Company concludes its  
3 presentation of this case.

4 MR. HAMMER: So if I understand you  
5 correctly, the Company does not wish to affirmatively  
6 call Mr. Hammer as a direct witness, but will make  
7 him available to questions?

8 MS. WEGENER: Exactly. Yes.

9 MR. HAMMER: Mr. Jetter, would you like to  
10 ask any questions of Mr. Hammer?

11 MR. JETTER: No, I don't need to. Thank  
12 you.

13 MR. HAMMER: Mr. Moore?

14 MR. MOORE: No questions. Thank you.

15 MR. HAMMER: Okay. And I don't have any.

16 And for the record and as far as you're  
17 curious, I don't believe me and Mr. Hammer are  
18 related or have ever met.

19 So there's nothing else from you,  
20 Ms. Wegener?

21 MS. WEGENER: No, nothing else from me.

22 MR. HAMMER: Mr. Jetter?

23 MR. JETTER: Thank you. The Division would  
24 like to call and have sworn in Bob Davis, or Robert  
25 A. Davis. Excuse me.

1 MR. HAMMER: Mr. Davis, do you swear to tell  
2 the truth?

3 THE WITNESS: I do.  
4

5 Thereupon --

6 ROBERT A. DAVIS,  
7 was called as a witness, and having been first duly  
8 sworn to tell the truth, the whole truth, and nothing  
9 but the truth, testified as follows:

10  
11 DIRECT EXAMINATION

12 BY MR. JETTER:

13 Q. Mr. Davis, would you please state your name  
14 and occupation for the record?

15 A. Yes. It's Robert A. Davis, and I am a  
16 utility technical consultant for the Division of  
17 Public Utilities.

18 Q. Thank you.

19 MR. JETTER: And I'm going to take a brief  
20 pause from questioning Mr. Davis just to let  
21 Dr. Mansfield know that your microphone is still on,  
22 and I just didn't want you to have an accidental  
23 slip. And, also, just on the record, to apologize to  
24 Dr. Mansfield for not addressing him correctly in my  
25 cross-examination questions.

1 BY MR. JETTER:

2 Q. Mr. Davis, did you create and cause to be  
3 filed with the Commission comments from the Division  
4 dated November -- excuse me -- April 16th, 2021?

5 A. Yes, that's correct.

6 Q. And do you have any corrections or changes  
7 you'd like to make to those?

8 A. Just one. On page 4, paragraph 2, I  
9 commented that both statute 54-20-105 and 54-20-107  
10 requires the Commission to determine that the  
11 proposal is in the interest of the large-scale  
12 utilities customers. Statute 54-20-107 states if the  
13 Commission determines that the program is  
14 cost-effective and in the public interest.

15 Q. Thank you. With that correction, would you  
16 adopt your comments as your testimony today?

17 A. Yes.

18 Q. And have you prepared a summary of your  
19 testimony or your --

20 A. I have.

21 Q. -- comments about that testimony?

22 A. I have.

23 Q. Please go ahead.

24 A. Good morning, Mr. Hammer.

25 RMP's application seeks STEP funds to study

1 the potential for air quality improvement through  
2 electrification of pump jacks located throughout the  
3 Uintah Basin. Utah State University and the SLR  
4 International Corporation team plan to research and  
5 report the possible air quality benefits and  
6 economics to the oil and gas industry of converting  
7 the pump jack power sources from the current use of  
8 primarily natural gas to electricity.

9 The Division agrees that mitigation of  
10 pollution is important and in the broad public  
11 interest. However, the Division statutory objectives  
12 articulate a narrower public interest that requires a  
13 weighing of the variety of factors, not merely  
14 whether some action may have a general social  
15 benefit. The proposed project comes with costs, and  
16 those costs should not outweigh the benefits to those  
17 who are paying for those costs.

18 In this case, the proposed costs come with  
19 no sufficiently concrete benefit to those paying the  
20 costs. While research is always speculative, the  
21 dearth of information about what might be done with  
22 the study's results and what those actions cost and  
23 benefits might be renders the Division unable to  
24 advocate that the study is in the public interest.  
25 As it stands, the proposal is to spend money to



1 determine a narrow scientific question that might  
2 have some application to utilities' business if the  
3 results are as expected and if a variety of external  
4 conditions or decisions occur as a result of the  
5 findings.

6 Air quality and studies concerning it are  
7 important, but they are not primarily the ratepayers'  
8 responsibility. RMP's application has speculated  
9 potential benefits that electricity might facilitate  
10 to reduce emissions of NOx and volatile organic  
11 compounds, or VOCs, that contribute to high ozone  
12 events in the Utah Basin area. In addition to the  
13 four key research questions purported in Rocky  
14 Mountain Power's application, the researchers propose  
15 to study the economics and obtain quantitative  
16 estimates of the potential air quality improvement  
17 from electrification of wells and surrounding  
18 equipment in the oil and gas fields located in the  
19 Uintah Basin.

20 The Division's review of the application  
21 found insufficient evidence of a direct or reasonably  
22 anticipated benefit to Rocky Mountain Power  
23 ratepayers. Rocky Mountain Power presented no  
24 evidence regarding the feasibility of electrifying  
25 the area in the event potential benefits materialize,

1 which is perhaps the most significant economic  
2 question for the Commission to consider.

3 Rocky Mountain made no evaluation of the  
4 extent to which other participants and beneficiaries,  
5 including Moon Lake, might benefit or contribute to  
6 the project or any future action stemming from the  
7 project. Clearly, the potential reduction of NOx or  
8 VOCs is evident and important, but without studying  
9 the feasibility of electrification, the cost benefit  
10 equation is empty. Furthermore, the lack of  
11 sufficient nexus between RMP's activities and the  
12 much broader dispersion of benefits, if they  
13 eventually materialize, suggest the program is more  
14 appropriately funded through sources other than Rocky  
15 Mountain's captive ratepayers.

16 Rocky Mountain's application may not be in  
17 the interest of its ratepayers, even if the study is  
18 successful in identifying ways electricity can  
19 facilitate reduction in the NOx or VOC emissions  
20 contributing to high ozone events in the Uintah Basin  
21 area. The nexus between the hope for air quality  
22 benefits and utility shareholders and ratepayers is  
23 not explained well enough to garner the Division's  
24 support, especially given the near total deficiency  
25 of information on what it would actually take to

1 electrify the area and the fact that other potential  
2 beneficiaries of improved air quality are not key  
3 partners in funding the study. In short, the  
4 Division believes the study of the Uintah Basin air  
5 quality and electrification benefits is likely  
6 beneficial, but the application lacks meaningful  
7 information to allow assessment of whether any  
8 ratepayer benefits are likely to follow.

9           Contrary to the suggestion in Rocky Mountain  
10 Power's reply comments that the Division is demanding  
11 thorough and premature economic study of  
12 electrification, the Division seeks only a relatively  
13 high-level assessment of the nature of the load that  
14 might be served and the resources that might be  
15 necessary to serve that load. The record contains  
16 insufficient information to asses whether  
17 electrification is feasible at a reasonable cost  
18 regardless of what the findings yield. As the  
19 Division noted, based on a rough estimate of well  
20 numbers and loads, the resources needed to serve the  
21 additional load could be significant. Rocky Mountain  
22 Power has offered no assessment or response, even at  
23 a cursory level, to these questions asked in data  
24 requests.

25           To conclude, the Division recommends the

1 Public Service Commission of Utah not approve Rocky  
2 Mountain Power's request for \$200,715 of STEP funds  
3 because it is not in the public interest the Division  
4 is charged with advocating. Rocky Mountain Power has  
5 not demonstrated that its Uintah Basin is in the  
6 interest of its ratepayers under Statute 54-20-105  
7 nor the public interest requirement under  
8 Statute 54-20-107.

9 This concludes my summary. Thank you.

10 Q. Thank you, Mr. Davis.

11 MR. JETTER: I'd like to move -- because I  
12 believe I have not done this, I'd like to move to  
13 enter into the record of the hearing the April 16th,  
14 2021 comments filed by the Division along with the  
15 attached Appendix A, which includes the data request  
16 responses.

17 MR. HAMMER: They're admitted.

18 (April 16, 2021 DPU Comments with  
19 attached Appendix A were admitted.)

20 MR. JETTER: Thank you. And I have no  
21 further questions for Mr. Davis. He's available for  
22 cross-examination and questions from the hearing  
23 officer.

24 MR. HAMMER: Ms. Wegener?

25 MS. WEGENER: Yes.

CROSS-EXAMINATION

BY MS. WEGENER:

Q. Good morning, Mr. Davis.

A. Good morning.

Q. It is the Division's position that there are not sufficient benefits to ratepayers to justify this program; is that right?

A. That's correct.

Q. But you would agree with me that there are a number of Rocky Mountain Power customers that are served in the Uintah Basin; right?

A. That's correct.

Q. You would also agree with me that there's some -- some oil and gas customers in the Uintah Basin, customers of Rocky Mountain Power, that have already electrified their well sites. Would you agree with that?

A. Just -- I would from the reply comments. I did not know that in the initial comments.

Q. Okay. Thank you.

Have you been involved in analyzing other proposed programs under Utah Code Section 54-20-105(1)?

A. Yes, I have.

Q. And you're familiar with that statute?

1 A. Pretty familiar, yes.

2 Q. Would you agree with me that the statute  
3 allows for programs to curtail emissions from a  
4 thermal generation plant?

5 A. Yes.

6 Q. And that's in place even though there are a  
7 number of residents specifically along the Wasatch  
8 Front who are not Rocky Mountain Power customers;  
9 right?

10 A. Yeah. I don't know the numbers, but yes,  
11 that's correct.

12 Q. And those -- those folks who aren't the  
13 Company's customers -- they're customers of  
14 municipalities -- would still benefit from a  
15 curtailment of emissions; isn't that right?

16 A. Yes.

17 Q. And the statute also provides for economic  
18 development incentives. Is that your understanding?

19 MR. JETTER: Can I introduce just a quick  
20 objection, and then we can continue? To the extent  
21 it calls for a legal conclusion that Mr. Davis has  
22 not represented himself as an attorney, and so these  
23 are answers that should be, I guess, viewed in that  
24 respect.

25 MR. HAMMER: That's sustained.

1 Ms. Wegener, feel free to contextualize your  
2 question by reference to the statute, but Mr. Moore  
3 needn't testify about what he thinks it means.

4 BY MS. WEGENER:

5 Q. Okay. I guess my question -- and I can't  
6 remember what my open question was, but it concerned  
7 whether one of the programs in the statute that's  
8 authorized would be an economic development incentive  
9 rate.

10 A. Yes.

11 Q. Okay. And would it make sense to you -- and  
12 I understand that you're not a lawyer or a  
13 legislator, but would it make sense to you that  
14 including programs that incentivize economic  
15 development could have been included because the  
16 legislature wanted to encourage economic growth  
17 through this statute?

18 A. Yeah, I think that's correct, but it still  
19 falls under if it is within the public interest.

20 Q. Thank you.

21 Would you agree that the extent to which  
22 electrification reduces emissions, which is one of  
23 the goals of this study, could affect whether it is  
24 economical to electrify oil and gas sites?

25 A. Yes, if all the information is there to make

1 that -- make that decision or make -- or have that  
2 understanding.

3 Q. Okay. Thank you.

4 MS. WEGENER: I have no further questions  
5 for Mr. Davis.

6 MR. HAMMER: Mr. Moore?

7 MR. MOORE: No questions from the Office of  
8 Consumer Services. Thank you.

9 MR. HAMMER: Mr. Jetter?

10 MR. JETTER: I have no redirect. And the  
11 Division does not intend to call any other witnesses,  
12 so that would be all that we would like to present  
13 today.

14 MR. HAMMER: Thank you.

15 Mr. Davis, I have nothing for you. Thank  
16 you.

17 THE WITNESS: Thank you.

18 MR. HAMMER: We'll go to you, Mr. Moore.

19 MR. MOORE: The OSC calls and asks to be  
20 sworn Bela Vastag.

21 MR. HAMMER: Mr. Vastag, can you hear me?

22 THE WITNESS: Yes.

23 MR. HAMMER: Do you swear to tell the truth?

24 THE WITNESS: I do.

25 MR. HAMMER: Thank you. Go ahead.



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Thereupon --

BELA VASTAG,  
was called as a witness, and having been first duly  
sworn to tell the truth, the whole truth, and nothing  
but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. MOORE:

Q. Mr. Vastag, could you, for the record, state  
and spell your name and give your occupation?

A. Yes. My name is Bela -- that's B-E-L-A --  
Vastag, V-A-S-T-A-G. And I am a utility analyst, and  
I work for the Office of Consumer Services.

Q. In your capacity as a utility analyst, have  
you reviewed the filings related to the USU Uintah  
Basin Study in this docket?

A. Yes, I have.

Q. Have you prepared and filed comments on  
April 16th, 2021, and reply comments on April 23rd,  
2021, and filed them with the Commission?

A. Yes, I have.

Q. Do you have any changes you'd like to make  
to these comments at this time?

A. No, I have no changes.

1 Q. Do you adopt these comments as your sworn  
2 testimony today?

3 A. Yes.

4 MR. MOORE: Mr. Hammer, at this point, the  
5 Office would move for the admission of their  
6 comments, both the April 16 comments and the  
7 April 23rd reply comments.

8 MR. HAMMER: They're admitted.

9 (April 16, 2021 OCS Comments and April  
10 23, 2021 Reply Comments were admitted.)

11 BY MR. MOORE:

12 Q. Have you prepared statements summarizing the  
13 OCS's position?

14 A. Yes, I have.

15 Q. Would you please proceed with the summary.

16 A. Okay. Good morning, Mr. Hammer and parties  
17 here today at today's hearing. First, as an initial  
18 matter, the Utah Office of Consumer Service, or OCS,  
19 appreciates the Company clarifying that it is not  
20 seeking approval for the Uintah Basin Study under  
21 Section 107 of the STEP Act. Section 107 requires a  
22 showing that a proposed program is cost-effective,  
23 and nowhere in its application has RMP provided  
24 evidence or even attempted to show that the proposed  
25 Uintah Basin Study is cost-effective. Therefore, the

1 OCS agrees with the Company's clarification at this  
2 hearing that this program should be approved only  
3 under Section 105 of the STEP Act.

4 The Office of Consumer Services supports the  
5 proposed Uintah Basin Study in this docket if steps  
6 are taken to ensure that ratepayer funds are spent  
7 wisely and not wasted. Utah State University, who is  
8 the sponsor of the Uintah Study funding request, has  
9 also requested funding from the Utah Division of Air  
10 Quality, or UDAQ, for essentially the same project  
11 that is being reviewed here today. And UDAQ limits  
12 indirect costs on proposals that it accepts to  
13 10 percent, and this limit should also be used for  
14 the proposed Uintah Basin Study in this docket.

15 USU should only be allowed a 10 percent  
16 adder on its portion of the budget and not on the  
17 consultant fees which are already based on very high  
18 hourly rates. By applying UDAQ's standard for  
19 indirect costs, the OCS recommends that the budget  
20 for the Uintah proposal be reduced from the requested  
21 \$200,715 to 141,197 if it's approved and as we  
22 described in detail in our initial comments.

23 The OCS also recommends that funding for  
24 this study, if approved, should be released in two  
25 phases. The premise of the Uintah Basin Study is

1 that the ozone pollution problem in the basin is  
2 primarily caused by nitrogen oxides, or NOx, and not  
3 by volatile organic compounds, or VOCs. Thus, if the  
4 NOx hypothesis is true, electrification of  
5 NOx-producing equipment in the basin could solve or  
6 at least significantly improve the ozone problem.  
7 However, if the NOx hypothesis is found to be false,  
8 there is no need to study the electrification of  
9 NOx-producing equipment in the basin.

10 Therefore, if approved, the OCS recommends  
11 funding be released in two phases. The first phase,  
12 to determine if the NOx hypothesis is true. Then,  
13 only if NOx is found to be the ozone-controlling  
14 pollutant, the second phase of funding would be  
15 released to study how electrification could eliminate  
16 the NOx, otherwise the funding held for the second  
17 phase should be returned to ratepayers. For  
18 simplicity, OCS recommends half the funding be  
19 released for Phase 1 and half for Phase 2.

20 That concludes my statement.

21 MR. MOORE: Thank you.

22 Mr. Vastag is now available for cross and  
23 questions from the hearing officer.

24 MR. HAMMER: Ms. Wegener, we'll go to you  
25 first.

1 MS. WEGENER: Thank you.

2

3 CROSS-EXAMINATION

4 BY MS. WEGENER:

5 Q. Good morning, Mr. Vastag.

6 A. Good morning.

7 Q. Have you been involved in analyzing previous  
8 applications for STEP funding?

9 A. Yes.

10 Q. And you would agree with me that there's  
11 been, I think, subject to check, 18 programs that  
12 have been approved for STEP funding since the program  
13 was initially opened?

14 A. I don't know the number, but I will trust  
15 your estimation.

16 Q. Okay. And isn't it true that some of those  
17 programs are research studies that are conducted by  
18 universities such as Brigham Young University,  
19 University of Utah, and Utah State; right?

20 A. Yeah, I remember that.

21 Q. And isn't it true that those studies that  
22 are university -- conducted by a university also  
23 included indirect costs for facilities and  
24 administration?

25 A. I don't remember specifically, but, I mean,

1 it is likely that they did include those costs.

2 MS. WEGENER: Okay. Thank you. That's all  
3 the questions I have.

4 MR. HAMMER: Mr. Moore?

5 MR. MOORE: No redirect. The Office rests.

6 MR. HAMMER: Thank you.

7 And I have nothing for you, Mr. Vastag.

8 Thank you for your participation.

9 Is there anything else before we adjourn  
10 today? Ms. Wegener?

11 MS. WEGENER: Nothing from the Company.

12 MR. HAMMER: Mr. Jetter?

13 MR. JETTER: Nothing from the Division.

14 MR. HAMMER: Mr. Moore?

15 MR. MOORE: Nothing from the OCS.

16 MR. HAMMER: All right, everyone. Thank you  
17 very much. Have a wonderful day.

18 (Proceedings concluded at 10:33 a.m.)

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REPORTER'S CERTIFICATE

STATE OF UTAH            )  
                                  )  
COUNTY OF UTAH        )

I, KIMBERLY A. HARMON, a Certified Shorthand Reporter and Registered Professional Reporter, hereby certify:

THAT the foregoing proceedings were taken before me at the time and place set forth; that the witnesses were placed under oath to tell the truth; that the proceedings were taken down by me in shorthand and thereafter my notes were transcribed through computer-aided transcription; and the foregoing transcript constitutes a full, true, and accurate record of such testimony adduced and oral proceedings had, and of the whole thereof.

I further certify that I am not a relative or employee of any attorney of the parties, nor do I have a financial interest in the action.

I have subscribed my name on this 10th day of May, 2021.



Kimberly A. Harmon, RPR, CSR

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