BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application
of Rocky Mountain Power for
Approval of Changes to Renewable
Avoided Cost Methodology for
Qualifying Facilities Projects
Larger than Three Megawatts

Docket No. 12-035-100

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HEARING PROCEEDINGS

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TAKEN AT:	Public Service Commission Hearing Room 403 160 East 300 South Salt Lake City, Utah
DATE:	Thursday, June 6, 2013
TIME:	9:00 a.m.
REPORTED BY:	Scott M. Knight, RPR

APPEARANCES

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COMMISSIONER: THAD LEVAR

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THE HEARING OFFICER: On the record.

Good morning, ladies and gentlemen. I'm Commissioner Clark. Chairman Allen's asked me to serve as the hearing officer for this matter. We're here in Docket No. 12-035-100, In the Matter of the Application of Rocky Mountain Power for Approval of Changes for Renewable Avoided Cost Methodology for Qualifying Facilities Projects Larger Than Three Megawatts.

This is the time and place duly noticed for this hearing. And at the outset, I want to mention that the Commission has recently noticed a public witness hearing in this matter scheduled for June 13th, beginning at noon in this room, Room 403 of the Heber Wells Building. I propose first to have counsel enter their appearances, and then I have a few preliminary matters to address concerning your witnesses, confidential material that--and whether or not that will be part of our proceeding. And so let's begin with the appearances. We'll also address any other preliminary matters parties have or parties would like to raise. Let's begin with appearances, and we'll start with the applicant.

MS. HOGLE: Good morning, Chairman, Commissioner, parties. My name is Yvonne Hogle on behalf of

Rocky Mountain Power. And with me here today are Mr. Greg Duvall and Mr. Paul Clements in support of the Company's application.

THE HEARING OFFICER: Thank you.

MS. SCHMID: Good morning. Patricia E. Schmid with the Attorney General's Office representing the Division of Public Utilities. And with me as the Division's witness is Dr. Abdinasir Abdulle.

MR. McDONOUGH: Good morning. Kevin McDonough, from the Utah Attorney General's Office. I'm representing the Office of Consumer Services. With me this morning is Mr. Béla Vastag. And appearing via telephone will be another witness, Mr. Randall Falkenberg.

THE HEARING OFFICER: Before we leave--that witness, is he going to join us prior to his testimony or do you know? We just want to logistically understand how to accommodate his participation.

MS. BECK: He's confirmed that he's listening to it streaming. And--and Mr. Widerburg suggested we call him for his appearance, and that he listen to it streaming for that.

THE HEARING OFFICER: Thank you.

MS. BECK: Michele Beck.

THE HEARING OFFICER: Thank you, Ms. Beck.

For the record, I'll repeat what Ms. Beck has provided. Mr. Falkenberg is participating via streaming and will call in shortly before his participation as a witness. We--I believe we were going to call him if that's possible. All right. We-- we initiate the phone call to him?

Mr. Widerburg, I'm going rely on you to make sure whatever needs to happen happens so that Mr. Falkenberg's available at the appropriate time. Thank you.

Thank you, Mr. McDonough.

MS. HAYES: Good morning, Commissioners. Sophie Hayes on behalf of Utah Clean Energy. And with me, as Utah Clean Energy's witness, is Ms. Sarah Wright.

MR. DODGE: Good morning, Commissioner. Gary Dodge. I've entered an appearance in this docket on behalf of Wasatch Wind. Wasatch Wind does not intend to participate actively in this hearing. This morning I'd like to enter my appearance on behalf of an additional client, SunEdison, LLC. And on behalf of SunEdison, Maura Yates will be the witness.

THE HEARING OFFICER: Thank you.

MR. SIMON: Good morning. My name is Dan Simon with the law firm of Ballard Spahr here on behalf of Scatec North America. And with me from Scatec North America is Luigi Resta.

THE HEARING OFFICER: Thank you. Is it Mr. Simon?

MR. SIMON: Yes, sir.

THE HEARING OFFICER: Thank you, I want to make sure I pronounce it correctly.

MR. SIMON: Thank you.

MR. EVANS: Good morning. I'm William Evans of the law firm of Parsons, Behle & Latimer here representing Kennecott Utah Copper and Tesoro Refining and Marketing. And we have brought with us today as our witness, Mr. Maurice Brubaker.

THE HEARING OFFICER: Thank you.

Any other appearances?

That works out well, since there's no more space at the counsel table.

The next item I'd like to address is the order of witnesses. Typically, we would hear first from the applicant. We propose, then, to hear from the Division, then the Office, and beyond that, are there any witness availability considerations that we need to take into account?

MR. DODGE: Mr. Commissioner?

THE HEARING OFFICER: Yes.

MR. DODGE: On behalf of SunEdison, Maura Yates has a commitment in another commission proceeding tomorrow and would like to be on the stand sometime today. It doesn't really matter when today, but I don't know if we'll get to her in the normal course. If not, we'd request that she be moved up.

MR. EVANS: We have the same situation with Mr. Brubaker, but I understand that there is very little, if any, cross for him, so that he could slide in just about any time and we could take care of him quickly. But we would like to get him on and off today, if that's possible.

THE HEARING OFFICER: Thank you. Any other matters of that type?

Would it be reasonable then to simply, until our schedule dictates otherwise, at least, follow the order that the appearances were entered into in terms of order of presentation and--and order of cross-examination?

Any objection to that? Then that's the process we'll follow. Does any party anticipate producing or needing to refer specifically to confidential information during either the summary of their witnesses' testimony if one is to be offered, or cross-examination? Okay. Thank you.

Then a note as to our schedule. We've reserved two days for this hearing. I want to begin by reassuring each participant that each commissioner's thoroughly read the testimony. We recognize that there's a certain level of repetition in the positions that are being presented. It's our hope to conclude today. Perhaps it's your hope also. If we--if we need to go a bit longer than typical today, we would propose to do that. If we need to carry over to tomorrow, the Commission only has between 8:00 and 10:00 tomorrow to--to continue the hearing. And so I ask that you bear that in mind as you--as you consider your--your cross-examination. If it were absolutely necessary, we could, of course, continue to another day beyond tomorrow, so we certainly want to hear all of the relevant positions, information, testimony, receive all of the relevant exhibits. But those are our near-term time constraints, and we wanted you to be aware of those as we begin. Any questions about that? Are there any other preliminary matters that parties have for the Commission before we begin to hear from witnesses?

MS. HOGLE: Yes, Commissioner. Thank you. Rocky Mountain Power would like the opportunity to file a post-hearing brief. We would suggest that it would be simultaneous briefs, one round, limited to however many pages you deem appropriate or reasonable. The reason for this is because you are being asked to consider approving changes to the avoided cost methodology. As a result of that, a lot of parties have filed different and supported different methodologies. In the middle of the proceeding some parties have switched their support for other studies. There have been parties who have filed their direct case in rebuttal and some parties filing new studies to support their original and second positions and surrebuttal. Anyway, it seems that it would be for the benefit of the Commission and everybody to kind of wrap it all up and have a little bit more clarity on the issues. And then I would also note that in 2003, when we were considering similar, if not the same issues, it took parties and the Commission a couple of years or more, several workshops to come up with the approved methodology, and so it would not seem unreasonable to add maybe a couple of weeks for the briefing under those circumstances. Thank you.

THE HEARING OFFICER: Any responses to the Company's proposal?

MS. SCHMID: The Division does. The Division believes that limited briefing may be appropriate and if so, would suggest that it be limited to legal issues and ask the Commission to specify which legal issues it would be briefed-- would like briefed.

THE HEARING OFFICER: Others?

MR. McDONOUGH: Commissioner, it's the Office's position that briefing probably is not necessary. I think that the Commission has the expertise to process the three rounds of testimony that have been tendered together with this hearing however, in the event the Commission deems it appropriate to have briefing, then I would join in the position of the Division, that the briefing be very brief and limited in scope. Thank you.

THE HEARING OFFICER: Others?

MR. DODGE: SunEdison would support brief briefing. As a lawyer, I guess I tend to think either closing arguments or short briefs are appropriate so that the party can pull together their position in a way that makes it maybe more understandable. We tend, in this Commission, not to have opening or closing. And I think in a complex case when we don't have those, a short brief is appropriate.

MR. SIMON: This is Dan Simon for Scatec. The main point I would like to make is, time is of the essence for us in terms of the outcome of this proceeding and the potential implications for my client's project, the large-scale solar project in Iron County, Utah. They have been working on for a long time now and are well on their way to being able to build a terrific project, but they do not have a PPA yet. And my main concern is in terms of how long it would take for the Commission to ultimately reach a decision on these issues that could impact on whether or not that project is possible. So to the extent there is briefing, if it's short and it's something that can assist the Commission in reaching a decision fairly quickly.

THE HEARING OFFICER: Any other parties?

MR. EVANS: I guess I should weigh in, Mr. Commissioner. I agree with Mr. Simon that time is of the essence here. For my clients we are entering a process where we begin negotiating the QF contracts for 2014. There is a time limit to getting that done so we can bring them in to the Commission for approval. And this should be done before then so that we know the avoided costs we're going to apply to those contracts.

But I do think that on the REC issue at least a lot of testimony that's on the record now is in the nature of legal testimony, if I can call it that, or testimony going to policy or the application of the law to this issue. So if at the end of the day the Commission thinks it would be helpful, we think--we'd be willing to brief the issues there. Otherwise, just--it remains short time period and short briefs.

THE HEARING OFFICER: Thank you. We'll provide a ruling later this morning on that proposal.

Any other preliminary matters?

Ms. Hogle?

MS. HOGLE: Thank you, Commissioner Clark. At this time Rocky Mountain Power calls Mr. Greg Duvall as its first witness.

THE HEARING OFFICER: Please raise your right hand, Mr. Duvall. Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Please be seated.

THE WITNESS: Thank you.

GREG DUVALL, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MS.HOGLE:

Q. Good morning, Mr. Duvall.

A. Good morning.

Q. Can you please state your name and your position with the Company for the record?

A. Yeah, my name is Greg Duvall. I'm the director of net power costs for PacifiCorp.

Q. And in that capacity did you file a direct rebuttal and surrebuttal testimony with exhibits?

A. I did.

Q. And at this time, do you have any changes that you would like to make to any of those pieces of testimony?

A. I do. On page 13 of my direct testimony is the first change. The question and answer beginning on line 265 continuing through 269 is no longer true. It was true when I wrote the testimony, but between then and now, the State of Washington passed a law that makes that Q and A untrue, so I would simply delete that Q and A.

And the only other thing changes I have are in my rebuttal testimony. Page 1, line 7, the "Mr. Abdinasir" should be "Dr. Abdinasir." The same change on page 14, line 276: "Mr." should be "Dr." And on page 22, line 436, again, where "Mr." should be "Dr."

Those are all my changes.

Q. Thank you. And so other than those changes, if I were to ask you the questions in your testimony here again today, would your answers be the same?

A. They would.

MS. HOGLE: At this point, I would like to enter into the record Mr. Duvall's direct, rebuttal, surrebuttal testimony with attached exhibits as edited this morning.

THE HEARING OFFICER: Any objections?

They are received.

BY MS. HOGLE:

Q. Mr. Duvall, do you have a summary you would like to give the commissioners today?

A. I do.

Good morning, Chairman Allen, Commissioner Clark, and Commissioner LeVar. I filed three pieces of testimony in this docket: direct testimony, rebuttal testimony, and surrebuttal testimony. And I'll give you a brief summary just by the issues that were raised. The first issue was whether the market proxy method continues to produce avoided costs that are in the public interest, and the other issues have to do with the proper implementation of the Proxy/PDDRR method, which I will address the integration costs for solar resources, the adders for fuel risk greenhouse gases and climate change, the capacity contribution, which is the major subject of my surrebuttal testimony, and the timing of new capacity additions.

With regard to--as--I guess as I note in my testimony, the guiding principle underlying the development of the avoided cost is customer indifference, and that any payments made to QFs are ultimately borne by retail customers.

With regard to the continuation of the market proxy method, the Company believes it no longer aligns with the Company's IRP and therefore does not reflect avoided costs. The 2013 IRP shows a--the next deferrable wind plant in 2024. The market proxy assumes the next deferrable wind plant is the first year of a QF contract. Because of this timing mismatch, the market proxy method will not result in a reasonable payment of avoided costs, as I show in Table 1 on page 11 of my direct testimony.

With regard to the Proxy/PDDRR method, the solar integration cost, the Company has proposed that we use the wind integration cost we don't have a solar integration cost study that we've done. We think this is reasonable because solar is intermittent. It generally needs integration support during the higher cost hours, the peak load hours it had sharp swings in cloud cover. And the timing of the solar is not lined up with the timing and changes of loads, and therefore, the Company incurs additional ramping requirements from its dispatchable resources.

We think what we propose is reasonable, and we think what--the value of zero, which was proposed by UCE, Utah Clean Energy, is unreasonable because intermittent resources certainly needs support by dispatchable resources. So the value should be nonzero.

With regard to adders for fuel risk, greenhouse gases and climate change, we believe that they're not known and measurable at this time. And including additional cost for those risks would unnecessarily shift costs from QFs to retail customers. And until something is more definitively known about these risks, we suggest they not be included.

With regard to the capacity contribution, the intermittent QFs do not generate power at 100 percent of their nameplate capacity at the time of system peak on a reliable basis. This is important because the resources that they are deferring, which are what we call front office transactions in the sufficiency period of near term or the combined cycle combustion turbine, or CCCT, in the long term provide a--can deliver 100 percent of their nameplate capacity within 90 percent confidence level which is the comparative basis that we look at, at time of system peak.

So we performed the study to look at the ability of the renewable resources to deliver dispatchable power at the time of system peak. So we looked at a 90 percent confidence level with the highest 100 hours of peak load during the summer over a five-year period, and determined that a wind plant could deliver, on a firm basis, 4.1 percent of its nameplate capacity. The solar resource that's energy- oriented could deliver 11 1/2 percent of its nameplate capacity. And a peak-oriented solar plant could deliver 25.9 percent of its nameplate capacity.

And so the idea here is that for QF pricing, renewable QF should get paid for what it can defer. And these are the numbers that the Company has put forth as the amount of capacity that a renewable resource can defer for a deferrable resource.

So other parties have proposed alternative methods, which I address. Those methods have different acronyms. One is the Effective Load Carrying Capability, or ELCC. And then there's also the capacity factor allocation method. Sometimes it's referred to as the CFAM or the CF, but in my mind, that's the same method. And it's a--basically a shortcut to the ELCC. ELCC requires stochastic analysis. It's a very involved, iterative process. There are other methods, especially the CF method, that are-- basically have been developed to simplify the mathematics and make the calculation quicker.

And--so what I point out in my testimony is that the capacity factor method or the ELCC is basically energy-based. And when you look at the confidence level that comes out of those, the studies that were produced by, for example, Mr. Falkenberg where he took--he took the same 100 hours, but he took the average of them instead of the 90th percentile, and what he came up with was a--ended up that the confidence level dropped from 90 percent to 41 percent based on the calculations done by Mr. Falkenberg. That has the effect of reducing the reliability of the system to meet system peak load.

If the thermal--if the Company's thermal resources, for example, were available only 41 percent of the time to meet peak load, the Company would be unable to provide service to the customers 59 percent of the time. So the reliability is significantly affected by adopting an ELCC or CF method. And it's inappropriate to inflate payments to renewable QFs when the result is reduction in system reliability. So the alternative to the loss of reliability would be to add additional resources to bring the reliability back up to the levels in the IRP. This would result in additional cost to customers so they would end up paying twice for the same capacity.

And finally, on the timing of the CCCT capacity deferral, this is really an issue of Utah Clean Energy, Ms. Wright, who insists that the QFs get paid for the deferral of the CCCT, combined cycle combustion turbine, beginning with first year of the contract. The Company does not avoid a combined cycle combustion turbine until 2024, in the 2013 IRP, and therefore, payments prior to that would not be based on costs that the Company could avoid.

So thank you very much. That concludes my summary.

MS. HOGLE: Thank you, Mr. Duvall. Thank you, Mr. Duvall. He is available for cross-examination or questions from the bench. Thank you.

THE HEARING OFFICER: Ms. Schmid.

MS. SCHMID: Thank you.

EXAMINATION

BY-MS.SCHMID:

Q. Good morning, Mr. Duvall.

A. Good morning, Ms. Schmid.

Q. The Division has a few questions for you. Could you please turn to page 9 of your surrebuttal testimony?

A. I'm there.

Q. Thank you. Do you see Figure 1 there, which should be the graph near the top of the page?

A. We're having a page number problem. That's on page 11 of mine, but I do have Figure 1.

Q. But you're looking at what's identified as Figure 1, wind and thermal CCCT, probability of exceeding peak load hours?

A. I was in my rebuttal testimony. No wonder I had the wrong page. Got it now.

Q. Okay. So we are on both on the same graph?

A. We are.

Q. Looking at this graph, do you see the box that contains the word, "DPU Wind Contribution, 12 percent; Confidence Level, 63 percent"?

A. I do.

Q. Did you use a formula to calculate the confidence level you set forth in this box?

A. Well, the--it was taken off the curve that's shown--

Q. Okay.

A. --there.

Q. Thank you.
And I have--if I may approach the witness?
THE HEARING OFFICER: Yes.
BY MS. SCHMID:
Q. Thank you. I'm distributing what I would ask to be marked for identification as DPU Cross Exhibit 1. Can you take a moment, Mr. Duvall, and look at this? This is a hypothetical that the Division created. And I have some questions about our hypothetical--
A. Okay.
Q. --okay? So if you look at the blue line, which is pretty much a line that runs parallel to the horizontal axis and is just below the 5 percent mark, do you see that it runs over and then when it is close to the green line, which is our 90th percentile marker, it dips down?
A. Yes, I do.
Q. Okay. If we look at the red line, which is Example 2, and you see it starts just above 30 percent, runs horizontally along until just before the 90 percentile line, and then dips down sharply--do you see that?
A. I do.
Q. Looking at these two examples, can you see--okay. So Example 2 is available more than 30 percent of the time; is that correct, until it drops down?
A. That's correct.

Q. And then Example 1 is available just under 5 percent until it drops down; is that correct?
A. Well, the--yeah, I guess that's correct.
Q. Do you agree that it's not reasonable to award the same capacity value for the contribution of Example 1 and Example 2?
A. I guess I'm--I'm--I'm not sure what the examples are, so I'm not quite sure how to answer that question at this point.
Q. Okay. Let me rephrase and see if I can ask it more clearly. Looking at Example 1 and comparing it to Example 2, is there more--we'll just call it availability with Example 2 than there is with Example 1? As Example 2 is available more than 30 percent and Example 1 is just below 5 percent?
A. So I guess--I'm assuming the y-axis is the same as Figure 1 in my testimony--
Q. Yes.
A. --the available capacity?
Q. Yes.
A. So--yeah, I would agree with your--your characterization.
Q. So just by looking at the chart, do you agree that it appears that Example 2 should be awarded a greater contribution value than Example 1?
A. I guess not necessarily. I mean, these are--these

are akin to the Figure 1 in my testimony. And I guess the--what's missing here is on Figure 1 and--or Example 1, Example 2, those two lines is--is what confidence level is that those will actually occur.

Q. But a confidence level is something that you calculate if you use confidence level in the manner that is used as a term of art in the statistics world; isn't it? Don't you use a formula to calculate a confidence level?

A. Yeah, it's based on--like I said, it's based on the curve. So the--I guess what I'm also noticing is the x-axis in your example are numbers which are unlabeled, and the x-axis in my testimony are percentages, so I'm not quite sure how they relate.

Q. I apologize. I should have said the x-axis with the numbers refers to the 500 data points that the Company used in its exhibit in this example when it ran the top hundred hours for the five years.

A. Okay.

MS. SCHMID: Thank you. All my questions.

THE HEARING OFFICER: Mr. McDonough.

MR. McDONOUGH: The Office has no questions.

THE HEARING OFFICER: Thank you.

MS. HAYES: Thank you.

EXAMINATION

BY-MS.HAYES:

Q. Good morning, Mr. Duvall.
A. Good morning.
Q. I'd like to refer to an exhibit that Scatec filed with its surrebuttal testimony. Do you have that with you?
MS. SCHMID: Oh, pardon me.
THE WITNESS: I don't believe I do.
MS. HAYES: It's--
THE WITNESS: It's with the surrebuttal? Is that what you said?
MS. HAYES: Yeah, it's the first page of Exhibit A to their surrebuttal testimony.
THE HEARING OFFICER: While you're looking, let's go off the record.
(A discussion was held off the record.)
THE HEARING OFFICER: Let's be on the record.
BY MS. HAYES:
Q. I'm--it's a page of the IRP that I'm looking at and I have a--you have it?
A. I've got it. Thank you.
THE HEARING OFFICER: Just before we begin your question, then, Ms. Hayes, Ms. Schmid, you had a matter that you wanted to address?
MS. SCHMID: I do. Thank you. The Division moves for the admission of DPU Cross Exhibit No. 1.
THE HEARING OFFICER: Any objection?

Received. DUP Cross Exhibit 1 was admitted into evidence

THE HEARING OFFICER: Thank you, Ms. Hayes.

BY MS. HAYES:

Q. So looking at this table, it shows that without--this is--this is a table from the IRP, Table 5.12, system capacity loads and resources without resource additions; is that correct?

A. Yeah, I guess I'm--I'm looking at a Table 5.12. The exhibit--I don't seem to have pages that reflect the page of the exhibit, but page 99--

Q. Of--

A. --of the 2013 IRP.

Q. That is what I'm looking at.

A. Yeah.

Q. Thank you. This table shows, without additional resources, the Company is capacity deficient through 2022, which is the last year shown on this table; is that correct?

A. That's correct.

Q. All right. Now, I'm--I'd like to lead you to your rebuttal testimony, at line 210. And I apologize. I just have the line number written down, the--not the page number.

A. So you said my rebuttal?

Q. Yeah. It's page 10 of your rebuttal testimony starting at line 210.

A. Okay. I got that.

Q. You say that the Company cannot defer the capacity cost of the new combined cycle combustion turbine immediately; is that correct?
A. That is correct.
Q. Is it true that the Company can defer investments in physical capacity resources by entering into front office transactions?
A. No, that's not correct. Front office transactions are market purchases. There's no physical asset to defer.
Q. Now, if you could go to line 288 of your rebuttal testimony.
A. I've got it. Thanks.
Q. In response to Ms. Wright's argument that the penetration of solar resources on PacifiCorp's system is too small to incur integration costs, you say that integration costs are proportional to the output of solar facilities such that a small facility will incur less in integration cost than a larger facility. Is that a correct representation of your testimony?
A. Yeah, it would be less on a total-dollar basis because it's small, but it would be the same dollar-per-megawatt-hour sort of charge.
Q. Is it true that higher penetrations of solar have the potential to increase system integration costs?
A. I would say that's generally true. That's what we found with regard to wind resources--the wind resource studies

we've done.

Q. Is it also true that--or is the inverse also true, that low penetrations of solar impose fewer integration costs----

A. On a dollar-per-megawatt basis, I would agree with that.

Q. Is it true that the phrase, "known and measurable" is not in Section 210 of PURPA?

A. I don't know.

Q. All right. If I can take you--still in your rebuttal testimony--to lines 379 to 380--

A. I'm there.

Q. --you say that from the Company's perspective, risk characteristics of renewable QF are no different than the risk characteristics of a nonrenewable QF; is that correct?

A. That's correct.

Q. Do nonrenewable QFs typically enter into 20-plus-year contracts?

A. It--they have.

Q. Have--have any nonrenewable QFs entered into 20-plus-year contracts in recent years while gas prices have been low?

A. They have, but not in Utah.

Q. And then going back to your direct testimony, I--you don't need to go there if you don't want to. I'm not necessarily asking specifically about it except for mention that you said that the capacity contribution of renewables used nor avoided costs should be consistent with the Company's IRP. Is that your position?

A. Yes, that's my position.

Q. If you'll go with me to your surrebuttal at lines 37 to 39--that's on page 2--

A. I've got it.

Q. --you say that the Company's ability to meet system coincident peak load is the measure of capacity used by the integrated resource plan; is that correct?

A. Which line are you looking at there?

Q. So I'm not quoting you directly. It's lines 37 to 39. You say: The Company's ability to meet its system peak load, which is the measure of capacity used by the integrated resource plan.

A. Are you in my surrebuttal or rebuttal?

Q. Surrebuttal.

A. So in surrebuttal.

Q. Line 37, page 2.

A. I show--in my surrebuttal testimony I show that the average energy approach--

THE REPORTER: Sorry. Can you repeat that?

THE WITNESS: Yes. In my surrebuttal testimony, I show that the average energy approach degrades the Company's ability to meet its system coincident peak, which is the measure of capacity used by the integrated resource plan.

BY MS. HAYES:

Q. So is it true, then, that the Company's ability to meet its system coincident peak is the measure of capacity used in the integrated resource plan?

A. It is.

Q. All right. Is the Company's 100 high load hour capacity contribution method what was used in the 2013 IRP?

A. It is.

Q. How long has the Company used the 100 high load hour method to measure the Company's ability to meet coincident load in the IRP?

A. This is the first time in the IRP. We developed this method about--probably a little over a year ago as we were putting forth our avoided cost proposal in Idaho, the Idaho commission that adopted our method.

Q. So are you asking the Commission to approve in this docket a method that has not been reviewed or acknowledged by the Commission in the IRP docket?

A. Yes, but I presented all of the evidence that supports the method in this docket.

MS. HAYES: Thank you. I have no further questions.

MR. DODGE: Great.

MR. SIMON: Thank you.

MR. DODGE: Oh, I'm sorry. You go ahead if you want.

MR. SIMON: No, that's fine.

EXAMINATION

BY-MR.DODGE:

Q. Mr. Duvall, good morning.

A. Good morning.

Q. I'm going to follow up briefly on that last set of questions. I'd like to understand--when you sat through all those IRP meetings, I still don't understand what you mean by "the Company used the 100-hour method in the IRP." You used it for what purpose?

A. It's used in the 2013 IRP to determine the amount of capacity that's available from the solar and wind resources for--for basically purposes of planning. And the table that was in the exhibit to the Scatec folder that Ms. Hayes took me to that was the load resource balance-- it's that table that's at time of system peak that we would then say that--you know, how much wind--how much does wind contribute to time of system peak, how much does solar contribute to the time of system peak, and those are the values that we would use in that table. The values that are also used in the system optimizer model, which is the model that's used in the IRP to create resource expansion planes.

Q. So to be clear, when you use value, you don't mean dollars, you're talking about the amount of capacity contribution at peak that triggers the decision whether more capacity resources are needed; is that correct?

A. That's correct. Value is a megawatt value.

Q. There's no attempt in the IRP to assign a dollar value to the contribution of any particular resource. This is a system planning peak planning purpose that you're referring to?

A. That's correct.

Q. You don't dispute that--that there is value supplied by renewable resources by providing capacity during hours other than the top 100, do you?

A. I do not.

Q. Let's talk for a minute about your--your characterization of the various modeling--or methods for calculating capacity value. In a general level, it's accurate, is it not, that you characterize the methodologies suggested by all the other parties as energy-based and yours is capacity-based. Is that basically true?

A. That's correct.

Q. If you'll turn to page 9 of your surrebuttal, this is the graph that Ms. Hayes asked you about.

A. I'm there.

Q. Thank you. Ms. Schmid. Sorry.

A. Yeah.

Q. The--the y-axis on this graph is available capacity;

is that right?

A. That's correct.

Q. And this shows, in effect, a capacity factor value, correct?

A. It's the--it's--at a given exceedance level, it's the amount of capacity that's available on a firm basis.

Q. Exactly. Another way to state it is that you're calculating the capacity factor achieved or exceeded 90 percent of the top 100 summer modalities, right?

A. That's correct.

Q. Now, a capacity factor evaluation is inherently an energy-based calculation, is it not?

A. Well, if you looked at the capacity factor in one hour, then capacity that--the energy that's delivered in that hour is the same as the capacity that's delivered in that hour. So as you--as you spread it out over more hours, then it becomes more of an energy-based proposal.

Q. And you choose to characterize yours at 100 hours as capacity-based but something more than that is energy-based, but really you're drawing the line just in a different place, are you not?

A. No. The way we calculate is to look at the exceedance level. To say that, you know, at a--we get a 90 percent confidence level--that out of those 100 hours, 90 of them produce at least 4.1 percent capacity value at the time of system peak.

The other approaches, for example, Mr. Falkenberg just took the 100 hours each year, the total of 500 hours and just took the average of them. And--which led to a--you know, a confidence level of 41 percent as opposed to 90 percent. So he made no--no effort to look at the--you know, how often you could--or how much you could count on the time of system peak. It was just averaged over the 500 hours.

Q. You could have chosen to look at one hour of system peak, the one system peak hour the year and see the probability at the level, correct?

A. Yes, we could. We actually--we thought about that but that would produce fairly unstable results. So we broadened that to a hundred hours. We could have picked something different, but we chose 100 hours.

Q. A hundred hours is a few days, right?

A. It is.

Q. You could have chosen 500 hours and still used an exceedance approach if you had chosen to do that, correct?

A. We could have.

Q. Or 1,000 hours? In other words, you chose 100 hours but it isn't--it's not 100 hours that makes it magical transformation into a capacity-based analysis, is it?

A. That's correct.

Q. And for example, one could use 100 hours in one of the other methods as well and choose the same hours you were looking at, but it's a different approach to looking at valuation is that a correct statement?

A. That's correct. And that's both what Dr. Abdinasir and Mr. Falkenberg did.

Q. And if you used, for example, 100 hours in the CFAM method, would you then characterize that as capacity-based?

A. No, I would not.

Q. And that's because unless they use your 90 percent exceedance approach, you don't think it's capacity-based?

A. No, the CFAM approach does not look at how much capacity is available at the time of system peak, which is really what's needed to be able to avoid a combined cycle combustion turbine or a front office transaction.

Q. And that's if you're giving value only to that one element and not to the other elements you acknowledge was there, in other words, that there is value in providing a reliable energy in other peak hours outside the top hundred, but that value's not recognized in your model, is it?

A. It is recognized in the Proxy/PDDRR model. It's not recognized in the capacity contribution and the capacity deferral. It's recognized in the--the differential GRID studies which look at every hour of the year and assign a value, avoiding cost value, to the QF for every hour of the year.

Q. An energy value?
A. That's correct.
Q. But not the reliable contribution to peak load hours outside the 100 hours?
A. Yeah, that's correct, because the capacity contribution--the Company looks at--what you need to avoid a combined cycle combustion turbine is to be able to deliver it at the time of system peak.
Q. But you're assuming that all we're looking at in this QF evaluation is the ability to defer a combined cycle plant, where in reality what we're looking at is what costs in total does the utility avoid, right? We're trying to say what is the value of this stream of capacity and energy that this QF project is bringing to the table?
A. That's certainly what we're looking at, and that's what the Proxy/PDDRR--RR method is actually designed to do and actually does.
Q. And there are many other methods that most utilities use to reach the same conclusion. In other words, your method is not the industry standard approach for assigning the capacity value to a renewable resource, is it?
A. So I've noticed that folks bring up the industry standard, but what we're trying to do here is determine a price for a QF on PacifiCorp's system. I don't know what the reference is to industry standard those folks have made, but we are trying

to identify how much a QF resource can defer on PacifiCorp's system. And I believe that the method we provided does that very well.

Q. Mr. Duvall, we've not been able to identify another utility in the country that uses your approach. Are you aware of one?

A. I didn't look around, but I also am not aware of any other utility that uses the methods that have been proposed by the other parties here for determining the capacity payment to qualify facilities.

Q. You read some of the studies that were presented by NREL and others. You don't believe anyone uses those methodologies?

A. The studies are what they are, but none of the studies addressed the issue of how much capacity payment do you give to a QF.

Q. And in fact, in Utah, we never used your approach before either. This is a new approach. This is a proposal to change the existing approach to determine the capacity value of a--of a QF resource, correct?

A. Yeah, we've not used the Company's approach, we've not used the ELCC and we have not used a capacity factor for determining. These are all new approaches.

Q. Would it be appropriate to use your P-90 approach to determine the capacity value for a CCCT.

A. Well, I think--I suppose it would be. I mean I think that's what shows in the Figure 1 that we've been brought to in my rebuttal testimony on page 9 that the Company's CCCTs the Currant Creek, Lake Side, Chehalis, and Hermiston are all included in that chart. And each one of those show over on the right-hand side they're up to 100 percent capacity contribution by the time they cross over the 90 percent confidence level line.

Q. So you'd agree the Company ought to recover the percentage of the capacity costs of its CCCTs based on those numbers? If it's a 95 percent, they ought to recover 95 percent of the capacity value in rate cases?

A. No, I don't agree with that. This is all about setting capacity prices for avoided costs.

Q. But not for the Company's assets?

MS. HOGLE: Objection. Relevance.

MR. DODGE: I think it's relevant. He's trying to assign a capacity approach different for other resources than for his own. I think that is relevant.

THE HEARING OFFICER: Overruled.

THE WITNESS: Yeah, so this has nothing to do with how much we recover in rate cases, it's just--it's not related.

BY MR. DODGE:

Q. Mr. Duvall, you--did the Company perform a similar evaluation using your approach, but with a P-70 or a P-50 approach as opposed to P-90?

A. No, we did not.

Q. Let's talk for a minute about your study, your approach to calculating solar capacity contributions. It's an accurate statement, is it not--for solar, you use average energy production, which is capacity factor number, across five different states and you hold that constant for all five years using an NREL PVWatts simulation. Is that an accurate statement?

A. Can you say that again?

Q. Is it correct that in your study, you use the average solar energy production across five different states and you use--and you hold that number constant for all five years using NREL PVWatts simulation?

A. Yeah, I believe that's correct.

Q. And to shorten that, it's hypothetical based? It's a generalized set of data, it isn't actual solar production data from your system?

A. That's right, it's from the PVWatts data source, which is an NREL data source.

Q. And again, five states and it's an average number over five years?

A. That's correct.

Q. And then you compare that against your actual system hundred--100 high-load hours; is that right?

A. That's correct.

Q. So it's actual system load versus a five-year, five-state average solar production number?

A. Yeah that's correct.

Q. And the actual load varies, each of those five years, correct?

A. That's correct.

Q. Do you not see any issues mismatched there by using average numbers on the one hand for solar production over five states over five years comparing that on an actual databases each of the five years?

A. Well, it's really--that's the data we have. If we had actual solar data, we would use that, but it's the best we could do with the information that we had.

Q. So you do recognize there's a possible mismatch, but you're just saying you don't have the data?

A. I'd agree with that.

Q. Is it a fair assumption that solar irradiance could vary in a similar manner to your load? In other words, the similar weather conditions that might affect your load on a given peak day or near peak day might also affect the solar production in that day?

A. Yeah, and I would--I guess I would take you to UCE's Exhibit 4.1 which accompanied Ms. Wright's direct testimony, page 17. The two graphs at the top of the page are both for the same solar site. It's Congress, Arizona. The first one is year 1999 and the second one is year 2002. And basically what that illustrates is that the solar can, you know, occur--it's not--it does not occur regularly. It doesn't--it doesn't necessarily line up with the system peak. But it--it does, I think, support what Mr. Dodge is claiming is that the actual data can be different than any normalized source, but whether that's better or worse, I don't know.

Q. But if, for example, if one were to assume that on a very, very hot day, both your peak load is going to go up and the solar production is going to go up, that they're somehow related, your methodology doesn't account for that by taking an average of five states over five years compared to the actual peak data for your load. That creates an additional mismatch, does it not, or it exacerbates the mismatch, does it not?

A. Well, I don't--I don't know that I would agree with the premise that the solar production goes up on the peak days. There's, you know, other factors that affect solar production, including cloud cover and things like that. We just don't--I don't know that your presumption is correct or incorrect.

Q. Well, maybe we have to go back to the presumption because I asked you, do you agree that weather-related events can affect both at the same time? You don't agree that cloud cover also affects the temperature that day, for example?

A. The--the location of the loads is probably likely different than the location of the solar resource, so--and my understanding, as little understanding as I have about it is cloud cover is fairly local. You may have cloud cover in solar resource that has no effect on the loads, so I really can't conclude anything from that.

Q. But to the extent one would assume there may be a correlation between solar production on a given day and--and your system load on a given peak day, your approach of using average five-year, five-state solar production data and actual peak load data, that would exacerbate the mismatch, would it not?

MS. HOGLE: Objection. Asked and answered.

MR. DODGE: I think he said he couldn't accept my premise, so I'm now asking it as a hypothetical. I don't think he has answered this question.

MS. HOGLE: I think he's asked it three times, two or three times at least.

MR. DODGE: Can we ask the witness if he's answered it? Because I don't know, I just . . .

THE HEARING OFFICER: I'm going to overrule the objection.

Mr. Duvall, would you answer the question, please?

THE WITNESS: Could I get--

THE HEARING OFFICER: Do you have it in mind?

THE WITNESS: Yeah, I don't have the question in mind. Sorry.

BY MR. DODGE:

Q. To the extent one assumed a correlation in a hypothetical--if one assumed there is a correlation or may be a correlation between weather-related events such as cloud cover that might affect both your system peak load on a given peak day and the amount of solar production on that peak day, to the extent one assumes that hypothetical, then the mismatch that you have already answered that the mismatch between your five-year, five-state average solar production data on the one hand and your peak load actual data on the other hand, that mismatch is exacerbated. Is that a correct statement?

A. It's--it's a correct--correct statement, I believe, under the hypothetical if there is a correlation, but the question was if there is a correlation or may be a correlation. If there may be a correlation, I'm not sure it's correct. But if there is a correlation under the hypothetical, I'd agree with your conclusion.

Q. Mr. Duvall, you're fighting my premise, my--ignore that, but fighting the hypothetical.

Thank you. In addition, along the similar lines, you understand, do you not, that the maps and studies of solar potential shows that Utah has a much higher--southern part of Utah has a much higher solar potential--solar value, if you will, than any of the other states in the PacifiCorp system or not the states, but any other areas within PacifiCorp's system in the other states?

MS. HOGLE: Mr. Duvall, answer that only if you know--I mean, it seems to me that that's something that an expert in solar would know, and I believe you stated that--

THE HEARING OFFICER: Ms.--

MS. HOGLE: --you needed that understanding.

THE HEARING OFFICER: I think we should just allow the witness to answer the question, if he can.

BY MR. DODGE:

Q. Do you know?

THE HEARING OFFICER: I'm sure--if he can.

THE WITNESS: I believe that somebody has provided that evidence. And I don't doubt it. But just because there's a higher irradiance of solar in Utah than any other area in the Company's service territory, it doesn't necessarily relate to the delivery of solar at the time of system peak. It may relate to the delivery of solar over time, the amount of solar. You get over a number of hours, but it doesn't necessarily--you can't necessarily conclude that the solar resource in Utah contributes more to the peak load at time of system peak than any other solar resource.

BY MR. DODGE:

Q. Mr. Duvall, I appreciate that commentary. That isn't the thrust of my question, but thank you for the commentary.

The question is, if you used in your analysis a five-state average solar production number to try and value Utah's solar production, you're understating it, are you not, if Utah actually has higher solar potential and a higher solar irradiance level than the other states?

A. Well, the answer's no.

Q. You're not overstating it or understating the value of Utah's solar?

A. We're not understating the value of Utah's solar as contributing to the system peak, which is the primary metric that is necessary to be able to defer a combined cycle combustion turbine.

Q. Again, you keep going back to that as though that's the only thing we care about here, and I think it is the only thing you care about, but Mr. Duvall, you admitted there's value in the other hours for reliable production of energy and capacity in other hours by a renewable resource in the other peak hours you have. There's way more than 100 peak hours in a year, is there not?

A. It depends on how you define peak.

Q. The way you define it.

A. Well, the way I define it would--I've defined it in many ways, but the IRP defines peak as the single hour--single highest hour of load.

Q. Let's talk about high-load hours then. There's more than 100 load hours during the summer season, is there not?

A. Yeah, when you say high-load hours, I presume you mean heavy load hours because they're defined--

Q. Heavy load hours.

A. --in standard products.

Q. Let's use that: heavy load hours.

In your approach, it goes back to what we talked about before, doesn't assign any value to the fact that a Utah solar facility might be producing very valuable energy and capacity at times of high load because you're only looking at the hour of the 100 hours of system peak in a 90 percent probability level, so you ignore that other value that is given unless you contend it's somehow picked up in the GRID model which is an energy-only analysis?

A. Well, the GRID--it is picked up in the GRID model. And the GRID model assumes that you can defer firm market purchases, so I'm not sure that the GRID value--we call it an energy value, but it's deferring firm market purchases, as well as backing down resources, but that's the only option, so . . .

Q. Let's explore that because you say that, and yet all GRID defers is your forward price curve; is that not true? You insert the forward price curve into the model ten, twenty years into the future, and that's what's being deferred in GRID, correct?

A. That's right. The forward price curve are--is representative of the price of firm market purchases.

Q. Well, firm meaning at that moment in time, but you could not go out today and get a strip of firm power contracts at that price curve, could you?

A. I think we probably could get something close to it. I don't think we've ever tried in recent history.

Q. Why not?

A. A lot of it has to do with our, you know, hedging horizon issues we've discussed. We don't--we don't normally go out ten to twenty years. We did that on a one-off basis on natural gas. Mr. Dodge is asking if we've done that on electric purchases, and my answer is, we have not done that in recent years.

Q. If you honestly believe that today you could tie down the 20-year contract power purchases for all of your front office transactions at your forward price curve, why wouldn't you be doing that? Would that not be in the interest of ratepayers?

A. I don't know if it would be in the interest of ratepayers. That's not for the Company to decide. If we lock that in based on our forward price curve and it turn out that prices went down, there would be a lot of second- guessing going on.

Q. You don't believe--you honestly believe you could go get that contract today? You think a producer today would tie you down a 20-year contract at your forward price curve?

A. I--I don't know.

Q. I think you don't know because it's not available.

A. No, I don't know because I don't know. We've never tried.

Q. But so when you say GRID prices and the avoidance of firm contracts, all you're saying is your forward price curve. Whatever that is, whether you look at it as an indexed price or a firm price, it's not actually reflective of any contract that you're aware of that ties prices down for that period, but rather your internal 20-year projections, correct?

A. Well, that's not correct. So for the first six years of the 20-year period, they are based on broker close or market prices and those we could lock in today.

Q. After six years, what I said is correct, is it not?

A. No. In the seventh year is a blending of what we could lock down today and then a fundamentals market forecast, and then beyond your seven, it is what Mr. Dodge has represented it to be.

Q. And in any event, in the first six years, you don't go out and get quotes for the entire amount of front office transactions. You're just using what you see in the market as today's pricing over those six years and assume it's going to be available for the entire however many hundred thousand megawatts you may need in front office transactions; is that correct?

A. I think you lost me on that one.

Q. In other words, it isn't based on a six-year contract you've entered into to tie down your entire front office transaction needs for the next six years. You're looking at market quotes of various types, of various lengths out into the six-year period?
A. That's correct.
Q. You used in your modeling TMY-2 data; is that right? Are you familiar with that term?
A. I believe that that's what SunEdison said we used.
Q. And did you?
A. I don't know. We used the PVWatts data.
Q. And the PVWatts data you used again uses the average solar production that we've already discussed over a wide geographical area, correct?
A. That's correct.
Q. Would it not be better matched--would it not be a more fair matching to use your average load data over the same period that you used the average solar production over the same period? In other words, take that same five-year period that you're using average solar production from the TMY-2 or the PVWatts data and compare it to your average system load--peak load so that you're comparing averages to averages?
A. That might be a reasonable approach.
Q. You haven't done that, I take it?
A. No, we haven't.

Q. You respond to Ms. Yates' testimony in part by indicating that she's incorrect in stating that PacifiCorp failed to adjust the time for daylight savings time. Can you show me where in your study or your direct testimony where you demonstrate that you corrected for daylight savings time? I'm not talking about the graph you showed in your surrebuttal. I'm saying in your direct, is it ever--is there anything in there that shows that you corrected for daylight savings time?

A. Well, the graph in my surrebuttal shows that we adjusted--

Q. Not in your draft. I know you put a graph in there. I'm trying to understand the data. Where can we look in the data and see that you've corrected for daylight savings time? I know you said you did. I'd like to understand how you demonstrate that beyond just saying it.

A. I believe all the work papers were provided for the development of the study that we did.

Q. So you believe somewhere in the work papers, it would demonstrate that you've adjusted for daylight savings time?

A. I'm--I'm not sure.

Q. How did you personally go--confirm that fact in response to Ms. Yates? You said, yes, we did, and here's a graph. How did you confirm that?

A. Well, I confirmed it by talking with my staff who performed the study.

Q. So absent access to your staff, one wouldn't know that by looking at your testimony or your study, that it was corrected for daylight savings time?

A. Well, I guess if I were an intervenor looking at what the Company did, I would not start with the assumption that we did it wrong.

Q. If you were a witness for the Company presenting testimony, would you explain how you did it so they would know you did it right? Would that maybe be a good idea also?

A. It could be, but, I mean, you can't explain everything.

Q. But you accused her of giving false statements based on something she couldn't determine from your study or your testimony?

A. She could have asked a data request easily.

Q. Or you could have explained it. Do you not think that's an important issue for intervenors to understand, that you have or have not corrected?

A. Well, if it wasn't in the testimony, I mean, what we presented, we--we--is correct. We didn't say that in the direct testimony. I don't think that's an admission. If Ms. Yates thought it was a problem, she could ask a data request and we would have responded.

Q. Mr. Duvall, you--you mentioned in your summary that you called them adders dealing with the--what other witnesses have testified as the avoided risk or avoided costs, potential costs for the environmental qualities of renewable QFs. You called them adders. You said you don't believe the Commission should consider them because they're not known and measurable; is that right?

A. That's what I said, yes.

Q. Where did you derive that standard from? Why do you use that term? Are you using that from a legal perspective? What does it mean to you to say it's got to be known and measurable?

A. When we--I guess when we look at avoided energy costs or avoided capacity costs in our plans, I mean, we can--we know we're going to avoid energy. If we add a QF, we know we're going to avoid capacity at some point. But at this point, we don't know if we're going to avoid some kind of fuel risk or some kind of environmental adder if we use a QF so that's--that's the extent of what I meant by known-- mainly the known part of it. And then when you get by that, then the measurable part is how you measure it, but . . .

Q. You agree--you will agree, will you not, that fuel costs in the year 2025 are not known and measurable today?

A. They're not known and measurable, but they could be forecast, and they are forecast by independent parties that are experts in the field.

Q. And by--specifically, you forecast them, right?

A. We use--for natural gas, we use third-party sources such as PIRA or Cambridge Energy, other sources like that for natural gas. And then we use that to feed into our models to develop our electric forward price curves.

Q. You also project the cost--the potential cost of carbon regulation in your IRP process, do you not?

A. We do.

Q. One could rationally determine that there could be a carbon cost in this time frame and conclude that that cost is being avoided just like you assume in your IRP, could you not?

A. We could.

Q. You chose not to?

A. Yeah, and I guess the difference between fuel and carbon is we know that we're going to incur fuel costs. We don't know that we're going to incur carbon costs.

Q. But you don't know how much fuel costs you're going to incur? You're projecting that, you're taking a guess at that?

A. We are.

Q. An educated guess, I admit, but that's all it is, right?

A. Yeah, we are--we are taking a projection of that, but we do know that we are going to incur fuel costs.

Q. And at least for--for system planning purposes, you know you're going to incur carbon costs because you included it in your preferred portfolio, in selecting your preferred portfolio, do you not?

A. I think that's a stretch. I don't think we know that we're going to incur carbon costs. We know that we're going to incur fuel costs, but we don't know that we're going to incur carbon costs.

Q. You do know that when you tie down a QF contract today for 20 years, you're going to avoid, for example, the fuel price volatility up or down that will happen in the next twenty years, right--in other words fuel prices will change from your projections, correct?

A. They will. And as you said, they could go up or down.

Q. And--and so when you tie down a contract today, you know that you're getting a value, if you view it as a value, in the hedge against that volatility up or down?

A. Yeah, I'm not sure what is meant by value here. I mean, if we didn't hedge what we've shown in our IRP is that at the end of the day, the outcome should be the same as if we did hedge. The expected outcome doesn't change. It's just a matter of mitigating the volatilities for the short runs.

Q. The Company does, in fact, hedge fuel, does it not?

A. It does.

Q. So you see value in hedging, correct?

A. We see value in hedging in terms of mitigating the impact on near-term rate impacts.

Q. And that could be up or down, but there's value in hedging, correct?

A. There's--there's value in terms of stability.

Q. So you know you've bought that value, stability when you sign a QF contract for 20 years. You may not know what the measurement of that value is, but it's a known value with a difficult measurement and yet you don't assign any value to it in your QF approach to--to--in your model for determining avoided cost prices, you don't give any value of that--that stability, do you?

A. No, we don't.

Q. And so like fuel prices, it's a known price, it's a known value, difficult to measure. And yet on the one you're willing to project 20 years out on and on the other, you just say can't measure it. Do you think that's fair to QF producers?

A. Well, when we talk about fairness, it's about whether it's fair to QF producers and whether it's fair to retail customers. So if you add a--if you put an adder on a QF price, then that's going to be reflected in retail customers' rates, so it's a matter of does that make sense or not.

Q. And do you see any customers that have come in saying that we don't think it's fair to pay the full value of what you get from a QF?

A. I think the--the answer's no, I haven't seen a customer that says that, but I don't know that customers would agree on what the full value is.

Q. Well, that's what this hearing is about, but I'm just trying to get you to acknowledge--and I think you have--that there are values in this product, a 20-year QF product. Stability is one value I think you acknowledged is there, that we don't measure and we don't reward in the pricing, we don't include in the pricing?

A. Correct.

Q. Is that a correct statement?

Now, let me--let me try then with avoidance of environmental regulations. If you had a producer that came to you today and said, I've got a natural gas plant. I'm offering you Q3 energy and capacity, whatever--the level you need, so let's assume you need it. And I've got two options--A or B. A is I, the producer, will take all the risks of future environmental regulations. I'll give you a fuel-based price, natural gas-based price, but I'll take all the risk of environmental regulation; or B, I want you, PacifiCorp, to take all the risk of future environmental regulations. I'll give you that same fuel-based price, natural gas-based price, but I want you then to take all the environmental risk.

Do you believe there would be a difference in the value in those two products?

A. Yeah, I think there would be.

Q. So when a QF--now, could you measure--you could measure that if--if the producer gave you Price A and Price B, right? If they said Price A, if I take the risk, is $100-a-megawatt-hour; Price B, if you take the risk, is $70a megawatt hour, just as an illustration. You could then measure what that value--at least that producer put on that--that difference in risk. Do you agree with that?

A. I--based on your hypothetical, I'd agree on that. I guess I would also note that this is really looking at--I think it's talking about the commercial terms of the contract. And Mr. Clements is really the person--our witness who deals with the commercial terms, so I'm not sure if I've got that right or not, but--

Q. And I'm sure he's addressed it all--I think his testimony is limited to direct. But the--I want you to--I want to see if you agree with me that there is a value-- there is a value to your system, your ratepayers in avoiding environmental risk related to carbon and some other environmental controls that may affect thermal plants and purchases that aren't yet tied down, these front office transactions that can vary over the next 20 years with higher environmental costs. There's a value to ratepayers in tying down that twenty-year stream today in the form of avoided cost--the avoided risk of additional costs from environmental controls. You'll agree with that, will you not?

A. I think it would depend on the commercial terms that went along with that price.

Q. Let's assume for my hypothetical that the commercial terms were that you had a creditworthy counter party and that counter party was willing to take all the risks of the environmental--additional environmental controls or regulations. You would agree that that's a value to your customers to have that risk shifted to someone else?

A. I would certainly defer that question to Mr. Clements.

Q. You're not willing to agree that that would be a value to you if you were a PacifiCorp customer?

A. I think it would depend on the--the terms of the deal--

Q. Confine to my hypothetical, again. My hypothetical is, you have decided, as PacifiCorp, you're going to take that price and you're going to shed the risk to someone else. There's value in that or you wouldn't pay more, right? I'm not asking to you determine whether you would choose A or B. I'm saying if you got A without paying anything for it, that's a value to your ratepayers, avoiding the risk of environmental regulation. You don't agree with that?

A. I--again, it comes down to all of the--I mean, this is a hypothetical. So I'm not sure really how to respond to it because it depends on all the different terms and conditions that would go along with that arrangement.

Q. So let's take it out of a hypothetical. If the Company signs a contract tomorrow with a wind or a solar developer that says we will deliver this amount of energy over this amount of years, no environmental risk because it's--at least the ones I'm talking about--solar--I mean, carbon or of mercury or any of the other environmental regulations the Company's grappling with today in its thermal plans. There is a value to ratepayers you tie down. But that stream of energy and capacity, you avoid all those risks. Do you--I mean, you purport to be representing the ratepayers here. You don't see that as a value to your ratepayers?

A. Again, I mean, there's--you're isolate--isolating one risk. There may be other risks. I don't know with regard to a particular facility. You'd have to assume that it's going to be able to last during the full contract term, that there are other issues that come up--you know, for example--you know, the risk of avian issues, for example, on wind plants. I don't know. I mean, it's all a matter of the whole--all the terms and conditions along with the price as to whether that's beneficial or not beneficial to the customers.

Q. And you face similar risks in your thermal purchases, too, do you not?

A. Yeah, we would.

Q. Assuming--you're not willing to assume, but assuming the Commission sees some value to ratepayers in avoiding environmental costs down the road, your approach gives no value to that--to that--gives no payment for that value added by a QF resource, does it?

A. Yes, so your premise was if the Commission wants to provide a--if the Commission sees there's a benefit--an environmental benefit and wants to provide an additional payment to the QF to cover that, then that's certainly up to the Commission.

Q. Mr. Duvall, this may be--let me see. This is in your testimony, so I'm going to start with you. If you want to defer this to Mr. Clements--may I approach, Mr. Commissioner?

THE HEARING OFFICER: Sure.

BY MR. DODGE:

Q. If you want to defer this to Mr. Clements, even though I don't think he addressed it in his testimony, I would be okay with that.

Mr. Duvall, I'm referencing here your testimony in response to Ms. Wright and Ms. Yates and others regarding the cap versus the uncapped payment stream to QFs. Do you recall that general line of questions or testimony?

A. I do.

Q. What I've handed you is two pages out of Appendix B, the Rocky Mountain Power's most recent updated avoided cost study. Are you familiar with that document that would--that was filed with the Commission in April?

A. Yes, I am.
Q. And do you recognize Tables 2 and 3 in Appendix B? I'll ask that this be marked SunEdison Cross No. 1.

Second and third pages of this exhibit, Mr. Duvall, are Tables 2 and 3 of Appendix B. Do you recognize those tables?
A. Well, if I had the whole filing in front of me, I could validate it, but I would generally accept that these are from that filing.
Q. Subject to check, I'll represent this is from that filing. Obviously, if you find differently, please let us know.

My question--and this goes to how the GRID model is operated in terms of producing pricing--and again, if you tell me you want me to ask Mr. Clements, and if counsel agrees that he can answer that, and the Commission, I'll be okay. But if you turn to Table 3, I think what you will see between Tables 2 and 3 is--I believe the only difference in the two tables is in--beginning on rows year 2028 through 2033 in the May column. And in the December column, there is shaded or bolded numbers. And down below, it says-- denotes months with capped energy prices. And I believe that the witnesses to whom you responded were referring to this exhibit or something like it. I think there's an older version of this in your work papers. And we're trying to understand the import of the capped energy prices shown in this table.

And my question is, when a QF contract is signed and if--assuming it was signed the day that this analysis was done for GRID--that was submitted--excuse me--for the avoided--for the Commission filing, would the prices they receive for their energy be capped in the years 2028 through 2033 in the month of May at the prices indicated in this Table 3?

A. No, they would not.

Q. Can you explain to me what this references when it talks about capped energy prices?

A. As I--as I understand the capped energy prices, they're not used for the QF payments for firm power. I think the only place they would be used would be for--well, in fact, the title is unscheduled or nondispatchable power. It's really for non-firm energy. We very rarely, if ever, use these capped prices. They're part of the filing. They've been part of the filing for years. But in terms of the QF prices that we're--that we use for the Schedule 38 and for what we're proposing here would not include that cap.

Q. Can you explain to me what you mean by unscheduled or nondispatch energy? If I have a QF contract and I contracted to sell all of my energy output to you, when would the unscheduled part come in?

A. It would not apply to a firm QF contract, so my--I believe that, like I said, would be for--you know, if we had the unique circumstance of just getting non-firm energy from a QF, we would, I think, use these capped values.

Q. Thank you. I appreciate that clarification because I can tell you on this side, nobody understood what that was referring to--
well, I shouldn't say nobody. I didn't understand what that was referring to.

A. Yeah, it was an honest mistake.

MR. DODGE: Thank you. I have no further questions.

THE HEARING OFFICER: We'll be in recess until twenty minutes till. Thank you.

(Recess taken, 10:31-10:43 a.m.)

THE HEARING OFFICER: We're on the record.

Mr. Simon.

MR. SIMON: Thank you, Commissioner Clark.

EXAMINATION

BY-MR.SIMON:

Q. Good morning, Mr. Duvall.

A. Good morning, Mr. Simon.

Q. Are you still awake and okay to continue on the stand?

A. I'm--I'm good to go.

Q. I represent Scatec North America and wanted to ask you a few questions. I'd like to recall your attention back to the Q and A you had with Ms. Hayes. She'd asked you some questions about the Company's--the fact that the Company's current capacity deficient through the years in the IRP, most recent IRP. She'd asked you a question as to whether or not market purchases for front office transactions defer the need for new plant construction. What was your answer to that question?

A. I don't recall that that was the question. But they do defer. So when you're looking at filling a capacity deficit, you know, the options we typically have are market purchases, or front office transactions, DSM, or steel in the ground, and combined cycle combustion turbine, probably among other things, renewable resources as well.

Q. And so but for the fact that you have these front office transactions each of those years, you would not have enough capacity to serve your needs and required reserves, correct?

A. The--I guess that's--that's correct. But we do have access to markets, and we can buy from the market to satisfy those deficits.

Q. Do you current--but you don't currently have enough market purchases locked in to cover your full capacity needs in years 2014 through 2022 as indicated in the IRP, correct?

A. The--the purchases are not locked in, but the markets are there and our access to the markets is known.

Q. So we're relying on the hope that that power will be there when you, at some point in the future, seek it out, correct?

A. It's not really on the hope. It's on the realities that that's how we operate our business.

Q. Do you recall the western electricity crisis of years 2000 and 2001?

A. I do.

Q. Do you recall a lot of companies scrambling to find generating capacity to meet their needs?

A. I--I recall that--you know, prices increased. And the Company, I believe, had no loss of load during that time frame.

Q. Can you say the same for other utilities in the WECC--in the WECC?

A. I don't know.

Q. And locking in a long-term QF contract would reduce the need to rely on those market purchases, correct?

A. It would and that's reflected in our pricing for QFs.

Q. You acknowledge that you’re currently capacity deficient. Suppose my client Scatec were to approach you today ask to enter into a long-term PPA pursuant to Schedule 38 of the tariff. Would you offer a capacity payment starting in year 2015?

A. We would offer basically the Proxy/PDDRR method. And so when the notion of a capacity payment in the--in the sufficiency period, the capacity payment is built into the dollar per megawatt hour charge. So we--in the differential GRID studies, we actually defer front office transactions with the QF.

Q. But there's not an actual separate capacity payment being offered those years until you get to year currently 2028; is that right?

A. The capacity and energy payment are not separated out until 2024.

Q. And the QF would, in fact, defer the need for some front office transactions, correct?

A. That's correct, and that's reflected in the method.

Q. Regarding these contracts you have yet to enter into, you don't know for sure what the terms and conditions of those are going to be, do you?

A. The front office transactions are what we call standard products, and the standard products are--are already defined. They're heavy-load hour, light-load hour, flat and they have particular delivery points and they're all identified in the IRP.

Q. But you're basing this on contracts that you have yet to enter into, correct?

A. That's correct.

Q. So you don't know necessarily what the terms and conditions of those contracts will be in the future?

A. Well, the terms and conditions of the contracts are pretty much dictated by master agreements like the International Swap Dealer Association, so yes, we do know the terms and conditions of those deals prior to entering them.

Q. Prior to entering them, but right now, you haven't entered into them yet, so you don't know what contracts you'll necessarily enter into in the future?

A. That's right. The one piece we don't know is what price we will pay.

Q. When you use the term firm, is there a universal definition for that?

A. I believe it's--it's probably spelled out in the contracts. I mean a firm contract means that whoever's providing the power is--is responsible to deliver that power. If they don't deliver that power, there's sometimes liquidated damages. Probably Mr. Clements would be more versed at talking about the certain commercial arrangements that would be associated with that.

Q. Let me turn your attention now to your testimony regarding how you measure the capacity contribution for solar. Let me first ask you a question: Suppose my client Scatec were to ask you for a long-term PPA under Schedule 38. What kind of capacity contribution percentage would you assign to that?

A. We would assign the capacity contribution shown in my exhibit of the Company's direct testimony.

Q. So the methodology you're asking for approval today is what you're actually already doing?

A. That's correct.

Q. Okay. Has the Commission previously approved that methodology?

A. My understanding is that the Commission doesn't actually approve, but we do file quarterly updates to our Schedule 38 methodology and we identify any known changes that we're putting in the methodology. The Division reviews that, but I don't think there's a formal approval by the Commission on each one of those.

Q. Let me turn your attention to your exhibit from your direct testimony. This is a historical capacity contribution of wind and solar resources. Do you have that there with you?

A. Yes, I do.

Q. The first sentence of that--and is this what you relied on for your testimony to determine capacity contribution?

A. Yes, it is.

Q. The first sentence on page 1, that says, "PacifiCorp uses the historical capacity contribution provided by its portfolio of existing intermittent resources to evaluate the capacity value of new intermittent resources." Is that correct?

A. That's correct.

Q. And is that what you actually did in regarding to solar intermittent resources?

A. No, it's not. That's referring to the wind resources, the solar--

Q. That sentence doesn't say wind, does it?

A. No, it doesn't, but I believe as you go down through the--the exhibit, it--it clearly talks about the source of the data for the solar.

Q. So instead for solar, you used a simulated class of solar resources representative of locations throughout the PacifiCorp service territory; is that correct?

A. That's correct.

Q. Okay. And you identify those locations on the last page of that report, correct?

A. That's correct, in the last paragraph.

Q. Okay. And those locations are Pocatello, Idaho; Yakima, Washington; Pendleton, Oregon; Lander, Wyoming; and Salt Lake City, Utah. Is that correct?

A. That's correct.

Q. Has the Company actually received requests to enter into long-term PPAs under Schedule 38 for any of those locations?

A. The only one that would apply for Schedule 38 in Utah would be Salt Lake because the QF has to be located in Utah. And I don't recall that we have received any requests under Schedule 38 for Salt Lake City.

Q. So these locations don't have necessarily any bearing as to where people are actually planning to develop large-scale solar projects, correct?

A. Yeah, I would--I would say that there--
that that's correct.

Q. Okay. I notice one location missing from here is anywhere in southern Utah; is that correct?

A. That's correct.

Q. And that would include Iron County, Utah, where Scatec is working on its project?

A. That's correct.

Q. Okay. So if Scatec were to approach you today to ask for a long-term PPA pursuant to Schedule 38 of your tariff, would you use the location of where it's actually going to be or this aggregation of locations that have no relation whatsoever to where Scatec is going to build its project?

A. We would use the data that's come from this study.

Q. And you have data available for other locations in the PacifiCorp service territory, correct?

A. Yeah, I believe that's right. The--the PVWatts data does cover more than the five areas that we have used in this study.

Q. You just picked these?

A. We did.

Q. Let me turn your attention towards the bottom of page 16, your capacity contribution study.

A. Okay.

Q. Let me turn your attention to the first bullet near the bottom of the page. And that--that indicates that PacifiCorp measured capacity contribution, quote, based on the aggregate capacity benefit of the resource class taken as a whole, not the capacity benefit of any individual resource analyzed in isolation, correct?

A. That's correct.

Q. All right. And could you please turn your attention to page 2?

A. Okay.

Q. The first bullet on the top of that page, it explains, The use of an aggregate capacity value is required because a geographically dispersed array of facilities may produce a level of reliability greater than any one resource taken separately. Is that correct?

A. That's what it says, yes.

Q. Okay. It says, "may," right?

A. Yes, it does.

Q. It doesn't say, "will"?

A. Correct.

Q. So that--that statement--it's not necessarily true if one location with a large-scale solar resource consistently provides a higher capacity contribution than others, correct?

A. I--I--I'm not sure if that's correct or not.

Q. All right. Let me try a hypothetical. Suppose you have a location with a large-scale solar project. I'm going to pick a location randomly, let's say Iron County. And then you've got four or five other locations. And those--let's say four. So five total--Iron County and four others in northern Utah. And let's say the Iron County location consistently provides a higher-capacity value than the other four. Do you follow my hypothetical?

A. When you say capacity value, is that a capacity contribution at the time of system peak or is that some other measure?

Q. Capacity contribution. Does that--

A. At the time of system peak?

Q. Sure.

A. Okay. And so the Iron County facility has a higher contribution at the time of system peak than the other four locations.

Q. And yet if you use this aggregation approach, that would result in the Iron County location getting a lower capacity payment than it was actually providing because of these other facilities being in locations, right?

A. We probably have to work through the example to see what the diversity effects are, but--
so I don't really know how to answer that question.

Q. All right. But the percentage you come up here is based on Salt Lake City, Utah, right? Pocatello, Idaho; Yakima, Washington; Lander, Wyoming; Pendleton, Oregon. I apologize to Pendleton if I left them out. So if that in aggregate is actually providing an amount of capacity contribution that's lower than Iron County facility, you would actually be punishing the Iron County facility based on deciding where it's taking locations elsewhere?

A. Yeah, under--under those specific assumptions, that would be correct.

Q. Let me turn your attention back to page 2. Let me turn your attention to the second bullet at the top of page 2. It says there, "The use of aggregate output ensures that all of the generators in a resource class share proportionally in the capacity benefit provided by the class as a whole," correct?

A. That's what it says, yes.

Q. Okay. But that--I mean, we could actually write benefit or detriment, right, because there's going to be some facilities that provide a stronger benefit than others, but are going to be penalized by this aggregation, correct?

A. Yeah, I think that's probably a fair characterization of the impact.

Q. How many large-scale solar PPAs has PacifiCorp executed under Schedule 38 of its tariff?

A. None in Utah.

Q. Do you have any QF PPA contracts for solar projects greater than 3 megawatts in any of the other states in your system?

A. Not that I'm aware of, but we have--for example, we've got rooftop--rooftop solar programs in Oregon where we have about 25 megawatts and Utah is about 12 megawatts. We've got a 2-megawatt facility that's a Black Cap Solar in

Oregon. And we've just recently signed about 20 megawatts of solar contracts under Schedule 37 in Utah.

Q. But that's an aggregate of many smaller solar projects together, right?

A. Yeah, it's an aggregate of about 50 or 60 megawatts of smaller projects.

Q. And none of those projects have contracts pursuant to Schedule 38 or are individual solar projects greater than 3 megawatts, correct?

A. That's correct.

Q. So you're paying them, if any of those are actually being paid pursuant to PURPA, they're being paid as a different methodology than what's the subject of the case today, correct?

A. I think—yeah, that would be correct.

Q. So it's not really relevant to my questions here about the proper way to calculate the methodology for paying a large scale solar project pursuant to Schedule 38?

A. I'm not sure whether it's relevant to your question or not.

Q. Let me turn your attention to the issue of solar integration charges. You included this subject in your testimony, correct?

A. I did. That's right.

Q. And I believe it was in your direct testimony that you explained that one of the reasons PacifiCorp submitted a filing that instituted this proceeding was to ask the Commission to reexamine some of the determinations it made in your earlier avoided cost proceeding, correct?

A. That's correct.

Q. And one of these issues is to reexamine what the integration costs PacifiCorp would have permission to charge, correct?

A. Yeah, it would be the integration cost that would be ascribed to solar and wind resources.

Q. And the Commission previously approved a $3-per-megawatt hour charge for wind integration, correct?

A. That's correct.

Q. What has the Commission previously approved for an integration charge for solar?

A. Previously the Commission did not address integration for solar. So there's no charge currently in the current Schedule 38 for integration costs for solar.

Q. Okay. So--so let me give you a hypothetical. Suppose my client Scatec approached you and asked for a long term PPA under Schedule 38 today. Would you include a solar integration charge in that proposal?

A. Yes, we would.

Q. Okay. You just acknowledged that the Commission has yet to approve a solar integration charge for PacifiCorp, correct? That's what you just testified, right?

A. What I testified to was it was not an issue in--in the 2003 case. But what came out in the 2003 case was for the Company to file quarterly updates of its Schedule 38 methodology and in those quarterly updates--and as, I guess, subject to check--I believe we have included in those quarterly updates that when we price out solar we would include solar integration costs based on our wind integration levels.

Q. But to take all things together, it's your testimony that PacifiCorp is currently assessing a solar integration charge to any of the few large-scale solar projects that are trying get long-term PPAs under Schedule 38 even though the Commission has yet to rule on whether or not the solar integration charge is appropriate, let alone the level of that charge?

A. Yeah, and I--I guess I'll--I believe that's correct. I want to put that subject to check. We've given out prices under Schedule 38 recently. And I would just need to go check and make sure that we--whether we included a solar integration charge or not in that--in those proposals.

Q. So while we're on that subject, are there other aspects or charges that PacifiCorp regularly assesses customers before the Commission has approved them?

A. Well, again, the Commission has set up a process for the Company to provide updated information so that as things change from--from time to time, that those are included in the quarterly updates. The Commission has asked the Division to review each of those quarterly updates to see if they're reasonable and the Division will opine. Sometimes they say no; other times they say that looks reasonable.

Q. Okay. So to summarize the situation, the Commission has yet to approve a solar integration charge. Actually, let me back up a second. Do you know what--what amount the solar integration charge that PacifiCorp currently is asking solar to pay when they ask for a Schedule 38 long-term contract?

A. Again, subject to check, it would be the same charge as wind integration.

Q. Okay. But the wind integration charge was developed through a proceeding where everybody actively examined wind integration costs and reached that--that amount, correct?

A. That is correct.

Q. Okay. And the same has not happened for solar?

A. That's correct.

Q. And your proposal today is, you've come up with a new wind integration charge above the currently charged $3, correct?

A. I'm not sure I followed that. Sorry.

Q. Are you seeking to increase the integration charge for wind today?

A. As compared to what the Commission approved in the 2005 order, that was $3, we are proposing something that's just north of $3.

Q. It's actually $4.35, right?

A. I'll take your word for it.

Q. Well, I'm reading your testimony, right?

A. Can you show me where in my testimony?

Q. Can you please turn to your direct testimony? Can you please turn to the last page of your direct testimony? Let me turn your attention to lines 436, 437, and 438.

A. Got it.

Q. You write here, "In the 2012 Q2 Schedule 38 compliance filing, the Company calculated wind integration cost to be $4.35 per megawatt hour"--

THE HEARING OFFICER: Mr. Simon, it might help if you're a little bit slower. It will help our reporter.

MR. SIMON: I apologize, your Honor. I apologize, Commissioner Clark.

BY MR. SIMON:

Q. It says, "In the 2012 Q2 Schedule 38 compliance filing, the Company calculated wind integration cost to be $4.35 per megawatt hour on a 20-hour nominal levelized basis beginning in 2013." Is that correct?

A. That's correct.

Q. And is that the rate you're proposing today?

A. That is the rate we're proposing today.

Q. Okay. And you're proposing to use that same rate for solar, correct?

A. That's correct.

Q. And you base that rate on studies you conducted regarding wind integration costs, correct?

A. That's correct.

Q. Did you conduct any studies on solar integration costs to recommend that same level be used for solar?

A. No, we did not.

Q. Regarding the wind--wind integration cost studies you conducted, were those forward-looking or based on prior experience?

A. The wind integration studies that were conducted were based upon wind data that came from historical time periods.

Q. So does that take into account any future plans--changes on how PacifiCorp operates its system?

A. The studies take into account how PacifiCorp operates its system today. There are--
there are no assumptions in there as to any particular changes on how we will operate our system in the future.

Q. Are you aware that PacifiCorp is currently pursuing new efforts with the California independent system operator to operate a region-wide energy imbalance market?

A. Yes, I am.

Q. And do you know what the Company's views are of that proposal?

A. Generally, I do, that the Company is working on the agreement and hopes to have that in place, I believe, in late--I think it's late 2013, maybe into 2014. I don't know the most recent expected date of completion of that. And then once that's in place, the Company expects that it should be able to reduce its cost of providing regulation, should reduce the cost to serving the customers, but until we actually get that in place and have some operating experience, it's pretty hard to forecast what the savings would be.

Q. Let me give you a hypothetical. Suppose the Commission today approves your request of charging an integration--assessing an integration charge for wind and for solar at $4.35 per megawatt hour based on the wind studies you've already conducted. Suppose also that the energy imbalance market agreement you guys are pursuing with the Cal ISO advances as planned and achieves the results that PacifiCorp has advocated and advanced to the public. Okay?

A. Okay.

Q. Suppose as a result that the actual integration charges, in fact, are reduced because of the success of that energy imbalance market change.

A. Okay.

Q. Suppose also that my client Scatec enters with you today after the Commission has approved your $4.35 megawatt hour charge enters into a long-term PPA with you that includes that $4.35-megawatt-hour charge you've requested. Would you, at a future date, come back and lower that charge amount based on actual experience with large-scale solar on your system and with the new energy imbalance market in place based on this data if those cost reductions actually occur?

A. So that question is more related to commercial terms and should be referred to Mr. Paul Clements.

Q. Did Mr. Clements testify today on solar integration charges?

A. So I don't know that he testified on solar integration charges, but he is the Company's witness who negotiates these contracts and would be the one who would actually determine what commercial terms are appropriate and which ones are not.

MR. SIMON: Permission to approach the witness.

THE HEARING OFFICER: Yes.

MR. SIMON: Great. My client--my colleague, Ms. Foxley, will do so.

BY MR. SIMON:

Q. Mr. Duvall, do you recognize the document that's just been handed to you?

THE HEARING OFFICER: Before we proceed, I think Mr. Duvall's counsel should have a copy of this.

MR. SIMON: I apologize.

THE HEARING OFFICER: Do you have one?

MS. HOGLE: I would, actually. I just asked her for one.

THE HEARING OFFICER: If we--if we're short, lets--lets have her--

MR. SIMON: I appreciate that, your Honor. I think that's all we've got, but--

THE HEARING OFFICER: That's fine.

MR. SIMON: --I by no means meant to avoid counsel having a copy.

THE HEARING OFFICER: Chairman Allen and I will look on.

MR. SIMON: Thank you. I apologize. I don't know if we should go ahead and mark this as Scatec Cross-Examination Exhibit No. 1.

THE HEARING OFFICER: We'll do that, yes.

BY MR. SIMON:

Q. Mr. Duvall, are you familiar with this document?

A. It's--I'm not--I mean, it looks familiar as something that comes out of one of our quarterly updates. And judging by the title that says, "Model updates through March 2013," I'm presuming it's the Q1 2013 update, but if you can validate that for me, I'd appreciate it.

Q. That would be correct.

A. So this generally looks like a--

information that would have been included in the Q1 2013 Schedule 38 quarterly update.

Q. And that is correct. Thank you.

Could I turn your attention to page--the bottom of page 2 of this document from PacifiCorp's avoided cost compliance filing from Q1 of 2013.

A. Okay.

Q. There's a reference here to IRP partial displacements and a base case of thermal partial displacement was 436.2 megawatts, correct?

A. Correct.

Q. Can you explain to me the significance of the queue here and how that relates to calculating avoided cost?

A. Yes. So the--I believe this used the September 2012 resource need assessment, which would have shown the next thermal resource would have been needed in 2025. I believe that's correct. I'd have to--that's subject to check, but I think that's right.

And what the queue does is, it looks at that next deferrable resource and says: Well, depending on--you know, we can't give everybody the same price so sort of first in-- you know, first come, first serve. And so as we get different requests in or we get new contracts that were signed since the last IRP, we say: Well, those are already taking up a portion of the deferral of that next deferrable resource. And pretty soon, if you have enough--enough of these add up, you actually get to the point where you completely defer the 2025 resource, and so prices beyond that would then look at deferring the next deferrable resource, which I believe in that study was 2028.

Q. So in looking at the queue order, I take it that the projects that--higher in the queue get treated first in terms of what the displacement effect is that--that ultimately results in the avoided cost rate that you guys provide to them, correct?

A. Right. So the first ones in the queue would avoid the highest price incremental resource. So once that's taken up, then the next one would get a slightly lower price, and so on.

Q. And I see here in the list that queue numbers 1 through 6 each indicate a--indicate the name of an actual QF and the parenthetical that--
"signed," I guess that means that a PPA has been signed with PacifiCorp; is that correct?

A. That is correct.

Q. Okay. And then queue numbers 7 all the way down through number 23, we just have a queue number, so we don't know exactly what projects these are, correct?

A. Yeah, that's correct.

Q. I mean, they're not publicly known. PacifiCorp knows?

A. Yeah, PacifiCorp knows, sure.

Q. And these are ones that have yet to execute a PPA

pursuant to Schedule 38 of the PacifiCorp tariff, correct?
A. Yeah, that's correct. And I would just note that these are QFs that--across the entire system.
Q. So would they include Utah and Wyoming and Oregon. I don't see any from Idaho here, but there could be?
A. Correct.
Q. So I take it, then, that if your goal is to get the highest avoided cost rate you can, that it would be better to be queue position number 7 than, say, queue position number 23, correct?
A. Yeah, that's correct.
Q. Okay. At what the point do you add a QF to the queue?
A. We add QFs to the queue when we provide their--when they make pricing requests and we provide them pricing.
Q. When do you remove QFs from the queue?
A. Actually, I think Mr. Clements would be better versed at answering that question. We rely on Mr. Clements and his colleague to identify which QFs should be removed. It usually has to do with the viability of their moving forward.
Q. Okay. But Mr. Clements' testimony in this proceeding has been limited to the REC issue, correct?
A. I believe that's right.
Q. So I assume then that counsel for PacifiCorp

wouldn't oppose the parties here to cross-examine Mr. Clements on issues outside the scope of that to the extent you're unable to answer these questions?

MS. HOGLE: As counsel, I would have no objection.

MR. SIMON: Okay. Thank you, Mr. Duvall. I have no further questions.

THE WITNESS: You're welcome.

THE HEARING OFFICER: Before we go to Mr. Evans, the questions that related to recent avoided cost filings and whether or not integration costs are included relative to solar projects--will you have an opportunity to confirm your testimony over lunch and report back to us, Mr. Duvall, on that?

THE WITNESS: Yes, I can do that.

THE HEARING OFFICER: Thank you.

Mr. Evans.

MR. EVANS: Thank you, Commissioner Clark.

EXAMINATION

BY-MR.EVANS:

Q. I can still say good morning, Mr. Duvall?

A. You can.

Q. The logistics make you turn way around in your chair to see me, but I do appreciate the effort because it's good to see your face as we're talking, so thank you.

Let me start off with a question about the--the first--what you said early on about Utah RECs being accepted in

Washington. Did I hear that correctly?

A. Yes. Prior--when I wrote my testimony, Washington's renewable portfolio standard law required that the facility--facilities that qualified for providing RECs in Washington had to basically reside in what's called the Columbia River drainage basin, which basically excluded QFs that were in Wyoming and Utah. And so between then and now, they've passed new legislation that basically says that any QF that's connected to PacifiCorp's system would qualify for providing RECs to Washington for compliance in Washington. So that's the details behind that.

Q. And--and under the inter-jurisdictional protocol, it's not a one-to-one value of the REC in Washington, is it? Is there a percentage of the value of a REC that would be recognized by Washington?

A. Under--under the 2010 protocol, which is what this Commission uses a load-based allocation share amount of those RECs and of those resources would be allocated to Washington. Washington, however, doesn't participate in the 2010 protocol and they don't recognize east side resources, so those end up becoming basically unrecovered costs and unrecovered RECs.

Q. And when you say unrecovered costs and unrecovered RECs, what do you mean?

A. It means there--while they're assigned to--under the 2010 protocol they're allocated to Washington, Washington doesn't recognize them in rates, so they're basically left to the shareholder holders to bear the cost--cost of--and the Washington shareholders also receive Washington's share of the RECs.

Q. Does the Company have an RPS requirement in Washington?

A. Yes, it does.

Q. And it can use now the Utah REC to satisfy that RPS requirement?

A. The law allows us to, but in Washington, the--the commission there does not include the cost of any east side resources, so none of the RECs from the east side resources are included in rates either at this point.

Q. And that's a result of the Washington state commission decision?

A. That's correct, on allocations.

Q. Okay. I have some questions for you about the informational requirements that Mr. Brubaker has set out in his direct testimony. Did you read those and are you familiar with them?

A. I did.

Q. And you commented on them in your rebuttal testimony, I think. It is on page 20, at about line--the Q and A beginning at line 393.

A. Correct. I've got that.

Q. And you have objected to the Commission adopting that list of informational requirements in this docket?

A. That's correct.

Q. Is your objection that--to including it in Schedule 38 in this docket or is your objection to providing the information that he has listed in his testimony?

A. It's a combination of both. I mean, what he's recommending is that the Company provide GRID access to every QF that asks for a price. We give out a lot of prices every year and not every QF really cares about getting access to GRID. They're just looking for a price to see how to maybe advance their project. And it takes a lot of time and effort and money to set up folks with GRID projects each time they ask for a price. The current practice of the Company is that if a QF asks for GRID access, we will provide that and we think that makes a lot more sense than just providing it on a blanket basis. So that's--that's part of the response.

The other response is that--that this would apply--the way I read Mr. Brubaker's testimony was his--his request would apply whether you're a QF--renewable QF or not. And I don't believe all of the QFs that are not renewable are represented in this docket, so to come up with changes to the Schedule 38 requirements in this docket that would generally apply beyond renewable QFs, I think, was--I think my testimony was that's really inappropriate because we don't have all the parties that would be interested in that issue as parties in this docket.

Q. Well, to that point, is there ever a docket that you know of where all the parties interested in an issue have come in and intervened in the docket? I mean, that's the nature of the proceedings, isn't it?

A. Well, this docket was specific to renewable avoided costs.

Q. Right.

A. And the last docket, the 2003 docket, was--was general in terms of avoided cost to all facilities, and I think we had a much broader participation in that docket.

Q. Okay. But you're not saying that there wouldn't be some docket where it would be appropriate for the Commission to consider appropriate informational requirements to be provided with--upon the request for particular QF pricing?

A. That's correct.

Q. Let me ask you about providing GRID. When you say the Company already provides GRID access to those who request it--is that your testimony?

A. That's correct.

Q. What do you mean by GRID access?

A. The--

Q. How--how does one access GRID?

A. So when a party asks for GRID access, we get a protective agreement because the hourly information is all confidential. And then once we' got that in place, we actually set up a space on Company computers for that particular user to be able to run GRID. We put an incident to grid out there. We have, you know, storage for them to make runs and save data and all that sort of stuff. They get a secure ID so they can log in through the Web in order to access GRID remotely. And that's all the--basically the process of setting up to use their own GRID.

We also offer training if they're interested. We have user manuals. And, you know, if folks ask for training or understanding how GRID works, we're happy to sit down with them and share them.

Q. You say in your testimony at lines 411 to 413 that the Company already provides GRID access to those who request it, including Kennecott Utah Copper and Tesoro Corporation. Where did you get that information?

A. I don't recall.

Q. Do you know whether the Company provides access to Kennecott and Tesoro?

A. If Kennecott or Tesoro asked for access, we would provide that.

Q. But you don't know whether you have in the past?

A. Yeah, I'd have to confirm whether we have provided that in the past or not. We've been doing this for quite a few years with Kennecott and Tesoro and--

Q. For someone to use GRID, they need to-- what we're trying to do by providing this information, correct me if I'm wrong--is to let the QF customer verify, you know, these possible--the avoided cost pricing that the Company is quoting to them for their next contract, right?

A. Can you repeat that? I'm sorry.

Q. What we're trying do--what my clients' objectives are is to have the Company provide us with sufficient information that we can duplicate and verify the Company's avoided cost calculations for our next contract.

A. That's correct.

Q. So in addition to GRID, there's a lot of other information that we need to have in order to make GRID work so that we can verify what the Company did, right?

A. I'll go with that, yes.

Q. We need to know what assumptions were made, what the inputs were, right?

A. Right. And all of the input files for GRID are provided with the GRID access.

Q. Right. And sometimes it's not-- assumptions are made about--that show up in inputs, but are not verbalized in a way that can be understood what those assumptions are. In other words, a narrative of what assumptions have been made would be necessary to have someone understand the process that the Company went through to get to the avoided cost calculation; isn't that true?

A. I guess to some point. I mean, we don't--when we give out prices, we don't provide testimony, but they're based on the latest, you know, quarterly update that we made with the Commission and in that quarterly update, we describe all of the particular changes that we put into the model.

So there's a lot of information out there that if you look back through quarterly updates, you know, historical quarterly updates there would be quite a bit of information on what's included in the model. And we're happy to answer requests from developers to help them understand what assumptions we put in the model.

Q. Do you have--do you have that quarterly update--do you have a quarterly update in front of you? Wasn't--did--didn't get a copy, just a portion?

A. Yeah.

Q. You're familiar basically with what's in that quarterly update?

A. Yeah.

Q. And are you familiar with the kind of pricing that is given to Kennecott and Tesoro on these QF contracts?

A. Yeah, I'm familiar with the pricing giving--given to them, yes.

Q. It's--it's not--it's monthly pricing, right?

A. I believe that's right, monthly.

Q. And it's broken down into high load hour and low load hour pricing?

A. Correct.

Q. Is that information available in the monthly update reports or the quarterly--I'm sorry-- the quarterly update reports?

A. I--I believe it is. The quarterly updates do provide indicative pricing based on the information that is current at the time of the quarterly filing.

Q. And I apologize. I don't know if I have . . .

May I approach?

THE HEARING OFFICER: Please.

MR. EVANS: I did intend to hand this out as I cross-examine.

BY MR. EVANS:

Q. Can you identify that for us?

A. Sure. This is the 2013 Q1 avoided cost quarterly update that was filed with the Utah Public Service Commission on April 16, 2013.

Q. Can you show us where in there we could find data on monthly high load hour and low load hour?

A. Yes. So I don't--I don't see it broken out into heavy load and light load in this document.

Q. Thank you. So how do we get that information, then?

A. You ask the Company and we provide it.

Q. And when you provide it, we asked last time--last year when we asked the Company to provide that information, they gave it to us. And are you aware that the information was incorrect?

A. I'm not familiar with the specifics of that.

Q. I'll take that--I don't mean to have an answer there. I'll take that up with Mr. Clements.

But let me ask you: How can we verify-- when you get the avoided cost and you extract from that our costs per month hourly, what kind of information can we get from you to verify the way you have extracted those monthly, hourly prices?

A. I presume you're--you're asking how we extracted them from the GRID model? Is that what you're asking?

Q. Yes. How can we verify what you've done? What you did last time was unknown to us and we wound up with errors and we--I don't mean to testify, but it's on the record in the last docket that we filed to approve the Kennecott/Tesoro contracts. So we were trying to avoid that. And we want to be able to verify the Company's distribution of the avoided costs into month and hours and I'm asking you: How can we independently verify how you do those calculations?

A. I--the results of the GRID model are hourly. We could certainly work through that with our customers if that's their particular desire. And it--you know, I'm sure we're happy to work with Kennecott and Tesoro to answer their questions so they can be satisfied that they understand that we did what we said we did.

Q. If we had a working model of GRID, would we be able to duplicate the way the Company extracts the monthly high-load and low-load hours?

A. I'm not sure if GRID alone would do that or if spreadsheets to take the output of GRID on top of that would be required, but it's certainly information we could provide to the customer.

Q. Well, is the Company willing to work with us so that we can independently verify the way the Company distributes those avoided costs into months and hours?

A. Yes, we are.

Q. Are you aware that Kennecott and Tesoro contracts are renegotiated and renewed annually?

A. That has been the pattern over the last several years.

Q. And that those contracts must be approved by the Commission?

A. That's right.

Q. So that we are under some kind of time constraint to have those contracts approved by the end of the year. Is that your understanding?

A. That's my understanding under the current schedule, but Tesoro and Kennecott could opt for multiyear agreements, but they don't. They have--at least have not historically done that. They've opted for annual contracts to be reviewed each year.

Q. And it's their prerogative to do so?

A. Absolutely.

Q. Thank you. But in doing so, and having to go through a tedious verification of the Company's calculations and get the contract before the Commission, the information that the Company provides to us must be timely provided. In those circumstances, do you think that the kind of time frames that have been suggested by Mr. Brubaker are unreasonable?

A. So I haven't really studied the types of time frames that Mr. Brubaker's proposed. Like I said, we'd certainly be willing to work with Tesoro and Kennecott. I would note that this is a--

avoided cost proceeding, their contracts are for nonrenewable QFs. So again, kind of goes beyond the issues that were identified as the issues in this proceeding.

MR. EVANS: All right, then. We'll leave it there. Thank you.

THE WITNESS: You're welcome.

THE HEARING OFFICER: Redirect?

MS. HOGLE: I don't have any.

THE HEARING OFFICER: All right. Thank you. I have a few questions, Mr. Duvall.

THE WITNESS: Okay.

EXAMINATION

BY-THE HEARING OFFICER:

Q. I'd like you first to address the context of an IRP least-cost/least-risk plan that contains cost-effective renewable resources. What method would you recommend in that situation?

A. Well, I've noticed other parties have identified--have identified that issue. We have--we have addressed that in some of our other states where we actually have--instead of having the deferrable resource be a combined combustion turbine and worrying about what the capacity contribution of the different resources are, we've had that avoidable resource be a wind plant, which is typically the QFs that we get.

And so if you're displacing a like resource, you know, a QF that's a wind plant, and you're displacing a wind plant that's in the IRP, then you don't have any issues with capacity contribution so we've done that. And it looks like others have recommended that and we certainly--if there were cost effective renewables in the IRP, that would be a reasonable way to go.

Q. Thank you. Now, with regard to avoided cost treatment of planned resources that are not in the least-cost/least-risk plan, is it the Company's proposal to exclude such resources in simulating Company operations in GRID or determination of avoided costs in the Proxy/PDDRR method?

A. I'm not sure I understand your question. So excluding resources that are not in the preferred portfolio?

Q. Right.

A. Like, say, geothermal or solar or--

Q. Right, or resources that are--are in the plan to satisfy RPS standards in other jurisdictions, for example.

A. Yeah, it's kind of a new--new issue that's come up with the current situation. That's never been a situation we had. So I think it's a--it seems--the issue is, would you--do you pay a QF for a non-cost-effective resource? because you're-- it's not--you know, it's not cost effective on its own, it's only being added to meet RPS requirements so that would mean you would pay the QF something higher than what a cost effective resource would be and that certainly gives us consternation.

Q. How would the 2010 protocol address this situation?

A. I believe the way the 2010 protocol is laid out is that the--there's--there's state resources and then there's--I have to look at that--I think there's a couple of ways to approach that. I know that the Commission has noted in--I think it was the Blue Mountain order that one of the ways to address that would be that you initially assign all the cost--allocate all the cost to all the states, and then you assign the costs that are above the cost of a comparable resource to the state that caused-- that has the RPS requirement.

I think the issue of then what do you do with the the RECs is--I'm not sure how that would fall out. And certainly we'll be discussing that in the MSP forum that we have going that's to replace the 2010 protocol.

Q. I think it's your testimony that the Company would exclude those types of resources-- that is, resources that are in the plan to satisfy RPS in other jurisdictions. You'd exclude those from avoided cost calculations or from the Proxy/PDDRR method? Do I have that correct?

A. Yeah. My testimony is that we would not set avoided costs on those. As long as you're using a combined cycle combustion turbine, it's irrelevant.

Q. Would you take the same approach with those types of resources in GRID runs for rate cases or for EPA proceedings?

A. Yeah, so they--they are going to occur after the expiration of the 2010 protocol, so we're not going to have any in the near term, so the issue is beyond--beyond the end of the 2010 protocol, so we will be definitely addressing those. They're teed up with the MSP group and it's not an easy issue. We don't have an answer at this point.

Q. Regarding front office transactions during--during the period of sufficiency, does the Company allocate those between capacity, energy, and if so, how?

A. No, we do not. They're all included in purchase power. They're allocated in the 2010 protocol on the SG, factor which is the system generation factor. So it's 75 percent capacity, 25 percent energy is the way the factor's built.

Q. Does the--would the Company have a view relative to a particular front office transaction of whether or not the price represents energy or capacity or both and if so, what the allocation would be?

A. Yeah, a front office transaction-- transaction is a firm purchase. So you're getting both capacity and energy. I don't know what the split out is. We--we had done GRID-- the GRID studies in the PDDRR method. We've--we've allowed the QF to displace the front office transactions. That makes, you know, a slight difference in the price. You know, you could take that amount and call it capacity. If you wanted to make a separate capacity charge during that, you'd have to take something out of the dollar-per-megawatt-hour charge that's calculated by GRID. So whatever you assign to a capacity payment, it would be a zero sum gain. Whatever you put the capacity payment, you have to reduce the energy payment.

Q. Thank you. How often and when should the Commission determine the Company's likely planned IRP resources and identify cost effective and non-cost-effective resources? Is that--should that be on a two-year IRP cycle or something different? How--what's the Company's view of the process for--of continuing to examine those issues?

A. Well, the current process is the two-year IRP cycle with the update in between. I think the--
you know, the--once the Company files a plan, you know, the Company believed that's its plan, of course, we have a process that goes beyond that where you get Commission acknowledgment from the different states. And there's always the tension between, you know, should we use it before as acknowledged or should we wait until acknowledgment. And that's--those are tough decisions. We think it should be used as soon as it's available. And if there's any--any particular issue on that, whether there's--you know, needs to be addressed sooner because of these sorts of, you know, issues we have in lawyer costs, but maybe there would be a way to do that.

Q. And then when there's an update, would this then supersede and with the updated information, become the relevant information for these purposes at that point in time?

A. Yes, it would.

And we--in this last year, we had the September 2012 resource need assessment that we produced in the context of the All Source RFP, and we incorporated that. So that was sort of a--you know, it wasn't the every-two-year IRP. It was the IRP update, but it was a--we had a new load forecast we had--we determined that we didn't need the 2016 resource. And we reflected that in our avoided costs as well.

Q. Now a question about capacity value of a renewable QF when there's no cost effective renewable resource in the IRP. I have in mind your exceedance method, I'll call it. And I'd like you to give the Commission your perspective on Mr. Millsap's method, where the actual value of the QF determined on the base of a 12 X 24 expected output matrix would be used. Is that a viable approach? What's your sense of that?

A. No. In fact, in the--in the 2005 order, the Commission adopted the capacity factor during heavy load Hours, which was somewhere around 35 percent. But the capacity--and if you compare that to our exceedance study, you know, basically if you look at all the hours of heavy load hour, which are--it's 6--6 days a week, 16 hours a day-- that the availability of the wind, on average, during those time frames is a lot higher than the availability of wind at the time of system peak, which is really--you know, as I've, I think, said several times, that's what we really need in order to be able to avoid a CCCT. And you really need to line up what you're paying a QF with what they're avoiding. If you use a--something like--I think what you said the 12 X 24, it does not capture the contribution at the time of system peak. It's an average over a larger period of time.

Q. So it's not that it captures the peak and other data.

It's that it doesn't--I think this is what you're telling me, it doesn't capture the capacity requirements system peak?

A. Yeah, and if you--if you use that and you say: Well, there's a--you know, maybe a 35 percent contribution and you're planning on displacing--
you know, for a 100-megawatt wind plant, displacing 35 megawatts at the CCCT, but in actuality, you can only displace 4 megs at the time of system peak. You've really created a situation where you changed how you're looking at the reliability of how you meet your peak load.

THE HEARING OFFICER: Thank you. That's all my questions.

Chairman?

CHAIRMAN ALLEN: Thank you, Commissioner Clark.

EXAMINATION

BY-CHAIRMAN ALLEN:

Q. I have a couple of questions regarding solar integration costs, Mr. Duvall. Given that we're in an interesting position of having to make a decision about solar integration costs but we have testimony that indicates there's a lack of specificity, at least when it comes to solar, I'm wondering how the Company feels, and others probably later in the day, what would be the advantages or disadvantages if we just deferred a decision on that until we have more data?

A. From a practical standpoint, probably very little. From a--because, you know, I don't--I don't know--you know, at this point, I think it's--the facts are, we don't have any solar under Schedule 38. I don't know if we'll add some. I suppose if we start adding them, it will be a bigger issue. But, you know, I think as long as it had no precedential value carrying on to IRP or any other forums, then it would be less of a concern to the Company if we were to just wait.

Q. And when you use the wind number, which I believe was four dollars and thirty-something cents, earlier today, with a lack of data, what if we decided that it was important to give the parties a decision on solar integration, but we decided that--and this is just a question, it isn't a decision--what if we decided we were going to start at zero until we got proven up? What would be the effect on the Company as far as the overall ratio of integration costs to the overall avoided cost package? Would it be de minimus if it started at zero? Would it be a substantial effect on the price, in your view?

A. Well, the effect on the price would be the $4.35. So whether that makes or breaks a solar project under Schedule 37, it really depends on a decision on all the other issues.

CHAIRMAN ALLEN: Okay. Great. That’s fair. Enough. Okay. I think that covers it. Thank you.

THE WITNESS: You're welcome.

THE HEARING OFFICER: Any questions based on ours?

MS. HOGLE: No, your Honor. Thank you.

THE HEARING OFFICER: You're excused, Mr. Duvall.

THE WITNESS: Thank you very much.

THE HEARING OFFICER: Why don't we call the next witness, have him sworn, and--and your summary, and then we'll adjourn for lunch. Is that fair?

MS. HOGLE: That sounds fair. Thank you, Chairman--Commissioner. Excuse me.

The Company calls Mr. Paul Clements as our second witness.

THE HEARING OFFICER: Please raise your right hand. Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: Yes.

THE HEARING OFFICER: Thank you.

PAUL H. CLEMENTS, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MS.HOGLE:

Q. Good afternoon, Mr. Clements.

A. Good afternoon--morning.

Q. Can you please state your name and position with

Rocky Mountain Power?

A. Yes. My name is Paul H. Clements. I'm a senior power marketer for PacifiCorp.

Q. And in that capacity, did you prepare direct and rebuttal testimony in support of the Company's application in this case, including exhibits?

A. Yes, I did.

Q. And do you have any changes to either of those pieces of testimony?

A. I do not.

Q. So if I were to ask you the questions and your testimony again here today, your answers would be the same?

A. Yes, they would.

MS. HOGLE: The Company moves for the admission into--into the record of Mr. Paul Clements's direct and rebuttal testimony with attached exhibits.

THE HEARING OFFICER: Any objections?

They're received.

BY MS. HOGLE:

Q. Do you have a summary to go through this morning for the Commission?

A. I do.

Q. Please proceed.

A. Thank you. Good morning, Chairman Allen, Commissioner Clark, and Commissioner LaVar. I filed two pieces of testimony in this docket, direct and rebuttal. And my testimony focused on the issue of renewable energy credit ownership as it pertains to large QFs. Renewable energy credit is often referred to as RECs or green tags. I think most parties in this docket refer to them as RECs.

I recommend that RECs from QFs go to the Company and its customers. I further recommend that any power purchase agreement between the Company and the QF contain specific contract terms and conditions that implement that policy.

One item I address in my testimony is the issue of authority, answering the question who has the authority to determine which counter party owns the REC and QF contract. That answer has been clearly established by FERC. In the American Ref-Fuel case, FERC determined that states, in creating RECs, have the power to determine who owns the RECs in the initial instance.

Now, that term initial instance is a key term. And that means the instance in which they're first created. And so the issue of ownership is not one person taking it from another person. The issue of ownership is when the REC is created, who does it go to?

FERC solidifies its position on that issue by stating clearly that REC ownership--and here's a direct quote from that particular order--is not an issue controlled by PURPA, end quote.

Some parties have argued that the Company's recommendation is not consistent with PURPA. This is simply not true. PURPA does not dictate who owns RECs from QFs.

Now that we have resolved the issue of authority, I will turn to policy. My testimony demonstrates that it is good policy for the State of Utah to adopt the Company's recommendation that the Company and its customers own the RECs in QF transactions. Section 210 of PURPA requires the utility to buy from renewable generation sources. A utility must purchase from this type of QF resource solely because of the fact that it is renewable. The renewable attribute of the resource creates the purchase obligation. If the resource were not renewable, no purchase obligation would exist under PURPA.

The REC is used to identify that the energy generated from a renewable resource came from a resource that was indeed renewable. The REC represents the renewable attribute. Therefore, if the Company and its customers own the purchase obligation because the resource is renewable, the Company and its customers should also own the characteristic that defines the resource as renewable, which is the REC.

It is good policy to maintain a connection between the purchase obligation and the very attribute that creates that purchase obligation. This connection is established by conveying the RECs to the Company and its customers in QF contracts. If the Company does not own the RECs in QF contracts, it is not receiving the very attribute that enabled the resource to achieve its QF status and to obligate the utility to purchase its output. This connection between the purchase obligation and the attribute that creates the purchase obligation should not be broken.

And that concludes my summary. Thank you.

THE HEARING OFFICER: Thank you. We'll be in recess until 1:00.

(Luncheon recess taken, 11:59 a.m.-1:02 p.m.)

THE HEARING OFFICER: On the record.

Before we continue with cross-examination of Mr. Clements, on the matter of briefs, Commission desires to provide the parties an opportunity to brief. We would like the briefs to be brief. Is a 10-page limit reasonable? What--15? Just--I think we ought to have a page limit, I think would help. And what we'd like it to be basically is a written closing statement, whatever each party feels would help the Commission understand that party's position best. And we recognize that positions have evolved as the rounds of testimony have been filed. We assumed that there may be some more evolution during the hearing, that parties may find certain positions more acceptable or less as they've been clarified through the testimony today. And so that's one of the primary reasons that we're--we are seeking briefs and think it's a helpful recommendation. But do you have a sense of the--
of how many pages are required to accomplish that? Is ten too

restrictive?

MS. HOGLE: I would actually suggest that we do at least 15 at a minimum, only because from the Company's perspective, we want to include all of the issues. And so maybe some of the issues don't matter to other parties, but they certainly do matter to the Company.

THE HEARING OFFICER: So is 15 enough? I'm not trying to compel that. I think--we want to make sure it's adequate, but--but we want you to be concise.

MS. HOGLE: So long as you don't penalize me for 20, 15 to 20, you know.

THE HEARING OFFICER: All right. So we'll set a 20-page limit that'll apply to everybody. Unless there's some objection to that, that's what we'll do.

Mr. McDonough.

MR. McDONOUGH: I think that's a little bit excessive. But if that's what the Company needs, I suppose, if we can make that inclusive of a background and statement of facts and everything cover to cover in 20 pages, I think--I think your recommendation of 10 to 15 was prudent.

THE HEARING OFFICER: Well, I do mean inclusive. No preliminary pages that aren't numbered are numbered in, you know, Roman numerals, that kind of thing.

MS. HOGLE: No table of authorities.

THE HEARING OFFICER: Right. You can include one, but it gets a page number.

MS. HOGLE: Thank you for that, Commissioners.

MR. McDONOUGH: Commissioner, when do you propose that these be due?

THE HEARING OFFICER: That was my next question. We want to be reasonable and yet we want to be expeditious. Is--is 10 days reasonable, 14 days? What--I think we'd like not to see it extend beyond two weeks. So is that an adequate amount of time?

MR. McDONOUGH: Let's make it equivalent to the number of pages we're allowing.

MS. HOGLE: I apologize--go ahead, Trish.

MS. SCHMID: If we're going to include things from the hearing, it might be helpful if we have a transcript, and that takes approximately two weeks, I believe.

MS. HOGLE: And the Company would be willing to expedite that, or facilitate--expedite that.

THE HEARING OFFICER: Does that mean paying for an expedited record of this proceeding?

MS. HOGLE: Yes.

THE HEARING OFFICER: Just so I'm clear.

MS. HOGLE: Since it's our recommendation, yes.

THE HEARING OFFICER: All right. So that means we can have a turnaround in a couple of days, I think.

Let's go off the record.

(A discussion was held off the record.)

THE HEARING OFFICER: So let's assume we'll have transcripts available by Wednesday.

Let's go on the record.

So we've been informed the transcripts would be available by Wednesday under the expedited process that the Company will afford. If that's the case, is 14 days, then, something that's acceptable?

MS. HOGLE: It is for Rocky Mountain Power.

MS. SCHMID: And for the Division.

MR. McDONOUGH: Certainly.

THE HEARING OFFICER: Thank you. Then 14 days, 20 pages. And again, your . . .

MR. DODGE: So--

MR. EVANS: To clarify, that would be June 26th, 14 days from next Wednesday?

THE HEARING OFFICER: That's--I don't have a calendar in front of me, but let's have the date certain there.

Let's say Thursday, the 27th. Is that all right? Okay.

Any other questions about briefs?

One other thing: Before we continue, Mr. Vrba and Mr. Millsap, are either of you here? Both here. And you're intending to take the witness stand and present your testimony or not? That's--that's--

MR. MILLSAP: I'm not intending to, unless someone speaks about something. And I'm not intending to ask questions.

THE HEARING OFFICER: Or for the Commission to receive your testimony in evidence, you'll need to be sworn and you'll need to be subject to cross-examination at least.

MR. MILLSAP: Oh, I can do that.

THE HEARING OFFICER: And Mr. Vrba, what is your intention?

MR. VRBA: It would be the same, yes.

THE HEARING OFFICER: All right, thank you.

MS. HOGLE: Commissioner, one other thing, my client did go back and check with his staff about the charge for solar integration, and he confirmed that we do include it in--the Company does include a charge of $4.35 for solar integration in the pricing.

MR. SIMON: I'm sorry. How much was that? May I inquire from the bench, the amount again?

MS. HOGLE: I believe it's the same as the wind integration charge, $4.35.

MR. SIMON: That's what you--I'm sorry. Inquire to the bench again: That's what you're currently assessing?

MS. HOGLE: That's what we include in indicative pricing to QFs.

MR. SIMON: At the current time?

MS. HOGLE: Yes.

MR. SIMON: Thank you.

THE HEARING OFFICER: Anything further before we continue with Mr. Clements?

Thank you. Ms. Schmid--unless there was anything further.

MS. HOGLE: That's all I have. Thank you.

MS. SCHMID: The Division has no questions for this witness.

MR. McDONOUGH: The Office has no questions.

MS. HAYES: I just have a couple of questions.

EXAMINATION

BY-MS.HAYES:

Q. Good afternoon, Mr. Clements.

A. Good afternoon.

Q. And I apologize about my voice, if it goes in and out. Do you acknowledge that one of the explicit purposes of PURPA is to encourage small power production?

A. Yes, that's correct.

Q. Are you aware also that Utah statute explains--and I--I'm hesitant to approach the witness because I'm sick, so--so I--

A. I have five children. If you want to come up . . .

Q. All right.

MR. DODGE: May I approach?

THE HEARING OFFICER: Yeah, sure.
MR. DODGE: I'm not sick.
MR. DUVALL: Yet.
MS. HAYES: Thank you, Mr. Dodge.
BY MS. HAYES:
Q. Would you mind reading 54-12-1(2), Legislative Policy?
A. Where it begins, "It is the policy of this state"?
Q. Yes.
A. "It is the policy of this state to encourage the development of independent and qualifying power production and cogeneration facilities, to promote a diverse array of economical and permanently sustainable energy resources in an environmentally acceptable manner, and to conserve our finite and expensive energy resources and to provide for their most efficient and economic utilization."
Q. Thank you. Do you acknowledge that allowing a renewable energy developer to retain the RECs would help encourage renewable and qualifying facility development?
A. I don't know.
Q. May it?
A. It may.
Q. Is it true that PURPA allows nonrenewable cogeneration facilities to qualify as QFs?
A. Yes, that's correct.

Q. And under the Company's proposal, a nonrenewable cogeneration qualifying facility and renewable qualifying facility would get the same price subject to the adjustments that are made, but the methodology is the same for both of them?

A. Yes. And the reason for that is because PURPA requires that. PURPA is addressing the capacity and the energy, and it's explicit in PURPA that you do not discriminate between resource type, and so that's why they'd get the same payment, yes.

Q. But do you acknowledge that if the Company were to retain the RECs that it would be acquiring something in addition to the energy and capacity?

A. Not under PURPA, no.

Q. But regardless of PURPA, would it-- would the Company be receiving some--something, some value, some benefit from the RECs that are not energy and capacity?

A. Well, I think you're asking if--if there are two contracts--one with a renewable, one with a nonrenewable-- and the one with the renewable has RECs that go to the Company, well, then yes. A nonrenewable QF does not generate RECs.

Q. And so it's your argument that that is not discriminatory? Where one nonrenewable QF conveys energy and capacity without RECs for a price and the renewable facility conveys energy and capacity and RECs for that same price, it's your position that that's not discrimination against one of the

QFs?

A. That--that is my position in terms of how discrimination is defined in PURPA. It's a very narrow definition that you should not discriminate on resource type for payment on capacity and energy. As stated in my summary and my testimony, PURPA is silent on the issue of RECs. It does not address RECs. And so our proposal is not discriminatory, because we propose that for capacity and energy, the same price is paid to renewables and nonrenewables.

Q. And so you're proposing to get the RECs for free?

A. I'm proposing that the Commission make the determination that the RECs are owned by the Company.

MS. HAYES: No further questions.

MR. DODGE: I have no questions.

THE HEARING OFFICER: Mr. Simon.

EXAMINATION

BY-MR.SIMON:

Q. Good afternoon, Mr. Clements. My name is Dan Simon. I represent Scatec North America.

A. Good afternoon.

Q. Is it your position that the State of Utah should do away with the unbundling of RECs in all circumstances?

A. No.

Q. PURPA is a federal statute, right?

A. That's correct.

Q. And it's kind of a funny statute, right?
A. I don't know how you're classifying . . .
Q. I mean, it's--you have FERC as a federal agency implementing regulations giving the guidance of how it's supposed to be implemented, correct?
A. Well, I think FERC does a very good job of defining what PURPA is intended to cover and what regulations that they enforce and what regulations and decisions are left to the states.
Q. Right. And one of the principles of that is, states can't do anything that conflict with FERC's findings in terms of how to implement PURPA; is that correct?
A. I believe that part of it--part of PURPA states that the states cannot do anything that's contrary to the laws implemented by PURPA.
Q. I'm not sure I have a clear understanding of your answer, though. Let me ask it a different way. Is it okay for the state of Utah to implement PURPA in a way that's inconsistent with FERC's regulations and orders?
A. I don't believe so, no.
Q. Okay. Thank you. Now, it's your position that states have the power to--to determine how RECs are sold or traded, correct?
A. That's correct, yes.
Q. Okay. And in your testimony, you cite to a couple of the American Ref-Fuel Company orders by FERC, correct?

A. Yes.
Q. Have you read those orders in full?
A. Perhaps not in full, but significant portions of them, yes.
Q. Okay. So let me ask you a little more about that. So someone is handed these orders to you or you found them on the Internet or--let me strike that. How did you come across these orders?
A. These orders that I've reviewed with our internal team, our legal team, and we've reviewed the context of them and I've read significant portions of them as well.
Q. So--but did you read the entire orders from cover to cover?
A. Most likely no, not from cover to cover for all of them, no.
Q. And what methodology did you use to determine what parts of the FERC orders you wanted to read and which you wanted to ignore?
A. Well, in preparing for this hearing, as I have for every other hearing, we get together with our legal team, we discuss the topics that will be discussed, and we pull together the pertinent legal cases. And they assist in preparing the information that we should review and then I review it with the legal team.
Q. Okay. Were you instructed to ignore portions of the

FERC orders here?

A. No, I was not.

Q. I assume PacifiCorp strives to try to comply with FERC orders as best they can?

A. Yes, we do.

MR. SIMON: Okay. I'm sorry. At this time, we'd like to ask permission to approach the witness to provide a copy of one of the orders we've been discussing. I don't know if it's appropriate to provide copies to everybody or to mark it as an exhibit. However the commissioners feel is the best way to approach it, I'm happy to follow.

THE HEARING OFFICER: Do you have enough copies for all the counsel present?

MR. SIMON: On this one, I believe we do.

THE HEARING OFFICER: Let's distribute it to everybody. We'll mark it as a cross-examination exhibit.

MR. SIMON: Thank you. We'll go ahead and mark it as Scatec Cross-Examination Exhibit No. 2. I believe we-- it's marked 1--as Exhibit 1 before, but that's not yet been admitted into evidence.

THE HEARING OFFICER: All right. For the record, that's--the first one is entitled "Appendix A, PacifiCorp Avoided GRID and Differential Revenue Requirement Model Updates through March 2013.

MR. SIMON: That's correct. Thank you.

BY MR. SIMON:

Q. Mr. Clements, did we just hand to you one of the American Ref-Fuel Company FERC orders that we were just discussing?

A. Yes, I believe what you handed me was the order--yes, the order denying the rehearing, yes.

Q. So--so there's actually two American Ref-Fuel Company orders that people tend to discuss on this topic, right?

A. That's correct, yes.

Q. And this would be the second one of the two, correct?

A. Yes.

Q. The more recent one, correct?

A. If you're referring that the order for rehearing was subsequent to the declaratory order, then, yes, it would be more recent.

Q. Thank you.

A. Assuming that's the second one you're referring to.

Q. Yes, sir.

A. Okay.

Q. All right. So if you could bear with me, on page 1 of the order, after paragraph No. 1 there's a section labeled "Background," correct?

A. That's correct.

Q. Okay. Let's skip ahead to page 3 of the copy of the order we provided you. I guess about two-thirds of the way down there's a section titled "Discussion." Do you see that?

A. I do.

Q. Okay. And would you agree with me that the "Discussion" section is the section in which FERC provides its ruling in the case?

A. Typically, yes.

Q. Do you have reason--any reason to believe that's not the case here?

A. I do not.

Q. Did you read the entire "Discussion" section before today?

A. In this particular order, yes, I did.

Q. Okay. Let me turn your attention to paragraph 15. Let me have you skip down to-- there's a first sentence, second sentence, and then a third sentence. Are you with me so far?

A. At the sentence beginning, "In this regard"?

Q. Yes, sir.

A. Okay.

Q. And that sentence says, "In this regard, the avoided costs that a utility pays a QF does not depend on the type of QF, i.e., whether it is a fossil-fuel-fired cogeneration facility or a renewable-energy-fired small power production facility." Is that what it says?

A. That is what it says.

Q. And so what it means there is that the Commission is not distinguishing between whether the energy price being paid covers renewable attributes beyond that because it's the same for both the cogen and a renewable energy project; is that accurate?

A. Could you repeat that question?

Q. I'll tell you what. Let's move ahead and maybe come back to that. So why don't we skip down to the last sentence in that paragraph--or the last two sentences. It says here, "Both are priced based on a purchasing utility's avoided costs. The Commission thus reasonably concluded that avoided cost rates are not intended to compensate the QF for more than capacity and energy." Was that what it says?

A. That is what it says, yes.

Q. So in other words, what FERC is saying here is that the avoided cost rate is based just on the energy and capacity and does not take into account the renewable attributes of a QF project; is that correct?

A. Well, if you're looking at this entire case, these particular petitioners approached FERC and said if the contract is silent on the issue of REC ownership, we want to be certain that the RECs do not automatically go to the utility. That was the issue before FERC. And if you were to review the order granting petition for declaratory order, the first order of the two that he referenced, the bulk of the discussion was around the fact that, yes, PURPA is intended to cover the energy and the capacity payment only.

And there are several instances in that order--it's an October 1, 2003 order--in which FERC specifically states the issue of REC ownership is not covered by PURPA, it's not something they are addressing. RECs are created by the states, and the states can address the issue of REC ownership. So it wasn't so much making an determination on REC ownership as it was saying the avoided costs are pertinent to capacity and energy only and the issue of REC ownership goes to the states.

Q. I don't believe you answered my question there. So--so although the earlier order and this order both acknowledge that state law can determine some basic parameters of REC ownership, FERC, in these orders, provided some limitations on them; isn't that true?

A. No, I don't agree.

Q. Okay. So turn with me to paragraph 16. Could you please read that paragraph in full for me?

A. "If avoided costs are not intended to compensate a QF for more than capacity and energy, it follows that other attributes associated with the facility are separate from, and may be sold separately from, the capacity and energy." Keep going.

Q. Yes, please.

A. "Indeed, states in creating RECs that are unbundled and tradable have recognized this. The very fact that RECs may be unbundled and traded under state law indicates that the environmental attributes do not inherently convey pursuant to an avoided cost contract the purchasing utility."

Q. So in that last sentence, would you agree with me that FERC is saying that to the extent that a state has unbundled RECs, the RECs do not automatically convey with the power sold through a QF contract?

A. I don't believe FERC's making a judgment or a ruling there. They're just saying if you read that sentence again, the very fact that RECs may be unbundled and may be traded under state law provides an indication. I don't believe that was an actual ruling.

Q. But what do you think they mean by, “do not inherently convey”?

A. And again, this gets back to my response to your other question, that these petitioners were saying that the contract is silent. And this is actually very similar to a Cottonwood Hydro case that was before this Commission where the contract was silent on the issue of REC ownership. And the petitioner said: If the contract is silent, I would like this agency, FERC, or this Commission, to rule that the RECs do not automatically go to the utility. So it wasn't necessarily a policy decision they were setting here. It was a contract decision.

And this gets back to my testimony and the

Company's position in that when a REC is created, it is up to the state to determine who owns that REC. So the REC is not being taken from one person and given to another. It is upon creation of this REC, who does it go to. So I feel that the Company's position is consistent with this order and consistent with PURPA.

Q. Would you agree with me the state's already recognized that RECs can be unbundled?

A. Yes, the state has, that's correct.

Q. Including within the Utah statute enacted by the state legislature?

A. Yes, absolutely. But the fact that the RECs can be unbundled doesn't mean they can't be rebundled in a QF contract. It's not prohibitive in that nature.

Q. Are you an attorney?

A. I'm not an attorney, no.

Q. I'd like to change subjects for just a minute. Were you in the room when the cross-examination took place of your colleague, Mr. Duvall?

A. I was, yes.

Q. Earlier this morning, we had marked as an exhibit Scatec Cross-Examination Exhibit No. 1. We had provided some copies. We do have additional copies now for everyone who did not get one earlier.

Permission to approach the witness to provide this?

THE HEARING OFFICER: Yes.

BY MR. EVANS:

Q. Mr. Clements, the document you've just been handed is labeled, "Appendix A, PacifiCorp Avoided Cost GRID and Differential Revenue Requirement Model Updates Through March 2013," Case No. 03-035-14; is that correct?

A. That is correct, yes.

Q. And would you agree with me this was a part of the Company's avoidance cost file that it makes on a quarterly basis?

A. Yes.

Q. Have you seen this document before?

A. I have seen this document, yes.

Q. Did you help play a role in creating it?

A. I did not.

Q. I'd like to turn your attention to the bottom of page 2. And in the bottom of page 2, there's a section titled, "IRP Partial Displacements This Filing." Do you see that there?

A. Yes, I do.

Q. Okay. And below that it says: Base case thermal partial displacement was 436.2 megawatt. Below are QFs that have executed a power purchase agreement or are actively negotiating for new power purchase agreement.

Is that correct?

A. That is correct.

Q. And below that there's--and that's referring to a table below it that's got a list of QFs with a queue number assigned to each one; is that correct?

A. That is correct.

Q. And so the first few queue numbers 1 through 6 refer to QFs that already have signed contracts with PacifiCorp; is that correct?

A. That is correct.

Q. And then queue numbers 7 through 23 refer to QF contracts that--excuse me--strike that. Queue numbers 7 through 23 refer to QFs that do not currently have signed contracts with PacifiCorp; is that correct?

A. That is correct.

Q. Can you explain to me how a QF gets added to this list, what event takes place for a QF to go from not being included on this list to being added to this list?

A. When the QF makes an indicative pricing request under one of the Company's tariffs, then they are added to the list.

Q. And so with each QF on the list, the higher up in the list you are--the higher up in the list a QF is, the earlier it displaces the next generating unit or next resource in the IRP, correct?

A. I think you'll--can you rephrase that question?

Q. I'll tell you what. Instead of me muddling it up, I'll ask you an open-ended question. Explain to me the difference, if--the different impact between a QF that's higher up in the queue versus lower in the queue.

A. Well, the queue really dictates what resources are avoiding in the GRID model. Since avoided costs are based on marginal costs, the resource that is at the top of the queue will avoid the highest cost resource. And then as you move down the queue, you get to lower and lower cost resources.

Q. So I take it as a result, that the QFs that are higher up in the queue would likely result in getting a higher avoided cost rate; is that correct?

A. Typically, depending on the situation, it really comes down to if you're so far down in the queue that you no longer defer a resource, so you no longer get a capacity payment, that's when the queue really impacts your price. If we're talking about just an energy payment, your position in the queue is not that significant. For example, if the avoided cost resource is Lake Side power plant, for example, if we're avoiding Lake Side, Lake Side is six hundred-and- some-odd megawatts, so you have to move pretty far down Lake Side before you move to the next resource type.

So if we're looking at energy only, queue position has a marginal impact on price. If you're looking at capacity, it could have a significant impact, yes.

Q. You talked about how a QF gets added to this list. Explain to me how does a QF--how does PacifiCorp determine whether to remove a QF from this queue?

A. If we deem that the QF is no longer actively negotiating power purchase agreements or actively moving forward in the QF process, then we remove them from the queue.

Q. So, for example, queue number 7, do you have any sense of how long that one's been there on the queue?

A. I don't know which one that is by looking at this table.

Q. Suppose a QF lower down in the queue is ready to actually sign a long-term PPA with you under Schedule 38. Will the Company, to the extent the queue position makes a difference, refresh the indicative pricing to reflect the fact that it's jumped above a QF that was otherwise higher up in the queue?

A. No, we would not do that.

Q. And why not?

A. And I believe the parties discussed this as part of the 2003 docket is my recollection. The reason we've done the queue this way is we have many QF counter parties who need the certainty of their pricing while they continue through the negotiation of the power purchase agreement.

Let's take, for example, a combined heat and power application, like a refinery. If they put in a pricing request and we give them a price, they need to determine what their economic options are. Do they sell under a QF contract? Do they offset their retail load? They need to make some determination as to how they're going operate that resource. And they make that determination based on the indicative price. Once they have that indicative price, they may make some decisions around that as they arrange financing and staffing levels, things of that nature.

So we manage the queue this way because we need to provide some certainty to our customers that when they get a indicative price, that price is going to be valid for a certain amount of time while they continue with negotiation of a power purchase agreement. And so we feel like that's a fair process for everyone involved in the queue.

Q. But that also means at the end of the day when that QF is ready to sign a contract, it's reflecting a rate that could be lower than what they should have been getting base on the resource they actually displace?

A. If the parties in front of them in the queue do not end up executing power purchase agreements, that would be correct.

MR. SIMON: Okay. Thank you. Thank you. I have nothing further.

THE WITNESS: You're welcome.

THE HEARING OFFICER: Mr. Evans.

EXAMINATION

BY-MR.EVANS:

Q. Good afternoon, Mr. Clements.
A. Good afternoon.
Q. I'm sitting behind you, so I know it's some effort to turn and look, but I do--I do really appreciate the contact when I'm addressing questions--
A. Okay.
Q. --so thank you for facing my direction there.
I have--with permission of--of Rocky Mountain Power counsel, I've--I want to ask you some questions about information. I know you didn't file testimony on that, but as you heard in my cross-examination of Mr. Duvall this morning, there are a couple of things that maybe I need to go to you for answers on, so if it would be all right, I'd like to start with--with that.
A. Certainly.
Q. You are the person, are you not, at PacifiCorp that negotiates the QF contracts for Kennecott and Tesoro?
A. That's correct, yes.
Q. And you work with their representatives to come up with these every year, it turns out, because we keep insisting on these one-year agreements, right?
A. Every year.
Q. And as a result of this process--and it usually goes very smoothly, but it seems like we had a little glitch last year on it and we filed some prices with the Commission that were incorrect; isn't that right?

A. I believe that's the case, yes.

Q. It's the case, isn't it?

A. Again, my recollection is, I believe that's the case.

Q. I'll read from the Commission's order in that--in that docket, then, so you can recollect what the Commission said. As to the smelter and refinery agreements, both the Division and the Office commented on the need to correct errors in Exhibit E pricing of both agreements. Do you recall that?

A. Yes.

Q. We had some errors in Exhibit E?

A. Yes.

Q. Do you recall how those errors came about?

A. They were a mathematical calculation that was done outside of GRID that was incorrect. So a spreadsheet error, essentially.

Q. Spreadsheet error?

A. Yeah.

Q. And when my clients asked for the backup for that pricing, you were unable to produce it; isn't that right?

A. That--that I do not recall.

Q. You do not recall. Well, do you recall that we were unable to verify those numbers before the contracts were filed with the Commission?

A. That I don't know as well. We provided the GRID model and--

Q. Yes, but these calculations were done outside of GRID, you just testified?

A. Yes.

Q. Okay. So the GRID model would not have helped us, would it?

A. The GRID model provided the basis for those calculations and some calculations are done outside the GRID model. And those calculations are primarily grouping. GRID produces an hourly avoided cost and then when you take those hourly avoided costs and move them to a monthly avoided cost for an on-peak or an off-peak avoided cost. Some of those calculations are performed outside of GRID.

Q. So in--you heard that Mr. Duvall was evidently very eager and willing to give us the information that will let us verify those kinds of calculations the next time this calculation must be done, which is coming up pretty soon. If we make that request, can you get us the information for those calculations even though they're outside GRID?

A. Oh, absolutely.

Q. Can you show us how they're done and explain so that we can verify?

A. Yes, the Company would certainly be willing to work with you and--and wanted to do so last year as well.

Q. Right. And I think at the end of this little glitch in our contracts, we have agreed that the Company would provide certain information this time around, didn't we?

A. Yes. And we certainly intend to do so.

Q. Okay. And that would include the GRID runs and the backup for the GRID runs, right?

A. Yes, we can provide all that information.

Q. And--and what the--what the operator has done to GRID, what kind of assumptions it has made, what inputs it has made to derive the avoided cost?

A. Whatever we typically provide with our GRID request is what we would provide.

Q. And what I'm saying is that sometimes the typical provision does not get us the calculations we need, so you will work with us to get whatever calculations we need to verify?

A. Absolutely. We want to make sure you understand your avoided cost and--on behalf of the Company, we apologize if there was any confusion last year around that. My recollection is, with one of your clients in particular, we were heavily involved in negotiating the electric retail service agreement which was a fairly complex negotiation. So most of my memory is around that part of it as opposed to the QF. So I apologize for not recalling all of--

Q. We appreciate that. And I know that we will get past this and we'll have to renegotiate these this year. But let me ask you about timing, too. By the time you provide us with indicative pricing, you've already done the GRID runs, you've already done the backup. You know what assumptions that have been made. You know what the inputs are. And there should be no delay in getting that to us. We should have it when you deliver the indicative pricing, right?

A. We can do that if you request that, certainly, yes.

Q. We have requested that repeatedly, and that's what we--that's, I think, what we expect if we're going--because we're on a short fuse, as you understand. We have to get these done quickly.

A. Yeah.

Q. So we do expect that, yes. Is this something the Company can provide?

A. We certainly can provide that. And the Company's position on that is some customers want that level of detail. They want to get in the GRID model and actually pull levers and things of that nature. Other customers have no desire to see that information. And so if a customer wants that information, we already have the obligation to provide it to them. If they don't, we don't feel like it's a good use of Company resources to provide that information when they have no interest in it. And so I think this was a rather unique situation from a timing standpoint.

The other thing that we've encouraged customers is to submit their pricing request earlier in the year. So if they have a contract that's terminating at the end of the year, we don't want to run up against a deadline. We just start earlier. And that's what we'll agree to do this year.

Q. And if a customer--once a customer puts in for indicative pricing, how long does take to get pricing out to that customer?

A. Thirty days is what the tariff provides, and we will strive to abide by that.

Q. Are there consequences if you don't abide by it?

A. Under the tariff, I don't believe so.

Q. Should there be, I wonder, in you view?

A. Well, we make every effort to abide by that 30-day limit. There are times our QF request, as much as I would like--especially myself and Mr. Duvall's group, we would like them to come in a slow, steady stream so we can manage our work flow. What they found is they come in big spurts and then there will be a period where there aren't as many. There are times where we're sometimes juggling ten to twenty pricing requests at any given time. And we typically meet the 30-day deadline, and we're committed to meet that to the extent we can.

Q. Well, I have to agree with you there. My work comes the same way: too much at some time and too little at another. But when there's a deadline given for me, I have to make it or the Court won't accept my pleading. So we have your pledge that you will do your very best?

A. Yes.

Q. Thank you. Okay. I won't belabor that. I appreciate the--appreciate the cooperation.

Let's talk for a minute about RECs, okay, because that's really what the subject of your testimony is. And I--I'm not sure I quite understand where you're going with this in your direct testimony. You say that--at line 32. And you've said it in your direct--you said it in your introduction today, that your recommendation is that the RECs generated by QFs go to the Company under any power purchase agreement executed under Schedule 8 consistent with the treatment in the 2005 case, right? The 2005 order. I'm looking at lines 32 on your testimony, your direct. And the reason for that--let me direct you up two lines above, is stated on line 30--would you read line-- the sentence that is in line 30 of your direct, please?

A. "If the Company does not get the RECs, it is not receiving the very characteristic that enabled the facility to achieve its QF status.

Q. Is this an idea that you have ever seen expressed in Utah law?

A. No, currently, I don't believe Utah law addresses the issue of REC ownership as it pertains to QFs.

Q. Is it--but--so this is your very own idea, this is your invention, then, on what the policy of Utah ought to be?

A. Yes, this is the Company's recommendation as to what the policy--a policy should be, yes.

Q. All right. You're not saying really that it was the intent of PURPA that if there were any value in the environmental attributes of QF output, that it was somehow to go along with the power in a qualified facility purchase? You're not saying that was the intent of PURPA, are you?

A. No, because PURPA was enacted prior to the creation of RECs, and so there could be no intention at the time of PURPA enactment because RECs were not in existence at that time.

Q. Okay. So--so you agree that PURPA does not compel this idea that RECs automatically go with the QF power?

A. That is correct.

Q. Is there anything in Utah law that compels that idea?

A. There is nothing in Utah law other than what was recently passed as--I use kind of layman's term, as Utah's renewable portfolio goal-- it's not necessarily a renewable portfolio standard--the 20 percent by 2025 goal. And while that isn't necessarily law addressing this particular issue, it is pertinent, because in California, they do have an RPS, so it's not a goal; it's an RPS. And that was the driving decision--or the driving factor that led to the decision by the California commission that QFs that generate RECs convey those RECs to the utility for use for compliance with the RPS. And so in one of the states that is probably one of the most progressive states in terms of green energy and green energy policy, they determined that because of the RPS, any REC that comes from a QF project should go to the utility for use in meeting that RPS.

Q. I'm sorry. Let me back you up a little bit on that.

A. Sure.

Q. Who set the renewable goal? The Legislature, you said?

A. Yeah, I believe that's in a statute at this point.

Q. And is there any statement by the Legislature that compels you to do that or is it voluntary? It's a goal, right? It's not a requirement?

A. Yes, that's what I stated, renewable portfolio goal as opposed to what's more commonly referred to as a standard, which has implications for meeting it, yes.

Q. And there's nothing there that really says that if the Company doesn't get the REC, it's not receiving the characteristic that enabled the facility to compel a QF purchase? There's nothing in the statute like that, is there?

A. No, the statute does not speak to QFs directly, no, other than to say that a REC from a QF would count towards the renewable portfolio goal. It does state that.

Q. What's the consequence if you don't get to the goal?

A. I don't know.

Q. So does a REC have value to you?

A. There are times that a REC does have value, yes.

Q. Let me ask you about this--you say repeatedly in your direct testimony that you have analyzed the intent of PURPA and how it applies to the issue of REC ownership in QFs. Let me ask you a question about what PURPA does require, right? Does PURPA, in your view, require PacifiCorp to buy the output of a federal qualifying facility?

A. Yes, it does.

Q. And does it put a ceiling on the price that you must pay for that power?

A. Ceiling would be the Company's avoided cost.

Q. Okay. And is there any way that PURPA could have contemplated at that time that the payment for power at the avoided cost would include the renewable energy credit?

A. I don't believe there's any way PURPA could have contemplated that, because they weren't in existence at the time PURPA was enacted, so they couldn't have contemplated that.

Q. And so it really isn't the intent of PURPA that the REC go with the power because somehow the environmental attribute is tied up with the output? That's not a PURPA idea, is it?

A. No. And I've already turned my testimony to where I speak to intent. And perhaps that was a poor choice of words on my part. Probably a better choice of words would have been the premise of PURPA, where we have the purchase obligation because the resource is renewable. And that is the whole undermining--or underlying assumption behind why we have purchase obligation. So the whole premise of PURPA is that this is a renewable resource. A poor choice of words on my part.

Q. You have the--you have the obligation because some developer out here went out and put its capital and credit at risk to build something that PURPA thought was in the public interest to build and so they're going to make you buy it; isn't that true?

A. Yes.

Q. So when Ms. Hayes read to you--by the way, I think I'm going to hand that out as--as a--
she didn't, but I think I will.

May I approach?

THE HEARING OFFICER: Yes.

BY MR. EVANS:

Q. Do you know what this is?

A. Looks like it's a portion of Section 210.

Q. Yeah. It's a portion of Section 210, which is PURPA, right?

A. Yes, it is.

Q. And we can mark this one as KUC/Tesoro Cross Exhibit 1, because it's hard to find and it would be easy to look at if we put it in as an exhibit, but it is the statute enacted in 1970, as you see.

I've highlighted the section in your copy that's under subsection (a). And let me make this note: Subsection 210 does what--or Section 210 of PURPA does what?

A. It establishes the purchase obligation.

Q. It establishes the purchase obligation. There's a lot of other parts of PURPA, but this is the one that we're really talking about today, aren't we? This is the one that imposes upon PacifiCorp the purchase obligation.

Now, read paragraph--subsection (a) into the record, please, so that we can understand why that purchase obligation is imposed.

A. "Cogeneration and small power production rules. Not later than one year after the date of enactment of this act, the Commission shall prescribe and from time to time thereafter revise, such rules as it determines necessary to encourage cogeneration and small power production and to encourage geothermal small power production facilities at not more than 80 megawatts capacity, which rules require electric utilities to offer to (1) sell electric energy to qualifying cogeneration faculties and qualified [sic] small production facilities and (2) purchase electric energy from such facilities."

Q. Okay. Thank you. So the purpose is to encourage cogeneration and small power production. That's why the obligation is imposed, right?

A. That is correct.

Q. Okay. You've got a section of the Utah Code sitting right in front of you. Would you pick that up, please, and turn with me to 54-12-1. Do you know what this chapter in the Utah Code addresses?

A. We established I'm not an attorney, but reading the subsection here, it says, "small power production and cogeneration."

Q. Isn't this the section under Utah law that establishes the purchase obligation of the public utility? Under subsection (2)?

A. I believe so, yes.

Q. Okay. Good. Would you read the legislative policy under subsection (2) into the record for us, please?

A. Where it starts, "Purchasing utilities shall offer"?

Q. No, no. "It is the policy of this state," 54-12-1.

A. Oh, 12-1.

Q. Not Section 2.

A. I thought you said 12-2. I apologize.

Q. This is to tell us--this is the analog to the purpose statement of why it is imposing the purchase obligation. Go ahead and read.

A. "It is the policy of this state to encourage the development of independent and qualifying power production and cogeneration facilities, to promote a diverse array of economical and permanently sustainable energy resources in an environmentally acceptable manner, and to conserve our finite and expensive energy resources and provide for their most efficient and economic utilization."

Q. ". . . to encourage the development of independent and qualifying power production and cogeneration facilities . . . ." Which would you say serves that purpose better? To require the QF to convey the REC to PacifiCorp or to allow the QF to retain the REC?

A. I don't have an answer for that other than what--

Q. Come on, Mr. Clements. You don't have an answer?

A. No, other than what has been established in 54-12-2, which is the actual statute enacting that legislative policy. So I don't feel like it's appropriate for me to presuppose what the Legislature may have wanted. The legislative policy is spelled out, and then they've enacted certain rules and regulations to enact that policy.

Q. Okay. So then I want to know--because you're advocating that the REC should automatically go with the sale of QF power--how does that serve the policy articulated in federal and state law better than letting the REC remain with the QF generator?

A. Well, I think you're mixing two things that are not able to be mixed. When I'm referring to PURPA and every FERC order relating to PURPA, and I would even argue this portion of the Utah code that you're addressing, it's strictly referring to the avoided cost for energy and capacity. The encouragement of renewables comes from the purchase obligation. That's what PURPA did. It said we're going to encourage renewables by requiring the utility to purchase their output. That's how they encourage it. We have to buy the energy and the capacity. Nowhere in the Utah Code or in PURPA or any in subsequent FERC order does it speak to REC ownership being part of that threshold.

Q. That wasn't--that wasn't the question I asked you.

A. Oh, I apologize. Then perhaps rephrase the question. I'll try to give a better answer.

Q. Which serves the policy better, to allow the REC to remain with the QF generator or to require the REC to go to the utility when the utility is only paying avoided cost for the power? Which serves the policy better?

A. Again, I don't have an opinion on policy.

Q. Okay. Then we will move on.

A. Okay.

Q. I think your testimony is full of policy, so I beg to disagree with you on whether you have an opinion. But if you're not going say it, then we'll move on to the next topic, which is the rest of the support that you give for your reason in your rebuttal. Let me--let me clarify some semantics before we move on to the next section because it's kind of important. When we say that the REC goes with the QF power, would you say that

that means bundling? Do you see a distinction between the term, "bundled REC" and that the REC is attached to the power?

A. I don't see a distinction there. Sometimes some of our California contracts that we have sold RECs, there is a very clear distinction between rebundled, which means you take a REC from a facility and attach it to an energy sale, versus a bundled product, which typically means this megawatt came from this renewable resource and this REC is attached to it. So there may be some nuances there when you refer to a bundled product.

Q. Do you know whether "bundled" has been defined under Utah law?

A. I don't know.

Q. Do you know whether "unbundled" has been defined under Utah law?

A. I don't know that either.

Q. You don't know? Let's take a look at the code, then, and look at 54-17-601 and look at the definition of unbundled REC. 54-17-601(11). Would you read that to us, please?

A. Sure. I'm just getting myself there.

Okay.

Q. Please.

A. "'Unbundled renewable energy certificate' means a renewable energy certificate associated with qualifying electricity that is acquired by an electrical corporation or other person by trade, purchase, or other transfer without acquiring the electricity for which the certificate was issued." Keep going?

Q. Enough for just a minute. Do you have an idea about what that means? In terms of a QF sale, if this were an unbundled renewable energy certificate involved in a QF sale, and that's the definition of unbundled, would the QF generator keep it or would it go to the utility?

A. Could you repeat that question?

Q. Okay. If we have an unbundled renewable energy certificate involved in a QF sale, would it go to the utility or would it stay with the generator?

A. It is the Company's--well, first of all, the last half of your question there has a premise that I don't agree with.

Q. There's no premise.

A. Well, you--well, then let me--what you state in the last half of that question is does it go to the utility or stay with the QF or generator. It's my testimony and the Company's position that the REC does not have an owner upon its creation. Remember, in my summary, I talked to the initial instance. I mean, when the REC is created, it is in no man's land. No one owns it. And what we're recommending is that the state commission make a determination as to who owns it after the initial instance. So I just wanted to clarify that premise behind the question.

Q. I'm not talking ownership. I'm talking bundling versus unbundling.

A. Well, you're saying whether it stays with the REC or goes to the utility.

Q. Right.

A. And my response would be--

Q. That's a question of ownership?

A. Yes, absolutely.

Q. Okay. So--so you think that this doesn't answer the question of who owns the REC? But that question--does it mean that the REC does not automatically go to--go to--with the power?

A. No, I don't think this means anything as it relates to qualifying facilities.

Q. Okay. But--

A. This is strictly a definition of an unbundled REC.

Q. Let's read the next--then please read the last one under (b). "'Unbundled renewable energy certificate means a renewable energy certificate associated with activities listed in (10)"--"in subsection (10)(e)." Aren't those activities of qualified facilities?

A. Yes, in this section of the code is strictly addressing this renewable portfolio goal that I mentioned earlier. And all this is saying is that an unbundled REC which could be produced by a QF can be utilized to meet the goal. That's all this section is saying.

Q. Mr. Clements, I would point out that this section isn't saying anything like that. This is a definitional section to part 6, okay? And it's define--it's defining what kind of RECs have been created in this state. RECs are--would you agree that RECs are the creation of state law?

A. Yes, that is my testimony, yes.

Q. And that the Legislature creates them by this kind of a statute that says here's what a REC is, here's what an unbundled one is, and here's what a bundled one is?

A. There is a definition here of unbundled REC in the statute, yes.

Q. Okay. So--and those--those activities in (10)(e) create unbundled RECs, right? Now, look at (10)(e), subsection (V).

A. Sorry. I haven't had a chance to review (10)(e) before you move on there.

Q. Well, I thought we were getting your opinion on what Utah does with RECs. This is--I'm trying to get to what the law compels us to do, because you've told me that your view of RECs is consistent with Utah law and I'm disagreeing with you. So I'm taking a minute to walk you through this to show you why I disagree. Under (11)(b)--

A. You may have--walk me through a little slower because we're jumping around and you're asking me to confirm things without giving me a chance to read it.

Q. Okay. Well, take a look at (11)(b), an unbundled--I'll read it again; then maybe we can walk through it together because I think it's important for the Commission to know this. "'Unbundled renewable energy certificate' means a renewable energy certificate associated with" either one or the other, right?

A. Yep.

Q. (a) or (b) or both. Okay. (b) is an activity listed in Section (10)(e). And under one of those subsections is the kind of QFs that my clients operate. That's why I'm trying to get to this. Under V--that's a sub--it's a Roman "v." (10)(e), sub Roman F "v," "a waste gas or waste heat capture or recovery system." We will call this--if you will play this game with me for just a minute, because we can bicker about definitions all day if that's what you want to do, but they will we will call this a cogeneration QF, it's a CCCT type QF. Can we at least assume that for the moment?

A. Yes.

Q. Okay. So would you agree that the activities of producing power of a cogen QF generate unbundled renewable energy certificates?

A. I think the definition stands on its own here.

Q. I think it certainly does.

A. I will note that--apologize. Rephrasing that answer, I think the section we were reading from there is Section (10), which refers to a renewable energy source.

Q. Right.

A. And I don't necessarily have an opinion as to whether that would generate a renewable energy credit or not.

Q. Oh, well, then that's very helpful for the clarification, because a renewable--because for purposes of RECs under state law, doesn't the state have authority to designate what will be a renewable energy source?

A. Yes, it does.

Q. Okay.

A. It has.

Q. It has, and under this section, it has designated the cogen QF as a renewable energy source. That's the point of subsection (10). It designates a cogen QF as a renewable and when the power comes out of that cogen, it is an unbundled certificate.

A. I don't--are these questions I'm supposed to respond to, or testimony?

Q. I'm supposed to get your--I'm walking you through why it's your opinion that the REC automatically goes with QF power. I don't think that's permissible under Utah law. The way I'm reading this, that's just not the case.

A. I don't see anything in this section that speaks to ownership. It's--it's defining what a renewable energy certificate is, but there's nothing in here, in my opinion, that speaks to who owns that.

Q. Well, if it's unbundled and all you're buying is the energy for your avoided costs, then why should one assume that you're getting the REC with it?

A. We don't assume that we're getting the REC with it. And that's the very point of this proceeding. We're trying to determine who should get the REC once it's generated in that initial instance.

Q. Okay.

A. We don't make that assumption. We are requesting that this Commission adopt a policy that states that the REC will go to the Company and its customers.

Q. And I've asked you--we've read the PURPA policy and we've read the state policy and I've asked you to say why is it--better serves both policy to go with your proposal than to say the REC stays with the generator, and you can't answer the question. So I'm saying not only--

A. Is that a question?

Q. --does your policy--does your policy not conform to Utah law, but neither does your proposal.

Now let's move on to look at what you've cited in support in your rebuttal testimony.

THE WITNESS: Mr. Clark, I'm having a bit of difficult time interpreting what's a question and what's a statement. And I'd like to be responsive.

THE HEARING OFFICER: I think you're doing well interpreting what's a question and what's a statement. All you have to do is respond to questions.

BY MR. EVANS:

Q. Let's look for just a minute--

THE HEARING OFFICER: Mr. Evans, it would be helpful if you--

MR. EVANS: I will.

THE HEARING OFFICER: --if you can characterize what you--what you are verbalizing as a question.

MR. EVANS: I will give it a shot. I will try to--

THE HEARING OFFICER: Thank you.

MR. EVANS: Thank you for that.

THE WITNESS: And I'd like to answer one of those questions regarding my opinion of policy that you state I refuse to answer. And--

BY MR. EVANS:

Q. Okay. I'll ask the question again.

A. That would be great. Thank you.

Q. If you want to give an answer to it, I'll ask the same question as before.

A. Okay.

Q. We read the policy behind the purchase obligation of PURPA and we've read the policy behind the purchase obligation under state law and I've asked you which better serves that policy, for the Commission to determine that the REC stays with the QF generator or that PacifiCorp gets it for nothing more than paying the avoided cost of the power. Which better serves the policy?

A. It's in my opinion that the Company's recommendation does serve that policy.

Q. Better? That wasn't--

A. Yes.

Q. That--

A. That's why that's our position, yes.

Q. Okay. Can you explain to me why?

A. It's--the customer has the purchase obligation as part of PURPA and that's what provides the incentive or that's what provides the encouragement. And it is our position that because the customer owns that purchase obligation and has that purchase obligation, that the customer should also get the REC, and that's good policy.

I will further elaborate on that. This is the Company's recommendation on policy. And this, more than most issues that come before this Commission, is truly a policy issue. And in my experience, having gone through a similar proceeding to this one in Wyoming and in Idaho, it truly is a policy issue. And in Wyoming, the Commission made a policy determination. And they said that our policy is better served by having all RECs from QFs go to the Company and its customers for the benefit of customers.

Idaho, with the same set of facts before us, made the determination that it benefits customers and developers, and they said we'll split them 50/50.

We've seen California say they go to the customers for use of meeting the RPS. And so I would say I'm unqualified and not in a good position, perhaps, to set policy that is more in the hands of this Commission. And so the Company's providing a recommendation and asking that the Commission implement it.

Q. Okay. Thank you for that.

And you're saying that the Commission should look to Wyoming and Idaho and California as support for that kind of policy being implemented here?

A. I won't presuppose what the Commission should look for in making their decision, but I offer that up as an example of how it truly is a policy decision that each commission will make.

Q. Isn't the Commission’s policy always constrained by the law?

A. Yes.

Q. Do you know whether the law of Wyoming has a statute that provides for RECs, the creation of RECs?

A. I do not know.

Q. You don't? It doesn't. Do you know whether the law of Idaho has a statute that provides for the creation of

RECs?

A. I don't know that either.

Q. Weren't you in the Idaho proceeding?

A. Yes, I was.

Q. Let's mark this as KUC/Tesoro Cross Exhibit No. 2, would it be?

Let me ask you if you recognize what this is.

A. This is the order on reconsideration in Case No. GNR-E-11-03 before the Idaho Public Utilities Commission.

Q. And we've excerpted pages out of it, and this is only pages 9 and 10 out of that order, right?

A. One, 9, and 10, yes.

Q. One, 9, and 10. I put the caption on it so we'd know what it was.

Beginning on page 9, would you read some of this? And you can avoid reading the citations, but I want to get the Commission's reasoning and I want to follow up on response to something you said about Idaho law. "As the Commission noted"--I'll begin at the bottom of page 9--"As the Commission noted in its final Order No. 32697: About half of the states that have adopted RPS programs allow utilities to use [RECs] to meet their RPS requirements." Have I read that correctly?

A. Yes.

Q. And then would you read the indented section that is quoting--that the Court has quoted there? Begin with "RECs are tradable." Please read that now.

A. "RECs are 'tradable certificates . . . that correspond to a certain amount of renewable energy generated by a third party.' Generally speaking, RECs are inventions of state property law whereby the renewable energy attributes are 'unbundled' from the energy itself and sold separately. The credits can be purchased by companies and individuals to offset use of energy generated from traditional fossil fuel resources or . . . to satisfy certain requirements that [utilities] purchase a certain percentage of their energy from renewable resources."

Q. Do you agree with that statement?

A. Yes, I would.

Q. Okay. Now, read--now, read down below where the Idaho Commission says, "In its prior final order."

A. "In its prior final order, the Commission noted that the parties agreed the Idaho Legislature has not implemented a RPS program nor has it enacted any statute addressing the ownership or allocation of RECs. The Commission observed that it has stated on several"--

Q. Go ahead.

A. --"previous occasions that the 'State of Idaho has not created a REC program, has not established a trading market for [RECs], nor does it require a renewable energy portfolio standard."

Q. Okay. Thank you. So I think this is the Idaho court saying that Idaho doesn't have any law establishing the creation or treatment of RECs, does it? My question is, why would you think that it would be helpful for this Commission to look to an Idaho decision for its policymaking when Idaho's law is nothing like Utah's law?

A. Well, backing up to the first question-- kind of question you asked, later on in this very order, this Idaho commission said that RECs are created as part of the generation of QF power and that it's just and reasonable and in the public interest that those RECs are split between developers and the utility.

Q. I understand that, but Idaho's not constrained by any statutory law, are they?

A. I think that would be a legal opinion.

Q. I think it says so right here, doesn't it? There is no statutory law in Idaho that they have to observe. Why should the Commission look to what Wyoming and Idaho have done when they don't have laws--and California law, do you know whether it's anything like Utah's law?

A. Well, let me answer your first question there. Why should this Commission look to what Idaho and Wyoming have done? I think I go back to what I stated, which again, if you were to take excerpts from this statement in the exact order, you would see where the Idaho Commission said this is good policy, it's just and reasonable that the RECs be split between the

Company and its customers and developers.

Q. But you--Mr. Clements, the Legislature has stated the policy of this state, haven't they? Let me give you one more thing, and then I'll stop.

I apologize for not having copies for everybody. I don't intend to introduce this as a cross exhibit. This is a copy of the decision of the Commission's order in the matter of the complaint of Cottonwood Hydro, LLC, v. Rocky Mountain Power, Docket 10-035-15. And I want you to read what the Commission--this Commission's policy has been, how they have applied the Utah law in this jurisdiction to the unbundling of RECs.

On page 11--and let's back up a little bit, because on page 10, if you look at the bottom, it says, "Order." This is the Commission's order, right, you're about to read from? Go ahead. Read us No. 1, please.

A. "The output of a generator of renewable energy contains two distinct commodities: The power generated by the facility itself and (2) the environmental attributes of that power, i.e., RECs. Those commodities can be severed."

Q. Thank you. Do you believe those commodities have value?

A. I do believe RECs have value in certain instances, yes.

Q. Okay. Go ahead and read the second one, then, please.

A. "Unless provided for otherwise in a contract, the RECs remain with the generator of renewable energy and may be sold and valued separately from the energy produced or retained by the generator of the REC."

Q. Okay. Thank you. Do you know whether--do you know what Kennecott and Tesoro do with their RECs?

A. I do not, no.

Q. You don't know whether they have found a market for them?

A. I do not.

Q. Do you know whether they use those RECs to offset some environmental requirements in other areas of the country where they have operations?

A. I do not know.

Q. So you have no idea of what the value of a REC is to Kennecott and Tesoro, do you?

A. I do not, no.

Q. But the proposal of the Company is that it's good policy for the Company to buy the power at the avoided cost and get the REC for free?

A. Again, I would characterize it as getting the REC for free. I would characterize it as an attribute that comes with the purchase of capacity and energy. That's how I would characterize our position.

Q. Well, the Commission has said it differently. It said it's severable.

A. Yes. Just because it's separable doesn't mean it can't be rebundled. It doesn't prohibit it from coming with the energy. All they're saying here is you're not prohibited from separating off the REC.

And again, as I mentioned in my testimony and, again, in my summary, the Cottonwood Hydro order was a contract dispute, and part of the Cottonwood Hydro order that is very relevant and important here is, "Unless provided for otherwise in a contract . . . ." And that's really what the Company's recommendation is: Let's have explicit contract terms that state, Here is who owns the RECs.

Q. So is it--is it the Company's position, then, that the parties can freely negotiate the ownership of the REC by contract?

A. Up until this point in time, that has occurred on occasion.

Q. Is that the Company's proposal in this case?

A. No, that's not the Company's proposal in this case.

Q. Oh, you're going to compel that REC to go by contract? Is that the idea? You're going to compel--you're going to ask the Commission to approve a contract that compels the QF to sell that REC for no value, right?

A. No.

MS. HOGLE: Objection. Assumes facts not in evidence. I mean--

MR. EVANS: I think that's the proposal.

MS. HOGLE: --he already testified that this proceeding is to set policy, and that is the Company's recommendation.

MR. EVANS: I have no more questions. Thank you, Mr. Clements, for your patience.

THE WITNESS: Thank you.

THE HEARING OFFICER: Any questions for Mr. Clements?

Oh. Any redirect?

MS. HOGLE: I don't have any. Thank you.

THE HEARING OFFICER: Mr. Clements, you're excused.

THE WITNESS: Thank you.

THE HEARING OFFICER: Thank you.

Is there anything further from the Company, Ms. Hogle?

MS. HOGLE: The Company rests its case. Thank you.

MR. SIMON: Commissioner Clark?

THE HEARING OFFICER: Yes.

MR. SIMON: I'm sorry. If I may, Dan Simon for Scatec North America. There were two exhibits we had used with Mr. Clements I'd like to go ahead and move into evidence now. I don't think I did that before Scatec Cross-Examination Exhibit 1 and 2.

THE HEARING OFFICER: Any objection?

They're received. Scatec Cross Exhibits 1 and 2 were admitted into evidence

MR. EVANS: Mr. Commissioner, I would like to do the same. We have submitted KUC/Tesoro Cross Exhibit 1 and 2. I would ask that they be received.

THE HEARING OFFICER: Any objection?

They're received. KUC/Tesoro Cross Exhibits 1 and 2 were admitted into evidence

THE HEARING OFFICER: Ms. Schmid.

MS. SCHMID: The Division would like to call its first witness, Dr. Abdinasir Abdulle.

THE HEARING OFFICER: Thank you. And for your planning purposes, I think we'll have Dr. Abdulle take the stand, be sworn, offer a summary, and then we'll recess.

MS. SCHMID: Thank you.

THE HEARING OFFICER: Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. ABDINASIR ABDULLE, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MS.SCHMID:

Q. Good afternoon.

A. Good afternoon.

Q. Could you please state by whom you are employed and your business address, for the record?

A. I'm employed with the Division of Public Utilities, for which I am here to testify in representation of. And my business address is right here, Heber Wells Building in Salt Lake.

Q. Thank you. Did you prepare exhibits in this docket and cause them to be filed?

A. Yes, I did.

Q. And they are Exhibits DPU 2D, DPU 2R, and DPU 2SR with exhibits?

A. Yes.

Q. Do you have any changes or corrections to those exhibits?

A. Yes, I do. On my rebuttal testimony, page 4, line 76, there is a number there, 60.2 percent. That is a typo and should be 66.2 percent instead.

Q. With that correction, if I were to ask you today the same questions that were asked and answered in your prefiled testimony, would your answers be the same?

A. Yes, they would.

Q. Thank you. Do you have a summary to provide?
A. I do.
Q. And if I may, I have copies of a summary of his testimony that I can distribute. And if you would like, we can mark this as DPU Hearing Exhibit 1 and ask that it be admitted or just have it for reference during his summary presentation.

THE HEARING OFFICER: Thank you. Please proceed.

THE WITNESS: Good morning, or good afternoon, whichever way, Commissioners. I submitted a couple of--direct, rebuttal, and surrebuttal testimony in this proceeding.

The main objective of this proceeding--
the main objectives of this proceeding are to reexamine the avoided cost methodology for renewable resources larger than three megawatts and decide on issues pertaining to RECs, particularly the ownership of RECs, and whether the qualifying facility should have--should have the opportunity to buy back the RECs.

Currently, there are two separate methodologies for calculating avoided costs for wind QF resources larger--larger than three megawatts. The market proxy method, which is applicable to wind QF resources up to the IRP level, and the Proxy/PDDRR method, which is applicable to QF in excess of the IRP target level.

Regarding the avoided cost methodology, the

Division believes that, under the current conditions where the Company already satisfied the IRP target for wind, the current market proxy is outdated, and the current IRP does not include cost-effective wind resources in the preferred portfolio. The proxy method would not produce avoided costs that would be in the public interest. Furthermore, the Division believes that the market proxy has--the market proxy method is inherently flawed, as I explained in my rebuttal testimony. Therefore, the market proxy method should not be allowed in this proceeding and should not be reintroduced any time in the future.

The Division agrees with the Company that avoided costs of all new QFs exceeding three megawatts should be calculated using the Proxy/PDDRR method with updated capacity and--
with updated capacity and integration costs.

However, the Division disagrees with the Company in the methodology that should be used to calculate capacity contribution of wind, solar, and integration costs for solar.

Though in my direct testimony I did not oppose the Company's calculation of capacity contribution, the direct testimonies of other parties persuaded me to conduct further research on the issue. Based on this additional research, the Division proposed in its rebuttal testimony that, if data were available, a reliability-based method such as ELCC should be used. Whereas the data may not be available or where the computation is overly burdensome, the Division proposes the use of Capacity Factor Approximation method.

However, I recognize that the Commission needs to determine a capacity value for renewable resources at least on an interim basis. Therefore, the interim--for the interim period, the Division proposes a wind capacity contribution in the range of 8.72 percent to 12.03 percent within a midpoint of 10.4 percent. For solar, the Division proposes a capacity contribution of 68 percent for PV systems with fixed axis and 84 percent for PV systems with tracking capacity--capability. These values are NERC estimates specific to Salt Lake City.

To resolve the capacity value issue, the Division recommends that the Commission hold two or three conferences, technical conferences, in which parties make presentations. Parties can then file comments on the information presented in the technical conference and the Commission could make its decision based on these comments.

Regarding that integration costs, the Division agrees with the Company--Company's proposed wind integrated costs. However, since solar energy is more regular and predictable than wind, the Division proposes an integration cost of 50 percent of wind integration cost for peak- oriented solar resources and 65 percent of wind integration cost for energy-oriented wind resource.

There were other adjustments to the PDDRR method suggested by other parties. These adjustments include risk-associated costs and other environmental benefits. The Division believes these costs are captured in the IRP as the benefits--environmental benefits are captured in the RECs. Adjusting avoided costs for these costs and benefits would violate the ratepayer indifference principle. Therefore, the Division recommended that these adjustments--additional adjustments should not be allowed.

On the issue of RECs, the Division believes that renewable generation--generators produce and sell two different products: generic power, which trade in the power market, and the RECs which trade in the REC market. PURPA contemplates the purchase of the generic power and not the RECs. Hence, the Division's position is that since the PDDRR method does not compensate the developers for RECs, the RECs should remain with the developers.

And that concludes my summary.

BY MS. SCHMID:

Q. I have just one clarifying question. You talk about a integration cost for energy oriented solar resources. Is it true that what we propose as 65 percent of wind integration costs for energy oriented solar resources?

A. Can you say it again?

Q. When we were talking about solar resource integration costs, is the Division proposing that 65 percent of wind integration costs for energy oriented solar be paid?

A. Yeah.

Q. Okay. And then 50 percent of wind integration costs for peak-oriented solar resources?

A. Correct.

Q. Thank you.

And one more clarifying question: With regard to the solar integration costs, is it the Division's position that the 65 percent and 50 percent should be ordered on an interim basis?

A. Yes.

MS. SCHMID: Thank you. With that, would the Commission like me to mark and move the admission of Dr. Abdulle's summary of testimony?

THE HEARING OFFICER: As I've followed it, it was virtually identical to what we'll have transcribed in the record, so I don't perceive a need to do that. Do--but it's helpful to have, thank you, as a reference.

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

THE HEARING OFFICER: Off the record.

On the record.

MS. SCHMID: I am not sure that I requested that Dr. Abdulle's testimony be admitted as evidence with the accompanying exhibits. If I did not, I would like to do so at this time.

THE HEARING OFFICER: Is there any objection? They're received in evidence.

MS. SCHMID: With that, Dr. Abdinasir Abdulle is available for questions and cross-examination from the Commission.

THE HEARING OFFICER: Thank you. We'll be in recess until 15 minutes to 3:00.

(Recess taken, 2:36-2:48 p.m.)

THE HEARING OFFICER: On the record.

Ms. Hogle, do you have cross-examination?

MS. HOGLE: I have no cross for Dr. Abdulle.

MR. McDONOUGH: I have nothing, Commissioner.

MS. HAYES: I have nothing.

MR. DODGE: No questions.

MR. SIMON: No questions.

MR. DODGE: You scared everybody.

MS. SCHMID: Mr. Evans seems to have stepped away.

THE HEARING OFFICER: We'll be off the record for a moment.

(A discussion was held off the record.)

THE HEARING OFFICER: Question for-- let's go on the record.

Mr. Evans, do you have questions for the witness?

EXAMINATION

BY-MR.EVANS:

Q. Dr. Abdulle, I--thank you, Commissioner. I do have one question. And that is, in your rebuttal testimony, at line 54, you responded to Mr. Brubaker's request that the Division help verify the Company's calculations and avoided costs?

A. Line?

Q. Line 355 in your rebuttal.

A. Okay.

Q. And our request--and let me iterate that it's contained in your testimony, it's repeated there, so I'll read from your testimony at line fifty--358 in your rebuttal, where you say, ". . . Mr. Brubaker stated"--this is what Mr. Brubaker's request was--

"'if the recipient"-- that would be Kennecott and Tesoro, of information provided to them by the Company--"'is unable to verify RMP's avoided cost calculations, it should be able to seek verification of the results from the Division.'" Have I read that correctly?

A. Yeah.

Q. And then your response was basically: The Division already performs those calculations and we filed them quarterly with the Commission; is that correct?

A. Yes.

Q. And were you here today when Mr. Duvall said he couldn't find those calculations in the quarterly report that the

Division files with the Commission or with--the Company files with the Commission?

A. I heard him stated--he said he couldn't find what?

Q. He couldn't find the profiling of the avoided cost down to monthly high load and low load hours in the report that the Company files quarterly with the Commission?

A. Yes.

Q. Would you--would you agree that those numbers are not in that report?

A. Yes, they are not in that report.

Q. Thank you. So that if we need the Division's help in verifying those numbers, we're in negotiations on a QF contract, would the Division be willing to help us verify those numbers?

A. The Division is willing to help anybody who seek--who is seeking help to get the high numbers and give the proper idea to the Commission. However, the Division would not prefer to go into a contracting process early enough in which they would have to decide about we are willing to help provide any help we can do.

Q. Well, when the contract is ultimately filed, the Division reviews it, don't you?

A. Yes, we do.

Q. Do you look at how these--how these monthly and hourly numbers have been derived from avoided costs?

A. I believe so. Though I am not the one that does that, but I believe so. We do that. We do number on everything over there.

MR. EVANS: All right. Okay. Thank you. No more questions. Thank you.

THE WITNESS: You're welcome.

THE HEARING OFFICER: Thank you.

EXAMINATION

BY-THE HEARING OFFICER:

Q. Dr. Abdulle, I have a few questions for you. First, regarding the circumstance where a cost-effective renewable resource is present in the utilities least-cost/ least-risk IRP--when that's the case, does the Division propose using the next deferrable thermal plant or renewable resource as the proxy for determining the avoided cost?

A. The Division always--in our testimony, we propose the use of the thermal resource, which is the next deferrable resource in the IRP. However, in obtaining that, the next deferrable IRP resource should be the one used in the calculations by IRP, the avoided cost.

Q. And would you summarize for me your reasons for that approach--could you relate your reasons to the characteristics of the two types of resource?

A. If I understand the question right, here is--the IRP--we're providing a renewable resource, we're trying to avoid the highest-cost alternative. That was already-- that's what we are trying to defer. We're not saying it has to be thermal or it has to be here or it has to be there. We're saying, like, whatever in the highest-cost resource is the one that should be--what do you call?--deferred.

Wind would have a better characteristic, similar to--if we're bringing wind, replacing with wind, would have better characteristics and easier to calculate the avoided costs simply because the capacity factor--capacity contribution would not be--needs to be calculated. All this methodology will not be there. However, if it's not the least costing, then it should not be handed out.

On the other hand, I personally think that when wind resource is there, it's not wind resources that will be replaced. It will be running whenever the wind comes and it will--the Company will be turning up or down some other resource other than wind.

And that is my answer, if I understand the question right.

Q. Thank you. I have a question in a different area for you. Under the circumstance where we have planned resources that are not least-cost/least-risk--in other words, resources that are present in the plan to meet, for example, RPS obligations in other jurisdictions--I think you're recommending in that situation that--that the Commission should study how to--how to address that circumstance. Is that accurate?

A. Uh-huh (Affirmative).

Q. Do you have a view of what the Division--or does the Division have a position as to what the Commission should do in the interim period while that issue is being evaluated?

A. No, nothing other than what we already proposed as the interim solution. But in the case of those kind of resources being there, knowing that they will be changed on what defined the dispatch characteristics of the system, we did not exactly know how to do those, and that's why we're saying, like, it has to be studied further.

Q. Now, addressing the situation where--or the conditions where there's no cost-effective renewable in the IRP, how are capacity values--
how do you recommend capacity values be estimated for a wind renewable?

A. I base it on the PDDRR method. Capacity value? Is that what he said?

Q. Yes.

A. Price contribution?

Q. Yes.

A. Well, in the case of price contribution, our recommendation was that the ELCC--the thing is, there is a probability, a chance--

THE REPORTER: Sorry. Could you repeat that?

THE WITNESS: There is a chance of loss of load all the time. And a method that really accounts for that possibility of loss of load needs to be used on the ELCC was what we thought was the most appropriate one, if we have the data for it--and if not, the one that fit that approximate--is the Capacity Factor Approximation method.

BY THE HEARING OFFICER:

Q. You said the ELCC is the one--

A. Yes.

Q. --to be used?

How does your approach in this area differ from Mr. Falkenberg's? As I read them, they seem similar to me, but the results are different, and so can you explain the different outcomes for me?

A. Yes. In the direct testimony of Mr. Falkenberg that was completely different than what we're thinking of. Another one, we discuss it most of the time. Mr. Falkenberg's methodology verbally indicates that he's trying to equate the reliability of the thermal resource with the reliability of the wind resource, for example.

And he went through the calculations using the Company data. However, the difficulty we had with the calculations was that it was like matching the hours properly, such that the wind contribution was based on a difference between wind plus thermal minus wind. So if those three-- all those variables are from the same hour, then the difference is simply the wind.

However, if they are not matched hour by hour, then the difference would not be only wind, but also a portion of thermal that would be displaced. So because of that, we did not--I did not endorse, agree with him. When I tried to match them, what I found out was that as we change the capacity reserve--the reserve margin, things were flying around very--too much variability was there so that you could not know what to rely on.

What the ELCC method has the advantage of--of being more robust and including factoring in the loss-of-load probability, the essence of the whole thing.

Q. Does that complete your answer?

A. Yes.

Q. Thank you. And from the Division's perspective, Doctor, how and when should the Commission determine the Company's planned IRP resources and--and identify cost-effective resources for the purpose of avoided cost determination? Should it be associated with the IRP and how should the update affect the--the Commission's process, and do you have any--any other ideas about how the Commission should approach the timing of evaluating avoided cost?

A. In relation to the IRP process?

Q. Right, or in relation to the Commission's management of avoided cost determination calculations.

A. I haven't thought about it, but I think--I don't know. The thing about the timing--when would be appropriate to--let me rephrase the question and see if I have answer. When the appropriate time for the Commission to determine avoided cost, is that what the question is?

Q. Yes. And initially I related it to the IRP process and the acknowledgment of IRP, I'll add to that, and the update process. Are all of those times when--when the Commission ought to be reexamining avoided cost or--or should it be some other time or should it be--

A. Seems to me--given the fact that we're talking about deferring some resources by including another resource, we need to have an idea--clear idea as to what the preferable portfolio of the Company is; i.e., when is the resource additions are taking place and stuff like that so that you know when to defer what. The timing of that is very important. So I don't think avoidable cost should be decided time-wise independent of the IRP.

Q. By IRP, do you mean an acknowledged IRP or--or the IRP filing of the Company?

A. I will say acknowledged IRP.

Q. Is every two years frequently enough, in your view, to provide valid avoided costs?

A. Given the rigor of analysis that goes into the IRP process and the fact that I think IRP and the avoidable costs be connected, I think two years would be good enough time, a reasonable time.

Q. In determining the avoided cost of a QF, is it preferable to use a planning assumption or the actual characteristics of the QF, in your view?

A. In determining an actual QF asking for a price, coming in, the actual calculation should be used of that because the whole thing depends on the actual rather than planning.

THE HEARING OFFICER: Thank you, Dr. Abdulle. Those are all my questions.

EXAMINATION

BY-CHAIRMAN ALLEN:

Q. Thank you. I have a couple of questions, Dr. Abdulle, that relate to my earlier questions on solar integration, and specifically you may have noticed that I mentioned the lack of data that has--in this case right before us. And I'm wondering, you presented--you present some of the only data that we have. You presented a chart in your direct testimony on the coefficient of variation between wind and solar. And I believe you said that you used Company provided data to create that chart. And if I remember right from when I took math from Leibniz 150 years ago, it seems that you're trying to compare the variation between a series, right, a series of series. I'm curious about the end sample and the substantive nature of this view. Did you compare one wind farm and one solar farm? Did you have 10, 15 data points in series? I'm just trying to get a feel for how much data there went into this analysis and this recommendation.

A. I don't remember, but how--I think we had the whole 500 load data for wind that the Company provided. And I think we had the same kind of the data that the Company provided, but I don't remember the sample size.

Q. Do you remember if these were nationwide sites and facilities or were they regional or do you remember where the data points came from?

A. I think the data points was the one that the Company simulated and used for their calculations.

Q. So given the fact that we lack a solar integration study in determining this, would you say that your coefficient of variation, your research into the data that you have, would that be a good proxy for what you would expect to come out of a study? Is it just a starting point? Is it kind of hitting a degree of reliability?

A. When we were looking at those--that calculation, what we were trying to see was how predictable solar resources are compared to wind. So it may not be the same number outcome, but we're still seeing that it's still--the result of data will also show that solar is more predictable as wind.

Q. And we have wind integration studies, so you consider that a good baseline to compare? In terms of the data, not the price, but the data?

A. I don't understand what you mean by the data.

Q. When you're comparing solar against wind--and wind seems to be the benchmark that some people have recommended--do you feel there's been substantial wind integration studies and results data that allows that to be a healthy baseline? When you look at that against the trend with wind, that's--because it's the only thing we've compared solar against--is that a--is that a good place to put that--that mathematical confidence that we compared to wind, and wind's a good, reliable benchmark because we had plenty of studies? That's what I'm asking. Is that your sense?

A. Under the current situation, I think, where we don't have real data for solar, I think that's reasonable. And that's what we did. We're looking at the regularity of the two. And based on that, we said this much percent of wind and this much percent of wind. I mean, when we're looking at integration costs of solar, we were looking at percentage of the integration costs of solar. So I think that's--my answer is yes.

CHAIRMAN ALLEN: Okay. Thank you.

THE HEARING OFFICER: Mr. Chairman, do you mind if I ask the--another couple of questions?

CHAIRMAN ALLEN: Go ahead.

FURTHER EXAMINATION

BY-THE HEARING OFFICER:

Q. Dr. Abdulle, do you mind if I ask a couple other questions? Thank you. Taking you back to the area of capacity value of wind renewable QFs when there's no cost- effective renewables in the--in the IRP, I think you mentioned that you're aware of studies where all the hours in a year are used instead of the 100 heavy-load hours. Am I correct about that?

A. The ELCC and those reliability basic method are using all the hours.

Q. I had in my mind that you--there was some studies that you referenced, but perhaps it was the methods that you were describing rather--
rather than other kinds of research.

A. I don't recall any of that.

Q. Thank you.

A. You're welcome.

MS. SCHMID: I--I do have a couple.

THE HEARING OFFICER: Ms. Schmid, please. Any questions based on ours? Yes.

FURTHER EXAMINATION

BY-MS.SCHMID:

Q. Commissioner Clark asked you questions about timing and review and things like that. Is it true that currently we review avoided costs on an--on a quarterly basis?

A. Yes, we do.

Q. And when we review the avoided costs on a quarterly basis, it includes changes in forward price curve and load forecasts and things like that; is that right?

A. That's correct, all other inputs that may change.

Q. So we are reviewing more often than just in the two-year IRP cycle; is that right?

A. Yes.

Q. And you are not proposing a change to what we do now, you are--is it true that you are proposing that we continue to do the quarterly reviews and also do the IRP and updates with regard to avoided costs?

A. Can you rephrase it again?

Q. Yes. So would you like the Division to continue doing the quarterly reviews as well as looking at avoided costs in the IRP process?

A. Yes.

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

THE HEARING OFFICER: Thank you. Doctor, you're excused.

Mr. McDonough.

MR. McDONOUGH: Yes, the Office would like to call Randy Falkenberg via telephone, so . . .

THE HEARING OFFICER: We will be off the record for a moment.

(A discussion was held off the record.)

THE HEARING OFFICER: Mr. Falkenberg, this is Commissioner Clark. Would you raise your right hand, please?

Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you.

Mr. McDonough.

RANDALL J. FALKENBERG, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MR.McDONOUGH:

Q. Mr. Falkenberg, this is Kevin McDonough speaking. For the record, would you please state your name and your business address?

A. Randall J. Falkenberg. RFI Consulting, Inc., PMB 362, 8343 Roswell Road, Sandy Springs, Georgia 30350.

Q. And would you please state your occupation and with whom you are employed?

A. Yes. I'm a utility regulatory consultant. I'm employed by RFI Consulting, Incorporated.

Q. Mr. Falkenberg, have you filed testimony on behalf of the Office of Consumer Services in this docket earlier this year?

A. Yes, I did.

Q. And specifically would that be direct testimony filed on March 29th, rebuttal testimony filed on May 15th, and surrebuttal testimony filed on May 30th?

A. That's right.

Q. Did you also file, earlier this week, a one-page errata to page number 1 of your surrebuttal testimony?

A. I did.

Q. Other than the errata that was filed earlier this week, do you have any changes to your testimony that was prefiled?

A. Well, I have one correction in my direct testimony on page 7 of my direct testimony at line 175.

Q. Okay.

A. Mr. Duvall testified earlier this morning regarding the situation with respect to Washington, and I also had a reference to that in my testimony. So the sentence that starts on line 175, beginning with the word further should be stricken. And then all the way to where the last word in the sentence is purposes. So those lines are--should be removed from the testimony.

Q. Thank you. Other than striking those lines from your testimony and the errata, if you were asked the same questions during this hearing today as were asked in the prefiled testimony, would your answers today be the same as the answers that were filed?

A. They would.

MR. McDONOUGH: Commissioner, I'd like to move for the admission of Mr. Falkenberg's prefiled testimony.

THE HEARING OFFICER: Any objections?

It's received.

BY MR. McDONOUGH:

Q. Mr. Falkenberg, did you prepare a summary of your testimony?

A. Yes, I did.

Q. Would you, please?

A. My name is Randy--I'm sorry.

Q. Go ahead. Thank you.

A. My name is Randy Falkenberg and I'm a witness for the Office of Consumer Services. I filed three pieces of testimony: direct, rebuttal, and surrebuttal. Major conclusions and recommendations concerning the remaining areas in this case that are still in dispute are as follows:

First, the market proxy method no longer produces reasonable avoided costs for large renewable QFs. The method was appropriate at a time when the capacity--Company was rapidly expanding its fleet of wind resources and when wind resources were expected to be part of the least-cost expansion plan. At present, neither condition is applicable. The Company has no immediate plans to add new wind resources, and the only such resources expected to be installed in the next five to ten years are included to meet renewable portfolio standards in other states. This conclusion remains unchanged from the time of my original filing to the present even after consideration of other parties' responsive testimony.

Second, the PDDRR method provides a reasonable basis for determining the avoided costs of renewable QF. I generally agree with the mechanics of the Company's proposed PDDRR method, including the way in which they apply the results of the 2012 wind integration study. However, the proposed integration cost of $4.35 per megawatt hour should be updated after the 2012 wind integration study has been fully vetted by the Commission in future proceedings or in the IRP.

Third, the Company provides little support for its assumption that wind and solar projects impose the same integration costs. I recommend the Commission require the Company to perform a solar integration study and update the avoided costs when results become available and that study has been vetted. In the meantime, I accept DPU's proposal to use 50 to 65 percent of the value for wind integration.

Fourth, for wind and solar capacity contributions, I pointed out some flaws in the Company's approach and provided some alternative estimates ranging from 13.8 percent to 20.5 percent. I recommend that ultimately one of the reliability methods documented in the National Renewable Energy Lab Report provided as an exhibit to the testimony of Utah Clean Energy witness Ms. Sarah Wright be used by the Company. Most of the parties appear willing to examine this approach through a subsequent process. Mr. Vastag lays out the OCS position on the Office's process recommendations in more detail.

Finally, in response to Utah Clean Energy's rebuttal testimony, I recommend that during the deficiency period, the payment rate for renewable QFs should be capped at the variable cost of the avoided unit, as is the practice for nonscheduled, nondispatchable, or nonfirm energy from thermal resources.

That concludes my summary.

MR. McDONOUGH: Mr. Falkenberg is prepared to answer cross-examination questions.

THE HEARING OFFICER: Questions? Ms. Hogle?

MS. HOGLE: I have none.

THE HEARING OFFICER: Ms. Schmid.

MS. SCHMID: None.

MS. HAYES: No, thank you.

MR. DODGE: No questions.

MR. EVANS: None here. Thank you.

THE HEARING OFFICER: I have a couple of questions, Mr. Falkenberg. This is Commissioner Clark.

THE WITNESS: Yes, sir.

EXAMINATION

BY-THE HEARING OFFICER:

Q. I want to address my questions to the situation of where there's a cost effective renewable resource selected in the Company's least-cost/least-risk IRP. Would the--would you recommend using the Proxy/PDDRR method to establish avoided costs in that setting?

A. Yes.

Q. And since renewable resources are primarily capital costs--and I assume you agree with that premise; is that true?

A. Yes, sir.

Q. So most of the cost avoided is contained in the proxy component of the Proxy/PDDRR method, would that also be true?

A. Well, I think that the best way to do it would be to take the capital cost of the renewable resource that's included in the--in this--in this study and use that to compute the payment rate once that resource comes on line. Prior to that, it would presumably be done using the GRID model if it's done now. So, for example, if you had a renewable that showed up in 2020, I would do the analysis based on the GRID up until 2020 and use that price of that new renewable from 2020 and beyond.

THE HEARING OFFICER: Thank you. That concludes my questions.

And that concludes everyone's questions. So is there any redirect, Mr. McDonough?

MR. McDONOUGH: There's no direct--no redirect.

THE HEARING OFFICER: Thank you.

Mr. Falkenberg, thank you. You're excused.

THE WITNESS: Okay. Thank you.

THE HEARING OFFICER: Mr. McDonough.

MR. McDONOUGH: The Office would like to call their next witness, Mr. Béla Vastag.

THE HEARING OFFICER: Would you raise your right hand, please? Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. Please be seated.

BÉLA VASTAG, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MR.McDONOUGH:

Q. Mr. Vastag, for the record, would you please state your name and your title?

A. My name is Béla Vastag. I'm a utility analyst for the Utah Office of Consumer Services.

Q. What's your business address?

A. This building, which is 160 East 300 South, Salt Lake City, Utah.

Q. Would you please briefly describe your job responsibilities and duties?

A. I'm utility--again, utility analyst with the Office. I've been with--with--for three years and my primary responsibilities include resource planning, resource acquisition, analysis, and transmission planning.

Q. Brief summary of your background?

A. I've got a bachelor's degree in physics with a minor in mathematics from Virginia Tech, master's of science in finance from the University of Utah. I've got about 25 years working in finance, budgeting and data analysis. Ten years, I've worked for state agencies in Salt Lake City and the state of Utah.

Q. And have you filed testimony on behalf of the Office regarding this docket?

A. Yes, I have.

Q. And what testimony is that?

A. I filed direct, rebuttal, and surrebuttal in this phase of the docket.

Q. Do you have any changes to that?

A. I do not.

Q. If you were asked those same questions today during this hearing that you were asked in the testimony that you filed, would your answers be the same?

A. Yes, they would.

Q. Have you prepared a summary of your testimony today?

A. Yes, I have. I have a brief summary.

Q. Please.

A. Again, my name is Béla Vastag. I work for the

Office of Consumer Services. I filed direct, rebuttal, and surrebuttal testimony in Phase 2 of this docket. The Office of Consumer Services recommendations that I provided in my testimony are summarized as follows--followed--excuse me. I need help with my reading.

(1) In determining the proper avoided cost pricing methodology for renewable QFs, the Office recommends that the Commission follow the guidelines from PURPA and from FERC regulations and guidance. Based on these guidelines, prices should include only the real actual costs avoided by the utility.

Number (2). We support the Company's proposal to use the Proxy/PDDRR method for avoided cost pricing for wind QFs in place of the current market proxy method. The market proxy method does not produce accurate avoided costs that meet purpose standard of ratepayer indifference. We support the use of the Proxy/PDDRR method for all renewable QFs.

(3) Because QFs enjoy the benefit of the PURPA mandate that utilities must purchase a QF's power, the Office asserts that the ownership of the renewable energy certificates, or RECs, generated by QFs should belong to the Company.

The Office asserts that REC ownership is a matter left to the states to decide and that it should be Utah state policy that these RECs remain bundled with the power, and flow to the Company. Accordingly, the Office recommends that the Commission require all PPAs, or purchase power agreements, signed with Utah QFs include a provision that the purchase of electrical power include the RECs generated by the QF for the benefit of the ratepayers.

And number (4), based on the evidence provided in this proceeding, the Office recommends that the Commission order the Company to calculate capacity values for renewable QFs based on a Commission-determined methodology. These values should be provided within 30 days of an order in this proceeding, and then parties should be allowed sufficient time to provide comments to the Commission before these values become final and effective under Schedule 38.

However, if the Commission is unable to decide on a capacity value methodology, the Office recommends a process where a single technical conference be held and--to allow parties to evaluate potential methodologies.

That concludes my summary.

MR. McDONOUGH: Thanks.

I don't believe I moved to have Mr. Vastag's testimony--prefiled testimony, admitted into evidence, and I would so move the Commission at this time.

THE HEARING OFFICER: Any objection?

It's received.

MR. McDONOUGH: I have no further questions and Mr. Vastag is available to take cross-examination questions.

THE HEARING OFFICER: Ms. Hogle.

MS. HOGLE: I have no questions.
MS. SCHMID: No questions.
MS. HAYES: I just have a couple.

EXAMINATION
BY-MS.HAYES:

Q. Can I direct you to your surrebuttal testimony, lines 52 through 56?
A. Okay.
Q. You say a QF has the freedom to sell its power to whomever it chooses; is that correct?
A. Correct.
Q. Are you saying that QFs operate in competitive markets?
A. No, I'm saying they--they can choose to sell their power to whoever they choose and not just the Company.
Q. In fact, hasn't Congress exempted utilities in certain areas from PURPA Section 210 requirement to purchase electricity from QFs when the utilities are able to prove that competitive markets exist?
A. That's correct. There's--there's a--there are certain requirements that define those competitive markets, and those are typically in the East.
Q. Are you aware of one of Congress's reasons for implementing the QF purchase agreement was to enable small power producers to sell electricity into otherwise noncompetitive

markets?

A. I'm not aware if the term "competitive" was part of the encouragement, but I agree with the other part of the statement.

Q. Okay. All right. And then just moving down slightly in your surrebuttal testimony, starting at line 59, you say, ". . . The Office asserts that it be state policy that ratepayers receive RECs generated by . . . [QFs] because ratepayers are forced to buy the QF's power"; is that correct?

A. That's correct.

Q. I'm assuming that by "forced to buy the QF's power" you mean forced to buy the QF's power at avoided cost rates; is that correct?

A. That would be the requirement of the law, yes.

Q. Okay. And under the Office's avoided cost pricing method, you would have the Company pay for energy and capacity, but not for environmental attributes as components of an avoided cost rate; is that correct?

A. That's correct.

Q. So is it the Office's position that ratepayers should receive RECs for free?

A. No. The avoided cost rates under PURPA do not address RECs, so RECs are outside the avoided cost pricing. And the Office's position is that the--the mandatory purchase obligation of ratepayers is compensation to the QF for RECs.

Q. So where in the Office's testimony do you propose that ratepayers pay more than zero dollars for RECs if you're--if you're not proposing that they get them for free?

A. I believe in the--further in that testimony, I discuss that the requirement that--or the mandate that PURPA makes ratepayers buy the power is compensation for the RECs.

Q. Even though you say it's your position that avoided cost compensation should include no more than compensation for energy and capacity?

A. In--in PURPA, avoided cost as defined by PURPA, and FERC regulations, that's correct.

Q. Right. So there's no compensation for environmental attributes within that calculation?

A. According to FERC guidance, there may not be. And I don't think in Utah that there are state requirements that require compensation for those environmental attributes.

Q. Do you agree that RECs have value?

A. I'm aware that RECs can be bought and sold, so obviously must have value.

MS. HAYES: All right. No further questions.

MR. DODGE: No questions.

THE HEARING OFFICER: Mr. Simon.

MR. SIMON: No questions.

THE HEARING OFFICER: Mr. Evans.

MR. EVANS: I know it's getting late, but if you'll indulge me, Commissioner Clark, I do have some questions for the witness.

THE HEARING OFFICER: So long as they're questions.

MR. EVANS: I will try to keep them to questions.

EXAMINATION

BY-MR.EVANS:

Q. Let me ask you: Were you here this morning when Mr. Clements testified about this issue of RECs?

A. Yes. I've been here all day.

Q. Can you tell me how your position differs from Mr. Clements' position on what the policy of Utah ought to be with regard to the issue of RECs?

A. I don't think--I'm not in the position to define the Company's position. I can tell you what the Office's position is.

Q. You can't tell me how it's different than the Company?

A. I'm--I'm reluctant to make a conclusion on how--how the Company's policy--or position differs from us.

Q. All right. Fair enough. Fair enough. Let me ask you this: Have--you have--you have background in mathematics and physics and finance; is that right?

A. Right.

Q. No training in law?

A. (Moves head up and down.)

Q. Or political science?

Is it--is it your view or do you have a view about whether the policy that you're advocating here complies with Utah law?

A. It is our--my view or--and the Office's view that it's not clear whether Utah law makes a determination on the ownership of RECs. So that is why we are asking the Commission to set a policy that those RECs follow the flow of energy to the ratepayer.

Q. Hasn't the Commission already done that in the Cottonwood Hydro case? You weigh--the Office weighed in and filed a recommendation in Cottonwood Hydro; isn’t that correct?

A. That's correct. As far as I understand, it was consistent with our current position.

Q. Yes. But didn't the--didn't the Commission order in that case that RECs were--
well, I think we've got this, don't we, in the record already? Did I make that a cross exhibit?

THE HEARING OFFICER: I don't think so, Mr. Evans, but I can assure you I know what our order says.

MR. EVANS: I don't think Mr. Vastag does. So if you don't mind, I'll put that in front of him and let him--again, I'll read it in this time.

BY MR. EVANS:

Q. From the Commission's order: "The output of a generator of a renewable energy contains two distinct commodities: the power generated by the facility itself and the environmental attributes of that power [that are], i.e., RECs. Those commodities can be severed." Now, is it--are you advocating that any--that something else is the law in Utah?

MR. McDONOUGH: I'll object to the extent it calls for a legal conclusion.

BY MR. EVANS:

Q. Well, I'm--I'm asking him--I'll go back to my original question, then. Do you know whether the policy you're advocating here complies with Utah law?

MR. McDONOUGH: If you know.

THE WITNESS: I don't know.

BY MR. EVANS:

Q. That was the question: Do you know? Do you know whether the policy you're advocating here is consistent with previous Commission decisions?

A. Those are two different situations under two different schedules, so I don't know if--if--if the earlier decision applies in this case.

Q. So the answer is you don't know whether the policy you're advocating is consistent with Commission decisions?

A. That's correct.

Q. Okay. All right. Let me--let me get to it, then, and maybe wrap this up because I know it's getting late. You heard the policy--the statement of legislative policy about why the purchase obligation was imposed on the utility by the Utah Legislature, didn't you? Do you want me to put that in front of you again?

A. Yes.

Reading from 54-12-1(2)?

Q. Yes, please.

A. "It is the policy of this state to encourage the development of independent and qualifying power production and cogeneration facilities to promote a diverse array of economical and permanently sustainable energy resources in an environmentally acceptable manner, and to conserve our finite and expensive energy resources and provide for their most efficient and economic utilization."

Q. May I approach?

So if, under Utah law, the policy is to encourage the development of independent and qualified power production and cogeneration facilities, which better serves that policy objective, to let the QF owner retain the REC or to compel the QF owner to transfer the REC to the public utility for no value?

A. Honestly I don't feel like I'm qualified to make that decision.

Q. But isn't that what you're advocating here in your testimony? That's what you're advocating.

A. Can you clarify that? I don't understand.

Q. You're saying that it should be the policy of the state of Utah that the REC goes with the QF power. And I'm asking you how that serves the policy that the Legislature has told us is the policy of Utah?

MR. McDONOUGH: I think you're asking him to speculate as to what the intent of the Legislature was in drafting this. He's answered the question. He doesn't know.

BY MR. EVANS:

Q. Okay. Fair enough.

Probe one other thing with you. In the Cottonwood Hydro case, the Commission uses the word "commodities," that the power is a commodity and the REC is a commodity, right?

A. (Moves head up and down.)

Q. Which--what do you think is meant by the term "commodity" in that situation?

A. I would view the definition of a commodity as something that can be bought and sold, traded.

Q. Owned? Can you own a commodity?

A. If you can buy and sell it, I would say you could own it.

Q. How is it any different from property?

MR. McDONOUGH: I'll object to the extent that's calling for a legal conclusion.

BY MR. EVANS:

Q. I just want to know in the general sense: Do you think it's different than property?

THE HEARING OFFICER: Objection is overruled given the qualification that he expressed in the question.

THE WITNESS: Honestly, this is outside of what I'm comfortable with my understanding. I'm not sure if I can say that it's the same as property.

BY MR. EVANS:

Q. Okay. Let's leave it at commodity, then. Are you comfortable with the word commodity?

A. Yes.

Q. Okay. And if I have a commodity that has value, should I be compelled--what reason can there be that I should be compelled into a transaction to transfer that commodity to you for zero value?

A. Well, I--if you're referring to the Office's policy to transfer the RECs to the Company for zero value, we disagree with that characterization because we think that the QF is being compensated by the--by the--our obligation to purchase the power, to be their customer.

Q. But we had that discussion this morning, didn't we? The purchase obligation under--under PURPA has nothing do with RECs. There is no REC on any PURPA obligation. The REC was created by the Utah Legislature years and years later. So if you're talking about the avoided cost that's paid for the qualifying facilities' power, that's different--it's a different commodity, says this Commission, from the renewable energy credit.

MR. McDONOUGH: Is that a question?

BY MR. EVANS:

Q. The question is, do you agree that what your proposal is is that you're transferring this commodity to the utility for zero value?

A. No, I disagree with that.

Q. Then is it your position that you're transferring it for the avoided cost?

A. No. The avoided cost does not include-- doesn't consider RECs.

Q. So if you're not transferring it for no cost, aren't you transferring it for some cost?

A. As I stated just a minute ago, we feel that the benefit that the QF has by being--you know, by--by being allowed to sell their power to a captive customer, in this case, the ratepayers of--
of Rocky Mountain Power, that that is sufficient compensation for the RECs.

Q. Okay. I don't want to go back to that one.

That's not what PURPA says. PURPA didn't contemplate the REC for the avoided cost, did it? The REC was not in that calculation for the avoided cost, correct?

A. Correct.

Q. Okay. All right. Have you looked to see whether--I'm now referring to your surrebuttal testimony at line 52 to 54--have you investigated to see whether there is a market for small renewable generators in the state of Utah apart from the public utility? Are there buyers out there for this power, do you know?

A. I can think off the top of my head of one renewable producer, which would be the--I believe it's the First Wind projects in the Milford area in-- in southern or central Utah, where they've sold their power directly to a buyer and not gone through the QF process.

Q. Yes, but they're not a QF, are they-- aren't they--isn't that a 500-megawatt facility by now? It's not less than 80, is it?

A. It's--it's been--I think it's been developed in several stages and they've been smaller amounts, possibly around 80 megawatts.

Q. Do you know whether it has ever had qualified facility status?

A. Well, the power producer, from what I understand, can opt to apply for QF status, or it could opt for other options or other ways to sell its power.

Q. But apart from Milford Wind, do you know of any other?

A. No, I'm not that familiar with the market in Utah.

Q. So--so Milford Wind is the only renewable producer you can think of that has found a market for its power in Utah without invoking the purchase obligation under PURPA?

A. I don't know if it's the only one. It's the only one I'm aware of.

Q. Okay. Thanks. Do you know who's the purchaser of that power from Milford Wind?

A. I'm not 100 percent sure, but I believe it's the State of California or organizations in the state of California.

MR. EVANS: Thank you, Mr. Vastag. I have no more questions today.

THE HEARING OFFICER: Redirect?

MR. McDONOUGH: I have no redirect.

THE HEARING OFFICER: Thank you, Mr. Vastag. You've excused.

Now, we have Mr. Brubaker and Ms. Yates who have some time constraints. I think we should hear from them if they're--unless there are other considerations of which I'm unaware.

MR. DODGE: I think that would be appreciated, Mr. Commissioner, thank you. So SunEdison would call Maura Yates.

THE HEARING OFFICER: Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.
THE HEARING OFFICER: Please be seated.
MAURA YATES, being first duly sworn, was examined and testified as follows:
EXAMINATION
BY-MR.DODGE:
Q. Would you please state your name, your business address, your employer, and your position for the record?
A. My name is Maura Yates. I'm the director of government affairs at SunEdison, LLC. My business address is 700 Lavaca Street, Suite 1430, Austin, Texas 78701.
Q. And your position?
A. Director of government affairs.
Q. Thank you. And who is SunEdison?
A. SunEdison is the second largest solar developer in the world, with 1.2 gigawatts of solar under management, an additional 2.3 gigawatts under development. We are currently attempting to develop solar projects in Utah under Schedule 37 and Schedule 38.
Q. Ms. Yates, did you prepare, sign, and cause to be filed in this docket on May 14, 2013, a 13-page document that you entitled, "SunEdison, LLC, Comments in Response to Direct Testimony"?
A. Yes, we did.
Q. Why did you call those comments and why were

they not filed until May 14th?

A. At the time, we had not retained counsel. And it was my understanding that comments--responsive comments or rebuttal comments were due at that date. I did sign the comments and in--with the hope that the Commission would consider those comments in this case.

Q. Do you wish to submit those comments today as your testimony in this docket?

A. Yes, I do.

Q. And do they represent your testimony here this morning?

A. Yes, they do.

MR. DODGE: I'd move the admission of what I would ask to be marked SunEdison Exhibit 1.

THE HEARING OFFICER: Objections?

MR. McDONOUGH: I'd object to the extent that the comments submitted do not comply with the scheduling order entered by the Commission in this matter, just for the record.

THE HEARING OFFICER: Thank you. Your objection's noted, but we'll receive--receive the comments.

SunEdison Exhibit 1 was admitted into evidence

BY MR. DODGE:

Q. Thank you.

And Ms. Yates, do you have a brief summary of your testimony that you'd like to provide?

A. Yes, I do. Good afternoon, Mr. Chairman, Commissioners. My testimony includes the following primary comments and suggestions regarding the Company's capacity evaluation as it pertains to solar: There are several-- several industry standard and appropriate ways to determine capacity value for solar. Most accurate and appropriate methods are probably the effective load-carrying capability, or ELCC; or the equivalent conventional power, ECP method, though those are complicated and data intensive.

A simpler, yet accurate and acceptable method is the Capacity Factor Approximation method, what we'll refer to as the CFAM. I interpreted Rocky Mountain Power's methodology as an attempt to apply the CFAM and pointed to several areas in the Company's interpreted application of the CFAM model.

In his surrebuttal, Mr. Duvall claims that he's not attempting to apply the CFAM, but rather a statistical approach called the exceedance method. Use of the exceedance probability is not the industry standard or, in our opinion, appropriate for determining capacity value. Given the importance claimed by PacifiCorp of tying the modeling back to reliability planning efforts, given its use of 100 high-load hours, and because I'm unaware of any other utility that uses a P-90 to calculate solar capacity value, PacifiCorp's approach resembles a Capacity Factor Approximation model. In effect--

THE HEARING OFFICER: Ms. Yates, could you slow down just a little bit, please?

THE WITNESS: Absolutely.

In effect, Mr. Duvall simply, in our opinion, blended two models and ultimately arrived at a value that is not aligned with the broad IRP resource portfolio efforts.

Mr. Duvall criticizes the ELCC and CFAM models as energy-based reliability models and claims that the exceedance probability method is capacity-based. His criticism is misplaced, in our opinion. All of the methods, including his, are derived from an hourly capacity factor calculation, which is inherently an energy-based kWh measure. The only difference is how many hours are used in the calculation. Mr. Duvall used 100 hours, which is far too few hours to consider.

Expanding his analysis from the top 100 high-load hours would be more appropriate from a valuation perspective and more beneficial from a resource planning perspective, that these are must-take resources. Note we are not advocating for use of 8760 data.

Further, in his rebuttal, he even states that when the top 100 high-load hours are used, that it is not energy-focused, it is only energy-focused when it is calculated for the entire year.

Additionally, all of the proposed capacity valuation methods are attempting to measure reliability. Mr. Duvall correctly notes that the meeting--that meeting the coincident peak hour load is important, but it is also important and valuable to ensure reliability across all high-load hours when the system is stressed. For this reason, looking at an exceedance probability of 90 percent, or a P-90 calculation for intermittent resources failed to attribute the appropriate value to resources during other hours--during the other hours when it is providing reliable, peaking capacity.

If the exceedance probability method is used, a P-50 approach would be more appropriate, as such an approach recognizes the resources available during many more peak hours than is recognized by the P-90 approach.

The Company has no real solar production data that's been recognized, so it has relied on ML PVWatts for historical PV generation. The use of historical estimated generation compared against actual PacifiCorp system load creates a series misalignment: comparing realtime actual data--what the actual load was at a specific moment--to an estimated average solar production for a system.

The major concern here is the PV production data. PVWatts uses typical meteorological year, or TMY-2, data. So on a hot, sunny day, for example, in the summer of August 2011, the Pacific system load will reflect the actual weather conditions, but the PVWatts data might reflect less sun based on the average historical years. This incongruence--this is incongruous and neglects to recognize the very direct relationship between hot summer high-load days and the actual aligned PV performance.

In the solar performance capacity value study in Mr. Duvall's testimony, PacifiCorp holds solar production constant over the five historical years. Not only is this unrealistic, but it also presents an incongruous relationship, again, between solar production and PacifiCorp system load.

My comments stated that PacifiCorp had failed to address for daylight savings time. Mr. Duvall claims that PacifiCorp did adjust for daylight savings time, although nothing in his individual testimony or exhibits stated or confirmed that. I still cannot confirm that this is correct when presented with the capacity value calculations from the original study. We see indications of calculation update in Figure 2 of his surrebuttal testimony, which indicates that the PacifiCorp load and PVWatts were adjusted for daylight savings or Pacific prevailing time; however, without knowledge of this in the original study, it remains unclear whether the presented capacity values in this study were accurately reflecting Pacific prevailing time.

When calculating capacity value, it's important to keep it localized--localized and specific to the region. The second figure of my page 6 of my filed comments shows that the capacity values vary greatly across the PacifiCorp system and are strongest in Utah. When PacifiCorp uses average solar production across five states, Utah ratepayers are harmed because the average capacity value is lower than the Utah capacity value. In Mr. Duvall's rebuttal testimony, he even cites how NREL suggests that it be a utility-specific calculation and stresses the correlation between local loads and local solar resources.

Further, it's SunEdison's understanding that while PacifiCorp plans on a systemwide basis, NERC reliability standards require them to maintain reliability at a local balancing authority level. Utah falls within PacifiCorp East Balancing Authority, so at a very minimum, the capacity value should be calculated based on the reliability standards for the balancing authority. So, for Capacity Factor Approximation Method, CFAM, this would require calculating the loss-of-load probability for the balancing authority in deriving solar capacity value off that regional loss-of-load probability.

In summary, any of the ELCC or CFAM models can produce reasonable results for calculating the capacity value of solar when run appropriately. To be run appropriately, however, the CFAM model must use real data, and local data when available, that is aligned with the actual system production data for the hour and day. If data is--real data is unavailable, it is not appropriate to use a five-year constant average over five days. Use of a P-90 exceedance probability is also inappropriate. It unfairly penalizes intermittent, renewable resources, and thus does not reflect their real contribution to the system.

If an exceedance probability approach is used, a P-50 or P-70 exceedance probability calculated on a localized basis should be utilized as it produces a much more fair measurement of the actual value the resource contributes during the high-load hours.

That . . .

MR. DODGE: Thank you. Ms. Yates is available for cross.

MS. HOGLE: I have no questions.

THE HEARING OFFICER: Ms. Hogle?

MS. SCHMID: No cross from the Division.

MR. McDONOUGH: Nothing from the Office.

MS. HAYES: Nothing.

MR. EVANS: Nothing from Kennecott/Tesoro. Thanks.

EXAMINATION

BY-CHAIRMAN ALLEN:

Q. Ms. Yates, welcome.

A. Thank you.

Q. I don't believe in your comments you address the solar integration constant which has been a concern of mine in my questions today, but I believe you have been here and you represent a solar company. One of my questions--I just want to give you the opportunity to answer the same question I asked to the Company while you're here: If we decide there's not enough data to create solar integration costs or set them at this time, what would be the advantages or disadvantages, as you see them, to deferring to a future day when we have more data?

A. So SunEdison would support the movement of a study to actually determine the actual value in solar integration costs. We recognize that there are integration costs associated with our resource, but we think it's important to have the appropriate and right integration costs. So in the near term, it would not impact our projects. In the long term, we would like to be part of the stakeholder process to make sure that the integration costs really reflect the costs of integrating our intermittent resource.

Q. Great. Do you have any feelings about the Division's 50 percent/65 percent approach? Would that be appropriate in the interim or would you rather just see it deferred completely?

A. I think if we're going to do it, we should do it right and we should perform a study rather than take an estimate as to what those appropriate costs are.

CHAIRMAN ALLEN: Thank you.

THE HEARING OFFICER: Any redirect?

MR. DODGE: No redirect. Thank you.

THE HEARING OFFICER: Thank you, Ms. Yates. You're excused.

Mr. Evans?

MR. EVANS: Thank you. Call Mr. Brubaker.

THE HEARING OFFICER: Please raise your right hand. Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. Please be seated.

MAURICE BRUBAKER, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MR.EVANS:

Q. Good afternoon. Please state your name and employment position for the record, please.

A. My name is Maurice Brubaker. I'm a principal and a president of Brubaker & Associates. My business address is 16690 Swingley Ridge Road, Chesterfield, Missouri 63017.

THE HEARING OFFICER: Mr. Brubaker, is your microphone on? It doesn't sound to me that it is, or it may not be close enough.

THE WITNESS: It was not. Thank you. Is that better?

THE HEARING OFFICER: Yes.

BY MR. EVANS:

Q. And are you the same Maurice Brubaker that has prepared and submitted, in this docket, testimony on behalf of

Kennecott Utah Copper and Tesoro Refining and Marketing Company?

A. Yes, I am.

Q. And that testimony includes your direct testimony marked as KUC/Tesoro Exhibit 1, rebuttal testimony as Exhibit 1R, with Exhibit 1.1R attached, your surrebuttal testimony marked as Exhibit 1SR, with Exhibit 1.1SR attached?

A. That's correct.

Q. And if I ask you the questions today contained in your prefiled testimony, would your answers be the same today as in your prefiled testimony?

A. They would.

Q. Do you have any corrections to make to it?

A. I do not.

Q. Have you prepared a summary of your testimony for the Commission?

A. I have.

Q. You may present it now.

A. Thank you. Chairman Allen, Commissioners Clark and LaVar, thank you, first of all, for letting me appear a little bit out of order because of my schedule problems. I'll be very brief.

My testimony covers two broad areas. First, avoided cost calculations. I agree conceptually on a high level with the Proxy/PDDRR method that Mr. Duvall has outlined in his testimony. I've not gone into the particular formulas, assumptions, or details of it, but in terms of a general approach to determining avoided cost with the objective of making sure that consumers are indifferent to the source of power purchased, I think that method is--is the appropriate one.

I also recommended certain practices and procedures to make the contracting procedure--or practice more open and transparent to the parties. There's a list of items at pages 5 and 6 of my direct testimony that's been the subject of some discussion already today. It essentially addresses division of models, data, and explanations.

And just to pick up on a point, we--we're certainly not trying to force people to take models that they don't want or don't need, but the basic point was people who want the information should have a way to gather it from the Company. And I think I heard the Company generally agree that that was the approach that they intended to pursue, so hopefully those issues have been pretty well taken care of.

Second issue that I addressed was the treatment of RECs. RECs, of course, are attributes that are detachable from the physical electricity generation. So there are really two--two products here available when QFs produce power from renewable resources: the electricity itself, which is a physical attribute, and the REC itself, which is an intangible attribute.

I think it's clear to me, anyway, that the QF output value equals the utility avoided costs that it can fetch, plus the value of the RECs that go with that electric energy. So we disagree with the notion that owners of QFs who produce renewable power and RECs to go with it should be compelled to turn over their RECs to the utility for no--for no value. I think if that's done, the end result would be that these QFs would be compensated at a level less than avoided cost, which I think is not appropriate.

And that concludes my summary.

THE HEARING OFFICER: Cross-examination for Mr. Brubaker?

MS. HOGLE: I have no questions.

MS. SCHMID: No questions.

MR. McDONOUGH: No questions.

MS. HAYES: No questions.

MR. DODGE: No questions.

MR. SIMON: No questions.

THE WITNESS: Redirect?

MR. EVANS: Thank you. No redirect.

Did I move for admission of exhibits?

THE HEARING OFFICER: I'm sure you did, but is there objection to receiving them?

They're received. KUC/Tesoro Exhibits 1, 1R, 1.1R, 1SR, and 1.1SR were admitted into evidence

THE HEARING OFFICER: You're excused. Thank you, Mr. Brubaker.

THE WITNESS: Thank you. Thank you very much.

THE HEARING OFFICER: Ms. Hayes, I believe that brings us to--

MS. HAYES: Thank you, Commissioner. Utah Clean Energy would like to call Ms. Sarah Wright as our witness.

THE HEARING OFFICER: Raise your right hand, please. Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. Please be seated.

SARAH WRIGHT, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MS.HAYES:

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

A. Sarah Wright. The business is Utah Clean Energy and the address is 1014 Second Avenue, Salt Lake City, 84103.

THE HEARING OFFICER: Ms. Wright, I think your microphone is off.

THE WITNESS: It looks like it's on. It's not. I apologize.

Did you get that?

THE REPORTER: (Moves head up and down.)

MS. HAYES: Did you file--prepare and file written testimony in this phase of the proceeding, including UCE Exhibit 4.0, 4.1, 5.0, 5.1, an errata to UCE Exhibit 5.1, and 6.0 and 6.1? And I would just like to clarify for the Commission and parties that Utah Clean Energy numbered these exhibits sequentially starting with where we left off in the first proceeding, which is why we start at number 4. So I apologize if that created confusion. And I'll return to my questioning for Ms. Wright.

BY MS. HAYES:

Q. Did you prepare and file that testimony?

A. Yes.

Q. If you answered the same questions today as set forth in your prefiled testimony, would your answers be the same?

A. Yes.

MS. HAYES: I now request that these exhibits be admitted to the record.

THE HEARING OFFICER: Objection?

They're received. UCE Exhibits 4.0, 4.1, 5.0, 5.1, 6.0, and 6.1 were admitted into evidence.

BY MS. HAYES:

Q. Did you prepare a summary that you would like to present to the Commission today?

A. Yes, I did.

Q. Please proceed.

A. Yes. Thank you, Commissioners. And I think of all the parties, I am asking the Commission and the utility and others to look at avoided cost in a different way. So I have a fairly substantial summary here.

So I'd like to thank the Commission and all the parties for investigating and working on revising the methodology for avoided cost for renewal qualifying facilities. Utah Clean Energy strives to create a cleaner, safer, more efficient, smarter energy future. The Public Utility Regulatory Policy Act, PURPA, is an important mechanism for enabling renewable energy development in Utah. Utah Clean Energy's interest in this docket has been to ensure that the cost avoided by renewable QF facilities are accounted for in the renewable--excuse me--in the avoided cost methodology.

I'm going to try it without my glasses.

This will help protect ratepayers from risks associated with rising and volatile fuel prices, future carbon costs, and the impacts of climate change on electricity generation.

Utilities, utility planners, utility regulators, and ratepayers are facing great uncertainty with respect to the implications and impacts of utility resource decisions. It's truly a time when Risk Aware Regulation is critical to protect ratepayers. Utilities are not at risk for rising and volatile fuel costs, carbon costs, or impacts of climate change on generation, but rather, ratepayers are on the hook for these costs.

Renewable QFs offer many risk-mitigating and cost-saving benefits to ratepayers. Utilities purchase electricity from renewable QFs through typically long-term power purchase contracts. Because energy resources such as wind, solar, and geothermal have no fuel cost and do not emit pollution or greenhouse gases, renewable QFs provide valuable long-term risk mitigation against rising and volatile fuel prices, environmental compliance costs, potential carbon regulation costs, and the actual costs associated with the changing climate, actual cost on generation and cost to consumers.

Therefore, the methodology for calculating avoided cost rates for renewable QFs should include these avoidable costs. Although avoided cost pricing explicitly includes compensation for avoided energy and capacity costs, these are not the only costs that a utility and ratepayer avoids by purchasing electricity from a renewable QF. It is Utah Clean Energy's position that FERC precedent allows avoided cost rates to include other real costs that can be avoided.

If the Commission wants to give renewables a chance to compete and bring their cost avoiding benefits to ratepayers, now is the time to get it right. Solar prices are at an all-time low and the federal investment tax credit for solar expires in 2016. The wind and geothermal production tax credit may expire at the end of this year. If we fairly value the costs that renewable QFs avoid in the avoided cost pricing methodology, these resources may be able to compete and bring benefits to Utah ratepayers.

The following is a brief summary of the many pages that I submitted on the risk. We have a fuel risk. And as I discuss in my testimony, natural gas prices are near--at an all-time low, and fuel and market price risk is asymmetrical, meaning that prices can't go much lower, but they can go significantly higher. These risks are exacerbated by other factors that are less well known: Increased supply of natural gas may lead the United States to export into the global market, which would have the impact of raising prices; there is an insufficient track record for fracking, but shale wells may deplete more rapidly than expected or the costs to recover additional gas over time may be greater than expected; or new environmental regulations could also increase costs. There has been quite a lot of concern about the fugitive emissions with natural gas, which could negate any sort of carbon benefit to natural gas electricity generation.

Utah Clean Energy is concerned that, given the current planning and modeling assumptions, the IRP is unable to recognize the long-term risk mitigation of renewable resources.

Furthermore, the IRP did not analyze the deterministic risk of a future that unfolds differently than assumed by the models. Approximately 95 percent of the non-DSM new resource additions in the preferred portfolio are front office transactions and new gas resources. Any of us that were working on energy issues in the early 2000s know that unexpected events can dramatically increase gas and energy prices above the forward price curve.

I also talked about the costs and risks associated with climate change and the costs associated with carbon regulation. I filed extensive testimony from recent governmental assessments on the impacts and costs of climate change. The Draft National Climate Assessment shows that Utah--you may remember this image from my testimony--that Utah and the upper Midwest are the two areas that are hardest hit by rising temperatures associated with climate change under all reduction scenarios. Diversification with carbon-free renewable energy helps to mitigate climate change impacts and the costs associated with carbon regulation.

No one rebutted the fact that climate change and carbon would impose costs, just that they are hard to quantify. Being hard to quantify doesn't make these costs irrelevant, and ignoring them does not result in ratepayer indifference.

I make the following specific recommendations on the avoided cost methodology: First, regarding the market proxy. If the Commission finds that in the IRP or future IRPs--if they include cost-effective renewable energy resources after a thorough view of costs and risks, then avoided cost rates for renewable energy QFs should be based on the proxy costs of a corresponding renewable resource. It is not necessary to base the avoided costs rates on the most recent RFP for that renewable resource, but the rate must be based on the costs of the same type of resource. For example, the cost of solar should be compared to the cost of solar and the cost of wind to wind, etc.

The IRP is updated every two years and the resource costs are refreshed as well, and I'd recommend that these costs be used for the proxy costs. I make one exception to this recommendation: Given that solar PV prices have dramatically decreased and given that the Company's costs in the 2013 IRP are higher than reported by the industry, I recommend that the solar proxy costs be determined by the most recently published industry data. And I included a source of this data information--of this information in my surrebuttal testimony. And this information is put out annually, so these numbers could be refreshed regularly.

Regarding the definition of the IRP target and the timing of the renewable energy acquisition, I believe that the Commission's 2005 order in Docket 03-035-14 is still in the public and the ratepayers' interest. Even if the next deferrable resource in the IRP is a fossil resource, if renewables are part of the least-cost/least-risk plan, then a market proxy or resource proxy method should apply. It is my opinion that acquiring--excuse me--renewable QFs sooner is in the public interest. And as I've outlined in my direct testimony, there are good reasons to acquire renewable resources earlier, including taking advantage of federal incentives--the PTC and the ITC--securing optimal resource sites and transmission availability and hedging against purchases and fuel price risk. Further, I believe that with my suggested modification of using a resource proxy for each type of renewable resource, such as solar is compared to solar, etc., that it helps meet the three conditions that were highlighted by the Division and in the Commission's order as necessary for using the market proxy.

If you compare wind to wind and solar to solar, the operating characteristics of that proxy plant will closely align with those of the QF being evaluated. And because renewable resources are highly modular and can be added in megawatt increments, you could closely match the megawatts of whatever renewable resource was put forth in the IRP as a cost-effective resource, when it is part of a cost-effective IRP resource plan.

Adding a renewable resource in the IRP plan earlier may dictate changes to system operation, but I'm not sure what the Commission meant by "significantly change." Many things change, plant addition and operation including changing mode, changing gas prices, market purchases, the economy, levels of efficiency achieved, so I can't speak to the significant impact, the word "significantly," you know, what the Commission meant by that.

But I--you know, I recognize that a renewable proxy method that compares the type of renewable to the specific renewable when they are part of a least-cost/least- risk plan is in the public interest.

So now I'll go on to the Proxy/PDDRR method. So if they're not part of the least-cost plan, I recommended modifications to the Proxy/PDDRR method. And the reason I did that is to try to account for some of those avoidable costs that renewables avoid that I mentioned earlier in my summary and extensively in my testimony.

And I explained in my testimony that avoided costs does not necessarily mean lowest, most stripped costs that the Company can estimate that it can avoid. Rather, avoided costs should be a reflection of actually avoidable costs, including costs that ratepayers would otherwise incur, based on the risk profile of the utility's resource procurement decisions in the absence of the QF generation. By offering renewable QFs the most bare-bones cost rate, which undervalues the risk mitigation, capacity and energy costs that these resources avoid, we are not offering renewable QFs a fair avoided cost, and we are further transferring risk to ratepayers, putting them on the hook for costs that the utility could have avoided.

I'll summarize my proposed changes to the

Proxy/PDDRR one at a time. Regarding the capacity value, I'd recommend that the Commission require the Company to perform the Effective Load Carrying Capability method or the Capacity Factor Approximation method utilizing loss of load probability, for the top 10 percent of load hours, consistent with the NREL paper attached to my direct testimony, and present its analysis and results at a technical conference. I request that the Commission then provide an opportunity for parties to review and comment on the Company's analysis and results before approving specific capacity values to use for avoided cost.

Regarding interim capacity values, I support the Division or the Office's recommendation for interim capacity values to use until this analysis is complete. And with respect to the Office's recommendation, it would have been their recommendation--I forget if it was in their rebuttal or surrebuttal.

I recommend that renewable QFs be compensated for their capacity contribution for each year of their power purchase agreements. The Company's heavily reliant on the market for its resource needs over the planning horizon, during its periods of so-called resource sufficiency and deficiency for both periods. And in effect, the Company is a constant period of resource deficiency. For example, even the addition of a combined cycle unit in 2024 does not change the level of the Company's reliance on front office transactions. So the distinction between periods of sufficiency and deficiency is not apparent. Therefore, while the Company is so heavily reliant on market purchases for capacity and energy, there should be an explicit capacity payment provided to QFs for the duration of the power purchase agreements to reflect the reliability benefits that QF resources. And while I realize that this is--the liability benefits of QF resources.

And while I realize that this is a change from current practice, renewable QFs are a physical resource. They provide a capacity value at a known, fixed cost for Rocky Mountain Power's ratepayers. They should be compensated for that value. The price of market purchases varies with supply and demand, and market purchases do not inherently incur--include a capacity payment. Therefore, I maintain that renewable QFs should be paid for this capacity contribution from the first year of the contract.

A renewable QF brings capacity value, and with that capacity value comes 20 years fixed energy prices. A market price based on the forward price curve does not offer a fixed capacity price or a fixed energy price. If prices are above the forward price curve, ratepayers pay, not the Company. And as I mentioned, these risks are a big asymmetrical risk, especially given the really low natural gas prices right now. Therefore, there's good reason to pay both energy and capacity for the QF.

Regarding the energy payment stream, given that the two GRID models do a differential displacement and look at what resources that--that energy source will displace, the QF should be compensated for the energy rate as it is right now, I found out, that are put forth in the two dispatch runs.

I'm supportive of a solar integration study. The Company should conduct a solar integration study. And I hope that they will take into account the new energy imbalance market and real time market transactions that will occur with that in this integration study.

And regarding RECs and paying for renewable attributes, UCE's position has always been that the utility is not entitled to RECs unless it pays for them; that is, RECs should not be bestowed automatically through avoided cost prices unless payment to the QF pricing specifically includes the cost of renewable energy attributes. Utah Clean Energy has not taken a position in this docket on what environmental attributes RECs cover. RECs should not be conveyed for free, as recommended by the Company and the Office. UCE recommended paying a carbon price adder to reflect risk mitigation benefits of renewables, but would refrain from taking a position on whether this would constitute sufficient reimbursement for the transfer of RECs to the utility.

I acknowledge that determining the costs that renewable QFs can avoid, given their zero fuel costs and zero emissions, is difficult, but the fact that it's difficult does not make these avoidable costs zero. It does not make the ratepayer indifferent to higher costs associated with fuel costs being in excess of the forward price curve or costs imposed by the environmental impacts or the costs imposed by regulation.

If we were certain that the forward price curve would--was correct, the Company would not have requested an energy balancing account or energy cost adjustment mechanism, and we would know what rates would be for the next 20 years. If fuel prices rise above the forward price curve, or if we have insufficient water to provide our planned hydroelectric resources, or if temperatures are such that our air-cooled units will work less efficiently, or if wildfires take down transmission lines, customers are not indifferent to these increased costs. These are all costs that renewables help mitigate. I understand it is difficult to get a value on these avoidable costs, but again, the cost to ratepayers is not zero.

Regarding the avoidable natural gas hedge value, in my direct testimony, I showed analysis that looked at costs of natural gas being just 25 percent higher than the forward price curve and how that would impact the price. I have also--excuse me--just since the year 2000, we have experienced the impact of natural gas prices being significantly higher than the 25 percent increase that we analyzed. I also suggested a method to look backward at fuel hedging costs.

If the Commission finds it too difficult to put a specific value on these avoidable costs, it is critical, at a minimum, to follow FERC precedent and allow and award the RECs to the QFs unless the Company specifically pays for the RECs and also to modify the avoided costs method according to my recommendations such that the QF is compensated for the full locked-in capacity value that it provides to ratepayers from the first year it was built and to pay the QF for the energy payment derived from the GRID runs.

In my surrebuttal testimony, I responded to the Division's position with an analogy, which I thought was a good one, that risk-associated costs are unknowable and they will not be incurred unless a risky event takes place. For example, the costs and risks of homeowners associated with flooding only occur if there is a flood or the homeowner buys flood insurance. Flood risk level depends on the location of your home. If your home is built in an area prone to flooding, it is likely you will incur these costs and if you're wise, you'll purchase flood insurance. Given the consensus among climate scientists and the costly impacts of planet change that I discussed at length in my testimony, coupled with the fact that natural gas price risk is asymmetrical, the risks that real and measurable costs associated with climate change, carbon regulation, and the costs associated with asymmetrical fuel risk will impact ratepayers is very likely.

So, in other words, we are in an area prone to flooding. Modifying the Proxy/PDDRR method to pay the full capacity value and energy value of a renewable QF is analogous to purchasing flood insurance if you live in a floodplain.

While the QF is not compensated for all avoidable costs, they will at least be compensated for the full energy and the full capacity value it brings to the system. And if these adjustments enable it to compete--I can't guarantee that--but if it does enable them to compete, then ratepayers will receive the benefit of their insurance.

Finally, with regard to the proposed changes, I would not be opposed to the Commission putting a megawatt cap on this methodology. I know that I'm proposing something new. I know that I'm asking the Commission to look at avoidable costs that we haven't traditionally looked at. But the Commission could approve a methodology for, say, four 80-megawatt projects or a cumulative 320 megawatts of renewable QFs under this new--of this proposed change, and then subject and in continuation of this methodology to a review of the method and a review of the results.

One final point of clarification is the QF resource stack question that's been discussed today. And I had a little bit more clarity, but I did make one recommendation in my testimony. And--

and that would be if--if--I don't know if the price changes or--so maybe we should look into it more--I would ask the Commission to look into this issue more and in my testimony, I made one recommendation. I don't know if that's the right recommendation, but there are issues of a QF being--QFs that are in the stack that will never be built that are impacting costs associated with QFs that, you know, could be built.

And that concludes my summary. Thank you very much.

MS. HAYES: Thank you, Ms. Wright.

Ms. Wright is available for cross-examination.

THE HEARING OFFICER: Ms. Hogle.

MS. HOGLE: Company has no questions.

MS. SCHMID: The Division has no questions.

MR. McDONOUGH: I've just got a few questions.

EXAMINATION

BY-MR.McDONOUGH:

Q. Ms. Wright, I’ve just got a few questions regarding the components of avoided cost that you've testified to in both your direct and surrebuttal testimony. If you'd please look at page 6, at line 108 of your direct testimony and line 108, you've got a caption there that reads, "Avoided Costs Should Include Risk-Associated Avoidable Costs." And then beginning at line 112, you state, "'Avoided costs' does not necessarily mean the most stripped, barest costs the Company can estimate it will avoid. Rather, avoided costs should be a reflection of actually avoidable costs, including costs the Company would otherwise incur in the absence of QF generation based on the risk profile of its resource procurement decisions." Is that a correct reading of your testimony?

A. Yes.

Q. And then on the following page, beginning at line 117, you go on to assert that, "Although avoided cost pricing explicitly includes compensation for avoided energy and capacity costs, these are not the only costs a utility avoids by purchasing electricity from a renewable QF. There are"--"there are significant risk-associated costs that are avoidable through renewable QF electricity purchases." And again, that's a correct reading--

A. Yes.

Q. --of your testimony there?

In some of these risk-associated costs that you claim are avoidable, in both your summary that you just read, as well as your--the balance of your testimony, you refer to certain additional factors, mitigation factors, such as mitigation against rising fuel costs, fuel price volatility, environmental compliance costs, potential carbon regulation costs and the actual costs of a changing climate. Is that a fair characterization of your testimony?

A. Yes.

Q. I didn't quote that verbatim.

A. That's fine.

Q. And in support of your position to include these additional factors as cost adders, at lines 352 to 362 of your surrebuttal testimony--

A. Just a second.

Q. --you cite to and you quote from an October 21, 2010, FERC decision involving the California Public Utilities Commission; is that correct?

A. Yes, it is, but let me find it. Where are you?

Q. It is page 16 of your surrebuttal, lines 352 to 362.

A. Yes.

Q. Okay. Could you please read those lines into the record?

A. The FERC lines?

Q. Yes, 352 to 362.

A. Certainly. "The Commission has previously found that an avoided cost"--that's too close. Sorry, guys.

" . . . that an avoided cost rate may not include a 'bonus' or 'adder' above the calculated full avoided cost for [sic] purchasing"--"for [sic] the purchasing utility . . . ." Excuse me. I'm going to take a drink of water.

I'll start from the beginning. "The Commission has previously found that an avoided cost rate may not include a 'bonus' or 'adder' above the calculated full avoided cost of the purchasing utility to provide additional compensation . . . for example, environmental externalities above avoided costs. But if the environmental costs 'are real costs that could be incurred by utilities,' then they 'may be accounted for in the determination of avoided cost . . . .' Accordingly, if the CPUC bases the avoided cost 'adder' or 'bonus' on an actual determination of the expected costs of [the] upgrades to the distribution or transmission system that the QFs will permit the purchasing utility to avoid, such an 'adder' or 'bonus' would constitute an actual avoided . . . determination and would be consistent with PURPA and our regulations."

MR. McDONOUGH: May I approach the witness?

THE HEARING OFFICER: Yes.

BY MR. McDONOUGH:

Q. Ms. Wright, you've been handed what will be marked as the Office's Cross-Examination Exhibit No. 1. Do you recognize this document?

A. Yes.

Q. What is it?

A. It is the 2010 order that we just--that I--the excerpt is in my testimony.

Q. Okay. Would you please turn to paragraph 31 on page 15 of the decision? And as you just indicated, I believe, paragraph 31 contains the language which is in your testimony that I just had you read into the record, correct?

A. It is.

Q. There's some additional language in that paragraph that you omitted from your testimony. And what I'd like you to do, if you would, please, is read into the record the very last sentence of that paragraph 31 on page 16, beginning with the words, "We also note."

A. I'm sorry. I have to take off my glasses to read this. "We also note that although the state may not include a bonus or . . . adder in . . . avoided cost rate unless it reflects actual cost avoided, a state may separately provide additional compensation for environmental externalities, outside the confines of, and in addition to, the PURPA avoided cost rate, through the creation of renewable energy credits."

Q. Okay. Doesn't this last sentence mean that an adder or a cost beyond energy and capacity costs cannot be included in the avoided cost rate unless it reflects actual costs avoided?

A. Well, I'd have to go back through my notes on the FERC rulings, but they also look at different time horizons and they allow looking at different time horizons. And it's actual costs over what time. Is it today what we think the actual costs are or actual costs that are likely? So an environmental adder might be a REC. But the fuel volatility, for instance, would be--could be--would be an actual cost if the cost is not fuel costs do not proceed forward like our forward price curve as is likely the case.

Q. What about in your summary--and I don't recall seeing this in your testimony, but in the summary you just read, you made a comment, quote, risks are likely, talking about all the risks that you were referring to. And you said risks are likely. Is something being likely the same as it being actual?

A. Well, and that's one of the reasons that I sort of defaulted back to that if the Commission thinks that these costs are too hard to calculate, that you just pay--that they pay the QF its full capacity value, the capacity value that it brings to the system over the entire time, and to--and pays the energy rate. And buying insurance is a cost that everyone does when we're facing uncertain times. If you live in a floodplain, you're going to buy insurance, and by paying the full capacity payment and the full energy payment, it's equivalent to buying insurance, which is a real cost.

MR. McDONOUGH: Thank you.

Move for the admission of Exhibit-- Cross-Examination Exhibit 1.

THE COURT: Objections? It's received. OCS Cross Exhibit 1 was admitted into evidence

BY MR. McDONOUGH:

Q. Ms. Wright, I'd like to transition to one of the specific examples you reference with regards to an avoidable cost. And if you would please direct your attention to your rebuttal testimony, at page 20, line 432.

THE HEARING OFFICER: Mr. McDonough, would it be an appropriate time for a five-minute recess?

MR. McDONOUGH: It would. I don't think I'm going to be longer than maybe five or ten minutes. But if that's--if that's--

THE HEARING OFFICER: Why don't you continue, and let's see if--

MR. McDONOUGH: I'll run through this quickly if--I've got no objection if everybody wants a break.

THE HEARING OFFICER: Well, I think--let's take a break, just five minutes, if you don't mind. So we'll reconvene at quarter till.

(Recess taken, 4:38-4:44 p.m.)

THE HEARING OFFICER: We'll be on the record.

Thank you, Mr. McDonough, for that indulgence. And we're back to you.

MR. McDONOUGH: Thank you.

BY MR. McDONOUGH:

Q. Okay. Ms. Wright, I wanted to transition a little bit into one of your specific examples, that of the inevitable carbon regulation, and so what I would like to do is to direct your attention to your rebuttal testimony at page 20, line 432. And there you state, "The cost of inevitable carbon regulation is one such avoidable cost. And then on the next page, starting at line 438, you state that in your view, it is inevitable the carbon will be regulated and there will be a cost for that. Is that a correct characterization?

A. Yes, it is.

Q. Okay. So is it your position that because at some undefined point in time, carbon will be regulated and there should be a cost attached to carbon emissions factored into avoided costs right now today?

A. Well, in--in my testimony, I did some calculations based on the IRP numbers about levelizing that cost back to today's value. And I stopped short of saying whether that would be a REC value if that would constitute ownership of RECs, so if the RECs are bestowed to the QF owner, then you you wouldn't have to pay for a carbon adder.

Q. So you're not saying necessarily that because there might be a cost imposed, somewhere down the line, at some undefined point in time, there shouldn't be--there should be a cost--there should be an added cost right now, today?

A. I--I calculated it and I showed the value, how much it would cost based on the IRP--

Q. Today?

A. --numbers, based on today. And then I stopped short of saying whether or not that would constitute ownership of RECs if the Company paid for that. If the Company doesn't pay for that, then those RECs or that--those environmental attributes would stay with the QF.

Q. Okay. Let's turn to page 24 of your rebuttal testimony where you set forth Table 2. And this table shows the impact of some possible carbon tax scenarios, correct?

A. These are the scenarios from the IRP.

Q. Okay. Do you agree that there's quite a wide range of possible outcomes here?

A. Yes. The--the Company, their base case, what they call their base case was a very low adder that's much lower than what I'm hearing from some of the other reading I've done. Their high case didn't start until 2020 and it started low, but it did escalate, and I agree that there is a range.

Q. Okay. So consistent with the numbers shown here, is it your position that the Commission should at this time build a $3.44 per megawatt hour into the avoided cost or as much as $18.50 per megawatt hour?

A. Well, in my testimony, I wrote a--I thought that the medium case, the high case would be the reasonable case, but again, as I've said--and maybe this contradicts my testimony, but it's really semantics. I didn't make the conclusion about whether that would constitute ownership of RECs I recommended the $9 value, but I'm not saying that the Commission necessarily add a $9 value with--unless RECs are owned--unless they want to buy the RECs. The Commission has the authority to set a REC price.

Q. Okay. So given your view that carbon regulation is inevitable, but we don't know when or how much it's going to be, would it be reasonable for the Commission to enter an order at this time requiring PacifiCorp to--to include carbon taxes in its avoided cost formula only after such taxes are absolutely implemented by either the state or federal level? Would that satisfy your concerns?

A. Yeah, my position is that if they don't pay this, then the RECs go with the--you know, if they don't pay for the environmental attributes, then the RECs should stay with the QF developer unless they pay for those attributes.

Q. Okay. Thank you. If you would please turn to your surrebuttal testimony, at lines 370 to 372?

A. I'm there. Thank you.

Q. Would you please read--read that section into the record?

A. "'Both section 210 of PURPA and our regulations define avoided costs in terms of costs that the electric utility avoids by virtue of purchasing . . . the QF. The question, then, is what costs the electric utility is avoiding.'"

Q. Okay. And are you saying that this quote justifies the environmental adders to avoided cost pricing that you're advocating for?

A. And if you--in the last part of my surrebuttal testimony, I said that if the Commission finds adders are difficult and I was really focusing on the fuel risk part of it, that the renewables and the front office transaction risk part of it, that they could just pay the full capacity cost and the full energy price is where my final, you know, position is. These costs are not zero. And so if we set these costs so low that you were not paying for the capacity and the energy that these systems are bringing, then they won't get billed and they won't offer any hedge.

Q. I'd like to direct your attention to Cross-Examination Exhibit No. 1 that you read from moments ago, that FERC decision. And if you would please look at paragraph 26, on page 12, of the FERC decision--

A. I'm there.

Q. Okay. And that's a portion--a portion of the decision which you just quoted into the record, correct?

A. Yes.

Q. Okay. Now, would you please read into the record the balance of that FERC decision?

A. "Under the Commission's regulation, a state may determine that capacity is being avoided, and so may rely on the cost of such avoided capacity to determine the avoided cost rate."

Q. "Further . . . "

A. Oh, down beyond this? Sorry. "Further"--and go to the next page. Sorry. "Further, in determining the avoided cost rate, just as a state may take into account the cost of the next marginal unit of generation, so as well may the state take into account obligations imposed of that [sic] state . . ., for example, utilities purchase energy from particular sources of energy for the [sic] long duration. Therefore, the CPUC may take into account actual procurement requirements, and resulting costs, imposed on utilities in California."

Q. Okay. So based on that passage, do you agree that FERC regulations allow the state to rely on the cost of avoided capacity as a factor in determining avoided cost rates?

A. Yes. And it leads to the question of whether front office transactions include capacity and if that capacity rate is guaranteed or just for the first five years.

Q. Okay. In that same passage, what guidance does FERC give to the states on what it may take into account in determining the avoided cost rate?

A. Yes, the state may determine that.

Q. Well, and based on what? Does it not state that the cost of the next marginal unit and actual procurement requirements imposed on utilities in California? So this is a California decision. It's from--it's a California case. And what this is saying is that not only the cost of the next marginal unit, but the actual procurement requirements can be taken into account?

A. Right. And I--I agree.

Q. Okay. And the State of California imposes procurement requirements on its utilities through its RPS; is that correct?

A. Yes.

Q. Okay. Do you know if Utah has such a requirement that it imposed--the RPS imposes--

A. It does say shall if it's cost-effective, when taking into account risk and other factors.

Q. Is it an absolute mandate or is it a goal?

A. No, it is a mandate.

Q. It is a mandate? Okay. And you're claiming that this--this case--and I don't know if this is the one specifically you were referring to in your summary, but you said the FERC decisions provide precedent for the positions that you're advocating?

A. The FERC position that I was talking about and I'm--what I'm relating to the costs that you can put costs that are actually avoidable are the costs that you can include in an avoided cost rate.

MS. HAYES: And I'm just going to object to this line of questioning to the extent it's calling for legal conclusions.

THE HEARING OFFICER: We've had a lot of conversation about what orders mean and statutes mean and--and I think in--in the--in that spirit, we'll receive Mrs.--or Ms. Wright's answer to the question, recognizing that she's not a lawyer as other witnesses have not been.

THE WITNESS: And I was referencing the statute where it says that you can include costs that could be avoided. What I'm looking for is how do you mitigate risk for ratepayers, how do you look at the costs that will actually be avoiding and how can you possibly look at developing an avoided cost methodology that captures those avoidable costs.

BY MR. McDONOUGH:

Q. And I was under the impression you were citing that passage in that case as precedent, which--for what you're advocating here, which we would be operating on a different set of mandates or requirements, but you've answered my question. Thank you.

A. Thank you.

Q. I'd like to talk to you just a little bit about capacity credit issues. If you could look at page 11 of your surrebuttal, beginning at line 233. And you discuss there the issue of whether the Proxy/PDDRR method compensates QF's properly for capacity during the resource sufficiency period.

A. I'm sorry. What line are you on?

Q. Well, it's at page 11, beginning with line 233--

A. Okay. Thank you.

Q. --of your surrebuttal. And in your testimony, on the next page, at--beginning at line 247, 248, you talk about supply and demand driving prices up in the summer, but isn't this issue really whether a front office transaction, as modeled in the GRID, is--is a firm product?

A. Well, as was discussed earlier this morning, when Mr. Duvall was on the stand, that--

and I think he said the first five or six year prices might be firm, but after that, it's all a projection.

Q. Would you agree that front office transactions are a firm--are firm products?

A. I would agree that they are, but you have no idea what the price will be.

Q. Okay. Would you agree--

A. And availability is a question as well.

Q. Would you agree that these firm products, you'd carry a higher price in the market than a nonfirm product?

A. I am not a market trader.

Q. Okay. Would you agree, then, that if a QF avoids a higher price, firm FOT, that the QF being--it is being compensated for capacity?

A. No. And I'll--I'll relate back to--I'm not an expert in this field, but I'll relate back to Hayet's testimony in this case where he said that you--he explicitly--and I don't know if I have that part of it-- "Just because market prices appear to be above costs"--actually, I'm on line 240 of my testimony and this is from--this is from--I think this is from Mr. Hayet's testimony. Let me make sure.

"Just because market prices"--"market energy prices appear to be above the costs to actually generate energy, I would not consider the premium to be a capacity charge in the context of calculating avoided . . . costs. In this case, I view the premium as simply caused by the normal market forces of supply and demand."

I'm not an expert in this area. I went back to that page and looked at that language and talked to others. And the other thing is that front office transactions, you may have a firm price for the first five to six years, but after that, we have no clue.

Q. Okay. So to an extent, then, you're relying on Mr. Hayet's testimony ten years ago for your position now?

A. I don't think the market has changed that much since then.

Q. In the last decade, the market hasn't changed to become more liquid?

A. Well, I'm not talking about liquidity. I'm talking about how it works, market principles.

Q. So overall, generally speaking, you don't think that the market has changed in the last decade?

A. I didn't say over--I said the market principles.

Q. Okay. Did you know the mechanics of the GRID run that Mr. Hayet envisioned when he tendered his testimony a decade ago in the 2003 docket?

A. It was looking at a different GRID methodology where they looked at--and I'd have to go back and refresh myself, but it was a different capacity payment based on a number of months, payment in a number of months.

Q. Was he talking about avoided energy costs or avoided capacity costs?

A. In this, he was talking about the capacity--paying for both the energy and the capacity.

Q. Okay.

MR. McDONOUGH: Thank you. I don't have anything further.

THE HEARING OFFICER: Thank you.

Other cross-examination?

MR. DODGE: No questions.

MR. SIMON: No questions.

MR. EVANS: No.

EXAMINATION

BY-THE HEARING OFFICER:

Q. I have a couple of questions, Ms. Wright. First, in the situation where the Company's least-cost/least-risk IRP selects a renewable resource that is wind and the entity seeking avoided cost pricing is solar, what's your recommendation? What becomes the proxy in that situation?

A. To be honest, I haven't thought of that. I don't know if you would just--that is a tricky one, because, you know, they have different supply profile--profiles. So I would have to think about that and if you wanted me to think about that, I can put it in my brief, but I haven't--unfortunately, I haven't thought through that.

Q. Thank you. Regarding your statements, particularly in the summary about firm capacity or--I'm sorry--full capacity payments, that the QF should receive full capacity payments from year one, I--

A. Right. And can I clarify what I mean by full capacity payments? I mean, based on their--whatever capacity value that they bring to the system based on whatever commission ruling, however you rule, that should be done.

Q. So you're not talking about simply somehow disaggregating the avoided market purchase into a capacity component and an energy component, you're talking about capacity costs in addition to that? Am I correct?

A. Yes, that's correct.

Q. And again, I think you may have just answered this--well, a moment ago, but would you clarify again, what is--in your mind, what is the full capacity payment?

A. So that would be based on--I based it based on the current method, which is looking at the next deferrable resource, so the next deferrable--whatever the next deferrable resource is in the IRP and then you do the--and I don't know how the calculation is done, but it's the same calculation that would be done that's done today, except for you start paying--you don't wait until that resource would come in. You start paying that as soon as that resource comes in and provides value.

You know, another reason for this--and I don't know if the Commission would want to look at this, but they're relying very heavily on--the Company's relying and ratepayers are relying very heavily on front office transactions. So my position is that we're really never capacity sufficient, because we're relying on the market for over 1,000 megawatts of front office transaction in all years except for the first couple.

THE HEARING OFFICER: Any questions?

COMMISSIONER LeVAR: I have one, just as a clarification.

EXAMINATION

BY-COMMISSIONER LaVAR:

Q. From what I heard from your testimony on cross-examination, am I viewing your testimony correctly that you're viewing the environmental risk mitigation costs and the concept of the QF keeping the RECs as an either/or proposition? Is that correct?

A. So RECs include the environmental attributes, which--it's interesting, because they're defined separately in every state. So if the Company were--and there's also risk--there's--I talked about risk from three different perspectives: from fuel and market purchase risk, from actual risk associated with climate and how that will affect generation, and then from the risk associated with future regulation. And the risk associated with future regulation and that cost of regulation, that is encompassed in renewable attribute.

Did I answer your question?

Q. I think so.

THE HEARING OFFICER: Redirect, Ms. Hayes?

MS. HAYES: No, thank you.

THE HEARING OFFICER: You're excused.

THE WITNESS: Thank you.

THE HEARING OFFICER: Thank you, Ms. Wright.

Mr. Simon?

MR. SIMON: Thank you, Commissioner Clark. Scatec North America would like to call Mr. Luigi Resta to the stand.

THE HEARING OFFICER: Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. Please be seated. LUIGI RESTA, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MR.SIMON:

Q. Can you please state your name for the record?

A. My name is--is this on? It's gone off a couple of times. Can you hear me?

THE HEARING OFFICER: It's not on. There's a switch, the base.

MR. SIMON: See if the green light's on.

THE WITNESS: There we go. How about now? Yes.

My name is Luigi Resta. I'm the CEO of Scatec Solar North America. We are a global solar development company. And my charter is North America. My location is--my headquarters is San Francisco--Sausalito, actually. The address is 2320 Marinship Way, Suite 300. ZIP code is 94965.

Q. Did you have testimony and exhibits prepared for this proceeding?

A. Yes, I did.

Q. And are--is it your testimony exhibits consist of the direct testimony of Luigi Resta for Scatec filed on March 29th and the surrebuttal testimony exhibit filed on May 30, 2013?

A. Yes, it does.

Q. Do you have any corrections to your prefiled written testimony?

A. No, I do not.

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

A. Yes, they would.

MR. SIMON: Commissioner Clark, Scatec North America would like to move Scatec's Exhibits--I believe we've got them labeled as Exhibits 1, 2 and 2.1, the prefiled exhibits, move them into evidence.

THE HEARING OFFICER: Any objection?

They're received into evidence. Scatec Exhibits 1, 2, and 2.1 were admitted into evidence.

BY MR. SIMON:

Q. Mr. Resta, could you please go ahead and give a little summary of the Iron County project and Scatec, as well as a summary of your testimony?

A. Yes, I can. First of all, which is not included in here, but we do have a project that we've been under development for the last about five years in Iron County. As everybody is aware, utility-scale solar projects take a long time to develop, and there are significant benefits that we do have in the market today associated with a utility scale project like that--like this, which is not necessarily captured here.

But they have to do with the investment tax credit from the federal side, the low cost of debt that's currently available for projects like this and the fact that the system costs have come down so significantly that we're at a competitive place in the market today. Also the different geographical locations where solar projects are located have a significant impact on the economics of the cost of the power that they can produce and provide to the ratepayers.

First, I urge the Public Service Commission of Utah, the Commission, to follow its precedent in Docket No. 10-035-15, In the Matter of the Complaint of Cottonwood Hydro, LLC, vs. Rocky Mountain Power, report and order issued May 27, 2010, Cottonwood, and find that absent a negotiated contractual provisions to the contrary, the qualified facility, QF, that sells to a utility under PURPA, whether wind or solar or other, retains the rights to any renewable energy credit, RECs, associated with that QF because the avoided cost price does not account for the environmental attributes of renewable energy.

This position is consistent with FERC standard, which provides that if a state has determined that RECs or any other environmental attributes can be unbundled, or separated, from the underlying energy, then a state is prohibited from requiring a QF to transfer the RECs to the utilities for a traditional avoided cost contract. Through statute, Utah state law already has established that RECs can be separated from the underlying energy.

Second, I suggest that PacifiCorp is capacity-deficient to the extent that it must rely on firm power purchases in the market to obtain sufficient capacity to serve its customers and meet its required reserves. Due to this capacity deficiency, FERC in one location of PURPA would require PacifiCorp's avoided cost contract to provide a QF both energy and capacity payments if PacifiCorp can rely on the QF to avoid firm power purchases in the market.

Third, I advocate that PacifiCorp adopt a solar specific market proxy price methodology and include an appropriate amount of solar power in its integrated resource plan, IRP.

Fourth, I contest PacifiCorp's capacity contribution estimates for solar resources. PacifiCorp's evaluation of solar capacity factor underestimates the capacity factor likely to be achieved by a project in southern Utah, such as the Scatec project that we just discussed. Southern Utah boasts one of the best solar environments in the country. PacifiCorp did not consider equality of this resource in its capacity contributions.

Lastly, I explain how PacifiCorp's avoided cost methodology does not account for the valuable role large- scale solar plays in a hedge against regulatory and price uncertainties.

That concludes my summary.

MR. SIMON: Commissioners, Mr. Resta is available for cross-examination.

THE HEARING OFFICER: Thank you.

Ms. Hogle.

MS. HOGLE: I have no questions.

THE HEARING OFFICER: Ms. Schmid.

MS. SCHMID: No questions.

THE HEARING OFFICER: No questions.

MR. McDONOUGH: No questions.

MS. HOGLE: No questions.

MS. HAYES: No questions.

MR. SIMON: No questions.

THE HEARING OFFICER: Chairman Allen.

CHAIRMAN ALLEN: Thank you, Commissioner Clark.

EXAMINATION

BY-CHAIRMAN ALLEN:

Q. Since you are a developer that falls along the lines of my earlier questions, if we were to determine we just don't have enough information, I know you didn't really address in much detail, if I remember right from the testimony, solar integration costs, but if we were to determine that we can't rule on that now and it needs to be moved to further investigation or a study, does that create uncertainty that you're not--it doesn't work for your project, or are there other things we should know about if we do that--if we were to do that?

A. No, I agree with your position that it would be good to do a study. I think it would be detrimental to the project to apply those costs today, but if we could model it, the way I see the industry moving as a whole is forecasting and scheduling is an incremental part of solar development and intermittent resources into GRIDs, and so there's definitely going to be a cost with that integration. We just don't know what it is.

CHAIRMAN ALLEN: Thank you.

THE HEARING OFFICER: Any other questions?

COMMISSIONER LeVAR: No.

THE HEARING OFFICER: Redirect?

MR. SIMON: None. Thank you.

THE HEARING OFFICER: Thank you. Mr. Resta, you're excused.

Mr. Vrba.

Would you raise your right hand, please. Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: Yes, I do.

EXAMINATION

BY-THE HEARING OFFICER:

Q. Thank you. Mr. Vrba, I note for the record that you're not represented by counsel today?

A. That is correct.

Q. And I don't know whether any--you've made arrangements with anyone here to assist you with this process of entering your testimony into the record.

A. I don't have any legal counsel, nor have I engaged any legal counsel to assist me with this.

Q. So I have in front of me your direct testimony and surrebuttal testimony.

A. That's correct.

Q. Are those the two documents that you provided to the Commission?

A. That is correct.

Q. And do you have--wish to make any corrections to these?

A. Yes, there's one that I believe I would like to make. And that would be on the direct testimony. And the last page, page 6, actually, point 93, 94, I produced this statement: "As of 2012, Utah's in-state renewable generation comprises 1 percent of demand." Since that time I have found another study, if you will, that indicated a higher value, of roughly 3 1/2 percent. So I would like to make that on the record that my initial assumption was from 2010.

Q. Thank you. And with that additional information, if I were to ask you the questions that are contained in these two documents, would your answers be the same today as they were when you prepared the documents?

A. Yes.

Q. And do you adopt the testimony in your direct and surrebuttal testimony as your testimony in this matter today?

A. Yes, I do.

THE HEARING OFFICER: Are there any objections to receiving Mr. Vrba's testimony into the record?

Then they'll be received.

And is there cross-examination for Mr. Vrba?

MR. DODGE: He hasn't offered his summary yet.

THE HEARING OFFICER: Thank you. Do you have a summary for us?

THE WITNESS: Yes, I do.

THE HEARING OFFICER: Thanks, Mr. Dodge.

THE WITNESS: Okay. Energy of Utah, LLC, is a Utah renewable energy developer--

THE REPORTER: A little slower.

THE WITNESS: --focusing on development of renewable generation in Utah State. We have been an active participant in this docket from its original assembly in mid-2012. Our primary focus lies in support and continuation of existing wind proxy. Its foundation was established by a 2005 order and recently reconfirmed by our Commission in the first half of this docket in December of 2012. We agree and fully support this method for the following reasons:

Transparency and simplicity. It is essential that the adapted methodology provides for transparency allowing all affected parties full understanding of given price methodology to make educated business decisions in consideration of future steps and development.

Driven by markets. This methodology is driven by very specific and relevant drivers for our regions.

Fairness. This methodology provides for fairness across the board regardless if the generation asset--if it's a local development, capital investment, or if it's an acquisition conducted by the Company.

Proven reliability. This method has been in place for several years, provided reliable results while allowing maximum flexibility to adjust for market conditions as they evolved. The Company's provided IRP for 2013 clearly indicated their reliance on fossil fuel and market purchases for needed generation shortfalls. As a direct result of this direction, there are other elements that play a rather critical role in QF pricing methodology that must be taken into consideration.

Generation portfolio diversification. This is one of the available tools that the Company can utilize to secure effective mechanisms to decrease dependence on one fuel source and mitigate violent fossil fuel price swings.

Integration and reliability. We have shown in our direct testimony on how reliable and more predictable wind generation has become in the last decade.

Environmental impacts. This is one of the major reasons of why we shall proceed towards renewable generation.

New infrastructure costs. As we have provided in our testimony, Utah consumers carry a heavy burden of new infrastructure build-outs to accommodate for new or planned out-of-state power generation in the state of Utah.

This concludes my summary. I would like to thank the Commission for this amazing opportunity to be here today and share my opinion.

THE HEARING OFFICER: Thank you, Mr. Vrba.

Now is there any cross-examination?

Thank you, Mr. Vrba. You're excused.

THE WITNESS: Thank you. Appreciate it.

THE HEARING OFFICER: And Mr. Millsap? Raise your right hand, please. Do you solemnly swear that the testimony you're about to give shall be the truth, the whole truth and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. Please be seated.

EXAMINATION

BY-THE HEARING OFFICER:

Q. Mr. Millsap, I believe you've also filed direct and surrebuttal testimony with the Commission?

A. Yes, that's right.

Q. And you are the Robert Millsap whose--

A. That's me.

Q. --name appears on these documents that are before me, I assume. Do you have any corrections or additions to your testimony?

A. I do not.

Q. Is your microphone on? Maybe you need to stand up or be a little closer to it.

A. Is that better?

Q. Thank you.

A. That's worse.

Q. Much better.

So Mr. Millsap, if I were to ask you today the questions that you've responded to in these prefiled exhibits, would your answers be the same as they were when you prepared them?

A. Yes, they would.

Q. Do you adopt these documents as your testimony in this proceeding today?

A. I do.

Q. Thank you.

THE HEARING OFFICER: Is there any objection to receiving Mr. Millsap's testimony?

Okay. And do you have a summary for us, Mr. Millsap.

THE WITNESS: I have something very short.

THE HEARING OFFICER: Please go--go forward.

THE WITNESS: On one hand, I am a satisfied customer. I like the light to come on when I flip the switch. And I appreciate the work required by many of the people in this room to make that happen. I don't care to propose anything that might unravel that work. On the other hand, my family and I breathe the same air as other Utah ratepayers.

We don't consider environmental costs to be externalities because we seem to be the ones paying for them. We aren't interested in paying lower costs today if it means that our children are likely to pay higher costs tomorrow. I understand that there are limitations to the avoided costs that can be counted. I think that when all acceptable avoided costs are counted in a way that's easily measured by all of us, renewable energy will stand on its own feet. Ratepayers will then have the opportunity to receive benefits that cannot be counted by avoided costs.

Whatever the outcome, I'm confident in the Commission's ability to sort out the truth of the matter, and I thank them for allowing me to participate in the hearing.

THE HEARING OFFICER: Thank you, Mr. Millsap.

Cross-examination for Mr. Millsap?

MR. McDONOUGH: I’ve got one question.

THE HEARING OFFICER: Mr. McDonough.

EXAMINATION

BY-MR.McDONOUGH:

Q. Mr. Millsap, could you direct your attention to your surrebuttal testimony at page 15 of 16? Line 1--line 176, and if you could just read into the record that first full sentence beginning with the word, "I."

A. "I believe the current PDDRR HLH capacity"--

Q. The next one.

A. Oh, sorry. "I would rather wrestle a bear than argue with the Division about the correct way to calculate capacity contribution."

Q. Are you talking about a grizzly bear or a black bear?

A. It depends on the bear.

MR. McDONOUGH: No further questions.

THE HEARING OFFICER: It’s always nice to end with a smile.

Any other questions?

Thank you, Mr. Millsap.

THE WITNESS: Thank you very much.

THE HEARING OFFICER: Thank you.

Are there other matters to come before the Commission? Any questions about the briefing schedule or anything else?

MR. DODGE: The only question I would have, Mr. Chairman, is if you do have any notion or guidance on what the Commission thinks it might do in timing of this order.

THE HEARING OFFICER: The Chairman's asked me to respond. We recognize the intense interest in this subject. We will do our best to reach conclusions and issue an order as--in due course as quickly as we reasonably can. I think it would be ill advised to predict exactly how soon that could be. We are reasonably confident with everything we can see before us now that it would certainly be issued before the end of August and--

and beyond that, we'll just do our very best, understanding the importance of the matter to issue a--an order that addresses the material that we've received--

MR. DODGE: Thank you very much.

THE HEARING OFFICER: --in due course.

MR. DODGE: That's very helpful. Thank you.

THE HEARING OFFICER: Thank you. Thank you all for your participation today, for allowing us to carry on a little beyond the normal time. And we are adjourned.

(Proceedings concluded at 5:23 p.m.)

CERTIFICATE

This is to certify that the foregoing proceedings were taken before me, SCOTT M. KNIGHT, a Registered Professional Reporter and Notary Public in and for the State of Utah, residing at South Jordan, Utah;

That the proceedings were reported by me in stenotype and thereafter caused by me to be transcribed into typewriting, and that a full, true, and correct transcription of said proceedings so taken and transcribed is set forth in the foregoing pages, inclusive.

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

____

Scott M. Knight, RPR

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