In the Matter Of:

In RE: RMP - Approval of Resource Decision to Repower Wind Facilities

HEARING, DOCKET NO. 17-035-39

May 04, 2018

Job Number: 434926-A

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

Voluntary Request of Rocky Mountain Power for Approval of Resource Decision to Repower Wind Facilities

Docket No. 17-035-39

HEARING PROCEEDINGS

TAKEN AT: Utah Public Service Commission
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Salt Lake City, Utah

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REPORTER: Mary R. Honigman, R.P.R.

JOB NO.: 434926-A

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PROCEEDINGS

COMMISSIONER LEVAR: We're back this morning in Public Service Commission Docket No. 17-035-39, the Voluntary Request of Rocky Mountain Power for the Approval of Resource Decision to Repower Wind Facilities. My recollection is we had Mr. Daniel Peaco on the stand and everyone except Ms. McDowell had declined cross-examination, and we were about to start cross-examination from Rocky Mountain Power. Is my recollection correct on that? No one else had an interest in cross-examining Mr. Peaco?

Okay. We'll bring Mr. Peaco back to the stand. You're still under oath from yesterday, and we'll start with Ms. McDowell's questions.

MS. MCDOWELL: While Mr. Peaco is getting settled, I just want to let everyone know that I have distributed a cross-examination exhibit, Rocky Mountain Power Cross-Exhibit 4, and I believe the witness has that and I believe the Commission was provided copies of that.

COMMISSIONER LEVAR: And then I'll just clarify that it's on yellow paper. I assume -- are all the numbers confidential or just the shaded ones?

MS. MCDOWELL: Just the shaded ones. Just to clarify, because I think it may help sort out the confidentiality issues. Project costs -- on an individual basis, the project cost numbers are confidential, so the overall project cost isn't confidential, but it's broken down into the individual project costs, and that's what confidential here. The cells that are shaded, I don't intend to -- I think I can navigate through this without actually asking confidential questions, but if, you know, if my questions elicit a response that is confidential, maybe we can take it from there.

COMMISSIONER LEVAR: And just to clarify, I think what you just said means that the multi-colored shading on the far right is not confidential?

MS. MCDOWELL: That's correct. You know, I stand corrected. Even though they're not shaded, they are confidential because I understand that, as I'm thinking about it now, you could actually back into those numbers --

COMMISSIONER LEVAR: So all the multicolored shaded numbers are also?

MS. MCDOWELL: That's correct. So I

will try to ask questions at a high level -- although it may be impossible to navigate through this without some closed session, so we'll just see how that goes.

COMMISSIONER LEVAR: Thank you.

CROSS-EXAMINATION

BY MS. MCDOWELL:

Q Good morning, Mr. Peaco.

A Good morning.

Q So at the end of day the yesterday, Ms. Hickey asked about your recommendation that the Company make a new voluntary resource filing scaling back the scope of the project. Do you recall that question?

A I do.

Q And are you aware that the timeline for a voluntary approval filing in front of this Commission is six months, 180 days?

A I'm not. I'll take your representation of that. I'm not real familiar with the requirements.

Q So your recommendation didn't take into account the amount of time that it would take the Commission to actually process that additional request?

A Well, the recommendation is based on the fact that we don't have -- in our opinion, we don't have a record here to make an affirmative decision and so if there was one desire, then it would require new information.

Q So in this case, we're in the ninth month of the filing, does that sound right, filed in June?

A Yes, at least.

Q So wouldn't the delay associated with a new filing potentially cause risks associated with the qualification for the PTCs with these projects?

A To my understanding, there's still some float in the schedule, but I invited the Company to file that in their last responsive testimony but didn't, so I don't really see that it's on us. We asked you to file that so we could hear that downsize filing today, and that didn't occur.

Q Well, I would -- I noticed an inconsistency between your testimony and Dr. Zenger's testimony where she expressed concerns about the projects even being one day late and losing eligibility for PTCs. Your recommendation would add at least another six months in the schedule, so wouldn't that actually add to the risks that Dr. Zenger expressed concern about?

A Well, it would, but my understanding is that the critical path is not such that there isn't more time to consider this, but the alternative is to deny the projects outright, so I think you'd have to make that choice.

Q So I'd like to turn to your testimony at -- it's in your supplemental response testimony, lines 376 through 378.

A 370 --

Q It's page 22, and basically the Q begins on line 374 and it goes to 378. Do you have that?

A Yes.

Q So there are -- the question asks whether you've done any analysis to test the economics of the repowering projects in light of the problems with the Company's analysis, and there you say, "Yes, I have. I've calculated a set of benefit cost metrics for each of the repowering projects using different estimates of the energy benefits. The benefit cost metrics are summarized in Table 4." Do you see that?

A I do.

Q So I've handed you, or cause to be distributed to you in advance of the hearing, RMP Cross-Exhibit 4. Do you recognize this as the work paper that underlies your table 4?

A Yes.

Q So that everybody is on the same page here, when you calculate a benefit-to-cost ratio -- just so everybody understands it, a benefit-to-cost ratio higher than 1.0 indicates that the benefits are -- exceed the costs on a particular project; is that correct?

A Correct.

Q And just so everybody understands your methodology, I'd like to go through it. Instead of using the Company's modeling, the IRP modeling, you used the Company's Palo Verde prices -- the price curve for the Palo Verde market -- for the entire study period through 2050; is that correct?

A Well, there are two columns of numbers that are the Company's numbers, and then the last four columns as you describe.

Q And basically you did this, according to your testimony, to avoid the issues that you believe are associated with the IRP models; is that correct?

A The IRP models and the alternative that Mr. Link offered in his testimony.

Q So just, again, to understand what you've done here, in your columns P through Q, where you say a hundred percent PV and then have both the

medium and low case, is what you've done, basically, is take the Company's medium Palo Verde price curve and its low Palo Verde price curve and reprice the incremental energy using those curves?

A That's correct.

Q And then your --

A All of the entire energy from the project.

Q And then -- so it would be the incremental energy up until 2037 and then the entire energy output between 2037 and 2050?

A That's correct.

Q So using those -- just to make sure we understand the way this chart flows -- then in the 70 percent case, you've basically, again, taken the Company's medium and low price curves and then reduced them by 30 percent; is that right?

A The Company offered medium and low Palo Verde price scripts at 70 percent. Mr. Link described and offered Palo Verde price scripts for medium and low as case assumptions, and then he used a 130 percent of those values and 70 percent of those values in his testimony. So the 70 percent value here are the medium and low Palo Verde price 70 percent versions that Mr. Link refers to in his testimony.

Q So just referring to Column P, this is your benefit-to-cost ratio using the hundred percent of the PV pricing under the Company's medium-priced forecast. Are you with me on that column?
A Yes.
Q So every column is higher than 1.0, correct?
A Correct.
Q And the Company's medium case is in Column N, correct?
A Correct.
Q And comparing your results in Column P to the results in Column N, doesn't it show that your results produce higher benefit-to-cost ratios than the Company's medium/medium results for every single project?
A The assumption that using the Palo Verde medium/medium at a hundred percent does produce that result. It's simply a demonstration of what that set of assumptions produces. Correct.
Q And would you accept, subject to check, that a simple average of the Company's benefit-to-cost ratios using the medium case is 1.29 and yours is 1.42?
A Simple average is not appropriate for

these calculations. I'll accept your math, but I reject the concept that a simple average has any meaning. You would need to do a weighted average to have any meaning.

Q So if you're right that the SO and PaR models are flawed, at least in this instance, the flaws have understated the benefits of repowering in the medium case?

A No, that's not correct.

Q Well, your benefit-cost ratios are higher than the Company's, correct?

A That's not my recommended case.

Q With respect to the medium case, which is my question, in the medium case, don't the PaR and SO models understate the benefits as compared to your calculations?

A My calculation of the cost benefit using Mr. Link's assumptions of Palo Verde and 100 percent medium/medium does produce a higher result than the Company's modeling analysis, correct. I don't accept the representation that it's anything other than the calculation of that result when you associate that with -- that's not a number that I would recommend the Commission put any weight on in terms of decision making, if that's where you're going, so I just want to make that distinction.

Q You know, your counsel can ask you questions on redirect, but I'm just asking you some specific questions about your analysis that you've provided in this case which you said was designed to assess the benefits of this project.

A Correct.

Q So if you could refer to Column Q, these are your results for the low gas, zero CO2 scenario, correct?

A At 100 percent Palo Verde, correct.

Q At 100 percent Palo Verde. So under that column, every project except Leaning Juniper shows net benefits in your study, correct?

A Correct.

Q And if you compare those results, again, to the Company's results in Column O, your methodology produced higher benefit-cost ratios for 8 of the 12 projects, correct?

A I haven't counted those. There are some that are higher, some that are lower.

Q If you can accept, subject to check, you produced lower benefits only for Glenrock I, Seven Mile Hill I, Leaning Juniper, and Goodnoe Hills.

A I'm sorry. Those four again?

Q Glenrock I, Seven Mile Hill I, Leaning Juniper, and Goodnoe Hills.

A That's correct.

Q So now, I'm going to ask you about your Columns R and S. In those cases, I think we have already been through this, that you basically took, again, the medium and low price curves that the Company provided, and then you discounted them by another 30 percent?

A Correct.

Q And you did this even though you'd already run a low forecast in Column Q, correct?

A I'd run the -- Mr. Link's low hundred percent Palo Verde prices in Column Q.

Q So isn't the effect of reducing the medium Palo Verde curve by 30 percent to basically turn that into the low case? If you look at the benefit-cost ratios between your 100 percent Palo Verde low curve and 70 percent Palo Verde medium, aren't those results virtually the same?

A They're very close, yes.

Q So you basically have two low curves then?

A I'm not following that question.

Q Well, you have -- Q is the low curve at a hundred percent Palo Verde, and Column R is the

medium case at 70 percent Palo Verde, and they're essentially equivalent cases, low gas cases?

A No. That's not true.

Q Well, they produce essentially the same results, don't they?

A Right, but your representation of the cases are what I'm objecting to.

Q So then if you go over to one more column, Column S, there you take the low benefit case -- so you basically take the low Palo Verde curve and you reduce it another 30 percent. That's what that case does, right?

A Right.

Q So it's really a low/low case, correct? You're taking the low curve and then you're reducing it a step further; is that correct?

A We're taking Mr. Link's low Palo Verde prices and reducing those and taking the 70 percent value of those and running those in that case, correct.

Q And just to be clear, you did not test any of this using the high Palo Verde curve, correct?

A Correct.

Q Which you could have done, you had those numbers.

A There was no reason to.

Q Because you just want to look at the medium/low and low/low case here?

A No. In other places in my testimony, I did -- I tested the Palo Verde prices against Mr. Link's natural gas prices and found that all of the Palo Verde prices tracked well above what natural gas prices would produce for values in PacifiCorp's system. And that's the basis upon which I concluded that the results in Column R and S most closely align with what Mr. Link has assumed for natural gas price forecasts in the medium and low cases. And so my -- based on that analysis, my conclusion is Column R most closely aligns with Mr. Link's natural gas price assumptions in the medium case, and Column S most closely aligns with his assumptions for natural gas prices in the low case.

Q Now, isn't it true that Mr. Link used that 70 percent scenario only in the out years, beginning in 2017?

A That's my understanding.

Q And isn't it also true that when you test the implied heat rate -- which I think is the analysis you're talking about -- in those out years,

the heat rate is much more aligned with the numbers
that you say are appropriate?

A I'm sorry. What are you referring to?

Q So you tested the heat rate in the
near-term right, like 2022?

A Yeah, I'd have to look at the numbers.

Q But it was within the period of time that
the Company uses, basically, available market data
to set its curve, right?

A I don't have -- I'd have to look at the
numbers to see what you're referring to.

Q But do you recall that your test for the
heat rate was in the near-term, not out in 2037?

A I don't recall exactly how far we went out
with that.

Q So I wanted to ask you to turn to -- I
guess I want to back up and ask you about the
reasonableness of discounting the Company's price
curves, the low price curve, by an additional
30 percent, and specifically wanted to ask you about
DPU's Cross-Exhibit 1 from yesterday, which is the
order and stipulation from the Idaho Commission
approving this proposal. Do you have that?

A I do not have that.

Q I only have one copy.

MS. SCHMID: Could we go off the record for just one moment?

COMMISSIONER LEVAR: Certainly. We'll be in brief recess.

(A brief recess was taken.)

BY MS. MCDOWELL:

Q So, Mr. Peaco, you have been handed DPU Cross-Exhibit 1. Do you see that?

A I have that.

Q Can you please turn to the back part of that exhibit? The order approving the stipulation is attached, and I'd like you to turn to what is the page that's labeled page 4 of that order.

A I have that.

Q And I'll represent to you that the order was issued on December 28, 2017, approving the repowering project in Idaho.

A The cover letter has a November 24 date. Is that something different?

Q So just so there's no confusion, the exhibit has -- as the Division presented it -- has the stipulation in the first group of pages, and that was presented to the Commission on November 24, 2017. And then the order approving the stipulation is the back part of the exhibit, and that's what I

have questions about. The first page of that order is page 1 and indicates the date of December 28, 2017.

A I have that.

Q So you if you could, turn to page 4 of that order. And there in the second full paragraph -- the second paragraph, down from the top, the Commission is explaining why the -- in part, why it accepted the recommendation of staff to approve the stipulation, and it specifically refers to the staff, Idaho staff's position on forward price curves. And I just wanted to read that language to you and then ask you a question about it. The paragraph states, "The staff also described natural gas price risk if natural gas prices are less than the Company assumes, then the project's net benefits will also be less than estimated. While the impact of lower gas prices could be large, Staff believes the natural gas price risk is low. Staff compared the Company's natural gas price forecasts with those of the U.S. Energy Information Administration (EIA), and found that the Company's forecasts are consistently lower than the EIA's. Staff thus believed that the Company's forecasts are conservative, and explained that if actual gas

prices are closer to EIA's forecasts, there will be more benefits than the Company has estimated." So with that language, doesn't the Commission's order citing Staff's position on the reasonableness of the Company's gas forecast undermine your position that these forecasts should be reduced by an additional 30 percent to determine cost-benefit ratios in this case?

A No.

Q Your analysis, as you indicated, does not include a high case, correct?

A But that wasn't the purpose of my analysis.

Q So you start with a conservative analysis that does not reflect -- which reflects conservative price curves based on, at least, the Idaho Commission's order, and then you reduce that low forecast by an additional 30 percent?

A No. That's not right. What I explained to you was that I compared the 70 percent Palo Verde to the Company's own low gas price forecast, that 70 percent that I was aligning up with the Company's natural gas price forecast. I'm not offering something different than that. I'm saying the 70 percent Palo Verde script is consistent with the

Company's own low natural gas price with a
reasonable system heat rate.
Q But you take the Company's low natural gas forecast and you reduce it by 30 percent in your Column S.
A No, that's not correct.
MS. SCHMID: Pardon me, Mr. Peaco, could you speak a little more loudly and a little more directly into the microphone?
THE WITNESS: Sure.
A That is not correct.
BY MS. MCDOWELL:
Q Well, then, how is it that you have a medium case and a low case? You've used the Company's medium Palo Verde curve and its low Palo Verde curve.
A You're comparing the Palo Verde price curve with the Company's natural gas price forecast, and they're two different things.
Q So you basically reduced the medium forecast and the low forecast, each by 30 percent, correct?
A Palo Verde forecast.
Q So even after taking that low forecast -- the low Palo Verde price curve -- and reducing that

by 30 percent, isn't it true that even in that case, only two projects show a benefit-cost ratio of less than 1?

A Yes.

Q So in total, you performed either -- I don't know if you want to call it two studies or four studies, but produced 48 results, correct? Your columns P, Q, R, and S had 48 results, correct?

A Yes.

Q And of those 48, only five returned results showing that repowering does not provide net benefits, correct?

A Yes.

Q So in your testimony, you indicated that RMP should be -- or the Company should be required to demonstrate benefits to customers under the low gas, zero CO2 scenario. Do you recall that testimony?

A I do.

Q Well, doesn't table 4 show that even under your own analysis, the repowering project meets the standard for every facility but Leaning Juniper?

A If you ignore all the risks that are inherent in those projects, yes. But my testimony goes on to explain that these numbers do not address all the remaining outstanding risks associated with those.

Q So I wanted to ask you about applying a simple average to calculate risk-weighted benefits, like the Division's expert, Mr. Evans did in the SCR case. Were you here yesterday when we discussed the SCR case?

A I was.

Q So do you agree that a simple average for the Leaning Juniper plant under a hundred percent PV case shows that you would produce a benefit-cost ratio of greater than 1.0?

A I'm sorry. A simple average of what?

Q Of the Leaning Juniper results for the medium -- for the hundred percent Palo Verde case produces a benefit cost ratio greater than 1.0? So it's basically your Column P and Column Q, under cell 12?

A So is your question, if you average the four numbers --

Q The two numbers in the hundred percent case. This is awkward because I'm trying not to say the numbers since they're confidential.

A But we've got rows and column here, and I want to make sure --

Q So basically it's 12, which is the Leaning Juniper row, and columns P and Q.

A Averaging just those two?

Q A simple average of those two produces a benefit-cost ratio of greater than one 1.0, correct?

A Slightly.

Q So you indicate that this table illustrates the problems with the SO model, but doesn't it ultimately validate the results of the SO model, at least in the medium hundred percent Palo Verde case?

A Well, I think we're talking about two different issues. The issue that I was pointing to was the fact that, as you pointed out in talking about the results in Column Q, they're not uniformly different. And what we found was, one of the things about the method that we did would -- at least you're measuring consistently each project against the same metric, whereas in the Company's results, we've pointed repeatedly to the notion that there's a lot of anomalous results. And what this points to is that the relative sequence of projects changes when you go from the Company's method to ours. And that confirms to me that System Optimizer and PaR results are producing different results because there are some numerical issues within the models that don't produce consistent results across the project, and that was the issue I was referring to. You're asking about the bottom line benefit-cost ratio comparisons, and that's a different issue.

Q Well, when you have two different models, you've run two different models, you would -- the results of those two models could be different on, you know, a detailed basis, correct? But if the two models end up directionally showing the same thing, don't those models validate one another?

A It doesn't validate the models, it happens to be they come out to have similar results in some aggregate sense. But what I was focusing on in the testimony that you asked me about was the fact that the rank order of the projects is materially different between those results and our results, which suggest to me that there were some differences in going from project to project that we've -- issues that we've identified in our testimony that mean that you have some results that are anomalous coming out for some projects so that there's -- in some cases, maybe, the PaR System Optimizer results were producing higher or lower values than they would if you used -- basically, priced all the energy at some constant price, as we have done here.

Q So in your summary yesterday, you said a 50/50 proposition was not acceptable, and a dollar benefit was not enough. Do you recall that?

A Correct.

Q So don't your results in Column P and Q show that this is anything but a 50/50 proposition?

A No.

Q When all of your benefit-cost ratios in Column P are positive and positive by a significant margin, doesn't this show that this is more than a dollar of benefit for customers?

A The implicit assumption in your question is, you're ignoring the litany of risk issues that remain for customers that have not been factored into those numbers. And one of those is a low gas price risk, which points me to, at the low end, there's a probability that even ignoring the risks that some of the these projects are under water and they don't even produce a dollar benefit.

Q So when you indicate that there is disparity of results among the individual projects, isn't that something you would expect, given the different size and configuration of the projects?

A Well, no. I would expect there to be

proportionality, but I would expect, based upon what I understand about the System Optimizer model, is using that model to measure -- it's modeling only the first 17 years. There's small, incremental energy differential in the model, there's no incremental capacity, yet the model might change 500 megawatt combined cycle unit by a year or two as a result of that change. It's a very nonlinear result and, at least, a very anomalous result, which we've pointed out before. And that's what I believe is happening here, and then that builds into the extrapolation methodology. And I think this is not the right tool to evaluate these kinds of projects.

Q So under your alternative tool, you have not taken into account the proportionality or other project-specific attributes that you acknowledged might differ project to project, correct?

A I'm sorry?

Q Under your analysis here, you haven't taken into account proportionality or different project's attributes, correct?

A I'm not sure I understand proportionality.

Q You said you would have to look at proportionality, and you haven't taken that into account here, have you?

A I'm still not understanding what you're referring to.

Q So when I asked you the question of, wouldn't you need to look at -- or wouldn't you expect that, given the project's different attributes, you would have different outcomes on a project-by-project basis. You said, yes, you would need to look at proportionality. Do you recall that?

A I don't.

Q That was what I recall I heard in your answer. So would you agree that you need to take into account proportionality among the projects in looking at the variability of benefit-cost ratios?

A Let me try this and see if it's what you're after. Our use of benefit-cost ratios was intended to compare the proportion of benefits to costs, which hasn't been done elsewhere. If that's what you're referring to as proportionality, we've done that.

Q Would you accept, subject to check, in this case, since you have reviewed all of these studies, that the Company provided 135 different studies with respect to the repowering project in its most recent set of testimony?

A I'm not sure where the 135 comes from.

Q So I can go through that with you. Do you have Mr. Link's testimony with you?

A Which testimony?

Q Supplemental direct testimony, and I'm on pages 13 through 14.

MS. SCHMID: I'm sorry. Was that his supplemental direct?

MS. MCDOWELL: That's correct.

THE WITNESS: I'm sorry. Which page?

MS. MCDOWELL: Pages 13 and 14 of the supplemental direct.

BY MS. MCDOWELL:

Q So there, the Company provided project-by-project results using the SO and PaR models for both the medium and low scenarios. Do you see that?

A Which table are you referring to?

Q So basically, there's two tables, one for the medium and one for the low gas. One is on page 13, one is on page 14. Do you see those?

A Yes. I'm with you.

Q So there's a total of 72 different studies embedded in those -- in those results. Do you see that?

A Six runs for each of the 12 projects?
Q Right. So 72 different studies.
A I see that.
Q Okay. And then, if you go to Mr. Link's testimony on page 15 --
A Yes.
Q -- and there, he provides an overall project -- or basically on page 15, he provides the nominal revenue requirement studies for each project for the medium and low gas scenarios. Do you see that?
A For the 30-year project life? Yes.
Q So that's another 24 studies. Would you accept that, subject to check?
A 24 runs. Yes, I will accept that.
Q Of these 96 results that we just went through, only one project showed net cost, and that was in the low gas, zero CO2 scenario using the SR and PaR model, correct?
A On the 20-year analysis. And there's a -- in that project, it's zero in the 30-year.
Q And then, the Company also provided analysis of all of the projects together using the SO and PaR models for all nine price policy scenarios; do you recall that?

A I understand that, yes.
Q And so that was on page 20 and that, I'll represent to you, comprised 27 different studies.
A I would call them runs, but yes.
Q And then on page 22, the Company provided that same analysis through the 2050 period, which was an additional nine studies?
A Yes.
Q And under all 36 of those studies, repowering provided net benefits to customers, correct?
A Correct.
Q And then, the Company also provided sensitivities using market prices to value the energy benefits for the longer-term economic analysis. That was the discussion we had this morning about the use of Palo Verde prices?
A Correct.
Q And there were three studies in that case. Do you recall that?
A I will accept that. I believe you're right, but I don't have it in front of me. Is there a page reference?
Q That's on page 26.
A Okay. I see that.

Q So I got to 135 by adding 72 -- the first set of runs we talked about -- 24, 27, and 3, and that got to 135 different studies in Mr. Link's testimony. Do you accept that number?
A I would label them runs, but yes, I would accept that.
Q And then you performed an additional 48 studies -- you got an additional 48 results, I guess, if you want to call them results -- so that from a results standpoint, that brings us to a total number of 183 studies that we have between your analysis and Mr. Link's. Would you accept that?
A Well, runs again, but yes.
Q So how can you claim there's not enough information in this case to determine whether repowering is most likely to reduce customer costs when there are now 183 study results, and the vast majority of them show net benefits to customers?
A All of Mr. Link's results suffer from the problems that I critiqued in my testimony, so I consider them of no value. And in a number of the cases I've done, I've shown to illustrate how Mr. Link's assumptions would run through those, but the only ones that I have really focused on are, sort of, the last two columns in the exhibit we've

been talking about this morning. So there's a lot of runs there, but most of them I would say to just set aside and they're not worth considering, because they have a number of problems which have been identified in my testimony and others.

Q So the SO and PaR runs which are -- have been conducted using the Company's IRP models, you're discounting entirely?

A Correct.

Q So you understand that the statute that the Company filed under the voluntary resource approval statute requires consideration of short- and long-term impacts, correct?

A Correct.

Q And can you turn to your supplemental response testimony? And that's your testimony on April 2nd, and can you turn to line 663, please?

A I'm there.

Q And actually, I should have directed you to 659, which is the Q and A where you respond to the short- and long-term impacts. And with respect to the short-term impacts, you indicate that -- on lines 662 to 663 -- that with respect to short-term impacts, the PTC benefits, if realized, would mitigate much of the costs in the first ten years.

Do you see that?
A Yes.
Q And on an NPV basis, which I think is what you were discussing in your supplemental -- let's call that the Hearing Exhibit 1 that you produced yesterday --
A Correct.
Q -- you were looking at production tax credit value on a net present value basis, correct?
A Yes. I think the exhibit actually had nominal and present value, but we talked about present value.
Q But your point was to show NPV -- the Company had relied on nominal numbers, and you wanted to show what the NPV of those numbers was, correct?
A Correct.
Q So -- and on an NPV basis, would you agree that the PTCs are roughly -- provide about 65 percent of the project costs?
A Yeah. I'm not sure that's a number that can be made public, but yes.
Q I appreciate your sensitivity. I think it's an issue around the overall. Project costs are not confidential, it's only on a project-by-project

basis.

A Depending on what the numeric denominator is, it's approaching 70 percent of the total on a net present value basis.

Q And then on line 666, you indicate that the long-term benefit, much of the benefit -- I guess here on line 665 you say, "Much of the benefit is derived from the years 20 to 30 of the projects, the life extension period." Do you see that?

A Yes.

Q And that's because that's when the existing facilities are assumed to be retired, based on the expiration of their 30-year life?

A Correct.

Q And during years 20 to 30, that's when the Company estimates an approximate 3,500 of gigawatt hours annually of incremental generation?

A I'll accept your number. I don't have it in front of me.

Q Do you understand that during those years, repowering will also provide a capacity benefit, approximately equal to a thousand megawatts of wind resources?

A But that would not be the capacity. That's the nameplate of the total installation, but that would not be the capacity benefit.

Q But it would provide a substantial capacity --

A Well, that would be some small fraction of the thousand --

Q -- off of the --

A I don't know the exact ratio, but it's somewhere in the 100 to 200 watt range of capacity.

Q So I wanted to ask you about your testimony on -- your response testimony on lines 584 to 586.

A Yes.

Q And there, you indicate -- with respect to the PTC qualification risks -- you indicate that PTC qualification risks that remain are largely within the Company's control to manage, but as in the prior testimony, the Company is not agreeing to assume any of the remaining risk. Were you here yesterday when Mr. Hoogeveen testified about the Company's willingness to guarantee PTC qualification for all risks within the Company's control?

A Within the Company's control, yes.

Q And so here, you indicate that the risks are largely within the Company's control to manage, but the Company is not agreeing to assume those

risks. Isn't it true that the Company has agreed to assume PTC qualification risk for all risks within its control?

A My statement may not be as articulate as it should have been, but the distinction I was trying to draw here is, there are certain risks that the Company assumes within its control. But one in particular we talked about yesterday is the risk that the production in the first ten years is not -- is clearly a risk that the Company is not willing to take. And that was the risk remaining that I was -- one of the risks remaining that I was referring to is that the Company has claimed it's outside of its control and it's not willing to take.

Q But that's not a PTC qualification risk, is it?

A No. That's what I'm saying. I could have said this better. If you said, the PTC risks that remain are largely within the Company's control to manage. However, there are risks outside the Company's control that they're not willing to take, and the production risk is one of those. And so that was my intent here, and I'm sorry that was not articulated as it should have been.

Q So this is a -- I have a final line of

questioning that will involve some confidential information. And it's just a short amount of confidential information, so I don't know if it makes sense for me to finish up all my questions and then just have those questions at the very end and just indicate to you when I'm going to be asking about confidential information.

COMMISSIONER LEVAR: That would be the most efficient way to do it.

BY MS. MCDOWELL:

Q So I have a couple of questions before I get into confidential information. In your summary yesterday, you indicated that the benefits of the project have declined from the Company's rebuttal case in the fall to its supplemental filing in February. Do you recall that?

A Yes.

Q And isn't it true that the declining benefits is associated largely with the tax reform changes and the reduction in the corporate income tax rate?

A That would be my expectation. I don't have a breakdown of all the changes between those, but that would be my expectation, that that would be one important driver of the change.

Q So can you turn to your direct testimony, this is your testimony from last fall on September 20, at pages 54 to 55?

A I'm there.

Q So just to -- before I ask you about that specific testimony, I just want to provide a little background. Yesterday, Commissioner Clark asked Mr. Hemstreet about the voltage of frequency support equipment that's part of the repowering. Do you recall those questions?

A I do.

Q Do you recall that Mr. Hemstreet's testimony was that this equipment would help the Company comply with FERC guidelines on inertial response?

A I recall that.

Q And just to summarize what we're talking about, the particular equipment is referred to as the wind-free and wind inertia equipment. Do you understand that?

A Yes.

Q And I've come to understand that the wind-free equipment provides reactive power to the grid, and the wind inertia equipment provides inertial response capability during under-frequency

events. Is that your understanding also?
A It's been a while since I've looked at these, but I'll take your representation of that.
Q So in your direct testimony, you opposed this equipment, claiming that the Company had not shown a need for it, correct?
A Correct.
Q And I wanted to ask you about surrebuttal testimony on this same point, and this is when I will be asking about some confidential information.
COMMISSIONER LEVAR: Thank you. So I'll take that as a motion to close the hearing to the public. There's a section of Title 54 -- I don't have the section number handy -- that gives the Commission the authority to do that upon a finding that it is in the public interest to do so. So I'll first ask all the parties if there's any objection to a Commission finding that would be in the public interest to -- sorry, Mr. Burnett, you might have to go sit in our lobby if we do this -- but if any party objects to that motion for the Commission to make a finding, that it would be in the public interest to close the hearing for a period of time -- and I'll turn to my colleagues if we need any deliberation.

COMMISSIONER CLARK: I'd support whatever is necessary to flesh out this issue for us.

COMMISSIONER WHITE: I likewise support.

COMMISSIONER LEVAR: With that, we make a finding that it is in the public interest to close the hearing while this confidential material is discussed. We'll stop the streaming temporarily, and then this material will be reflected only in the confidential transcript, not the public one.

MS. MCDOWELL: Thank you very much. I appreciate that accommodation.

(The following testimony was deemed confidential.)

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MS. MCDOWELL: So I would like to offer Cross-Exhibit 4, and with that, I'll conclude my cross-examination.

COMMISSIONER LEVAR: If anyone objects to the admission into the record of RMP Cross-Exhibit 4, please indicate to me. And I'm not seeing any objection, so that motion is granted. Thank you.

(Confidential RMP Cross-Exhibit 4 admitted.)

COMMISSIONER LEVAR: Any redirect, Ms. Schmid?

MS. SCHMID: Yes, but may we have a moment and maybe go off the record for one second?

COMMISSIONER LEVAR: Would a five or ten-minute break be appropriate?

MS. SCHMID: That would be very appropriate. Thank you.

COMMISSIONER LEVAR: Why don't we just take a ten-minute recess.

(A brief recess was taken.)

COMMISSIONER LEVAR: We're back on the record, and we're with Ms. Schmid's redirect of Mr. Peaco.

REDIRECT EXAMINATION

BY MS. SCHMID:

Q Thank you very much. Good morning. You were asked a series of questions about negative and positive values. And you were asked questions about the statute that applies to voluntary request for resource decision review and things the Commission should, or actually must -- shall consider. Do you recall that line of questions?

A I do.

Q Is it true that the Commission has many things that it must take into consideration?

A That's my understanding, yes.

Q And is it true that those are (1) whether it will most likely result in the acquisition, production, and delivery of utility services at the lowest reasonable cost to the retail customers of an energy utility located in this state, (2) the long-term and short-term impacts, (3) risk, (4) reliability, (5) financial impacts on the energy utility, and (6) other factors determined by the Commission to be relevant?

A That's my understanding, yes.

Q And is it also your understanding that these things, including 6, the other factors

determined to be -- determined by the Commission to be relevant, are what the Commission shall take into consideration when it is determining whether or not the requested resource is in the public interest?

A That's also my understanding.

Q So we talked just a little bit about the other factors, and you were also asked -- or actually, we talked a lot about what net present values mean and things like that. Isn't it possible that net present values may not reveal when costs and benefits actually hit the system and actually impact customers?

A The net present value collapses all of the nominal benefits and costs as they play out over time into a single number of present value. So it does not have any information about when those benefits in costs occur, it just aggregates into one metric over the life of the project.

Q And so the fact that those values are aggregated, is it something that the Commission, in your opinion, should take into consideration as one of those others factors?

A The net present value metric will not tell you anything about the timing of cost and benefits and how it would impact customers over time.

Q Thank you. You were also asked questions addressing long-term market heat rates. Do you recall that line of questioning?

A Yes.

Q I'd like you to turn, please, to your response testimony on page 16, figure 1.

A I'm there.

Q Could you tell us what you see in this chart?

A This chart shows our analysis for the low and the medium gas cases, the two cases that we evaluated, and it shows that we tested the market heat rates from 2017 to 2042.

Q Thank you. Turning now to what's been entered into evidence as RMP Cross-Exhibit 4 and, again, this chart and exhibit does contain confidential information, so I will refer to things by rows. Could you please explain why columns P and Q should not be the basis for the Commission's decisions, but R and S should be considered by the Commission?

A The values in P and Q are based upon the Company's two provided Palo Verde scripts that are at a hundred percent of that price script. And we tested it, the market heat rate -- which was part of the prior line of questioning about the market heat rate test -- we tested those prices, and we found that those price scripts were well in excess of the Company's own natural gas price forecast for those scenarios. And from that, we concluded that these clearly overstated the market value of energy, and so we believe that the medium and low numbers that most closely align with the Company's own medium and low natural gas prices are the numbers in columns R and S.

MS. SCHMID: Thank you. Those are all my redirect questions.

COMMISSIONER LEVAR: Thank you. Any recross, Ms. McDowell?

MS. MCDOWELL: No, thank you.

COMMISSIONER LEVAR: Commissioner Clark, do you have any questions for Mr. Peaco?

BY COMMISSIONER CLARK:

Q Yes. I want to start with the last questions you had from Counsel, because I just want to make this as clear as I can in my own mind what R and S -- columns R and S are. I think what Mr. Link did is he used a Palo Verde price script for the years subsequent to 2036; is that right?

A Yes. He used those numbers to provide an alternative methodology to what he used as an extrapolation method that we've talked about. So he used that to provide an alternative to that methodology for that part of his analysis, but he kept the System Optimizer PaR results intact and just used that for the extrapolation period.

Q And am I right that here, you have used the Palo Verde price script for the entire period under analysis, right?

A Correct.

Q And are there price scripts that apply to a low natural gas, or a medium natural gas, or a high natural gas scenario, or is there just one price script that would be utilized?

A The Company actually offered in its analysis a separate Palo Verde price script for its medium case and its low case. So we used those two separate ones.

Q Okay. So in Column S, is the Palo Verde price script that you've taken 70 percent of associated with the Company's low natural gas scenario or the medium?

A The numbers in there are the Company's low Palo Verde price script. And what we did separately is to compare that price script to the Company's low natural gas price, times the market heat rate to see where those compared. And when we did that analysis to compare, you know -- did the Palo Verde prices make sense relative to the, basically, marginal cost of energy on their system, we found that 70 percent of Palo Verde prices was most closely aligned with a reasonable price for gas fire generation on their own system. And that's how we came to get comfortable that that was a number that was useful to look at.

Q And just to be clear, it's 70 percent of the Palo Verde price script that's associated with the low natural gas forward price scripts?

A The Company represented it as their low Palo Verde price script, but they also separately have a low natural gas price. And so we looked at both of those to see where those two prices lined up to each other.

COMMISSIONER CLARK: That concludes my questions. Thank you.

COMMISSIONER LEVAR: Commissioner White.

COMMISSIONER WHITE: No questions, thank you.

COMMISSIONER LEVAR: And I don't have anymore, so thank you, Mr. Peaco. We appreciate your testimony this morning. Ms. Schmid.

MS. SCHMID: Thank you. The Division would like to call its next witness, Mr. Charles Peterson.

CHARLES E. PETERSON,

having been first duly sworn to tell the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. SCHMID:

Q Good morning.

A Good morning.

Q Could you please state your full name, title, employer, and business address for the record?

A Yes. Charles E. Peterson. I'm a utility technical consultant with the Division of Public Utilities.

Q And your business address?

A 160 East 300 South, Heber Wells Building, Fourth Floor, Salt Lake City, Utah.

Q Thank you. In connection with your employment by the Division, have you participated in this docket?

A Yes.

Q Did you prepare or cause to be filed what's been pre-marked as DPU Exhibit 4.0 Direct, DIR, your prefiled direct testimony, DPU Exhibit No. 4.0-SR, your prefiled surrebuttal testimony, and what's marked at DPU Exhibit No. 4-RESP, which is your prefiled response testimony, and that was filed on April 2nd, 2018?

A Yes.

Q Do you have any changes or corrections to that testimony?

A None that I'm aware of.

Q If I were to ask you today the same questions that were presented in your prefiled testimony, would your answers be the same?

A Yes.

MS. SCHMID: With that, the Division moves for the admission of DPU Exhibit No. 4.0-Direct, 4.0-SR, and 4.0-RESP.

COMMISSIONER LEVAR: If any party objects to that motion, please indicate to me. I'm not seeing any objections, so the motion is granted.

(DPU Exhibit Nos. 4.0-DIR, 4.0-SR, and 4.0-RESP admitted.)

BY MS. SCHMID:

Q Mr. Peterson, do you have prepared comments and live testimony to give today?

A Yes, I do.

Q Please proceed.

A Good morning, Commissioners. My testimony covers three matters in this docket. The first matter pertains to a statutory requirement of whether the Company has the financial capabilities or the financial impacts on the Company of the repowering proposal.

The second point is whether or not it's appropriate under traditional regulatory practice to recover the cost on and earn a return on property that is no longer useful, and if so, under what circumstances that is allowable.

And the third issue is the issue of intergenerational equity. With respect to the first, I believe that it is well within the Company's financial capacity to pursue the repowering projects as it has proposed them. This is especially true if the Company maintains a capital structure of approximately 50 percent equity, which the Company has at least implied that it will do. And also implicitly, is the Company has regulatory support and recovery for the projects.

With respect to the second point, the Division understands that the Company's justification for the repowering project is primarily economic. That is, ratepayers and the Company will be economically better off with the repowering projects as proposed than without them. As I detailed in my direct testimony, the authorities I cited suggest that it may be appropriate to allow recovery of equipment that is no longer used and useful for purely economic reasons. One authority, Phillips, for example, presents cases where the recovery of equipment taken out of service was over a four- or five-year period. I concluded that, for economic reasons alone, it may be appropriate for the recovery of equipment that is no longer used and useful but, if so, it should be over a relatively short period of time.

This leads into my final issue of intergenerational equity. The Company cites three cases that have come before the Commission as precedential to the recovery of equipment taken out of service. In the Powerdale decision, the Commission allowed a recovery over three years. The other two cases, which the Division believes were inappropriately cited by the Company because they were parts of settlements, had recovery periods of approximately five years. I did not find any evidence, neither did the Company offer any evidence, of a regulator anywhere allowing recovery of and return on equipment taken out of service over a 30-year period. The intergenerational equity issue is this: There will be future ratepayers who will receive no benefit from the production tax credits -- the economic justification for the repowering projects -- and there will be future ratepayers toward the end of the ten years of the PTC benefits that will inadequately be compensated by the PTCs to offset the payment on the equipment removed from service.

The Company proposes to remove the legacy equipment, the equipment that is currently operating. And after removal, this legacy equipment will no longer be used and useful. However, ratepayers who would receive no PTC benefits and ratepayers who would be inadequately compensated with the PTCs for the cost of those -- for the cost those ratepayers incur, will both pay the Company for the legacy equipment for its remaining amortizable value over 20 years or more. This scenario is unprecedented, to my knowledge.

I made the suggestion that the Commission consider -- that if the Commission considers the intergenerational issue to be of some importance, then the amortization period of the legacy equipment -- the equipment which will no longer be used or useful -- could be reduced to at least match the period of the PTC benefits. While even ten years is beyond the length of recovery of legacy equipment that has typically been given, it at least can be justified by matching costs with benefits. It is also true that any benefits to current ratepayers will be reduced over that ten-year amortization period, which could undermine the project's justification.

In its latest filings, the Company witness, Ms. Joelle Steward, made some new observations concerning my testimony. It is noteworthy that she makes no specific mention of intergenerational equity issue, which implies to me that Company is aware of and has no answer for it. Ms. Steward correctly notes that I did not include the Company's return on the legacy equipment that it is proposing to continue to receive from ratepayers for 30 years in the calculations I made in estimating the value or cost of reducing the amortization period to ten years. Including the return on the equipment only makes it worse for future ratepayers, in that they will not only pay the Company for the cost of the equipment, but will also reward the Company for keeping it out of service.

Ms. Steward also suggests that the Company's proposal to amortize the legacy equipment is consistent with typical ratemaking. At best, the typical ratemaking treatment has been to amortize equipment over the remaining original life of that equipment. She continues to ignore the fact that amortizing equipment that is not used or useful over a 30-year period is unprecedented and creates an intergenerational equity issue that is also unprecedented. This is not typical ratemaking in my view.

And finally, Ms. Steward suggests that the Company should wait until the next depreciation study cycle to determine the appropriate amortization of this legacy equipment. This is a new idea that the Company is proposing, and has the effect of delaying a decision on this matter. The Company itself did not wait for the depreciation study cycle to make the unprecedented proposal to amortize equipment that was not used or useful over a 30-year period. And that concludes my opening comments.

MS. SCHMID: Thank you. Mr. Peterson is now available for questions.

COMMISSIONER LEVAR: Mr. Moore or Mr. Snarr, do you have any questions for Mr. Peterson?

MR. SNARR: No questions.

COMMISSIONER LEVAR: Mr. Russell?

CROSS-EXAMINATION

BY MR. RUSSELL:

Q Mr. Peterson, on that last point regarding the depreciation study, as you note, Ms. Steward has testified that the Company would recommend that we address the length of the period of amortization in the upcoming depreciation study. I note your comments, but it's unclear to me, what is your view as to when the Commission ought to address that issue? In this docket or in some other docket?

A If the Commission considers the issue of intergenerational equity to be important, it should definitely be decided in this docket.

MR. RUSSELL: That's all I have. Thank you.

COMMISSIONER LEVAR: Ms. Hickey?

MS. HICKEY: I think I'll waive in the interest of time.

COMMISSIONER LEVAR: Ms. McDowell or Mr. Lowney?

MS. MCDOWELL: Just one moment. No questions.

COMMISSIONER LEVAR: Ms. Schmid, any redirect based on Mr. Russell's questions?

MS. SCHMID: None. Thank you.

BY COMMISSIONER WHITE:

Q I just want to be clear. So are you -- you're suggesting it would be inappropriate to postpone consideration of this matter until the depreciation study? Do we need to decide now, or would that be something you would consider appropriate during that time?

A Well, obviously, we could re-debate it at that time, but I can't see that the position of the Division would be any different. The Company is taking this equipment out of service and putting it somewhere. That puts time -- it becomes an amortizable amount on the balance sheet that is not considered depreciation at that point. It's just simply, purely cost recovery, and not tied to any particular economic period, which normal depreciation is supposed to be at least nominally tied to. So the issue is, over what period are you going to amortize this equipment to give the Company cost recovery. And so, yes, you could delay making a decision on it, but I think it's more appropriate to be done here, in this setting here, so that we tie up any loose ends with that.

Q Would it be appropriate also to discuss -- to address the question of return of as well as a return on during that time period, or is that something that would also be more appropriate?

A Well, if you want to delay to another docket setting, then I guess we could, but I think we can decide in this docket whether a return on or a return of is appropriate. The Division is taking the position that the legacy equipment -- it would be appropriate for the Company to return or to receive cost recovery from this equipment, assuming the Commission believes that the proposal, the repowering proposal, is appropriate. If the Commission approves the repowering proposal as being appropriate, then the equipment that would be taken out of service for that proposal, whether it's for the entire package that the Company is proposing or some reduced package -- that reduced number of projects -- but in any case, whatever equipment is taken out to implement a repowering of any size, the Division takes the position that it would be appropriate for the Company to receive a return of its costs, which would include the return of capital costs.

Otherwise, I think the Company is correct in its assertion, or its implicit assertion, that it will not pursue projects because they don't make sense without the recovery of the legacy equipment.

Q Putting aside the intergenerational -- how to depreciate or what period of time to recover the investment, are you aware of any case, at least of this Commission, where there's been an initial approval and then when an investment is retired earlier than -- the return-of portion is then taken out when you're recovering that strata portion?

A I'm not aware of any, but that doesn't mean it's never happened.

COMMISSIONER WHITE: That's all the question I have.

COMMISSIONER LEVAR: Commissioner Clark?

BY COMMISSIONER CLARK:

Q I have a few questions. Good morning, Mr. Peterson. Do you have enough understanding of the Company's economic analysis to know whether or not its analysis assumes both a return of the investment, as well as a return on the investment in this, what would be the stranded plant?

A My understanding is that the Company has not included the legacy equipment in these economic calculations. My understanding of what the Company is saying here is that we can go and repower this equipment and pay for the repowering with the PTC benefits, and in addition to paying for the repowered equipment with the PTC benefits, there will be additional benefits left over, say, in the $150 million range that would then go to effectively reducing the cost of the legacy equipment. So therefore, ratepayers are better off because -- I'm just kind of picking a number out of the air, but I think it's in the ballpark -- $150 million better off because without doing the repowering, they would have to pay for the full cost -- the full remaining cost of the legacy equipment, and they would not get the benefit of this $150 million. And so that's, at least, how I conceptualize what the Company is saying here.

Q Have you evaluated, or has anyone at the Division, evaluated the Company's proposals, assuming that the cost of the stranded assets would be recovered over the life of the PTCs, for example, over that 10-year period, so that it would be matched against the credits?

A I have performed that sort of analysis. If I understand your question correctly, you are comparing the 30-years versus the 10-year period?

Q Right.

A Yes. And I've suggested in my testimony that the present value of the -- the present value as of 2019 -- the present value of the equipment that would be recovered under the Company's 30-year proposal, in other words, from year 10 to year 30, is in the ballpark of $200 million. Now, I need to clarify this. The $200 million is part of the intergenerational equity issue, but the $200 million would be -- if it's part of the -- let me try to start over. Obviously, there's going to be turnover in the Company's mix of customers over the years. The full $200 million would only be applicable if the Company experienced a 100 percent turnover in customers in the 10 years, which is extremely unlikely. But there would be some portion of the future customers that the Company will undoubtedly have who will not be adequately compensated from the PTC benefits who would be paying into some of that $200 million figure and those -- so you have an intergenerational equity that has a present value of about $200 million, and the $200 million would apply if every customer were changed out in the next 10 years. And it would be zero if no customer is changed out over 30 years.

It's hard to say what the churn rate would be, and even if we knew that, there might be difficulties with interpreting it. But the Division believes that there would be some sizable fraction of customers in the future that will fall into this category, that they will not receive any benefits from the PTCs, but they will have to continue to pay on the legacy equipment if you follow the 30 years.

Q And in the Division's view, is this an important consideration for the Commission in evaluating the proposal? You've said a few times, if the Commission feels that it's -- this intergenerational equity issue is of importance. What's the Division's position?

A The Division's position is, first of all, to the best of my knowledge -- again, there hasn't been a clear statement by the Commission of intergenerational equity, per se, and what would constitute inequity. So we're struggling a little bit to say what the Commission should do, based on precedent. However, the Division's position is that the -- there is intergenerational inequity, and that the best way to solve it would be to shift the costs of the legacy equipment to at least the period of time when the ratepayers would be receiving the benefits, which is amortizing it over the 10-year period. I have the feeling I lost some of your question.

COMMISSIONER CLARK: I think you've answered my questions. That concludes my questions.

BY COMMISSIONER LEVAR:

Q Thank you. And just maybe one or two questions in addition to that. Some years back, there was a stipulated agreement to establish, I believe, a 5-year depreciation study cycle; is that correct?

A A 5-year depreciation -- you're talking about the depreciation study cycle?

Q Is it five years; is that right?

A You know, since I haven't been intimately involved with those matters that have come up since I've been here, I'm not sure it's five years. That sounds correct.

Q So you don't have information on the agreement that led to that cycle or how it's been implemented since then?

A I'm not familiar with it. I'm sorry.

Q So you wouldn't be able to answer whether what you're suggesting would be in any way inconsistent with the stipulation that established that cycle?

A I couldn't speak that directly, no.

COMMISSIONER LEVAR: Okay. Thank you, Mr. Peterson. We appreciate your testimony today.

MS. SCHMID: Pardon me. Would I be permitted to ask one question, or would that not --

COMMISSIONER LEVAR: We typically don't, but I think we'll allow that right now.

REDIRECT EXAMINATION

BY MS. SCHMID:

Q Thank you. Mr. Peterson, in your opinion and in the opinion of the Division, is it likely that some customers will be worse off if the application is approved?

A As a whole?

Q Yes.

A Yes.

MS. SCHMID: Thank you.

MS. MCDOWELL: Commissioner Levar, I'm going to ask for your indulgence for one other follow-up question, if it's possible.

COMMISSIONER LEVAR: I think since we allowed that question, it's only fair to allow a follow-up.

MS. MCDOWELL: I really appreciate that. I just want to be sure the record is clear.

RECROSS EXAMINATION

BY MS. MCDOWELL:

Q Were you here when Ms. Steward gave her summary of her testimony yesterday?

A Yes.

Q And do you recall, she summarized her testimony on the cost recovery of the legacy equipment, and that testimony included the rebuttal testimony of Jeff Larsen, which states, "The Company included cost recovery of the legacy plant in its economic analysis that demonstrated repowering is lower cost than other alternatives." Does that refresh your recollection on whether the legacy

plant was included in the Company's economic analysis?

A   Well, if it was, we don't know where it was included because I've attempted to ascertain the lines from the testimony that included that.

Q   Mr. Peterson, isn't the legacy equipment, including the full return on that equipment as Ms. Steward testified yesterday, included within the project-cost side of the equation?

A   My answer is the same, is that, to the best of my knowledge, the -- and I did attempt to ascertain this -- the legacy equipment was not part of the benefits that the Company calculated. Now, that's to the best of my knowledge.

Q   Just to be clear, it's not part of the benefits, but did you review the cost side to see whether it was within -- embedded as one of the costs within the project costs?

A   I attempted to look at that and I asked for help, with my colleagues, to see if that was in there, and we were unable to identify specific line items, at least when I asked about it.

MS. MCDOWELL: Thank you. Because this an important point, we would be pleased to provide additional data on that point to verify that the legacy equipment, including the return of and return on, is included in the project-cost side. It is in there, and we're happy the demonstrate that it is in some way.

COMMISSIONER LEVAR: To clarify, are you asking to recall a witness in rebuttal to this testimony or --

MS. MCDOWELL: We could do it that way, or we could just produce -- for example, in response to a bench request or clarification -- just verification that that cost and the return of and return on is in the cost side of the Company's economic analysis.

COMMISSIONER LEVAR: Ms. Schmid, do you have a response?

MS. SCHMID: I do. The Division believes this question could be answered by Mr. Peaco, and he would be the appropriate person to address it.

COMMISSIONER LEVAR: Okay. If we go that route, we probably ought to allow the Utility to bring up a witness to address the issue also. Is there interest in moving forward that way from the parties?

MS. MCDOWELL: It seems like an

important point. It would be one question, and we could establish it in that way.

COMMISSIONER LEVAR: Well, I think we'll excuse Mr. Peterson. Thank you for your testimony. And while we're still on the Division's presentation, it seems to make sense to go forward -- Commissioner Clark, did you want to add something?

COMMISSIONER CLARK: No. I just wanted to say, I'm interested in the process you described. Thank you.

MS. SCHMID: Pardon me. If the Company provides information, the Division respectfully requests the opportunity to respond to that.

COMMISSIONER LEVAR: Certainly. Well, I think what we'll do is allow the Utility to call a witness to rebut this issue, and then we'll allow the Division to call a witness to rebut this issue. We'll allow cross-examination on both, if there's no objection from anyone in the room to that process.

MS. SCHMID: Or the Division -- okay. Thank you.

MS. MCDOWELL: Commissioner LeVar, is

it your intention to do that now or at the conclusion?

COMMISSIONER LEVAR: Why don't we do that now.

MS. MCDOWELL: All right. One moment while I figure out which of my witnesses. It will be Mr. Link.

COMMISSIONER LEVAR: Well, I hadn't really thought of that question. If the parties would prefer to do this at the end, I was thinking while it's fresh in everyone's mind --

MS. MCDOWELL: Let's just do it.

COMMISSIONER LEVAR: Okay. Mr. Link, you're still under oath from yesterday.

DIRECT EXAMINATION

BY MS. MCDOWELL:

Q Good morning, again, Mr. Link.

A Good morning.

Q So were you present during Mr. Peterson's testimony?

A Yes.

Q And did you hear the question that Commissioner Clark asked Mr. Peterson regarding whether the legacy equipment was included in the Company's economic analysis?

A Yes.

Q And can you explain how you've included the legacy equipment in the Company's economic analysis of repowering in this docket?

A I can.

Good morning, Commissioners. I'm happy to verify and clarify precisely what was in our economic analysis. And I'll start by simply stating that the return on, return of the existing equipment is included in every study that we've performed in our economic analysis. The way that that is included -- and it probably helps explain, in part, Mr. Peterson's response as to why he couldn't find it -- I think there's a rational explanation for both of these.

Essentially, as I think I discussed yesterday in my testimony, we do two runs of our system, one with and one without repowering. And in essentially both of those runs, the assumption is that all embedded cost is the same, and so they net out as a difference. And so if one is looking at the change in results, it doesn't show up that there is a return on and return of the existing equipment. But became virtue of making that assumption in the approach, it is to say that regardless of whether we repower or don't repower, we still recover our return on and return of the existing equipment. It's the same in either case over the term of the existing -- the amortization period of that equipment, so roughly, an additional twenty years.

Q So, Mr. Link, just to be clear, that including the legacy equipment with a full return of and return on in both the "with repowering" and "without repowering" than in the "with repowering" case, return of and return on the legacy equipment would be included in the cost-side of the equation?

A Yes. It's included in the overall project economics.

Q So when you're calculating the net benefits, those are benefits over and above the Company's recovery of the legacy equipment, including return of and return on?

A Right. I think if we had assumed anything other than what I described -- let's say we assumed there was no return on, then in the case with repowering, there would be a separate cost item to account for that, and there is not. It's a net to zero.

MS. MCDOWELL: That's all the questions I have. Thank you.

COMMISSIONER LEVAR: Ms. Hickey, do you want to ask Mr. Link any questions on this issue?

MS. HICKEY: No, thank you, sir.

COMMISSIONER LEVAR: Mr. Russell?

MR. RUSSELL: No, Chairman. Thank you.

COMMISSIONER LEVAR: Mr. Moore or Mr. Snarr?

MR. SNARR: No questions.

COMMISSIONER LEVAR: Ms. Schmid?

MS. SCHMID: Yes.

CROSS-EXAMINATION

BY MS. SCHMID:

Q   So is it true that because of the way that you've included return on and return of in your analysis, it doesn't make any difference because it's --

A   I wouldn't quite characterize it that way. I would say the way that we applied it is that it nets to zero, which implies we have the same revenue requirement on that equipment, whether we repower or we don't. And so by not repowering or repowering, we're capturing the return on and return of that equipment in either scenario.

Q But you're capturing the return on with or without, but if you add the new equipment, you'll also be recapturing -- or capturing a new return on rate base; is that correct?

A No, it's not correct. By virtue of making the same assumption in both views of the system going forward with or without, the case without, if we did not repower, we would continue to earn our return on and return of the existing equipment. In the next case, we have the exact same assumption, return on and return of, the net impact of that in our present value revenue requirement differential analysis is zero, so it has no impact on the net benefits, but it is included in the economic analysis. We think about directionally, if we had not included that, that would essentially improve the present value revenue requirement benefits for customers because the case without repowering would be lower cost relative to what we reported, but of course, result in a lower return on that investment in the Company's side of the equation.

MS. SCHMID: May we have just one moment?

COMMISSIONER LEVAR: Yes.

MS. SCHMID: Thank you. The Division

has no further questions.

COMMISSIONER LEVAR: Thank you.

Commissioner Clark, do you have any questions for Mr. Link?

BY COMMISSIONER CLARK:

Q Thank you. Is there any aspect of the Company's proposal or analysis that would have the affect of altering the normal depreciation schedule for the assets that would be -- I'll call them stranded -- or would be retired early if we approve the application that would extend them beyond the lives that they have now? In other words, are they going to be recovered for 30 years beginning with the implementation of the new equipment, or do they just -- are they recovered over the lives that they currently have on the Company's books?

A I would say as assumed -- I'll start with as assumed -- in our economic analysis, they were not extended on the existing equipment to go the full new 30-year life of the repowered assets once those are placed in service. They're retained by virtue of how we did this by saying it's the same in either case, that they would continue to be amortized over their current depreciable lives, which would be roughly that approximately additional

20 years or so, depending on the project. And I believe, just to reiterate some of the description of Ms. Steward's testimony, the latest proposal here, then, is actual treatment of that would be picked up again and reassessed in the depreciation study, which we plan to file later this year.

COMMISSIONER CLARK: That concludes my questions. Thank you.

COMMISSIONER LEVAR: Commissioner White, any other questions?

BY COMMISSIONER WHITE:

Q I think I understood, but I just want to make sure, like, one more time. The economic analysis the Company did in these projects assumed that the overall benefits would incorporate the concept that you're retiring these assets earlier that were previously approved with return on and return of, back in 2000-whatever, right?

A Yes. It accounts for the continued return on and return of those assets.

Q And even with that early retirement, the overall benefits for the Company's case, you know, shows a net benefit?

A Yes. That assumption is included in all of the numbers in my testimony.

COMMISSIONER WHITE: That's all I have. Thanks.

COMMISSIONER LEVAR: Ms. Schmid, do you want to supplement this issue further?

MS. SCHMID: The Division has nothing further. Thank you.

COMMISSIONER LEVAR: Okay. And then, nothing further, generally? You're finished with all your witnesses?

MS. SCHMID: Both. Yes. Thank you.

COMMISSIONER LEVAR: Mr. Moore or Mr. Snarr?

MR. SNARR: We'd like to proceed with the presentation of the case on behalf of the Office. I do have an exhibit list here that I'd like to distribute here to the Commissioners and others that might help.

The Office would like to first call Cheryl Murray as a witness.

CHERYL MURRAY,

having been first duly sworn to tell the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. SNARR:

Q Ms. Murray, could you please state your

name and your employment, and provide your business address?

A My name is Cheryl Murray. I am employed by the Office of Consumer Services, and my business address is 160 East 300 South, Salt Lake City, Utah.

Q And in connection with your duties with the Office, have you caused to be filed, testimony, or had the opportunity to review testimony filed by others who were employed by the Office, such as you could adopt their testimony in connection with this proceeding?

A Yes.

Q And would that include the direct testimony that was filed by Gavin Mangelson on September 20, surrebuttal testimony, again, by Mr. Mangelson on November 15, 2017, as well as your responsive testimony, filed on April 2, 2018?

A Yes.

Q And if you were asked all those questions, would you provide the same answers today?

A I would.

Q Do you have any corrections?

A Yes. On the Mangelson surrebuttal testimony cover page, there was a date of October 2017, and the correct date is November 15, 2017.

Q Are there any other additions or corrections?

A Not that I'm aware of.

MR. SNARR: With that explanation, we would offer these exhibits into testimony.

COMMISSIONER LEVAR: If any party objects to that motion, please indicate to me. I'm not seeing any objections, so the motion is granted.

(OCS Exhibit Nos. 1D Mangelson, 1S Mangelson, and 1 Response Murray admitted.)

BY MR. SNARR:

Q Ms. Murray, have you prepared a summary to present today?

A Yes.

Q Can you proceed to provide that?

A Yes.

Good morning, Commissioners. In my testimony, I introduced two expert witnesses for the Office, and briefly summarized the Office's positions that were informed by the analyses conducted by those experts. Mr. Philip Hayet conducted the analysis regarding the costs, benefits, and risks associated with the wind repowering projects. He determined that the Company has not demonstrated that repowering its wind projects will most likely result in the acquisition, production, and delivery of electricity to its customer at the lowest reasonable cost considering risk, thus he recommends that the wind projects be rejected by the Commission, or in the alternative, that a much more limited set of projects receive pre-approval. Mr. Hayet also recommended several ratepayer protection measures.

Ms. Donna Ramas testified regarding cost recovery of the projects and the proposed revenue tracking mechanism. Based on her analysis and extensive background with revenue requirement and accounting issues, Ms. Ramas explains why the RTM is unnecessary, adds complexity to the regulatory process, and should be rejected by the Commission. Both witnesses are available today to respond to questions related to the analyses they conducted, their conclusions, and their ultimate recommendations.

In summary, the Office recommends that the Commission reject the Company's request for pre-approval for the wind repowering project in its entirety. However, if the Commission decides not to reject the Company's request for approval, it should grant pre-approval of only a limited number of the resources, as explained fully by Mr. Hayet.

Finally, the Office is concerned with the uncertainty surrounding the multi-state process and the allocation of costs and perhaps even resources among PacifiCorp's six states. In order to mitigate that uncertainty as it pertains to the projects at issue in this docket, the Office recommends that if the Commission approves all or any of the wind projects, it should only pre-approve Utah's share of the projects as calculated under the current MSP allocation methods.

And that concludes my statement.

MR. SNARR: Ms. Murray is available for cross-examination.

COMMISSIONER LEVAR: Ms. Schmid, do you have any questions for Ms. Murray?

MS. SCHMID: No questions.

COMMISSIONER LEVAR: Mr. Russell?

MR. RUSSELL: No questions, Mr. Chairman.

COMMISSIONER LEVAR: Ms. Hickey?

MS. HICKEY: No, thank you.

COMMISSIONER LEVAR: Ms. McDowell or Mr. Lowney?

MS. MCDOWELL: No questions.

COMMISSIONER LEVAR: Commissioner White?

BY COMMISSIONER WHITE:

Q On that last point about MSP, is it the Office's recommendation to -- if the Commission were to approve -- you mentioned that you would be limited to Utah's share of the costs. Would that include Utah's share of the benefits, or would that be an open question going forward?

A I believe we would view it as symmetrical.

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

COMMISSIONER LEVAR: Commissioner Clark?

COMMISSIONER CLARK: No further questions.

COMMISSIONER LEVAR: And I don't have any either. Thank you for your testimony this morning. Mr. Moore?

MR. MOORE: The Office calls Donna Ramas and ask that she be sworn.

DONNA RAMAS,

having been first duly sworn to tell the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MOORE:

Q Could you please state and spell your name, and give your business address, and state for whom you are testifying?

A My name is Donna, D-o-n-n-a, Ramas, R-a-m-a-s. My business address is 4654 Driftwood Drive, Commerce Township, Michigan. And in this case, I'm testifying on behalf of the Office of Consumer Services.

Q Did you prepare and cause to be filed redacted confidential versions of a September 20, 2017, direct testimony, a November 15, 2017, supplemental rebuttal testimony, an April 2, 2017 response testimony together with exhibits, and did you participate in the filing of the April 30, 2018, errata?

A Yes, I did. And that errata was directed to my April 2nd, 2018, response testimony.

Q Do you have any corrections to these testimonies?

A Outside of the errata, no, I do not.

Q If I asked you the same questions, would your answers be the same today?

A Yes, they would.

MR. MOORE: The Office moves for admission of the testimony and associated exhibits.

COMMISSIONER LEVAR: If anyone objects to that motion, please indicate to me. I'm not seeing any objections, so the motion is granted.

BY MR. MOORE:

Q Have you prepared a summary of your testimony?

A Yes, a brief summary.

Q Please proceed.

A Good morning, Commissioners, Chair.

In my testimonies, I recommend that the new resource tracking mechanism proposed by the Company in this case be rejected. It's my opinion that there's no need to establish a new recovery mechanism that adds a substantial amount of complexity to the regulatory process.

If the Company does, in fact, go forward with the repowering projects in this case, or a subset of those projects, adequate means currently exist to address the revenue requirements associated with those projects without the need for this complex new recovery mechanism. As I explained in my direct testimony, if the Company forecasts that the projects will cause it to be unable to earn its

Commission-authorized rate of return in the State of Utah when taking into consideration all of the items that impact its overall revenue requirements, it has the ability to file a rate case before the Commission. The Company also has the ability to seek the use of a future test in a general rate case that would include the period the projects are in service.

As pointed out in my direct testimony, my surrebuttal testimony, and again in my response testimony, the Company has provided no information in this case addressing whether or not the wind repowering projects at issue in this case will cause it to be unable to earn its authorized rate of return if the resource tracking mechanism is rejected. Under the Company's resource tracking mechanism proposal, the Company could, in fact, end up earning in excess of its authorized rate of return during the period the repowering projects are in place and in service, and yet still be able to recover additional costs from Utah ratepayers under its proposed mechanism. In addition, under the Company's new proposal, they could also defer additional amounts to be recovered from customers beyond the amounts flowing through the resource tracking mechanism with impacts of tax reform. That's being addressed in a completely separate docket that's been established. Again, both the resource tracking mechanism and the newly proposed deferral of cost would operate under the Company's proposal regardless of the rate of return being earned by the Company under the current rates in effect.

As addressed in my surrebuttal testimony, I also recommend that any deferrals authorized by the Commission in this proceeding be limited only to the unrecovered costs associated with the projects being replaced. That would be the stranded costs that were discussed earlier today. Thus, if the Commission determines that the projects or a subset thereof are prudent and in customer interest, the Company would not have to write off the unrecovered costs associated with existing wind assets being recovered earlier. As discussed earlier today, this could be achieved early either through the Company's proposal of transferring the costs, the unrecovered costs into the accumulated depreciation reserved to be addressed in the depreciation case, or the Commission could authorize the establishment of a regulatory asset to address those costs in a future

rate case, or potentially as part of the decision in this case.
In my direct testimony, I also point out several problems and concerns with actual mechanics in calculations that go into the resource tracking mechanism. It's my opinion that these problems and concerns were not alleviated by the information presented in the Company's rebuttal testimonies.
In conclusion, I strongly continue to recommend that the Company's proposed resource tracking mechanism be rejected in this case. Thank you.
MR. MOORE: Ms. Ramas is available for cross.
COMMISSIONER LEVAR: Thank you. Ms Schmid, do you have any questions for Ms. Ramas?
MS. SCHMID: No questions.
COMMISSIONER LEVAR: Mr. Russell?
MR. RUSSELL: No questions.
COMMISSIONER LEVAR: Ms. Hickey?
MS. HICKEY: No, thank you.
COMMISSIONER LEVAR: Ms. McDowell or Mr. Lowney?
MR. LOWNEY: Yes, the Company does have a few questions. Before I get started, we've

got a few cross-examination exhibits, so we'll distribute those to the group before we start questioning.

CROSS-EXAMINATION

BY MR. LOWNEY:

Q Good morning, Ms. Ramas. My first few questions are not going relate to those exhibits. I would just like to ask you a few questions about tax reform to get started. So, Ms. Ramas, would you agree that you testified extensively in your direct and surrebuttal testimony related to the uncertainties surrounding potential tax reform?

A Yes, I did.

Q And would you agree -- and I believe you testified -- that a lot of that uncertainty is now resolved, correct?

A Yes. The majority of that has been resolved through the new tax act that was passed in December 2017.

Q If you could, turn to your response testimony. That would be the most recent testimony you filed. Page 3, if you're on page 3, lines 60 to 63. At the bottom of that page, you testified that, "The recommendations presented in my direct and surrebuttal testimonies will not be repeated

herein." But you continue to stand behind those recommendations, correct?

A Yes. But I did then elaborate in the following paragraph that a lot of the concerns and uncertainties pertaining to the tax law have since been resolved.

Q Okay. I just wanted to clarify. In your surrebuttal testimony, you had a specific recommendation related to accounting for tax reform in the economic analysis, and I wanted to make sure that recommendation of yours has been resolved. Is that fair?

A For the most part. There's still one issue that I see as -- at least, in the areas I reviewed -- as being a concern. And that is in, I believe it's Mr. Hoogeveen's testimony yesterday, he indicated that the hold harmless provisions or the guarantees the Company is making in this case wouldn't include future changes in tax law. But as part of that discussion, my recollection was that he specifically referenced IRS guidance because, again, it's -- a lot of the safe harbor provisions at issue in this case to get the hundred percent production tax credit allowances are dependent on IRS guidance, so not necessarily anything in the new tax code, but guidance issued by the IRS. And I took his testimony -- and I may be wrong -- but my understanding of his testimony was that if the IRS changes that guidance such that ratepayers no longer get that hundred percent -- or the Company no longer qualifies for the hundred percent production tax credits, that that's not something the Company would be willing to assume the risk for. And that's a big concern for me because absent those production tax credits, I'm not even sure the Company could argue that any of these projects could be considered economic. So I do still have that concern, and it's still my view that if something changes the qualification for the hundred percent production tax credits, that that should be a risk that the Company is willing to accept in that case and not pass on to ratepayers.

Q And just one quick qualifier. With respect to those provisions that the Company is relying on in order to allow the repowering facilities to become PTC eligible, it is your understanding that, during the tax reform debate that occurred last year, there were proposals out there that would have changed substantively the treatment and eligibility of PTCs in all of those

proposals, ultimately did not make it into the final bill that was passed, correct?

A Yes, that's my understanding. But again, my concern is just with my understanding of Mr. Hoogeveen's qualification that if those guidelines change going forward, that that risk isn't a Company risk. And it's my view that that should be a Company risk and not a ratepayer risk.

Q Let's turn to your direct testimony, please, page 24.

A I'm there.

Q And I'm going to direct your attention to the Q and A that begins on line 509. And really, the substantive portion of your response begins on 511. And you state that -- this is in response to the RTM -- you say, "Shifting costs from base rates to automatic recovery mechanisms removes some of the incentive to control costs." Do you see that?

A Yes, I do.

Q And then on lines -- so the next sentence, you refer to the RTM as an automatic true-up. Is that a fair characterization of your testimony?

A Yes, because that's my understanding of how it would operate, that you're truing up certain components of the revenue requirements associated with the assets at issue in this case.

Q And I guess the word that I'm going to ask you about is the word "automatically," because would you agree that the Company must demonstrate the prudence of any expenses before they're included in the RTM mechanism?

A I guess it's my understanding that, if the RTM is approved -- which I'm advising against -- that you would still have an annual review, such as you do with the EBA mechanism or the renewable energy credit balancing account that's in place. So there would still be a review of those costs under the Company's proposal.

Q And are you familiar with the Voluntary Approval Statute that the Company is relying on in this case?

A Yes. I've read the statute. I'm not an attorney, but I am familiar with it.

Q I'm going to ask a very general question. Is it your understanding that under the terms of that statute, even if the Company were to receive pre-approval in this case, it is still obligated to implement the resource decision prudently and can experience a disallowance if it doesn't do so?

A If you give me a moment to look at the statute -- I agree the Company would still be required to do so and at risk for amounts above the amount that's pre-approved. I'm not sure that parties could go back and challenge up to the level that's pre-approved under the statute.

Q And I'll direct your attention -- the statute is 54-17-403, subsection 2A. And it reads, "The Commission may disallow some or all costs incurred in connection with an approved resource decision if the Commission finds that an energy utility's actions in implementing an approved resource decision are not prudent because of information or changed circumstances that occur after." And then it has a couple of events, including approval.

A Yeah, that's contingent on the new information or changed circumstances.

Q So given that the Company is still required to demonstrate the prudence of all costs before they go into the RTM, isn't the difference between the RTM and the general rate making only an issue of timing, not of substance, in terms of the incentive to control costs?

A First, I would disagree that the RTM mechanism follows, necessarily, the statute. My understanding of the statute is the pre-approval of the resource decision, not approval of the RTM, because there's nothing within the statute addressing the allowance of such a recovery mechanism. The costs are still subject to review, however, that review doesn't consider overall revenue requirements of the Company. So even though those costs would be reviewed in an annual review of the resource energy tracking mechanism, that doesn't mean the Company has a revenue requirement need to have that special mechanism. There is the potential the Company could still earn its authorized rate of return, even without that mechanism in place.

Q Let's move on to a different topic. If you could, turn to page 31 of your direct testimony, please. This section of your testimony is addressing the impacts of renewable energy credits, correct?

A Correct.

Q And it's your understanding that the Company's economic analysis in this case did not include any specific value for the RECs that would generated -- incremental RECs that would be generated by the repowering projects, correct?

A It wasn't included in the SO -- in the PaR runs is my understanding, but Mr. Link did reference it as a potential benefit in his testimony and did include some dollar amounts based on a dollar per REC value in his testimony. So in this section of testimony, I'm recommending that that not be considered in evaluating whether or not this project should be approved.

Q And that's exactly what I was going to ask you about. So if you go to your testimony on line 661, you testify that the Commission not give credence to the possibility of future revenues from the increment RECs, correct?

A Correct. For the reasons cited on that same page and the next page in my testimony.

Q And I see a lot of your reasoning is confidential, so I don't want to ask you about those specific reasons. But obviously, if something I ask requires to you to go there, just let us know and we'll close the hearing.

A And I'll try my best to respond without having to do that.

Q So if I could direct your attention to the document that's labeled RMP Cross-Exhibit 8.

A I have that.

Q And just to give everybody a frame of

reference, these are comments filed by the Office of Consumer Services on August 4, 2017, in the Company's annual -- in the docket that reviews or audits the Company's Renewable Energy Credits Balancing Account. Is that correct?

A Yes, it is.

Q And if you could, just turn to page 2 of that document. Under the heading, "Office Analysis," it indicates that you provided assistance in reviewing the Company's application, correct?

A Correct.

Q And I'd like to direct your attention now to the very bottom of that page 2, the first sentence of the last paragraph which says, "The Office notes that the annual amount of REC revenues received by the Company are increasing." Do you see that?

A Yes, I do.

Q And then, if you could turn to the top of the next page, page 3, the second paragraph that begins with "The Office agrees," and if you go down a little bit to the next line, it says, "Given the increase in REC revenues being realized by the Company, coupled with the Company's outstanding proposals to expand its wind resources which would

increase the RECs available for sale, the RBA benefits ratepayers by ensuring that they receive the advantage of the increased revenues during the long span between general rate cases." Do you see that?

A Yes, I do. But, again, this goes to the revenues received and the amount available for sale. Without giving anything confidential, my testimony goes more towards the ability to sell those and not necessarily the sale price received on each of those.

Q Fair enough. But what I'd like to ask is, it appears that you're testifying in this case that there's going to be very little, if any, future REC revenues, while just a matter of months ago the Office was testifying that, in fact, those revenues are increasing and increasing specifically because of projects like wind repowering.

A I think you're misrepresenting what I'm saying in these documents. In Cross-Exhibit 8, we acknowledge that the resources would increase the RECs available for sale, and we indicate that the revenues in this time frame being addressed in this -- the revenues have increased, but that it doesn't include only the amount billed. That's based on the amount actually sold and the price received for those sales. In my testimony in this case -- if you give me a moment, I just want to make sure I don't say anything that falls under the confidential section, so just give me a moment, please.

In the interest of utmost caution, my confidential testimony section -- which I believe the Commissioners have or have access to -- addresses more the ability to sell additional RECs, and the fact -- the nonconfidential part addresses the fact that there are going to be a lot more RECs out there in the market between if these projects go forward and other companies throughout the country that are adding wind resources as a result of the production tax credit allowances will put further downward pressure on the ability to sell additional. So even though the Company anticipates generating a lot more RECs in the event that it goes forward with these projects or the Commission finds them prudent, or a subset thereof prudent, that doesn't necessarily translate to more REC revenues overall in the long term.

Q If I could direct your attention, please, to Cross-Exhibit 7. And just for reference, this is

testimony that you filed in Docket No. 10-035-124 in May of 2011, correct?

A Correct.

Q And again, one of the issues you addressed in this testimony is -- and I should represent this an excerpt. The testimony is much longer, but in the interest of conserving paper, I've included just the section where you address additional REC revenues. So that began on page 25 of your prefiled testimony in that case. And if I could direct your attention to page 33. And on lines 721 to 722, you recommended that in 2011 --

A I'm sorry. Just a moment. What line is that?

Q I'm sorry. Lines 721 and 722. You recommended that the REC revenues for purposes of the Company's revenue requirement be calculated on a price per REC of $36, correct?

A Yes. In that case, based on the facts and circumstances at that time. I do distinctly remember this issue in that case and some frustrations that I had with the Company with regard to getting information on this issue in that case. But yes, that was amount, as of the -- when this testimony was filed back in 2011, but since that the market has changed substantially. And I think I'll leave it with that for now to try not to get into confidential information from prior dockets and this docket.

Q And I guess my question is, if the market can change substantially between 2011 and today, it's quite possible it could change substantially over the next 30 years, correct?

A It could, but I don't see that happening because the circumstances currently and as projected going forward are substantially different than what was the case back in this docket. There's been changes in California legislation and other states regarding RECs and REC qualification, as well as a significant increase in the amount of RECs available in the market since that time frame.

Q And just to be clear, despite that fact that there are more RECs in the market, the Office's position is that the Company is going to be earning greater revenue on those RECs, based on the comments that were filed in August?

A The comments filed in August said that the revenues were increasing received by the Company -- and I don't want to get into confidential information -- I don't recall if that was more volume sale in that time frame, or the dollar per REC had changed, and again, it may very well happen that the Company does generate some additional revenues from RECs coming in this case. But based on my opinion, the current circumstances, the confidential section of my testimony, and what I just seen happening out there coming up, in evaluating whether or not these projects are prudent and in customer's best interests, it's my view that not lot of weight, if any, should be given to those additional RECs that are generated. I'm not saying they may not result in a good benefit in the future, but they're way too uncertain at this point to give them any weight in deciding if this project is economic or not.

MR. LOWNEY: Thank you, Ms. Ramas. I have no further questions. I would move to admit RMP Cross-Exhibit 7 and 8 into the record.

COMMISSIONER LEVAR: If anyone objects to this motion, please indicate to me. I'm not seeing any objections, so that motion is granted.

(RMP Cross-Exhibit Nos. 7 and 8 admitted.)

COMMISSIONER LEVAR: Mr. Moore, any redirect?

MR. MOORE: No redirect -- excuse me. No redirect, Mr. Chairman.

COMMISSIONER LEVAR: Okay. Thank you. Commissioner White, any questions for Ms. Ramas?

COMMISSIONER WHITE: No questions. Thank you.

COMMISSIONER LEVAR: Commissioner Clark?

COMMISSIONER CLARK: No questions. Thank you.

COMMISSIONER LEVAR: And I don't either. So thank you, Ms. Ramas.

THE WITNESS: Thank you. Have a good afternoon.

MR. MOORE: Excuse me. Ms. Ramas has to catch a plane. I wonder if she could be excused?

COMMISSIONER LEVAR: Let me just ask any party or Commissioner if they see any reason not to do so. I'm not seeing any indication from anyone. So thank you, Ms. Ramas.

THE WITNESS: Thank you.

MR. SNARR: Could we take just a five-minute break before we commence with the next witness?

COMMISSIONER LEVAR: Certainly. And looking at the time, we probably won't have time to do cross-examination before lunch. But maybe we can get through the -- if, in your opinion, we can get through the direct examination after a five-minute break before lunch, that would probably be good.

MR. SNARR: Let's proceed in that fashion.

COMMISSIONER LEVAR: Okay. So we'll take a five-minute recess and then we'll go with direct.

(A brief recess was taken.)

COMMISSIONER LEVAR: We'll go ahead with presenting Mr. Hayet's direct testimony.

MR. SNARR: Yes. May he be called as a witness?

PHILIP HAYET,

having been first duly sworn to tell the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. SNARR:

Q Mr. Hayet, could you please state your name and tell us about your employment and association with the Office of Consumer Services?

A Yes. My name is Philip Hayet. My Company is J. Kennedy and Associates. And did you say my address?

Q I didn't say address, but you can provide that and then tell us how you're associated with the Office.

A Okay. My address is 570 Colonial Park Drive, Roswell, Georgia 30075. And I've been asked to assist the Office with the economic analysis that the Company has conducted.

Q In connection with that assignment, have you prepared or caused to be prepared, testimony to be filed in this docket?

A I have.

Q Did that include direct testimony and related exhibits on September -- in September of 2017, surrebuttal testimony in November of 2017, responsive testimony in April of 2018, and rebuttal to response testimony in late April of 2018?

A Yes.

Q And with respect to the testimonies that you have presented, do you have any corrections that need to be made to anything that's been filed?

A I have one correction to my April 2nd testimony, at Page 34, Line 300 -- 677. There's a number, it refers to Table 4, as typed, and that should be Table 5, at that line.

Q Thank you. With that correction, if you were asked the same questions today in various filed testimonies, would your replies be the same?

A They would.

COMMISSIONER LEVAR: I don't think we have the line number right on the correction. You're in your April testimony?

THE WITNESS: April 2nd and Page 34, Line 677. I thought that I got this off the Commission website.

COMMISSIONER WHITE: That works for me.

COMMISSIONER LEVAR: Somehow, my correct copy is different, but I'll -- Commissioner Clark's matches yours, so I'm --

MR. SNARR: Do you have the confidential version?

COMMISSIONER LEVAR: No. I -- oh, yes, I did have a copy. I thought I printed the confidential version, but, no, I have the redacted. I'm going to go back and -- so that's the different supplemental. Okay. We're good. Thank you.

BY MR. SNARR:

Q You did provide both confidential and

nonconfidential --

A Yes.

Q -- versions of some of the testimony; is that correct?

A Yes.

Q All right.

MR. SNARR: The Office would move the admission of the identified testimony, including the correction that was made to those, as Office Exhibits 2-D, for the testimony, Exhibits 2.1 through 2.7-D, as exhibits related to direct testimony, Office Exhibit 2-S, for the surrebuttal, and Office Exhibit 2 Response, for the responsive testimony, and Office Exhibit 1-2, rebuttal, as indicated in our exhibit list provided to the Commission. We move for the admission of those exhibits.

COMMISSIONER LEVAR: If any party objects, please indicate that to me. I'm not seeing any objections, so the motion is granted.

(OCS Exhibit Nos. 2-D, 2.1-2.7D, 2-S, 2-RESP, 1-2 Rebuttal admitted.)

BY MR. SNARR:

Q Mr. Hayet, did you prepare a summary of your testimony for presentation today?

A Yes.

Q Could you provide that now?

A Good morning, Commissioners. I think it's still morning. In my testimony, I address concerns with the Company's proposal to repower nearly 1,000 megawatts of wind capacity, while continuing to recover the revenue requirements associated with its existing investment in the same currently operating facilities.

While the Company asserts that these projects will provide net benefits to customers primarily by increasing wind energy production and PTC benefits, the benefits are not substantial, given the magnitude of the investment and the risk of the project, that under some circumstances may actually increase costs to ratepayers. Furthermore, the repowering projects are unnecessary as the existing resources are being maintained and are currently operating, and the Company has no resource need driving the decision to repower these resources. Despite the risk that the benefits might be small or might not materialize at all, the Company desires these projects greatly because it will benefit by increasing its rate base and growing its earnings and profits.

In my direct and surrebuttal testimony, I discuss concerns about potential tax law changes, the need to conduct evaluations on a project-by-project basis, and flaws in the Company's economic analysis. I reviewed the Company's two economic analyses. One, covering a 20-year, and the other covering a 34-year time horizon, and I concluded that both analyses have problems. I identified potential problems in the Company's modeling assumptions related to tax law changes that appeared likely, and I addressed flaws in the Company's longer term analysis, stemming from the Company's decision to use an extrapolation approach to develop net power cost benefits beyond 2036 instead of running its normal PaR and system optimizing models.

In recognition that the pending tax law changes would have a substantial impact on the results, the Company filed an unopposed motion to amend the procedural schedule in late November to further evaluate impacts. While it appeared that the Company was going to report a much lower benefit after the corporate tax rate drop from 35 to 21 percent, the Company's February supplemental direct filing reported benefits in its 20-year study that surprisingly were higher than the benefits presented in its October testimony.

A major reason for the increase was attributed to PacifiCorp's sudden decision to make a change to the way production tax credits were modeled in its economic analysis. Apparently, PacifiCorp decided that it had not been modeling PTCs accurately enough all along, when it had been modeling them using a levelized cost representation and it concluded it would be necessary to model them, instead, using a non-levelized or nominal cost representation. While PacifiCorp could have made this change prior to filing two rounds of testimony in this proceeding, or earlier than that in the 2017 IRP or even in an earlier IRP, the sudden decision to make this change increased net benefits nearly $200 million in its 20-year studies, at nearly the same time the tax law impacts reduced benefits by a similar amount.

Table 1 of my April 2 response testimony indicates that every single one of PacifiCorp's nine price policy cases showed positive economic benefits, but after reverting back to PacifiCorp's prior PTC modeling approach, just three out of nine price policy cases had positive benefits. And the positive benefits in those three high gas price cases were small. Table 2 of my response testimony indicates that on a project-by-project basis, not only is Leaning Juniper uneconomic as PacifiCorp's results indicated, but eight other repowering projects are uneconomic after reverting back to PacifiCorp's prior approach in the low gas, zero CO2 case.

I found that PacifiCorp's to-2050 analysis was also flawed, based on the extrapolation approach that PacifiCorp used. Instead of running its SO and PaR models to derive optimal expansion plans and produce energy related benefits, PacifiCorp never conducted any modeling tests to demonstrate the reasonableness of this extrapolation technique. This was especially concerning in this repowering docket because replacement energy costs produced when the difference in the repowering energy was around 750 gigawatt hours, was then used to extrapolate energy benefits at a later period when the difference in repowered energy was over 3,000 gigawatt hours. This necessarily overstated the energy benefits and biased the results in favor of repowering.

Recognizing that PacifiCorp's to-2050 analysis was flawed, I still evaluated the Company's results and concluded that on a project-by-project basis, there were significant differences in benefits between the projects. Based on the results of both the to-2036, and the to-2050 analysis, I concluded there were significant modeling risks that led to the benefits of the projects being overstated and that several of the repowering projects, if not all, were likely uneconomic. In addition, despite PacifiCorp's claims that the risk of the projects have been mitigated, I found there were risks that the Company simply did not consider, including the risk that the cost to repower the wind resources could ultimately exceed PacifiCorp's approximately, $1 billion estimate and that the energy and PTCs produced by the repowered projects might not fully materialize.

Based on analysis that I conducted, I found that even small increases in costs or small reductions in energy and PTCs could lead to a significant erosion of the benefits of the repowering project. Furthermore, I'm not convinced that PacifiCorp has evaluated all resource alternatives to repowering, and the possibility still exists that other more economic resources, such as solar, could be part of the Company's least-cost, least-risk resource plan. While the Company updated its modeling for the latest repowering cost assumptions, it has not updated its solar resource cost assumptions, based on more current information that is available, such as from the 2007 RFP.

Based on these concerns, my primary recommendation is that the Commission should deny the Company's repowering request. However, if the Commission is inclined to permit the Company to proceed with repowering any of its wind projects, I have conducted an analysis to determine the most cost-effective set of projects to repower, that I believe would result in a significant savings and capital cost without substantially reducing the total repowering benefits, if they really exist. Table 6 in my response testimony includes the results of my analysis in which I have grouped the best performing and worst performing projects separately, and I found that by repowering just half of the projects, 87 percent of the total benefits could be preserved, while a significant portion of the capital costs could be eliminated. Figure 3 in my response testimony presents this graphically. And it shows that year by year, the amounts of benefits lost by only repowering half of the projects is inconsequential compared to the annual pattern of benefits preserved. Table 7 and 8 of my response testimony demonstrates further, how the benefits of the best performing projects are preserved in the faces of the risks that I identified, including higher capital cost and lower and PTC benefits.

The six projects that the Commission should consider if it decides to allow PacifiCorp to repower some of its wind resources include, Goodnoe Hills, Marengo I and II, Seven Mile Hill I, Dunlap Ranch and Glenrock. My April 23rd rebuttal testimony revisited the notion of limiting repowering to more optimal portfolio and compared my subset of repowering projects to the subsets the Division and UAE recommended as well. I provided a comparison of the different repowering proposals that each of us made in Table 1 of my April 23rd testimony. Though each of those primarily recommended that the Company's repowering proposal should be rejected, we all provided reasonable subsets of projects that could be repowered and would reduce ratepayer risk if the Commission decides to allow PacifiCorp to repower just some of its wind resources.

In summary, I continue to recommend that the Company's repowering request be denied, but should the Commission decide to allow PacifiCorp to proceed with repowering any of its wind projects, I recommend that the Commission allow the Company to repower a limited set of wind resources. And given these projects primarily intend to provide economic benefits, I believe that the Commission should impose ratepayer protection conditions.

These conditions include: (1) PacifiCorp should be required to assume all the responsibility for the successful completion of the projects that the Commission authorizes PacifiCorp to repower, based on the schedule and cost for those projects as identified in Mr. Hemstreet's supplemental direct testimony.

(2) I recommend that PacifiCorp should be limited to recovery of future capital expenditures and O&M cost for the approved repowering projects to the amount that it included in the economic evaluation in the supplemental direct filing. And Ms. Ramas has an additional recommendation to limit pre-approval based on the current Utah jurisdictional allocation.

And (3) in addition, given all the assurances of the accuracy of the Company's modeling assumptions, I recommend that PTCs and energy benefits be guaranteed at 95 percent of the amounts that PacifiCorp assumed in its supplemental filing analysis for the life of the repowered wind projects.

This concludes my summary.

MR. SNARR: Mr. Hayet is available for cross-examination.

COMMISSIONER LEVAR: Thank you, Mr. Snarr. With that, I think we will recess until 1:00, and we will begin with cross-examination.

(A recess was taken.)

COMMISSIONER LEVAR: We are back on the record. Mr. Hayet is still under oath. You just finished your direct examination summary, so I'll go first to Ms. Schmid.
Do you have any questions for Mr. Hayet?

MS. SCHMID: The Division does not have any questions.

COMMISSIONER LEVAR: Okay. Thank you. Mr. Russell, do you have any questions for Mr. Hayet?

MR. RUSSELL: I do not. Thank you.

COMMISSIONER LEVAR: Okay. Ms. Hickey.

MS. HICKEY: No, thank you, sir.

COMMISSIONER LEVAR: Okay. Thank you. Ms. McDowell or Mr. Lowney?

MR. LOWNEY: Yes, the Company does

have some questions.

CROSS-EXAMINATION

BY MR. LOWNEY:

Q Good afternoon, Mr. Hayet.

A Good afternoon.

Q Now, in your response testimony, you conducted an economic assessment of each facility on an individual basis, correct?

A Yes.

Q And in that analysis, you used what you described as non-levelized capital costs and non-levelized PTCs, correct?

A Yes.

Q And that would be the same -- same thing as saying nominal capital costs and nominal PTCs, correct?

A Yes.

Q And you also focused on the 20-year planning horizon to, as you say, "ensure the projects are economic in the near-term horizon," correct?

A Yes.

Q And your results are presented on Table 5, which is on Page 28 of your response testimony; is that right? And if you could just turn to that

page, please?

A Okay.

Q All right. And this is the scenario -- or excuse me. This Table 5 represents your individual assessment of each of the 12 projects under both the low and medium gas scenarios, correct?

A Yes.

Q And looking at each of those columns, it's true that 11 of the 12 projects produced net benefits for customers, correct?

A They do.

Q Under both scenarios?

A That's correct. But these analyses don't take into consideration other risk factors that are also important to consider.

Q But at a minimum, your economic assessment of these projects indicates that even under a low gas scenario, for 11 of the 12 projects, it's more expensive to not repower them than to repower them, correct?

A And -- and what I respond to that is: It's true, but there are also fairly moderate benefits in -- in many of these. I think that if you look across these, you can see a wide variation in benefits, some that are fairly small, there's a benefit of one, two, and so up to -- up to four or five. We consider those to be pretty moderate -- pretty small benefits. And therefore, in the fact that these are economic projects, we're concerned about proceeding necessarily with projects that have benefits this low without also taking into consideration other factors.

Q And just to be clear, though. Your study -- given that your study goes only through 2036, your benefit assessments here do not account for the roughly 3,500 gigawatt hours that will be generated in the 2037 --

A No. And I also talked about some other factors related to that as well.

Q Okay. And if you could, turn to Line 487 of your response testimony, please. And on that line, you state that, "If any consideration is to be given to the to-2050 analysis results, the focus should be on Mr. Link's Table 3-SD." Do you see that testimony?

A Yes. But I'll have to explain what I mean by that.

Q Well, let's just turn to -- you re-created that table --

A Right.

Q -- as Table 4, on the following Page 24 of your response --

A Right.

Q -- testimony, correct?

A Yes.

Q And just examining those results, which, again, is your -- the results through 2050 -- that you say should receive consideration if any results should receive consideration -- you provide a project-by-project assessment under both the medium and low gas scenario. And in the medium scenario, every single project produces net benefits, correct?

A Right.

Q And under the low gas scenario, the only project that does not produce net benefits is Leaning Juniper and that's a net breakeven essentially, correct?

A Essentially, but it's -- that's -- what I meant by that was, if any of the benefits should be considered -- and I meant on a project-by-project or on a -- looking across the price policy scenarios I was referring to, this should be considered more. And the reason for that, is because, again, you can see that there is a wide variation in benefits across the projects, and that leads you to conclude that it probably -- that given that these are economic projects, it leads you to the conclusion that, if you're going to do them at all, you ought to do just the subset of the projects or the most economic of these projects. And that's the point that I try to make.

Q So following up on that statement, if you could turn to Page 31 of your response testimony.

A I'm there.

Q And Table 6, at the top of that page is sort of the table that describes your projects that you identify as the most economic and the least economic, correct?

A Exactly.

Q And I will note, there's a confidential column in that table. My goal is to not ask any questions that would require that information to be disclosed, but if you need to, please let me know. Now, just looking down that table, the top six projects are the most economic, the bottom six are the least economic, according to your conclusions, correct?

A Yes.

Q And to identify the projects that you say are the least economic, you examined the net benefits only, correct?

A Yes.

Q And arbitrarily, anything under $7 million in net benefits is a least economic project, in your assessment, correct?

A I wouldn't call it arbitrarily. I think that what you can see is that we -- we perhaps could have excluded another one that's on that list, the Marengo II. There's a -- there's a fairly wide gap in that range. We decided to include the Marengo II, but from -- there's a -- there's a clear delineation between Marengo II and Goodnoe Hills, but even if you consider where we did break it, which was at five, there is a -- is a very big gap between five, 11, all the way up to a net benefit of 23.

So we've -- we've kept significant benefits in this portfolio of the best projects, and we've eliminated the worst performing. And through all of the testing that we've done, it -- it seemed to confirm that that was a reasonable set to accept, on a risk basis.

Q Well, and going back to something you said in your summary, which was that one of the issues you had -- you -- one of the considerations you -- one of the items you considered in making your recommendations in this case, is the relative

quantity of benefits -- or the quantity of benefits relative to the cost, correct?

A Yes.

Q I believe I heard you say that.

A I -- I'm not sure that I -- I'm not sure exactly what I said that you're referring to. So I don't necessarily want to say yes, but maybe if you can explain.

Q Fair enough. Let me just follow-up on that. When you are identifying what you described as the least economic projects, you didn't consider the relationship between the net benefit quantification and the overall project cost, this -- the benefit-to-cost ratio that we discussed this morning with Mr. Peaco. That was not part of your consideration, correct?

A No.

Q So, for example, if you look at the Seven Mile Hill II project, which is one that you described as least economic -- and I don't want to divulge the confidential investment cost number -- but just examining the net benefit relative to that cost, it has a fairly high benefit-to-cost ratio relative to some other projects, correct?

A Say -- which -- I'm sorry, which project?

Q Seven Mile Hill II. It's the second, below Glenrock III. So it's second in the list of least economic projects.

A And you said it has a fairly high, compared to the other ones?

Q If you compare the net benefit that you report in the far right-hand column to the investment cost, the confidential number in the middle column, the ratio of those two numbers. In other words, the benefit-to-cost ratio.

A Fairly small.

Q Relative to the other projects?

A Well, I'd have to do the -- I -- I told you that I haven't done that math, but --

Q Well, I'm just comparing five to the confidential number in the column next to it, relative to example -- to, for example, the seven for Marengo II, relative to its cost in the column next to it. You would agree that Seven Mile Hill II has higher benefits, relative to its cost, than, for example, Marengo II?

A Yeah. But I mean, I have -- I wouldn't necessarily dispute you on that point, but I -- I've done it on an impact basis, and I think that's the basis that we did it to come up with this -- this list. Now, I understand that the Division did it on a benefit-cost ratio approach, and except for two projects that they accepted, two projects that we accepted, we had the same list.

Q Let's move on and discuss some of the risks that you describe, both in your summary today and in your response testimony. And in particular, two risks you highlighted are the risks of cost overruns and the risk that there will be less energy production than expected, correct?

A Yes.

Q And you performed a sensitivity analysis to specifically understand how these risk factors impact the net benefits of the repowering project, correct?

A Yes.

Q If you could turn to Line 657 of your response testimony, please.

A I'm there.

Q Now, to test the cost overrun sensitivity, you modeled a 5 percent increase in total capital costs, correct?

A Yes.

Q And you acknowledge, however, down beginning on Line 657, that because some of these

projects have a high proportion of fixed costs, a 5 percent overrun is actually a much larger percentage relative to the unfixed costs?

A Yes, I acknowledge that.

Q And I note, on Line 661, you include that percentage and I -- I've talked to my client and the number that is on 661, at 50 percent, that's not a confidential number. Again, going back to what we said earlier, the individual project cost information is confidential, but given that you can't use this number alone to back into that, we can discuss it non-confidentially.

A Okay.

Q So I will ask you to confirm that what you're essentially testing with your 5-percent cost overrun is the impact of a 50-percent cost overrun, for the costs that are not currently fixed?

A That's possibly true, but there are other things that potentially -- that are force majeure conditions. There are other things that could lead to cost overruns. There is project management cost. So it's -- yes, I -- this does say 50 percent of the non-fixed costs, but there are other costs as well, that possibly could increase, so it wouldn't just only be the non-fixed costs. So there are other things that could lead to cost overruns that could drive up the cost such that a 5-percent total cost -- I don't see that on a project of a billion dollar magnitude, coming up with 5-percent increase when all the different ways there could be a cost overrun, is out of the question.

So I -- I consider that 5 percent of the billion dollars, not to be out of the realm of possibility.

Q Let's turn to Table 8 of your testimony. It's on Page 35, and this is the results of your two sensitivities. And, again, just to provide a little context, this is the medium/medium case, and you're studying it to 2036, using both nominal capital and PTC costs, correct?

A Correct.

Q And if we just look at the 5-percent cost overrun column, which, again, you had previously acknowledged and it sounds like maybe you're qualifying it a little bit here, that's equivalent in some sense to a 50-percent cost overrun?

A Plus, it could equivalent to having a cost overrun on other components. So it's not just a 50-percent cost overrun on -- on the non-fixed costs.

Q And -- and just to be clear. Your analysis shows that both the, what you describe as

the least economic and the most economic projects, can withstand a 5-percent cost overrun and still provide net benefits, correct?

A They do, but -- but if you look at it, the 5-percent overrun case supports the fact that we can still achieve -- for the same exact cost, we can still achieve, in that case, 94 out of 107 of the total benefits, 94 out of a total -- that's 87 percent of the total benefits can still be achieved.

So if it were my money being invested on a risk basis, I would want to take -- take advantage of the opportunity to select those projects that are going to give me the opportunity to still get 87 percent of the benefits. And I forgot if you released me to talk about -- you didn't release me to talk about the percentage of the costs. So I won't -- I won't say that. But the point being, I can still achieve a big portion of the benefits at -- at a much reduced capital cost. I think that's a pretty good bet.

Q Well, and -- and let's move onto the next column. The next column is the 5 percent reduced production. And just to be clear, what you're

modeling in this case is the assumption that over the life of these projects, they're going to produce systematically a sustained 5-percent reduction in energy?

A   Yes, that's true. Because there could be inaccuracies in -- in the modeling. Despite all the great data and the millions of data points, I don't think it's out of the question, over the life of the project, for anybody to consider that you could not achieve 90 -- that -- that the ultimate result at the end of the period would be that the wind resources have produced 95 percent of the total energy that you had expected you would produce. And if that reasonable case were to occur, you'll achieve 91 percent of all the benefits at a much greatly reduced capital cost.

Q   And just to be clear. Even that sensitivity, the least economic projects as you describe them, still provide net benefits?

A   Small.

Q   But they provide net benefits?

A   Very small.

Q   Now, going to the final column on Table 8, the combined column. This models a scenario where there's both a 50-percent cost overrun and a

sustained 5-percent reduction energy production across all projects, correct?

A Yes.

Q And that is the only scenario where the least economic projects result in a net cost --

A In a scenario that I don't believe is out of the realm of possibility, and I would put -- I would note that, either the Company has 100 percent confidence in its assumptions about the energy and about the capital costs, or the -- if it doesn't, then the Company should have studied cases such as this, but if it does, the Company certainly could -- could accept the total risk that you'll achieve this -- these outcomes. But I think it's reasonable to study the possibility that you may not achieve the entire amount of energy, production, capital, PTC benefits, capital costs that you're expecting, necessarily.

Q Well, and while I won't disagree that it's within the realm of possibility, you would agree that it's not the most likely scenario, correct?

A I wouldn't say that.

Q You'd say it's --

A I would not say that a 5-percent cost overrun or a 5-percent reduction in the energy and

PCC is unlikely. I wouldn't say that.

Q My question is the most unlikely or the most -- are you saying that's the most likely scenario?

A I don't -- I don't think that -- that I would say -- I would say that it's -- it's entirely possible and could occur. That's all I -- that's all I can say.

Q So it's possible?

A Yeah. I think it's entirely possible that -- that this outcome could be -- could be the outcome that occurs. And it's surprises me that the Company wouldn't -- you know, the Company stopped short by saying it was sufficient to look at price policy cases. You've got to look at all the variables for which could potentially lead to having your project that you're putting forth becoming uneconomic.

Q Well, and your own analysis shows that's not necessarily the case, because net benefits are still produced even in these extreme scenarios?

A No. I -- I'm sorry. I have -- if both of these cases were to occur, we'd have -- it'd be -- you'd be better off doing the six projects that I've talked -- suggested that you do.

Q All right. Now let's turn back to Page 31, and that's Table 6. And let's talk a little bit more about the specific projects that you described as the least economic, and that's the bottom -- the bottom six in that table, correct?

A Correct.

Q Now, were you here yesterday when Mr. Hemstreet described the protections and mitigations measures included in the GE contracts that will cover the projects being repowered in Wyoming?

A Yes.

Q And isn't it true that of the projects that you've described as the least economic, five of those projects are subject to the protections provided by that GE contract --

A Yes, but --

Q -- that Mr. Hemstreet described?

A But I might also note that there are also provisions in those contracts that are excluded that would still subject PacifiCorp to at risk -- to be at risk. There's a force majeure provision, there's a provision -- and I know that the contract is confidential, so I don't know how far I can go to -- to talk about the fact that there are still

provisions built into that contract that put
PacifiCorp back on the hook if certain conditions
occur.
          And so there's not -- the note -- to
suggest -- to suggest that the contract perfectly
protects ratepayers and PacifiCorp for every
outcome, I think is going a step too far.
Q   And -- and just to be clear, I don't think anybody in the Company testified that customers are perfectly protected, correct?
A   I don't know that anybody has. I'm -- I would say, it's been -- it seems like that's what -- I wouldn't necessarily say I can recall hearing that somebody said that, but it seems like that's the impression that has been left.
Q   I'm sorry. I just want to jump back. I got a little bit out of order. Going back to the sensitivity studies that you analyzed, consistent with everything else, with the other results that we already discussed, those sensitivities only go through 2036, correct?
A   Correct.
Q   So, again, when you're calculating those benefits, the capacity and energy benefits that are provided after 2036 are completely left out of that

analysis?

A That's a long time in the future, and -- and the fact that the analysis that the Company did without looking at technology that could exist in the future, at -- the advancement in technology, and the fact that a different optimal plan that could be derived through running the models, led me to be concerned that, taking all those factors together, that I'd rather have these projects show and be analyzed, at this point in time, especially given the modeling issues that I've pointed out, or all those factors taken together, we came to the conclusion that for this analysis, it was reasonable to consider it on a 2036 basis.

Q And just to be clear, the Company's testimony -- and I don't think this has been disputed -- is that after 2036, these projects are expected to generate approximately 3,500 gigawatt hours of incremental energy annually. Would you agree with that?

A I would, assuming that there's no extension, of course, on the existing wind resources, which could potentially happen. Those units could operate longer and, therefore, the differential is not necessarily the 3,600.

Q And you agree -- we can dispute how to value that, but you agree that energy has value, correct?

A Yes.

Q And would you also agree that those repowered wind facilities are going to provide a capacity value after 2036, that is also not accounted for in your sensitivities?

A Yeah. It's like on the order of a hundred and something out of a 10,000 megawatt peak.

Q I'd like to ask you a few questions about how to model PTCs. That's something that has come up in this case, and you discussed it in your summary today. So just to sort of set the table here, the Company refined the way it modeled PTCs in its February 2018 supplemental filing, correct?

A I believe refinement has been used, inaccurate has been used, different words have been used to describe the changes that the Company has made. I've heard a number of different representations of how PacifiCorp --

Q We can agree it was a change?

A It was a change.

Q It was a change. And we can also agree that that change did not impact the -- any of the

analysis that extended through 2050, correct?
A We can agree.
Q Now, if you could turn to Page 26 of your response testimony. And I'd like to ask you a few questions about Figure 2, at the top of that page, and, again, I note that's a confidential figure. I don't intend to ask you about specific numeric values, more just, sort of, shape and directional questions. So obviously, if you need to speak confidentially, let me know.
A Okay.
Q Now, this table is for one specific project and it demonstrates the differences in the modeling based on different treatment of production tax credits, correct?
A Yes.
Q And just to be clear, that this, sort of, solid line is the levelized capital, levelized PTC technique?
A Yes, and that --
Q And that was the modeling that the Company used prior to February 2018, correct?
A Yes.
Q And if you look at the dashed line, that is levelized capital, non-levelized PTC, and that's

the modeling the Company is using right now, correct?

A Yes.

Q And then the, sort of, the middle curve that has the diamonds, is non-levelized capital, non-levelized PTC, correct?

A Correct.

Q And that would also be the nominal capital, nominal PTC, which is the same modeling used through 2050, right?

A Yes.

Q And would you agree that the non-levelized capital -- I'm just going to say, the line with the diamonds on it -- is the line that best reflects the ratemaking impact of this particular project?

A Yes.

Q And looking at these curves, would you agree that the Company's modeling, as it stands today, the dashed line is closer, both in shape and value to that diamond line than was the earlier modeling that relied on levelized PTCs?

A Yes. And -- and what I would say about that is that, first, it is higher. It's -- it's definitely closer, but it is higher. And the fact is, it does add in additional costs not accounted for in that analysis within the Company's study. And it does lead -- there is no doubt the Company cannot deny that, based on using the old approach that it did, that that old approach led to adding in a lot more cost and therefore, the Company abandoned that because it wanted to make sure it had every -- you know, at -- at least it was able to show that all of its projects were economic.

It couldn't -- it -- in my view, it seems that the Company could not report, "Oh, we have this to-2036 analysis, which is our standard, we could not show results that had a large number of cases that were uneconomic," and then at the same time say, "Oh, but ignore those cases. Look at the to-2050." And that's essentially what you're asking me right now. You're asking me to forget about the -- you know, we've changed our approach, you know, don't even look at the old results. We're now -- we're now advising using this new approach, and the -- but if we just focus on the to-2050, you know, that's the reason why the Company had -- had gone away from that approach.

Q Well, and just to be clear, regardless of motives, the new approach is more accurate --

A No.

Q -- just based on looking at this diagram,

isn't it?

A No. The new approach is not necessarily more accurate.

Q Well, I think we established it's closer in value, as well as shape, to the --

A Let --

Q -- nominal/nominal modeling, correct?

A Let me -- let me explain something. The reason that the Company believes that protection tax credits should be done on a nominal basis, is because it says that that's closer to the way that production tax credits will be flowed through to ratepayers through rates. The same -- the same thing is true about capital revenue requirements. To represent them as levelized, which is what the Company still wants to do, it also is not levelizing those in the way that the Company does it. And we should all be clear that levelization, by the way, in the way that the Company is doing it, doesn't necessarily mean flat, straight-across levelization. It's real levelization, which is adding -- it's taking a real discount rate, and the ultimate result of that is that something that is charged through rates over the life of a project that is front-end loaded over the life, and declines over the life, for modeling purposes, the Company is saying -- and I'm not sitting here necessarily disagreeing that economic analyses are done this way, but the Company is saying that is it appropriate, necessarily, to use a profile for which you begin at the first year, at the lowest point you possibly can, and you rise over the life. So you've taken -- you've actually flipped the profile entirely.

And in doing that, that puts the least amount of capital revenue requirements into the analysis as a result, since there's a point in time in which the costs are cut off, and at the same time, it puts the highest amount or the greatest amount of production tax credits in because it ensures the entirety of the production tax credits are in.

So I'm -- I'm going to suggest to you that that's still a problem with the way that you're modeling production tax credits and capital revenue requirements. And I will also suggest to you, the Company -- the notion that the Company never, ever supported in this case, the idea of doing levelized/levelized is wrong, because there was a point in this case where the Company responded to data requests that -- that justified, that's how you have to model the cost. You have to model the cost on a levelized/levelized basis that's in discovery that we have, in my testimony, in my -- in my April 2nd testimony, OCS 5.8. It's in there and explains that that was the right way to do it. I think at the point in time that the Company found it produced results that were undesirable, the Company went to this levelized capital approach with nominal PTCs.

Q And created a more accurate result --

A No.

Q -- according to this table, correct?

A No.

MR. LOWNEY: No further questions.

COMMISSIONER LEVAR: Thank you. Any redirect, Mr. Moore or Mr. Snarr?

MR. SNARR: No redirect.

COMMISSIONER LEVAR: No redirect? Okay. I think I have a couple questions.

BY COMMISSIONER LEVAR:

Q Excuse me if I ramble a bit as I'm trying to get this question, but, you know --

A These are complicated.

Q We have -- we have a lot of different sensitivity runs with different inputs and, you know, levelized and non-levelized talk, different --

different starting points. There's been discussion earlier in the hearing of what happened a few years ago in the Jim Bridger SCR case. I don't know if you were involved in that one, but -- but one high level, as we were shown the orders, that the Commission chose a somewhat objective standard, if we're going to average some six different sensitivity runs. Now, that may or may not be the appropriate outcome here. But as we're looking at the choice between repowering or not repowering, and we're looking at all these different sensitivity runs, can we -- can we articulate any kind of objective standard for what's an acceptable level of risk? What's an adequate level of benefit, that's not just a -- a gut check for each project?

A I think that's a good question and a fair question. And I recall, I asked that myself, to the Company, or raised that issue -- we'll call it that -- in this regard early on in the case, or in the 40 Docket, which is a similar case to this, I noticed, of course, that we did have the nine price policy scenarios. And the question then becomes, how much weight should you give to the different cases? How much weight should you give to the CO_2? And we, in fact, don't, at this time, have CO_2, and we just don't know what will happen with CO_2. How much weight should you give to high gas cases? And I ask -- I raise the question of, does -- is there a weighting to the cases and to the results that we should apply? Should we consider the low gas, low CO_2 case to have a higher probability of occurring? I've taken the position in the case, that I think that my view is that there ought to be a higher weighting given to the low gas and the low to moderate gas CO_2 cases because that's the future I believe, at this time, is more likely, given that -- what we know now about -- about -- especially about gas and especially about CO_2.

So I think I'm answering your question, in that, I don't necessarily think you ought to do an average of the nine cases. I think a higher probability ought to be assigned to cases that you believe to have a higher likelihood of occurring. And so I don't think you can necessarily take the nine cases, average them, get a number, compare it against all the other cases that way and say that's the outcome. I think you've got to weight the cases that you think have a higher chance of occurring and then come to the conclusion, you know, that that might be a better way for you to evaluate.

And I also think you ought to -- I want to emphasize, I also think you ought to take into consideration the risk factors that aren't included in those tables. And I tried to make that point clear, that there are other factors besides price policy. And when there are other factors besides price policy, they ought to be studied, and two alone -- I think I raised a couple, and I know Mr. Peaco raised a few more. Those factors need to be considered in making a decision. Is this a valid project that should go forward?

Q So would I be correctly summarizing what you're saying is, to do that requires us as a Commission to make some findings and conclusions based on which scenarios we consider more or less likely, which risks we consider more or less likely?

A Well, the Company is doing it and the parties are disagreeing that they don't think that -- I think it's clear that -- that several parties don't have a belief, necessarily, that the highest likelihood is going to be the higher gas cases. So I think the advice the parties are giving, is to give much less weight to the higher gas, higher CO2 cases.

Q Okay. And I think I just have one more

question. If I were to -- looking at your Table 6, on Page 31, for Glenrock III, Seven Mile Hill II, Rolling Hills, High Plains, McFadden Ridge and Leaning Juniper, if I were to ask you, individually, for each one of those you have listed on your second -- in your second box, does your analysis lead to your professional conclusion, that not repowering gives more benefit to ratepayers than repowering, for each individual project?

A In this regard, we don't know what the outcome will be, nobody does. But we're -- we're being asked to take a risk on doing every one of these 12 projects, and every one of them should be done because there's a dollar benefit or -- or higher than a dollar benefit. They're -- that's a pretty small benefit. This range of benefits is fairly small, in my view. If you were going out and investing your money to make a decision on something that has risk and you -- and you think it has the potential economic reward, wouldn't you want to try to limit your exposure in the case -- in the chance that the risks manifest themselves and that the benefits don't materialize?

And if you eliminate these six projects and the cost of those six projects, you knock out a huge amount of the costs, but you're not eliminating a substantial amount of the benefits. So the ratepayers are still -- would still be getting a considerable benefit, just not having the Company spend a billion dollars, you know, and the -- since it's confidential, it's a sizable amount of dollars not being spent, but you're still achieving a great deal of the benefits.

Q I said that was my last question, but one follow-up.

A That's okay.

Q Would you describe the answer you just gave then, as suggesting that we should look at the 12 projects holistically rather than one by one?

A No. No, I don't think I --

Q You don't think -- that's not how you would describe your answer?

A No. I think -- I think I'm recommending you look at the -- when you do DSM, typically, DSM -- people want to try to avoid the trap of adding in additional measure -- DSM measures where they have small value. But if you add it into the portfolio, you wind up having still an economic portfolio, but you've added in a measure that maybe had a very small value or had a negative value. You added it in and nobody sees a difference because the overall portfolio still has a positive value. So that's -- I view that the same way. I think you can eliminate these projects that are fairly marginal and still keep a considerable benefit. So I think I've answered your question, that I would look at it project by project.

COMMISSIONER LEVAR: Thank you. I appreciate your answers. Commissioner Clark, do you have questions for Mr. Hayet?

COMMISSIONER CLARK: No questions. Thank you, Mr. Hayet.

THE WITNESS: Thank you.

COMMISSIONER LEVAR: Commissioner White?

BY COMMISSIONER WHITE:

Q I assume you were here when Mr. Peaco was testifying earlier. You -- you both have kind of identified different projects that may or may not be -- you know, have a higher risk profile or have less benefits. Do you share his view, that if the Commission were to determine that some of the projects were more economic or less economic, that it would require a whole separate application for those projects?

A You know, we gave that consideration and if -- the fact is, our first recommendation is to reject. However, if you decide that you'd prefer to go forward and have some of the projects, then we didn't make the same recommendation that you have a separate proceeding. We think that you have the information you need. It places too much -- there are too many problems that are -- if you really want to do it, there's not time to be able to take it back and study it further, and there's probably a chance you wouldn't achieve the PTC benefits that's you're looking for anyway. So we're not making that recommendation. We think that you can make the recommendation on the basis of the information you have.

Q Then there's the final question. I mean, there's been a lot of discussion about risk, and I'm just looking at the statute and that's certainly one of the things to consider. But in your view, typically -- and, again, I think the only time we've ever actually utilized this statute, and I could be wrong, is the SCR case. Is there a different -- is there something, from your perspective, that creates a heightened, you know, risk look, I guess, here in this case, because of the measure -- because, again, every commercial transaction has a risk shifting

that has --

A Right.

Q -- costs that go along with it.
Is there something that -- that you're reading into this, that's beyond the typical risk --

A Well, I -- I'm sorry.

Q That's okay.

A It definitely isn't your typical. I mean, we all have to recognize, this is not a typical utility type of investment, and you may never see another investment like -- you know, recommendation like this again, to this degree. When you count this case and the new wind/new transmission, billions of dollars are at stake. And it's not, you know, my view. I know that the Company has a different view, but there's not a need built in that's -- that's a burning need for reliability and a burning need for capacity to add those.

And therefore, then you have to give it a heightened standard for the risk that ratepayers are being placed at, because we know that the ratepayers are taking on most of the risk, unless you adopt conditions that we have proposed in this case. And that would go to, you know, helping to mitigate -- mitigating the risk for the ratepayers. But it --

again, it's not your typical situation. And therefore, I think you have to look at it in a -- in a different way than you would look at the other -- like, there's a need for capacity, we need a combined cycle, or some type of resource, then it's a decision between two resource choices you have to make, and you pick the best of the two.

Here, it's pretty much a decision -- and I know the Company talks about it displacing front office transactions, but it really is a need -- a decision between -- we just don't upgrade perfectly good wind turbine resources that are operating right now. I know that there are all the benefits they talk about in O&M savings and all these potential for availability improvement and so forth, but, again, you've got operating resources, ratepayers could use their money for other purposes, all those things go into it when you don't absolutely have a critical, burning need to do these projects.

Q One final question. And, again, we've heard a lot of testimony in the context of what was agreed to in Wyoming, in terms of potential risk mitigation or what the Company has agreed to. But is there something, in your mind, that -- is there any level of, you know, additionality, in terms of risk

protection or risks that would -- that would ultimately satisfy that? I mean, I know -- I understand we can't control -- the Company can't control Congress or the President or what have you, but is there anything in your mind that provides something that's beyond what they've already offered?

A Well, they've given assurances. Haven't they built a strong case to say that -- they're highly confident that they're going to achieve the level of energy production that they've estimated and that they're going to produce the PTC benefits. Why not just have them accept the risk of that, hold harmless the ratepayers, in the event that they don't achieve those benefits over a period of time?

I made a recommendation that you require the Company to achieve 95 percent. I gave a margin of 5 percent that -- in other words, the energy production could be 5 percent under, which is what I used, by the way, in my sensitivity analysis. I said a 5-percent reduction in energy. So I have given them what I've found to be uneconomic, but in -- in some of the cases. So the Company has to be -- protect the ratepayer and that's, by the way, not unheard of. I'm understanding there's some settlements in other states on proposals that are similar to this that are just coming out in late April, in Oklahoma, that are being agreed to by the utility that they're going to accept the risk of these kinds of projects.

It's another build a transmission, build wind power resources, billions of dollars of investment and the ratepayer, at considerable risk, and the utility has agreed that it's going to adopt the risk.

So I -- my recommendation is to give consideration to the conditions of -- that I've put into my testimony that would protect the ratepayer.

COMMISSIONER WHITE: That's all the questions I have. Thanks.

COMMISSIONER LEVAR: Do you have a follow-up?

COMMISSIONER CLARK: Do you mind if I do?

COMMISSIONER LEVAR: No, and I have one more, too. Go ahead. Mine is kind of related to his answer he's just given to Commissioner White.

COMMISSIONER CLARK: Please.

BY COMMISSIONER LEVAR:

Q I kind of asked this question before, but after hearing your answer to Commissioner White,

I'll ask it in a different way. Should we or shouldn't we -- considering the comparisons you've drawn on and said, I think what you said to him is, "This isn't a situation of choosing option A or option B."

A Right.

Q But shouldn't we be looking at each of these 12 projects and consider option A, repowering, option B, not repowering, and look at the cost benefits and risks of each of those -- of those two options for each of the 12 projects; is that how we should be looking at it or is that -- is that the --

A Well --

Q -- wrong way to look at it?

A Are you saying to look at it as a bundle or look at them one at a time? Because if looking --

Q What I'm suggesting is, should it be one at a time, that he take Seven Mile Hill I, and compare cost benefits and risks of repowering and cost benefits and risks of not repowering?

A That's what's been done actually, Commissioner. That's what the project-by-project analysis that, in fact, you as a Commission got the Company to agree to do. That they would look at the cost and benefits on a project-by-project basis, and that's what's been done to develop the -- these cases -- any of the table that you see where they have the names of the units and they have the net benefits, that's a project-by-project evaluation. The tables in which they have the price policy cases, where they have the nine price policy cases, that was a bundle of projects put into the model all as one unit, put in at one time. And that was a -- that was not a project-by-project net benefit evaluation.

Q Okay. Well, at the risk of beating the dead horse, if we're looking at it that way, though, doesn't that mean, even if the benefit is small -- you know, I mean, there's been a lot of discussions. Should it even be a -- what about if there's a dollar benefit? But if we're really comparing repowering with not repowering, should the size of the benefit matter, as long as one is above the other?

A I hear you. And that is the argument. I'm not going to suggest -- I won't suggest that -- that is an argument that I, perhaps, would make. That, look, it's a $1 benefit, you know. I mean, I'd like a little cushion by the way, but -- but that presumes that you're only looking at the price policy cases because the Company was the one that put in the testimony that says, "Here's our analysis," and they did -- what about -- what about when you also consider the other risk factors? Now, let's get a single economic number. Is it still these numbers that the Company -- no, it's not. And that's why I attempted to look at other factors, like a reduction in energy and a cost overrun and -- and Mr. Peaco also spoke about additional risk factors.

So when you take all those into consideration, it's a different story than just the $1 of benefit on the price policy cases to consider.

COMMISSIONER LEVAR: Okay. Thank you. I really do appreciate your indulging my stream of consciousness thought process.

THE WITNESS: No, I don't find it to be --

COMMISSIONER LEVAR: Commissioner Clark.

BY COMMISSIONER CLARK:

Q I'm also going to address this general area of risk and, particularly, your testimony on the bottom of Page 38, and the top of 39, where you're talking about conditions that might be

imposed. On Line 785 -- or actually, 784, you say that you would be concerned if PacifiCorp is taking the position that nonperformance by one of its contractors would be outside of its influence to -- or its ability to influence. So as you have sat through the hearing, and I think you've been here throughout --

A I have.

Q -- have you heard anything that's given you an impression that contractor performance that the Company would use that -- or has reserved the opportunity to use that as an excuse for not meeting the project cost of -- I'll call them guarantees, that have been given?

A Well, they've given guarantees to us that they will have the project online, on time, guaranteed that they're going to be able to achieve the PTCs. I've heard that. But they also say, to the extent that it's within their control or their ability to control. And what my testimony is and that I'm concerned about is, what does that mean? And I've raised the -- the question is: Are they saying that if -- let's say there's a bankruptcy of one of their contractors and that contractor was on the critical path. It caused a year's delay, half a year's delay, Dunlap, which is coming in the latest, is unable to come online by the end, it loses the opportunities to get to the -- get the PTCs. Is PacifiCorp taking responsibility, under that circumstance, and holding the ratepayer harmless for the PTCs that will be lost, or will they say, No, it was outside of our ability? We couldn't control their means and methods and their ability to operate their business and the fact that they went bankrupt, we had no control over. Therefore, we are not going to hold the ratepayer harmless in that condition.

That's what I'm trying to hope to impress upon you, that that ought to be -- it should be a clear statement: PacifiCorp, you're the party that's managing the development, you're managing your contractors, you're the one, the ratepayer is not. Hold the ratepayer harmless if you're giving a guarantee, and that guarantee has to be almost unconditional.

COMMISSIONER CLARK: Thanks for illustrating what you had in mind there. That concludes my questions.

COMMISSIONER LEVAR: Thank you, Mr. Hayet. We appreciate your testimony today.

THE WITNESS: Thank you.

MR. SNARR: May Mr. Hayet be excused?

COMMISSIONER LEVAR: Yeah. I'll ask if any party or Commissioner in the room sees any reason not to excuse Mr. Hayet from the proceeding? I'm not seeing any indications, so he's excused. Thank you.

THE WITNESS: Thank you.

COMMISSIONER LEVAR: Mr. Moore or Mr. Snarr, anything further from the Office?

MR. SNARR: No, that concludes are presentation.

COMMISSIONER LEVAR: Okay. Thank you. Mr. Russell.

MR. RUSSELL: UAE calls Kevin Higgins to the stand.

KEVIN C. HIGGINS,

having been first duly sworn to tell the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Can you please state and spell your name for the record, please?

A My name is Kevin C. Higgins H-i-g-g-i-n-s.

Q Mr. Higgins, by whom are you employed and in what capacity?

A I'm a principle in the consulting firm Energy Strategies.

Q And what is your business address, please?

A My business address is 215 South State Street, Suite 200, Salt Lake City, Utah 84111.

Q And in your capacity as a principle of Energy Strategies, have you offered testimony on behalf of Utah Association of Energy Users in this docket?

A Yes, I have.

Q And, specifically, did you prepare and submit direct testimony on September 20, 2017, identified as UAE Exhibit 1.0, along with Exhibits 1.1 and 1.2, surrebuttal testimony on November 16, 2017, identified as UAE Exhibit 1.0-S, along with UAE Exhibits 1.1-S and 1.2-S, and response testimony on April 2nd of 2018, identified as UAE Exhibit 1.0-RE, along with UAE Exhibits 1.1-RE, 1.2-RE and 1.3-RE?

A Yes.

Q Do you have any corrections to make to any of that testimony?

A I have two minor corrections that are the same correction that has to be made twice. They are in my response testimony, Page 40, Line 714. The correction is to replace the number of 150 million with 142 million. Then, again, on Page 49 --

Q I'm sorry. Was that 142?

A Yes.

Q Thank you.

A Then on Page 49, Line 865, the same correction, replace 150 million with 142 million.

Q And with those two corrections, if you were asked the same questions today that you were asked in your pre-filed testimony, would you answer it the same way?

A Yes, I would.

MR. RUSSELL: With that, I will move for the admission of Mr. Higgins' pre-filed testimony, as previously identified.

COMMISSIONER LEVAR: If any party objects to the motion, please indicate to me. I'm not seeing any objections, so the motion is granted.

(UAE Exhibit No. 1.0 admitted.)

BY MR. RUSSELL.

Q Have you prepared a summary of your pre-filed testimony?

A Yes, I have.

Q Please proceed.

A Good afternoon.

I recommend against approval of the

repowering project. Rocky Mountain Power's wind repowering proposal is not a typical utility investment proposition. The wind repowering project might best be described as an opportunity investment in that it seeks to take advantage of the availability of PTCs before the Federal Tax Credit Program begins to phase out. Since it is an opportunity investment, the relative benefits to customers, taking account of the range of risks to customers in relation to the benefits to Rocky Mountain Power, should be considered as part of the Commission's review.

The magnitude of the claimed benefits to customers identified by the Company in relation to certain benefits -- to certain benefits to the Company, does make a compelling case for UAE's endorsement of this project, particularly in light of the large capital cost required, the lack of public necessity for this project, the Ad-Hoc deviation from the integrated resource plan process surrounding this project, and the uncertainties that may impair the realization of projected customer benefits. Additional risks that could further affect customer benefits include deviations in the actual performance, maintenance costs, or durability of the new assets as compared to the Company's assumptions.

In its supplemental filing, Rocky Mountain Power has changed the evaluation method it uses to project claimed customer benefits for the 20-year period, 2017 to 2036. I have three serious concerns with this change. First, it is highly problematic and troubling for the Company to change a key measurement method at this late juncture of the proceeding. After three rounds of prior Company testimony, particularly given that, without this change in method the Company would not be able to show claimed net benefits for multiple scenarios, the change, thus, appears to be aimed at supporting the Company's desired result.

Second, the changed valuation approach for PTCs is inconsistent with the valuation method that has long been used for PTCs in the Company's IRP, which I have been able to check as far back as 2003. So for at least 15 years, the method -- methodology for valuing PTCs has been in place in the IRP that was now just recently changed.

And third, the changed valuation approach for PTCs is inconsistent with the Company's treatment of capital costs for the repowering projects, which the Company continues to measure on a real levelized basis in its 20-year benefits analysis. By changing the method for valuing PTCs without also changing the method for valuing capital costs, the Company is effectively cherry picking the combination valuation method that achieves the most favorable optics for the projects. If these concerns not withstanding, the Commission considers approval of the Company's proposal, I offer some recommendations for better aligning risks and benefits of the proposal between the Company and ratepayers.

First, I recommend the Commission expressly condition the Company's future cost recovery associated with the wind repowering project on the Company's ability to demonstrate that construction costs have come in at or below its estimated cost in this case, and that measured over a reasonable period of time, the megawatt hours produced by the repowered facilities are equal to or greater than the forecasted production that is provided in this proceeding.

If those conditions are not satisfied, not withstanding any determination of prudence in this proceeding, I recommend that the Commission expressly reserve the right, in a future rate case, to reduce the Company's recovery of costs associated with the repowering project, to allow for a reasonable sharing of the risks and benefits of the project between the Company and customers.

Second, I am concerned that when measured over the 20-year period, used in the Company's 2017 IRP, the benefits from this opportunity investment are significantly weighted in favor of the Company. To address this concern, if the Commission approves the wind repowering project, I recommend that it be made conditional on a reduction of 200 basis points to the authorized rate of return on common equity applicable to the undepreciated balance of the retired plant. This adjustment would have the effect of better balancing the benefits between customers and the Company.

I note that, although my recommendation -- recommended modifications would improve the terms of the outcome for customers, they will not, by themselves, overcome UAE's overall objections to this project. And since this 200-basis point aspect of my conditional recommendation is a bit unusual, let me spend a moment elaborating on the basis for it.

Rocky Mountain Power would have you believe that if these projects were to produce $1 of net benefits, then they should be approved as proposed, irrespective of the relative distribution of benefits between customers and the Company. I disagree. I disagree that simply providing some amount of projected benefits to customers is sufficient justification for committing customers to pay off a $1.1 billion investment for a project that is not needed to meet reliability requirements, not needed to meet load growth, and not needed to replace a retired plant that has come to the end of its useful life.

The balance of equities is important here. We need to bear in mind that the Company is a monopoly provider. Consequently, Utah customers do not have the benefit of alternative providers offering to undertake repowering on better terms than the Company is offering. The only place for Utah customers to get a better deal on repowering is in the approval process. And a key lever that the Commission has is the allowed return on the retired plant.

To make this deal happen, the Company will be removing equipment that has around 20 years left on its useful life and seeking a full return on and of that retired investment, as if it remained useful. Absent the pre-approval process, the Company would run the risk of disallowance of the recovery of this early retired plant.

Taking all factors into account, I believe it is appropriate to make any approval of this project conditional on a reduced return on this retired plant to achieve a better balance of equities. And if requiring such a condition means that the project does not move forward, then as the Commission is hearing from parties advocating on behalf of customer interests, that would be okay. Utah customers are not here to serve as a vehicle to facilitate the Company's financial aspirations for projects that are not necessary.

If the repowering project is allowed to proceed, my third recommendation is that the overall project should be scaled back to exclude at least the Leaning Juniper project, as this project fails to provide net benefits over a 20-year period, even when measured using nominal PTCs and nominal capital costs, in either the medium gas, medium CO2 or the low gas, zero CO2 scenarios. Moreover, the

Commission should also consider excluding Glenrock III, High Plains, McFadden Ridge, Dunlap Ranch, Rolling Hills, Marengo I, Marengo II and Goodnoe Hills from any pre-approval because these projects, as well as Leaning Juniper, failed to provide net benefits over a 20-year period, using the measurement metrics from the IRP, that is, real levelized PTC values for one or both of the gas CO2 scenarios.

Fourth, the resource tracking mechanism proposed by the Company to defer and recover projects should not be approved. The proposed mechanism is quite complex. This departure from conventional ratemaking practice is not necessary, and taken as a whole, not desirable. Because the RTM is an exercise in single issue ratemaking, it brings with it attended concerns about the efficacy of identifying costs and setting rates in isolation. Rather than adopting the RTM, I believe it would be preferable for the Company to instead file a general rate case at the appropriate time to recover its repowering costs in the context of the Company's overall costs and revenues.

However, if the RTM is approved, it should be modified. In particular, the Company's proposed long-term continuation of the RTM as a PTC tracking mechanism should be eliminated. PTCs are not tracked today in the manner proposed by the Company, nor is it necessary to track PTCs going forward to ensure just and reasonable rates. Therefore, I recommend that if the RTM is approved, the Company's proposal for a long-term PTC tracker be rejected. In addition, the Company's original proposal to cap the surcharge at the amount of incremental net power cost benefits should be retained, with no deferral of costs exceeding the cap, as proposed by the Company in its supplemental filing.

And finally, if a form of the RTM is adopted, the treatment of property tax expense should be modified to take into account the expected reduction in property tax on existing plant that would occur as the repowering project is implemented and the existing plant is retired.

And that concludes my summary.

Q Thank you, Mr. Higgins. Before I turn you over to cross-examination, I did have a question. You've had the opportunity to listen to the testimony yesterday and today, right?

A Yes, I have. When I wasn't here physically, I was listening to the online broadcast.

Q Okay. And did you hear -- there have been a number of witnesses who've testified with respect to the amortization of the retired plant, included in that was Ms. Steward yesterday, Mr. Peterson today, as well as Mr. Link.

Did you hear testimony on behalf of those witnesses on that topic?

A Yes, I did.

Q And do you -- I'm interested in your view on whether the Commission ought to address the period of time of amortization in this proceeding or in some separate proceeding?

A I would strongly recommend that the Commission consider this issue in the context of the depreciation docket that will be forthcoming in the future. I have concerns that, if the Commission were to lock in, say, to a ten-year amortization, for example, as proposed by Mr. Peterson, that that would have implications for customers in the near-term that have not been fully vetted.

I also have -- I also believe that it would be appropriate, as part of the discussion, to take into consideration the impacts on customers in the years '21 through '30. I understand that the Division of Public Utilities is concerned about customers in years '11 through '20, but customers in the years '21 through '30, if this project were to go forward, would in fact be -- have a bequest given to them by the customers of today, by investing in a plant today that is likely to be providing benefits 21 years from now, and obviating the need for new investments 21 years from now.

And so I think that when you take all of those things into consideration, the most reasonable course of action is to consider all those questions in the context of the larger depreciation study that's going to come that's going to have implications for Utah ratepayers from issues outside of this docket. And I think that it would be best to consider the implications and the impacts of the amortization period, if there be one, for -- for this -- the retired plant in that larger context.

MR. RUSSELL: Thank you, Mr. Higgins. Mr. Higgins is available for cross-examination.

COMMISSIONER LEVAR: Thank you. Mr. Moore or Mr. Snarr, any questions for Mr. Higgins?

MR. SNARR: No questions.

COMMISSIONER LEVAR: Ms. Schmid or Mr. Jetter?

MS. SCHMID: No questions.

COMMISSIONER LEVAR: Ms. Hickey.

MS. HICKEY: No, I think I'll waive. Thank you.

COMMISSIONER LEVAR: Okay. Thank you. Ms. McDowell or Mr. Lowney?

MR. LOWNEY: Yes, the Company does have questions.

COMMISSIONER LEVAR: Okay.

MR. LOWNEY: And, again, I've got a few cross-examination exhibits, so I'll just pause a moment while those get distributed.

CROSS-EXAMINATION

BY MR. LOWNEY:

Q Good afternoon, Mr. Higgins.

A Good afternoon.

Q Now, I'd just like to ask you a question about something you said in your pre-filed testimony, as well as in your summary today. And that is, that according to your testimony, to be analytically consistent, PTCs must be modeled on the same basis as capital costs, correct?

A Correct. For the -- certainly for the purposes of this docket, in which there's been a separation made, in my view, from the IRP structure and the IRP valuation methods, that if we were to look at impacts, ratepayer impacts, in isolation for a 20-year period, then I do believe that a consistent approach is going to be necessary, yes.

Q But you would agree that you've filed prior testimony where you've questioned why PTCs are treated in the same ways as capital costs, correct?

A The -- are you --

Q Let me point your attention to --

A What are you referring to in the testimony?

Q This the document that's labeled RMP Cross-Exhibit 9.

A Yes.

Q And this was testimony you filed in May of last year, 2017, before the Public Utility Commission of Oregon?

A Yes.

Q And, again, I'll represent to you, this is a short excerpt of that testimony, just in the interest of conserving paper. And this case involved a calculation of avoided cost pricing, correct?

A That's correct.

Q And one of the issues in the case, at least a marginal issue in the case, was how to

account for PTCs in calculating avoided cost pricing, correct?

A The -- I actually discussed this issue in my testimony, which is the excerpt that you have here, and I don't know that it was necessarily an issue for other parties, but I certainly did a walk through of the issue in this excerpt.

Q And I'll just direct your attention to Page -- it's Page 14 of the testimony, footnote 10.

A Yes.

Q And you testify there that, "PacifiCorp apparently treats PTCs as a negative fixed cost and thus an offset against capacity costs, even though PTCs are actually a function of energy output and arguably should be included in the calculation of avoided energy costs." That was your testimony before the Oregon Commission, correct?

A Yes. And that testimony, as you pointed out, was in the context of avoided cost, and that testimony was really speaking about the curiosity of reflecting PTCs in the capacity payment to qualifying facilities, as opposed to the energy payment.

And, of course, as you can tell in context, this was simply a footnote, it was a parenthetical comment that I made in passing. And I didn't challenge the Company's approach, nor does this discussion here speak to the issue that's being considered in this docket, which is real levelization versus nominal treatment of PTCs. This footnote says nothing, whatsoever, about real levelization or nominal treatment of PTCs. This simply mentions the fact that, in the Company's avoided cost calculations, the avoidance of PTCs is reduced from a QFs capacity payment, rather than its energy payment. And I did point out that, arguably, it could be reflected in the avoided energy payment, as opposed to the avoided capacity payment, but then didn't --

Q Didn't pursue --

A -- how it was done.

Q Well, just to be clear, the avoided capacity payment is essentially a reflection of the capital costs of whatever resource is being avoided in the context of a PURPA transaction, correct?

A Correct. Correct.

Q And just to be clear, where you testified in Oregon that PTCs are actually a function of energy output, in this case, the energy output from these projects is modeled on a nominal/nominal basis, correct?

A The energy output, the kilowatt hour, net power cost is modeled on a nominal/nominal basis, that's correct.

Q So at a minimum, your testimony in front of the Oregon Commission, even if it was in passing, suggests that there's no reason PTCs and capital costs need to be modeled on the same basis because they're reflected differently in rates, correct?

A I disagree. That's not what I said. What I said is that one could treat the PTCs in the context of a payment to a qualifying facility, as an offset to the capacity payment or to the energy payment, arguably. You could look at it either way. And -- but I did not say that one should treat the PTCs on a nominal basis. That's not what this footnote says, and that's not what I was suggesting in this testimony.

Q Now, something that you mentioned in your summary, as well as in your pre-filed testimony, is that it's your opinion that there is no need, no resource need for the repowering projects, correct?

A That's correct.

Q Now, you've also testified that the energy that's produced by these repowered facilities' incremental energy is going to displace market purchases or thermal generation, correct?

A Correct.

Q And you previously testified that market transactions or market purchases represent a need that can be displaced by a lower cost resource, correct?

A That is correct, but if you -- but in terms of a nexus between that statement and my statement that there is no need for these projects, the context is important. The current facilities, the current repowering facility -- the current facilities that would be repowered, today, produce about 2,600,000-megawatt hours per year of energy. Okay? The new proposal would generate about 3-and-a-half-million megawatt hours a year of energy. So there's an increase of about 600,000-megawatt hours a year from this project. So in essence, there's -- there is some incremental energy coming out of this project, but it's really a byproduct of the larger project to generate new PTCs. And so one -- I don't think one could say, with a straight face, could assert that you would make a $1.1 billion investment for the purpose of generating 600,000 -- 600,000 extra megawatt hours a year.

So, yes, while there is some incremental energy, that is not the underlying driver of this project and why it's being presented for approval.

Q Let me direct your attention to the document that I've labeled RMP Cross-Exhibit 10. And this is testimony you filed in front of the Commission in Docket 15-035-53. And I'd just like to direct your attention, please, line -- excuse me -- to Page 3, and beginning on Line 46. You testified that, "The IRP," -- this is PacifiCorp's IRP -- "anticipates a need to acquire hundreds of thousands of megawatt hours every year through market purchases." Do you see that testimony?

A Yes.

Q And then on -- if I could direct your attention to Page 6, of that same testimony. On Line 108, you testified, with respect to a transaction with the QF, "Thus" -- and I'm quoting you, "it is not a matter of taking unneeded or uneconomic energy, rather substituting one source of energy for another source." Do you see that testimony there?

A Yes.

Q Now, in this case, if repowering generates incremental megawatt hours or energy at a lower cost than the alternative in the same way you're

describing QFs meeting a resource of need, the repowering project meets that same resource need, correct?

A Only the incremental amount of energy, which, as I said, is a byproduct of the investment. There's about a 25-percent increase in the kilowatt hour production relative to the existing facilities, and in terms of context, I will point out, this case -- that this testimony was in a case, which I testified, in which the Company's position was -- it did not need new resources for a decade. So the Company's position in 2015 was, it did not need new resources for a decade. That was in Mr. Clements' testimony in this very docket, and I was pointing out the QF power would -- would displace market purchases, but of course, that was all incremental.

This proposal before the Commission now has -- essentially replaces existing Company generation, two-and-a-half million megawatt hours of existing generation, and then produces, on top of it, an extra 600,000-megawatt hours. So I would agree, to the extent you want to talk solely about the increment, there is some displacement of resources taking place, but you're also paying $1.1 billion for that.

Q   If you could turn to your direct testimony, please, Page 18. I'm sorry. I lost myself in the wrong testimony, so if you could just give me a moment.
Okay. I'm there. The last one in there. So if I could direct your attention, please, to Line 358?
A   Is this my response testimony?
Q   This is your direct testimony.
A   My direct testimony. I'm sorry. I thought that's what you said.
Q   And I went to the response, was my problem, so I excuse myself on that one.
Are you there on Page 18?
A   Yes, I am.
Q   And on Line 358, you testified that, "RMP has made it clear that recovering the costs and earning a return on the retired assets is an integral part of its proposal," correct?
A   Yes.
Q   And then you continue that you believe it's a significant reason for the Company seeking pre-approval, is to ensure that that will occur.
And then you testified that it would not make sense for the Company to present an opportunity investment designed to reduce long-term rates that exchange --

the Company was susceptible to an after-the-fact disallowance. Do you see that testimony?

A The after-the-fact disallowance on its retired plant?

Q On its retired plant.

A Yes.

Q Now, if I could direct your attention -- I'm sorry, now back to your response testimony, Line 767. And actually, it begins a little bit further up. It's one of the conditions that you proposed, you begin on Line 764, and the condition recommends that the future cost recovery associated with repowering be conditioned on the ability to demonstrate the construction cost coming at or below the estimates and then measured over a reasonable amount of time. The energy is equal to a greater-than forecast, correct?

A Correct.

Q And if those conditions are not met, you specifically ask the Commission to have the opportunity to, after the fact, reassess the prudence of the repowering project, correct?

A I recommend that the Commission keep open the option to evaluate whether the cost and benefits should be redistributed between the Company and customers.

Q So doesn't this -- this condition that you recommend, is indeed the exact type of after-the-fact disallowance you specifically testified would not make sense in this case?

A No. And the -- with respect to the reduction in -- in the term and basis upon reduction on the return on the retired plant, I do believe that it would make sense for the Commission to address that up front in this case and make that as a condition of any approval up front, rather than make it an after-the-fact risk that was not tied down at some point.

Separate and apart from that, the projected benefits from this project are contingent on the Company's plants performing in the way the Company has projected. And if over a reasonable period of time, it turns out that that -- the plants just don't perform, I do believe it would be reasonable to reexamine the relationship of the benefits between the Company and customers. And, yes, after the fact.

But, again, it would be -- the Company would be put on notice now. So that's why I'm saying these things now and up front. It wouldn't be the case that it gets through and then someone necessarily raises the issue later, but I think the Commission should make it clear now, the Commission is open to looking at reassessment.

Q And, Mr. Higgins, your proposed condition if the opposite occurs -- let's say, for example, the energy production is more than expected, where the costs come in at less than forecast. I presume you would be open to also reexamining the sharing of costs and benefits and perhaps giving the Company a larger return on its investment or increasing its rates somehow, to account for the fact that the performance increased over what gets accrued in this case?

A That's not part of my proposal. If the Commission were to feel that that would make it a more symmetrical approach, the Commission could consider that, but that's not part of my proposal. And, you know, it's part of my proposal, in part, because the -- I already see the benefits of this project as skewed in favor of the Company to start with. And so the -- to the extent that things turn out a little bit better than the Company has afforded -- I mean, the Company has several different scenarios in this forecast. Things turn out a little bit better, say, than the low-end case, I think it's reasonable for the customers to see those benefits because that was part of how this whole thing was sold, if you will. So nevertheless, depending on the specific re-openers that the Commission wishes to consider, I suppose that they could consider a better deal for the Company if the project outperforms, but that's not specifically part of what I'm proposing.

Q Now, if you could turn to your response testimony, Page 36, please, and beginning on Line 636. You recommend that the project be scaled back to exclude Leaning Juniper, correct?

A Correct.

Q And the basis for this recommendation, as described on Line 639 and 40, is that Leaning Juniper, according to your analysis, fails to provide projected net benefits under a 20-year period, using nominal PTCs and nominal capital costs under either the medium or low gas scenarios, correct?

A Correct.

Q And if we just turn back one page, to Page 35, the table on that page is the table that describes those results that you were describing. It shows, under the medium gas case, Leaning Juniper as a cost under all three of the models, correct?

A Correct.

Q And then on Page 14, it shows your low gas results, correct?

A On Page 36?

Q Yeah. Excuse me. Table KCH-14.

A Correct.

Q Now, Mr. Link testified that the Company's economic analysis in this case conservatively did not include any values for REC's, correct, the renewable energy credits?

A Correct.

Q And are you familiar with the fact that Mr. Link testified that for Leaning Juniper in particular, for every dollar of REC, for every dollar assigned to an incremental REC, the benefits of that project increased by $1.1 million?

A I am familiar with his testimony, yes.

Q Now, isn't it true that you've testified in the last several cases in front of the Oregon Commission about how valuable REC's are?

A I have testified, not about -- not necessarily about how valuable REC's are, but I've testified that direct access customers should receive credit for renewable energy that their producer, their supplier, supplies them because they're also paying PacifiCorp for the same kilowatt hours of renewable energy, and that there should be a recognition of that. And I've had disagreements with the Company in Oregon about an appropriate approach to value that. But I did not argue that they had tremendous value; I argued that, what value they have should be recognized. And I argued about the method for -- for which it should be of value. And, of course, the Company countered by arguing that they had very, very little value.

Q And I guess you've made that recommendation, at least, in the last three annual power cost filings in Oregon, correct?

A That is correct.

Q And presumably, if you believed REC's had no value or had de minimis value, you wouldn't be making the same recommendation three years in a row, right?

A I -- it was a -- it was an argument that I made that I stand by and I believe is valid, but it wasn't based on the REC's having a tremendous amount of value, it was based on the fact that they have value in Oregon. And I believe that the value should be recognized, yes.

Q Now, if you could turn to document RMP

Cross-Exhibit 13.

A Sure.

Q And this is testimony that you filed in one of the cases we were just discussing. This testimony was filed with the Public Utility Commission of Oregon in August of 2016. And if you could turn to page 7 of that testimony, please? Beginning on line 3, of page 7, you're describing a hypothetical to value the exercise you just described, and you assume the hypothetical value of $1 for an unbundled REC, correct?

A Correct.

Q And then in the footnote, you say, "This value, this $1 value is in the general range of REC values that are identified in public sources," correct?

A Correct.

Q Now, if we could turn back, just briefly, to Page 35 of your response testimony, that's the table that shows the medium -- medium/medium scenario for each project. And assuming a $1 value for RECs under the SO model results, Leaning Juniper would go from a $1 million cost to a small incremental benefit, correct?

A Well, I believe it would go to about a breakeven, based on the numbers you represented to me.

Q 1.1 versus 1?

A Well, this one -- let's be clear, right? This one is a rounded number, right? It's 1 million mas o menos. So we don't -- we -- I don't know how many decimal points this goes out. So if we're talking about rounding in the table, then you've got to round the number that you've got for the REC value as well. So I'd say that, you know, it rounds to about zero in -- in the SO model case and it's still a cost in the other two cases.

MR. LOWNEY: Thank you, Mr. Higgins. I have no further questions. I would move to admit Rocky Mountain Power Cross-Exhibits 9, 10 and 13.

COMMISSIONER LEVAR: If any party objects to the admission of those exhibits, please indicate to me. I'm not seeing any objections, so the motion is granted.

(RMP Cross-Exhibit Nos. 9, 10, and 13 admitted.)

COMMISSIONER LEVAR: Mr. Russell, any redirect?

MR. RUSSELL: Yes, Chairman.

REDIRECT EXAMINATION

BY MR. RUSSELL:

Q Mr. Higgins, do you recall being asked questions about testimony you provided in Docket 15-035-53 in this Commission?

A Yes.

Q I've got a couple of follow-ups on that, but first I need to hand out some testimony, so I'll do that very briefly.

COMMISSIONER LEVAR: And if anyone has a cellphone close to your microphone or an iPad that's getting a signal or something, maybe move it away from your microphone. Or maybe my new sound system just isn't quite good.

MR. RUSSELL: The document I've just handed out is the direct testimony of Paul Clements. It was filed May 11 of 2015. It was filed with Rocky Mountain Power's application and in support of that application in Docket Number 15-035-53. I think for purposes of this hearing, we can identify this document as UAE Hearing Exhibit 1.

BY MR. RUSSELL:

Q Before I ask a specific question about that testimony, Mr. Higgins, are you familiar with the IRP that was in effect at the time of this

testimony that was filed in May of 2015?
A Generally, yes.
Q Okay. And is it your recollection that that IRP included, as a method of meeting the Company's loaded resource requirements, that it would have included an expectation of acquiring energy through market purchases and front office transactions?
A Yes.
Q Okay. And you mentioned in cross-examination that the Company's position was that it did not need resources for a decade, and I just -- I want to -- I'm going to explore that for just a second. I'll have you turn to Page 3 of UAE Hearing Exhibit 1. Do you have that?
A I do.
Q And Line 62, starting in the middle of that line.
A Yes.
Q And it states, "The Company has no need for resources for the next decade."
A Yes.
Q Okay. And then let's turn to Page 18, and Line 370. And the testimony there reads, "The Company primarily enters into long-term transactions

(those that exceed 36 months) only when there is a clearly identified long-term resource need in its IRP. Long-term resource needs are typically identified in the IRP only after lower cost, lower-risk short-term resource opportunities are exhausted such that a long-term resource is required to meet customer load requirements." My question to you is, the testimony that we've just highlighted from this, is this consistent with your recollection of the Company's position in that docket?

A Yes. And this was the context that I was referring to when I was responding to Counsel for the Company.

Q Okay. And just to tie this up. Do you recall what that docket was about?

A Yes. That docket was about -- the primary issue in that docket was that Rocky Mountain Power was recommending the QF contract terms be reduced from 20 years to three years. That was -- that was the primary issue under consideration.

MR. RUSSELL: Okay. No further questions.

COMMISSIONER LEVAR: Thank you. Any recross based on those questions? Commissioner Clark, any questions for Mr. Higgins?

COMMISSIONER CLARK: No questions. Thank you.

COMMISSIONER LEVAR: Commissioner White?

COMMISSIONER WHITE: Yes, just one question.

BY COMMISSIONER WHITE:

Q To your proposal, I -- essentially, I guess, to be characterizing it incorrectly, but essentially to give a haircut on the return on the legacy assets, is that something you have ever seen done before? I mean, is that -- and I'm just wondering, I mean, legally, those were approved -- those projects were approved -- I mean, I guess I'm just wondering, is that something you've seen done in this Commission or others?

A I have seen haircuts given on existing assets for various reasons, and the -- I've seen them ordered by Commissions and I've also seen them as a result of stipulations, which, of course, are typically considered maybe not precedential. But to your specific question, for example, here in Utah, there was a stipulation in which the Company agreed to take a lower rate of return on regulatory assets associated with the Klamath Dam Project, and essentially, receives a debt return on that project. And, again, that -- that's something that was approved by the Commission, it wasn't mandated by the Commission. It was something the Company agreed to do, but it has happened before here. I've also seen Commissions order lower rates of return on certain regulatory assets, which -- which this would be. This would be or could be structured as a regulatory asset, but as the unrecovered retired plant could be carved out and considered to be a regulatory asset. And I've seen lower returns and regulatory assets in the context of prepaid pension assets. For example, the Kansas Commission, to my recollection, has ordered that.

So you do see, from time to time, certain assets singled out and treated that way. And I certainly think that in a case like this, where you have an extraordinary retirement, that as a retirement on an asset that's only ten years old, in essence that's got another 20 years left on it, as part of a proposal for, you know, an opportunity investment, if you will, I do think that the return allowed on a retired asset can be considered part of the equation for coming up with a balanced result.

COMMISSIONER WHITE: That's all the questions I have. Thanks.

COMMISSIONER LEVAR: Thank you. One follow-up to Commissioner White's question.

BY COMMISSIONER LEVAR:

Q Just to the issue of whether that suggested baseline reduction would be a single-item rate case, were any of those examples you cited outside of a general rate case that you're aware of? I know they weren't your testimony.

A Those examples were in the context of a rate case, and my recommendation is actually that it would be addressed in rate cases. So I'm not -- I'm really not recommending that the 200 basis point reduction be a single-issue ratemaking event. I'm recommending that it be part of the Commission's pre-approval and that, as I've actually described in my testimony, that it would be going forward, adjustment in rate cases so that it wouldn't be anything that necessarily took effect until there was a rate case. And at that time, this regulatory asset, which would be carved out recognizing this separate retired plant, would be subject to this basis point adjustment. And it would really be an adjustment to whatever the allowed returned equity happened to be in that case. So it really would look forward with rate cases and would happen purely in the context of general rate cases moving forward.

Q Okay. Thank you.

A Thank you.

Q And I don't want to belabor this issue. I had some discussion with Mr. Hayet about it, but in search of some kind of objective standard where the statute arguably doesn't really give us one and gives us some things to consider, if we look at each of the individual 12 projects and try on one site to -- to analyze or -- not analyze, but to find some path for putting the numeric value to cost benefits and low risks, for each repowering project compared with cost benefits and unknown risks of not repowering and then try to make a decision on each of the 12 based on something like that, can you suggest any kind of objective way to look at that?

A This is what I would suggest. I would suggest that you look at each project separately and see how they stand on their own merit. I would further suggest that you examine various of the analyses that have been put forward by Mr. Peaco and Mr. Hayet because they've looked at -- they've done some framing of the analysis. I also believe that you could look at it in the context of two analyses that -- that are grounded in the Company's analysis.

First, you could look at the nominal and nominal treatment, which is -- shows up in my -- my testimony. It's not really the Company's analysis, but it's derived from the Company's numbers. Look at each project there. In that case, the Leaning Juniper would fail. But you could also then look at it under the initial IRP method, which is also laid out in my testimony. And in that case, about eight or nine of the projects would fail. And so that will at least allow you to really eliminate the projects that appear to be least economic and I would encourage you to -- in terms of a metric that you're looking for, I would encourage you to look at it conservatively. That is, I would encourage you to look at the low gas, zero CO2 case, and the reason for that is that this a project that's not fundamentally needed. And so if what you're trying to do is assess whether there's some upside for customers that you don't want them to miss from all of this, even though it's not a needed project, I think the appropriate format to look at that is from a conservative standpoint. And look at it and say, how -- how does it do under the, in essence, the worst case scenario, because we don't otherwise really need to do this.

COMMISSIONER LEVAR: Thank you. I appreciate that answer. Do either of you have anything further?

COMMISSIONER CLARK: Can I just follow up for a second?

BY COMMISSIONER CLARK:

Q So as we look at the projects, addressing the 200 basis point reduction on return on the assets that would be retired, are you offering that as another lever or another mechanism that we can use to -- in the event that we have concerns about, especially, the -- some of the specific projects where the benefits are slimmest, that another way we could address that is to reduce the return on the retired assets as a way to alter the balance of benefits and burdens that has been a concern to you. Is that -- is that what you're -- is that --

A Commissioner, that is exactly what I'm recommending. And I wouldn't -- I would describe it exactly as you described it, as another -- it's another lever at your disposal. And I really believe that in the position that you're in, it's important to have those levers available to you.

COMMISSIONER CLARK: Thank you. That concludes my questions.

COMMISSIONER LEVAR: Did you have anything further?

COMMISSIONER CLARK: Nothing further.

COMMISSIONER LEVAR: Thank you, Mr. Higgins. We appreciate your testimony today.

THE WITNESS: Thank you.

COMMISSIONER LEVAR: Mr. Russell, anything else from you?

MR. RUSSELL: No, Chairman. Thank you.

COMMISSIONER LEVAR: Okay. And, Ms. Hickey, did you have anything else?

MS. HICKEY: No. Thank you, sir.

COMMISSIONER LEVAR: Anything else from anyone? Okay. Well, we will take this matter under advisement and issue a written order in reasonable time.

Thank you for your participation in this hearing yesterday and today. We're adjourned.

(The hearing concluded at 2:50 p.m.)

REPORTER'S CERTIFICATE

STATE OF UTAH)

COUNTY OF SUMMIT)

I, Mary R. Honigman, a Registered Professional Reporter, hereby certify:

THAT the foregoing proceedings were taken before me at the time and place set forth in the caption hereof; that the witnesses were placed under oath to tell the truth, the whole truth, and nothing but 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 have subscribed my name on this 16th day of May,

Mary R. Honigman
Registered Professional Reporter #972887

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