In the Matter Of:

In Re: Service Schedule 37 17-035-T07 and Avoided Cost 17-035-37

HEARING, DOCKET NO. 17-035-T07, 17-035-37

December 04, 2017

Job Number: 409248

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of Rocky Mountain Power's Proposed Tariff Revisions to Electric Service Schedule No. 37, Avoided Cost Purchases from Qualifying Facilities — Docket No. 17-035-T07

In the Matter of Rocky Mountain Power's 2017 Avoided Cost Input Changes Quarterly Compliance Filing — Docket No. 17-035-37

HEARING PROCEEDINGS

TAKEN AT: Utah Public Service Commission
4th Floor
160 East 300 South
Salt Lake City, Utah

DATE: Monday, December 4th, 2017

TIME: 9:00 a.m.

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

Job No. 409248

APPEARANCES

COMMISSION CHAIR:
Thad LeVar

COMMISSIONERS:
David Clark
Jordan White

FOR THE DIVISION OF PUBLIC UTILITIES:
Justin C. Jetter
160 East 300 South, Fifth Floor
Salt Lake City, Utah 84114

FOR ROCKY MOUNTAIN POWER:
Yvonne R. Hogle
1407 W. North Temple, Suite 320
Salt Lake City, Utah 84116
(801) 220-4050

FOR THE OFFICE OF CONSUMER SERVICES:
Steven Snarr
160 East 300 South, Fifth Floor
Salt Lake City, Utah 84114

FOR UTAH CLEAN ENERGY:
Sophie Hayes
1014 2nd Avenue
Salt Lake City, Utah 84103
(801) 363-4046

FOR RENEWABLE ENERGY COALITION:
Irion Sanger
Sanger Law, PC
1117 SE 53rd Avenue
Portland, Oregon 97215
(503) 756-7533

INDEX OF EXAMINATION

EXHIBITS

RENEWABLE ENERGY COALITION:

EXHIBIT NO.	DESCRIPTION	PAGE
REC Cross No. 1	State of Washington Utilities and Transportation Commission Notice March 16, 2017	74
REC Cross No. 3	Public Utility Commission of Oregon Ruling September 29, 2009	76
REC Cross No. 4	Public Utility Commission of Oregon UM 1396, Phase II Opening Comments	76

PROCEEDINGS

COMMISSIONER LEVAR: We are here this morning for two Public Service Commission dockets that have been consolidated, Docket No. 17-035-T07, which is Rocky Mountain Power's Proposed Tariff Revisions to Electric Service Schedule No. 37, Avoided Cost Purchases from Qualifying Facilities, and Docket No. 17-035-37, Rocky Mountain Power's 2017 Avoided Cost Input Charges Quarterly Compliance Filing. We'll go to appearances now for the Utility.

MS. HOGLE: Good morning, Chair LeVar, Commissioner Clark, and Commissioner White. My name is Yvonne Hogle, and I'm here on behalf of Rocky Mountain Power. With me at counsel table is Mr. Dan MacNeil, who is PacifiCorp's resource and commercial strategy adviser. Thank you.

COMMISSIONER LEVAR: Thank you. For the Division of Public Utilities?

MR. JETTER: Good morning. I'm Justin Jetter, and I'm here today representing the Utah Division of Public Utilities. The Division intends to call a witness at the hearing today, Dr. Abdinasir Abdulle.

COMMISSIONER LEVAR: For the Office?
MR. SNARR: My name is Steven Snarr. I represent the Office of Consumer Services.
COMMISSIONER LEVAR: Thank you. We'll go to Utah Clean Energy next.
MS. HAYES: Good morning. Sophie Hayes on behalf of Utah Clean Energy. With me at counsel table is Mr. Ken Dragoon. Utah Clean Energy will also be calling Kate Bowman.
COMMISSIONER LEVAR: Thank you. For the Renewable Energy Coalition?
MR. SANGER: My name is Irion Sanger on behalf of Renewable Energy Coalition, and here with me today is Mr. John Lowe, the executive director of Renewable Energy Coalition. We'll also be calling Mr. Neal Townsend as a witness for Renewable Energy.
COMMISSIONER LEVAR: Thank you. Does anyone else have any preliminary matters before we go to the Utility's first witness? Ms. Hogle.
MS. HOGLE: Thank you. The Company calls Mr. MacNeil.
DANIEL MACNEIL,
having been first duly sworn to tell the truth, was examined and testified as follows:

BY MS. HOGLE:

Q Good morning, Mr. MacNeil.

A Good morning.

Q Could you please state your name and your position for the record?

A Daniel MacNeil, M-a-c N-e-i-l, and I'm a resource and strategy adviser for PacifiCorp.

Q And in that capacity, did you prepare direct testimony with work papers dated August 17th, 2017, rebuttal testimony dated with work papers October 31st, 2017, and surrebuttal testimony dated November 21st, 2017?

A Yes.

Q And do you have any changes to any of those pieces of testimony that you would like to make today?

A No.

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

A Yes.

MS. HOGLE: Thank you. At this time, I'd like to move for the admission into the record of Mr. MacNeil's direct testimony with work papers dated August 17, 2017, rebuttal testimony with work papers dated October 31st, 2017, and surrebuttal testimony dated November 21st, 2017.

COMMISSIONER LEVAR: If anyone objects to this motion, please indicate to me.

MS. HAYES: Yes. I would prefer to cross-examine the witness before agreeing to admit those pieces of testimony into the record, if that's all right.

COMMISSIONER LEVAR: Ms. Hogle, do you have any response to that objection?

MS. HOGLE: I guess I'm a little surprised because to my knowledge, Ms. Hayes has never required that the Company's testimony not be admitted until after cross-examination. I guess I'm not sure what the difference is.

MS. HAYES: There are some statements in Mr. MacNeil's testimony that I would like to clarify because I feel like he misrepresented Utah Clean Energy's position.

COMMISSIONER LEVAR: Considering the objection, I don't think any party could be prejudiced if we put off the admission of the testimony until after cross-examination. It's not typically how we do things, but I don't see any prejudice to Rocky Mountain Power to do so, so I think we'll hold the motion until the conclusion of cross-examination.

MS. HOGLE: And does Ms. Hayes believe that he misrepresented UCE's position with respect with to all of his testimony or is it --

MS. HAYES: No, just specific sections.

MS. HOGLE: In each of the direct, rebuttal, and surrebuttal testimony?

MS. HAYES: Rebuttal and surrebuttal.

MS. HOGLE: Do you have any objection to anything in the direct testimony?

MS. HAYES: No.

COMMISSIONER LEVAR: And so you're modifying your objection at this point?

MS. HOGLE: I am. Thank you.

COMMISSIONER LEVAR: If anyone objects to admission of the direct testimony with the exhibits and work papers, please indicate to me. I'm not seeing any objections, so that motion is granted. We'll await a second motion after cross-examination.

BY MS. HOGLE:

Q Mr. MacNeil, do you have a summary that you would like to provide to the Commission and

parties today?

A I do.

Q Please proceed.

A Thank you, Chairman LeVar, and Commissioners White and Clark, for the opportunity to testify this morning.

The Public Utility Regulatory Policies Act of 1978, PURPA, specifies that qualifying facilities, QFs, are to be paid a rate that is just and reasonable to retail customers and does not exceed a utility's incremental cost of alternative electric energy. This is known as the customer indifference standard. Because QF power purchase expense is included in the Company's Energy Balancing Account in Utah, the rates paid to QFs are generally subject to true-up and collected from customers annually. As a result, while the Company supports setting accurate avoided costs for compliance with PURPA and in the interest of its customers, it is generally indifferent to the rates QFs ultimately receive. With that in mind, the primary questions in this proceeding are twofold: First, what methodology should be used to produce avoided cost pricing for QFs, consistent with the customer indifference standard. And second, what avoided cost prices for small QFs should be published in the Schedule 37 tariff.

The Company currently uses the Partial Displacement Differential Revenue Requirement methodology, PDDRR, to calculate avoided cost prices for non-standard QFs under Schedule 38. In this proceeding, the Company has also proposed using the PDDRR methodology for standard QFs under Schedule 37.

The PDDRR methodology includes two components: First, avoided fixed costs are calculated based on the proxy resource in the IRP preferred portfolio that a QF is assumed to displace. Second, avoided energy costs are calculated using the Generation and Regulation Initiative Decision Tools model, GRID, which is also used to set net power costs in rate cases. Two scenarios are prepared. The first has existing resources, planned resources from the most recent IRP preferred portfolio, as well as signed and prior-queued potential QFs.

The second run is the same as the first run with two exceptions: the capacity of the displaced IRP resource is reduced and the operating characteristics of the proposed QF project are added, with its energy dispatched at zero cost. The difference in costs between the two runs is the avoided energy cost.

Identifying the proxy resource to be displaced is the issue at the core of the proposals made by the parties. In the IRP and when the Company is proposing resource additions, the Company uses sophisticated portfolio optimization models to identify the changes in its portfolio that are expected to occur with different combinations of resources. These models are powerful but take a great deal of time to run. The intent of the PDDRR methodology is to produce a reasonable estimate of expected portfolio changes for the purpose of providing prices quickly in response to the hundreds of QF pricing requests the Company receives each year. In accordance with the Commission order in Docket No. 12-035-100, when the Company's IRP preferred portfolio includes renewable resources that are the same type as a QF project, the next deferrable renewable resource of that type in the preferred portfolio is used as a proxy. If the Company's IRP preferred portfolio does not include a renewable resource that is the same type as a QF, the next deferrable thermal resource in the IRP preferred portfolio is used instead. Resources become part of the IRP preferred portfolio because they support an optimized balance of cost and risk for the portfolio as a whole. Limiting deferral of renewable resources to QFs of the same type helps the existing methodology to maintain this optimized balance, thus ensuring the customer indifference standard is met.

The Coalition and Utah Clean Energy instead suggest that it is appropriate to prepare avoided costs for QFs of all types, based on displacement of renewable resources of any type. In particular, they propose that avoided costs be based on the costs and characteristics of the 2021 Wyoming wind resource identified in the 2017 IRP preferred portfolio. Despite this being contrary to the Commission's previous ruling, Parties provide no evidence that having baseload or solar resources defer the 2021 Wyoming wind resource, maintains a reasonable balance of cost and risk consistent with the IRP preferred portfolio, nor have they produced any calculations of avoided cost which would allow the impact of their proposals on customers to be identified. In fact, when the Company asked the Coalition and Utah Clean Energy to provide calculations illustrating their proposed methodologies, both responded that they had not prepared calculations. The Company's best interpretation of avoided costs based on deferral of the 2021 wind resources indicates that avoided costs would be lower than under the Company's proposal. This indicates that there are other higher cost resources remaining in the Company's portfolio besides the 2021 wind resources, such that they are not an appropriate basis for setting avoided costs. Because there is no evidence in the record which demonstrates the effect of the assumption changes proposed by the Coalition and Utah Clean Energy, it is impossible to judge whether the resulting avoided cost prices would be just and reasonable and consistent with the customer indifference standard.

Utah Clean Energy has also proposed that avoided costs be calculated based on the deferral of thermal resources as is done today but with a floor on avoided costs based on renewable resources in the IRP preferred portfolio. The proposal produces inaccurate avoided costs by ignoring geographic and operational differences between renewable resources and by failing to account for the aggregate effects of QFs on the Company's portfolio and system.

Further, to the extent the IRP evaluated resource options that are of the same type and location as a QF, the absence of those resources in the preferred portfolio is evidence that their costs are in excess of avoided costs. Again, Utah Clean Energy has not provided any supporting documentation or calculations that would allow avoided cost rates to be prepared based on its proposal so it is impossible to judge the impact, relative to the customer indifference standard.

The Coalitions' proposal to allow QFs to choose between renewable and non-renewable pricing options is inconsistent with FERC precedent, as Utah does not have a renewable portfolio standard or other obligation to acquire renewable resources. Because system operations and dispatch would be the same for a given project regardless of renewable energy credit ownership, there's no basis for paying different prices for renewable and non-renewable resources.

With regard to the QFQ for the purposes of setting Schedule 37 rates, the Company's May filing in Docket No. 17-035-T07 calculated Schedule 37 rates assuming a queue position was established at the end of the queue at the time the 2017 IRP was filed. In response to concerns raised by parties, the Company's August filing proposed rates based on a smaller queue that only included higher queued resources from the May filing that had not dropped out or moved to the end of the queue by that time. The remaining resources are roughly 36 percent of the queue position from the May filing. Again, this does not represent the end of the queue in August, but rather a point in the middle that is intended to more accurately represent the Company's avoided costs between now and the next Schedule 37 tariff update, likely in June 2018.

Utah Clean Energy proposes that small QFs interconnected on the distribution system receive higher rates to account for avoided line losses. However, merely being connected to the distribution system does not necessarily indicate that a resource has lower line losses. Since this is a complicated issue that hasn't been considered in detail and Utah Clean Energy hasn't made a specific proposal, I believe it would be better to address avoided line losses at a future time.

Finally, in June 2017, the Company proposed two non-routine changes to the Schedule 38 avoided cost methodology. Both were contested by parties. These changes concern renewable energy credit ownership when a QF is displacing a renewable resource and avoided energy costs beyond the end of the IRP study period. None of the parties oppose the Company's non-routine updates.

In summary, to achieve just and reasonable avoided cost rates and maintain the customer indifference standard, the Company requests that the Commission: 1) approve the Company's two non-routine methodology changes but otherwise maintain the existing Schedule 38 methodology, including specifically the like-for-like deferral of renewable resources; 2) acknowledge that avoided costs for Utah wind QFs are appropriately based on deferral of 2013 wind resources in the 2017 IRP preferred portfolio rather than the 2021 wind resources; 3) deny the Coalition's request that QFs be allowed to choose between renewable and non-renewable pricing options and; 4) accept the use of the Schedule 38 methodology for setting Schedule 37 rates, specifically by approving the rates proposed in the Company's August filing based on a partial QF queue. That concludes my summary.

MS. HOGLE: Thank you, Mr. MacNeil. Mr. MacNeil is available for cross-examination.

COMMISSIONER LEVAR: Thank you, Ms. Hogle. Mr. Jetter?

MR. JETTER: I don't have any questions.

COMMISSIONER LEVAR: Thank you. Mr. Snarr?

MR. SNARR: The Office has no questions.

COMMISSIONER CLARK: Pardon me, Chair LeVar. I'm led to understand that the parties who are listening not in this room are having a difficult time hearing the witness. Could we ask you to pull the microphone a little closer to your mouth?

COMMISSIONER LEVAR: Thank you. Ms. Hayes.

CROSS-EXAMINATION

BY MS. HAYES:

Q Good morning, Mr. MacNeil. In your rebuttal testimony and again in your summary this morning, you indicated that Utah Clean Energy proposed that all QF resources should be eligible to defer the 2021 Wyoming wind and transmission resources. Utah Clean Energy did not actually propose that, did they?

A I guess I'm not -- I understand that the testimony says that, but it isn't clear to me how you can add a QF and pay them based on a resource and not remove that resource. How is that avoided cost?

Q Can you point to me somewhere in Utah Clean Energy's testimony where we propose that resources be able to defer the wind and transmission?

A I guess the clearest thing I can point to is the data request which says you don't have any calculations. If you want me to sit here and have me go through your testimony again, I could, but --

Q So would you agree that it is a mischaracterization of Utah Clean Energy's testimony to say that we do propose -- that the wind be deferrable?

A I would agree that to the extent you indicate that your testimony does not indicate that that's your position.

Q In fact, Mr. Dragoon's testimony said that the deferrability of that wind is irrelevant, correct?

A I'll take that, subject to check.

Q All right. If we could turn to your

surrebuttal testimony, at lines 48 to 50. I'll find you a page number momentarily.

A I'm there.

Q You say that Mr. Dragoon appears to conclude that Mr. Townsend's analysis was inadequate, although Mr. Dragoon does not actually conclude that, does he? I'll point you to Mr. Dragoon's rebuttal testimony on page 5, starting at line 70. Do you want to read that?

A I'm reading it. Just one moment, please.

Q Doesn't Mr. Dragoon say that Mr. Townsend's analysis shows that different operating characteristics need not be a barrier to setting avoided cost rates?

A It does say that, and he's describing his review of the example provided. But he says there may be simpler solutions.

Q Sure. But Mr. Dragoon's testimony actually says pretty much the opposite of what you represented in your testimony, correct?

A Implementation of the Commission's ruling that renewable resources can defer renewable resources deserves more thought and discussion than it has received to date. I mean, that says there hasn't been enough analysis which means the analysis is inadequate.

Q Well, do you agree that reasonable minds could differ on that?

A On more thought and discussion?

Q Utah Clean Energy has recommended that this topic does deserve more thought and is discussion, but Mr. Dragoon prefaced that by saying that Mr. Townsend's analysis shows that different operating characteristics need not be a barrier to setting avoided cost rates, correct?

A It does say that and I guess I would agree that that need not be a barrier, but I think it is still a barrier based on the record we have and the information we've been able to achieve in this docket.

Q So in your surrebuttal testimony at page 3, you give an example. You say that Mr. Dragoon recommends replacing 3.8 megawatts of wind with 1 megawatt of tracking solar. Mr. Dragoon did not actually make that recommendation, did he?

A I'm not sure.

MS. HOGLE: I'm not sure where she's reading from from his surrebuttal. Can you point to line numbers, Ms. Hayes?

MS. HAYES: Lines 56 to 59, and

there's also a footnote.

MS. HOGLE: Are you there, Mr. MacNeil?

THE WITNESS: Yes. Please repeat the question.

BY MS. HAYES:

Q Mr. Dragoon didn't actually make that recommendation, did he?

A I guess I'm still not clear on what Mr. Dragoon's recommendation is. He suggests that it's possible to pay a price based on a renewable resource in the portfolio, but, you know, using the operational characteristics to adjust that price somehow, but I haven't seen any calculations which would say how many megawatts. The only translation between resources which has been on the table that I've seen is capacity equivalence. That's what the PDDRR methodology uses, that's the example I give there.

Q Right. So you give an example based on capacity equivalence; is that correct?

A That example is based on capacity equivalence.

Q Right. And that is not an example that Mr. Dragoon included in his testimony, correct?

A   Certainly, that example is not in the testimony.

Q   Okay. Thank you. But Mr. Dragoon, in his testimony, did recommend using a cost per kilowatt hour as a floor on avoided cost prices?

MS. HOGLE: Excuse me. Can you please point to the piece of testimony and line number where he makes that recommendation, please, for the witness?

MS. HAYES: Yes. In Mr. Dragoon's testimony?

MS. HOGLE: Yes. If he's to answer any questions, he needs to know what you're looking at.

BY MS. HAYES:

Q   Yes. If you'll look at Mr. Dragoon's direct testimony at the bottom of page 10, and going on to page 11. And I'll give you a chance to read that, and let me know when you've read that.

A   I've read that.

Q   So he does recommend using a cost per kilowatt hour as a floor on renewable avoided cost prices, adjusting it for resource characteristics; is that correct?

A   Yes.

Q All right. And so a kilowatt hour comparison is more of an energy comparison, correct?

A Certainly, the example which is included here is an energy comparison, but the adjustments for any differences such as capacity value or integration costs, quoting from lines 196 to 198, I don't know whether those are also energy based or what those might be based on.

Q Okay. So if you'll go back to your rebuttal testimony at page 20, line 431, you insinuate that Utah Clean Energy's proposal ignores the benefits of preferred portfolio resources; is that correct?

A Yes.

Q Were you referring to that portion of Mr. Dragoon's testimony that we were just looking at?

A I believe so, yes.

Q In that section, didn't Mr. Dragoon specifically condition his example on resources of similar characteristics and adjust for differences in other characteristics?

A What was that example again from his testimony?

Q The dollar per megawatt hour floor, and

then adjusting for resources with similar characteristics and adjusting for other characteristics?

MS. HOGLE: And that was, again, in what piece of testimony?

A I'm there and can answer the question. His example appears to be based on similar characteristics, but the question he asks himself is how do you propose to calculate an avoided cost floor for renewable QF if it is a different type than the renewable resource called for in the IRP preferred portfolio. Of a different type, I read that to mean different characteristics.

Q Okay. What is the annual cap on Schedule 37 projects?

A The cap within the tariff is 25 megawatts signed in a tariff before the tariff is replaced.

Q 25 megawatts will not have a significant impact on avoided cost pricing will it?

A It could have a significant impact over the life of 25 megawatts of resources.

Q Relative to 12.2 megawatts and 800 megawatts, for example, 25 megawatts is a lot closer to 12.2, isn't it?

A Yes.

Q And you testified that 12.2 megawatts won't have a significant impact on avoided cost prices, didn't you?
A 12.2 megawatts of what?
Q QFs.
A QFs. Which line was that?
Q I don't know. I'll look for that and get back to you on that. Line 111 in your surrebuttal testimony.
A So the point here is that it's not how many megawatts we might acquire under Schedule 37 that could impact avoided costs, but during the term that Schedule 37 tariff rates are in effect, we could acquire up to 800 megawatts of new resources via our fees, Schedule 38, etc., and the rates in Schedule 37 could be overstated at that point.
Q Do you agree that standard-offer QFs have smaller capacity increments?
A Yes.
Q And shorter lead times?
A Sure.
Q Do Schedule 38 projects take less time to complete than Schedule 37 projects?
A I guess I'm not sure of the relevance.
Q Well, is it reasonable to assume that an

80-megawatt project takes less time to complete than a 3-megawatt project?

A Ultimately, I don't care how long it takes a QF to come online. I care about the term in which it is online and the Company's avoided costs during that time period. For both Schedule 37 and 38, we assume partial displacement, which is, you can receive a slice of the next resource even if that resource can't be modified by that size. You perfectly can remove your aggregate capacity worth of that resource. That's how we account for lead times and capacity increments by not restraining -- we wouldn't say you're not big enough to defer a new gas plant. We'll let you defer a tiny slice of that gas plant.

Q Doesn't subjecting Schedule 37 QFs to the queue of Schedule 38 QFs effectively assume that they will come online after the Schedule 38 QFs?

A The point is that we're setting an avoided cost that is reasonable and just for customers, that includes the conditions we expect to occur during the term of the tariff. So, yes, we're calculating avoided cost that includes resources being brought online in front of them to account for that effect.

Q Right. Because the resources that come on

first displace the higher cost deferrable resources, correct?

A Yes.

Q And so making small QFs subject to the queue is the same as assuming that they will take longer to be completed than all the QFs in front of them, correct?

A It's not saying that they will be longer to be completed; it's saying that the capacity increments that they're being paid for come after capacity increments that will be acquired by the Company from other QFs and other resources before that QF -- the small QF -- is signed.

Q Right. Which is the same as saying that the 3-megawatt resource will be signed after those 80-megawatt resources, correct?

A Correct.

Q So with regard to the like-for-like deferral, rather than basing capacity payments for all renewable QFs on the fixed cost of the next deferrable resource, you are instead designating multiple next deferrable resources; is that correct?

A The current Schedule 38 methodology says that when there's a like renewable resource, it defers -- a QF of the same type defers that resource. So, yes. When there's a like renewable resource, we defer that resource rather than other things in the preferred portfolio.

Q In this way, capacity payments for QFs will be based on the operating characteristics of corresponding resource types in the Company's portfolio, rather than simply the order of resource additions selected by the IRP, correct?

A That is what happens, yes.

Q So, for example, let's just say we have solar called for in the IRP in 2020, and wind and geothermal called for in 2025. Solar QFs will get capacity payments beginning in 2020 based on the IRP solar costs, while wind and other renewable QF types will not get capacity payments until 2025; is that correct?

A In your example, yes.

Q But isn't it true that wind and geothermal QFs will, in actuality, be incrementally displacing or deferring the next deferrable resource, that is the solar resource, that is called for in 2020?

A Not necessarily. The whole point of the IRP process, which is a lengthy and detailed process, is to calculate a portfolio of resources over the next 20 years that will serve customers at least cost, least risk portfolio. When you ask me what resource you're displacing and couldn't it displace this resource or that resource, the answer is it could, but actually running the IRP models, we don't know that that's what the models would choose to do. We don't know that the need for solar is producing some aspect of the portfolio, is providing some benefit, that geothermal and wind resources cannot provide. And the intent of the PDDRR methodology is to have rules to give us an approximate solution without having to run the entire IRP. And the straightforward, clean rule we have today is if there are like renewable resources, we defer the like renewable resources because they have the same characteristics as the resources in the IRP preferred portfolio.

Q Won't there be an IRP in 2019?

A There will be an IRP update in March of 2018.

Q Will that IRP and all other IRPs consider the QFs that have come online between now and then in its load and resource balance?

A Yes.

Q And won't all those executed QF contracts become IRP assumptions going forward?

A   Yes.

Q   So the reality is that QFs, regardless of type, that are in place before the next IRP will impact the Company's resource portfolio going forward, correct?

A   Absolutely, yes.

Q   So it's possible, then, that QF contracts for wind, solar, and geothermal resources might change the portfolio of new resources going forward?

A   I would say it is -- it will absolutely change the portfolio going forward.

Q   Yes. So then it's possible that the 2019 IRP will reshuffle the Company's deferrable resource designations and resource specific deficiency periods, isn't it?

A   Yes, it is very likely that that will happen. And in the IRP, they have the appropriate tools to see how that reshuffling happens. Not -- outside of the IRP, we don't have the tools to say what the equivalence is. It's not just capacity equivalence, it's all the characteristics that that resource contributes to the preferred portfolio. You know, to the extent we want to acquire resources -- and we're looking to acquire some wind and solar in our RFP process -- we use the same models that we use in the IRP. When we go procure resources to serve customers, we look at all those details. But we're not running all those models because we have to send out 200 QF pricing requests every year within 30 days.

Q So the Company is proposing to set avoided cost capacity payments based on resource types rather than on the energy and capacity that the utility will actually avoid, right?

A Our best estimate of the capacity that the utility will actually avoid is by looking at the preferred portfolio, the information it contains, the information it doesn't contain, that there are no -- in your example -- there are no wind and geothermal resources prior to 2025. We look at that information, and we take that and say, what is the expected change associated with adding this new resource to that portfolio. And, yes, that's the answer to your question.

Q In this docket, we're dealing with PURPA's requirement that electric utilities purchase energy and capacity from QFs at the utility's avoided cost; is that correct?

A Yes.

Q The utility's must-purchase obligation is

not a resource planning requirement, is it?

A No.

Q Did you say the purpose of the proxy PDDRR method is to produce a comparable portfolio as that in the Company's IRP; is that correct?

A The intent of making a comparable portfolio is that the IRP preferred portfolio is the least-cost, least-risk solution. If customers are going to be indifferent to whatever the outcome is of QF pricing, it needs to be equivalent to that least-cost, least-risk solution. And there are a lot of details that are very difficult to capture according to how a portfolio fits together, all the different components. And the best way we believe to maintain that least cost, least risk solution from the IRP preferred portfolio is to displace QFs by looking at the resources of the same type.

Q PURPA doesn't require QFs to replace the utility's IRP resources one-for-one, does it?

A No.

Q PURPA requires states to set avoided cost rates based on avoided energy and capacity, correct?

A Correct.

Q You referenced some factors to take into account when setting rates in your rebuttal

testimony, didn't you?
A I did.
Q And in your testimony you also omitted some other factors that should be taken into account to the extent practical?
A I'm not familiar with what you're referencing.
Q 18 CFR 292.304, subsection e?
A Do you have that?
Q Well, in your testimony -- let's see. Page 19.
MS. HOGLE: In what piece of testimony is that?
MS. HAYES: Rebuttal testimony, page 19.
BY MS. HAYES:
Q I'm just wondering if you also looked at -- you quote (e)(2). I'm wondering if you also looked at (e) (1), (3), and (4).
A I have read those, but off the top of my head --
Q Those weren't something you considered in your preparation?
MS. HOGLE: Can you please refresh his memory? Can you quote the language so he knows

what you're talking about?

MS. HAYES: I don't need to get into it. I'm just wondering if that was something that he used in the preparation of pricing.

MS. HOGLE: So is that a question for him?

MS. HAYES: Yes.

A I believe the PDDRR methodology reasonably accounts for the requirements of PURPA. It's been a long road to get where we are with the PDDRR methodology, so I believe it reasonably accounts for all of those factors. But off the top of my head, I don't know, I can't give you specific examples.

BY MS. HAYES:

Q Okay. You were focusing on just this section?

A That's what I referenced in my testimony.

Q All right. Let's see. In your rebuttal testimony -- well, throughout all of your testimony, you talk about the Wyoming wind and talk about the fact that it provides "all in" economic benefits to the Company. And if you want a specific reference, I can provide one, but is that generally --

A Yes.

Q So in other words, the wind and

transmission project is a really good deal?
A It was better for customers than the alternative of not doing those projects.
Q So is it fair to say that you're pursuing it because it's cheap?
A Because it represents a part of the least-cost, least-risk preferred portfolio, yes.
Q And you're getting a lot of that wind, aren't you?
A The 2017 IRP preferred portfolio included 1,100 megawatts of new wind.
Q Is it fair to say that you're getting as much of that wind as you can?
A The limit on how much of that wind will actually be procured will be based on how much of it is cost effective to customers but also based on how much the transmission limits allow. So, yes.
Q And you indicate that the fact that the wind is renewable has nothing to do with why it was selected in the preferred portfolio; is that correct?
A That's correct.
Q Rather, it was selected based on the fact that it was so cost effective?
A Yes. It's contribution to the preferred

portfolio, yes.

Q And you're essentially arguing in this docket that the wind is so cost effective it's below avoided cost; is that correct?

A Yes.

Q Is it fair to say -- let's see. I'm sorry. So is it fair to say that at a certain price, forcing renewable QFs to take an IRP renewable price would be forcing them to take a price that is below avoided cost?

A Certainly, there are resources in our portfolio which are not the highest cost, the incremental capacity of energy that will be added to the system. And, in that case, you can find prices in our portfolio which are less than our incremental cost and less than avoided costs.

Q In that sense, an avoided cost floor would be appropriate, would it not, to safeguard against violating PURPA?

A I guess I can't tell you whether a floor is appropriate without knowing what it's a floor on, how it will be applied, and so on.

Q But it is true that there are renewable prices in your portfolio that are below avoided cost?

A The 2021 wind is an example, yes.
MS. HAYES: That's all my questions. Thank you.
COMMISSIONER LEVAR: Thank you. Mr. Sanger.
MS. HOGLE: I apologize. Can I, at this time, move for the admission -- before I forget, I don't want to forget -- for the admission of Mr. MacNeil's rebuttal testimony with work papers, surrebuttal testimony -- and I've just noticed it does have an exhibit -- and so I also move for the exhibit to that surrebuttal testimony to be admitted into the record.
COMMISSIONER LEVAR: If any party objects to that motion at this time, please indicate to me. I'm not seeing any objections, so the motion is granted. Mr. Sanger.

CROSS-EXAMINATION

BY MR. SANGER:
Q Good morning, Mr. MacNeil. I'd like to ask you some questions about what you describe as the customer indifference standard.
A Okay.
Q If you could please refer to your testimony at -- direct testimony -- at page 5? On

lines 98 and 99, you state, "The accuracy of avoided cost pricing relative to these requirements" the requirements of PURPA "is known as the customer indifference standard." Is that correct?

A That's what it says.

Q And you have a couple of footnotes there citing to a number of cases. And, as I see it, the FERC case that you cite to is a Southern California Edison case, correct?

A Yes.

Q I assume that you have read that case?

A Not recently.

Q At any point in time?

A Perhaps. I'm not sure.

Q Okay. Do you know if the Federal Energy Regulatory Commission uses the term "customer indifference standard" in that case?

A I view the customer indifference standard as the summary of all of that. Out of all of that legal wrangling, we have derived this simple concept of a customer indifference standard, that if we can compare customers with a QF and without a QF, if the customers are indifferent, that would appear to be our avoided costs.

Q Your testimony says that PURPA

requirements are known as the customer indifference standard. And my question is since it's known as that, I'm wondering if FERC has used that term in coming up with what you believe is known as the customer indifference standard?

A I'm not sure.

Q Are you aware of any FERC decisions that have ever used the term "customer indifference standard?"

A I'm not.

Q Thank you. Now, it is your view that the customer indifference standard means that avoided cost rates should be based upon the most reasonable forecast of the Company's resource costs?

A They're intended to set just and reasonable rates for customers, so, yes.

Q And it should be based on a reasonable forecast?

A Yes.

Q And I assume you would agree that if -- the customers would be harmed if avoided cost rates are set higher than the most reasonable forecast?

A The -- if customers pay in excess of avoided costs, then customers would be harmed, yes.

Q And would the converse be true, that if

avoided cost rates are set too low, would customers be harmed in that circumstance?

A   I suppose not, because if customers' actual avoided cost was higher, they're getting a better deal.

Q   So assume for the sake of argument that the customer -- the Company's actual avoided costs are $30 per megawatt hour. And if the avoided cost rates are set at $20 per megawatt hour, do you see any possibility that customers could be harmed in that circumstance? Let me give you an example. Let's assume for the sake of argument that, because the avoided cost rates that are administratively determined are set at $20, that QFs are unable to contract with the Company. Would that result in harm to the Company if avoided cost rates are set too low and lower than the Company's actual avoided costs?

A   I guess I would have to say no. The Company is still going to procure the resources it intends to procure, it hasn't signed a QF contract, there's no difference in that example. It's just the continued expectation of future conditions.

Q   So if the Company builds a resource at $30 and the avoided cost rates are set at $20 so the

Company does not enter into a contract with a QF but builds its own resource at $30, then customers in that circumstance are not harmed?

A When the Company procures resources, it does so through a competitive process, and it finds the least-cost opportunities to serve customers. To the extent some shortfall in avoided cost prices has led to less QF procurement, hopefully the RFP process would allow QFs to develop as well, but, you know, we have to set a reasonable avoided cost. That's why we're trying to set something that's not too high and not too low.

Q But if it is set too low, in your view, customers are not harmed?

A I think for compliance with PURPA, it's appropriate to set avoided costs at a rate which causes customers to be indifferent.

Q Okay. Thank you. So I'd like to ask you some questions in terms of my understanding and everybody's understanding of the foundational terms of -- at a very high level, how Rocky Mountain Power calculates capacity payments to QFs. First of all, for energy costs, when you calculate the energy costs you do it essentially based on a GRID model?

A That's correct.

Q And then for Schedule 38, you determine the capacity costs based on the PDDRR methodology?
A That's correct.
Q And then historically the current Schedule 37 rates -- the capacity costs are based on fixed and variable costs of a thermal resource in the last IRP?
A That's correct.
Q And the date upon which either the current methodology for Schedule 37 or the PDDRR methodology is based on the resource sufficiency/deficiency date in the IRP?
A It's based on the date of the next major thermal resource.
Q Is that based on the IRP?
A It is drawn from the IRP preferred portfolio.
Q So prior to the date in the IRP of acquiring your next major resource, QF is paid energy prices based on the GRID model run, and then after that it's paid capacity payments based on the next deferrable resource in the IRP?
A So during the sufficiency period as it's called, that doesn't mean that the Company has adequate capacity to serve customers. It means that

the market opportunities that we have access to are -- there are sufficient market opportunities available such that capacity from those market opportunities can be used to serve customers. And in both Schedule 37 and Schedule 38, we include the avoided cost associated with displacing those market opportunities during the entire time frame up until a new resource is displaced.

Q Thanks. That's a little more detailed. I appreciate that. So as I understand it, one of the major changes that the Company is proposing in this case is that for renewable resources of the same kind, like, same -- like is how you describe it -- in the next -- the date in which you're going to acquire that renewable resource in the IRP, the capacity payments will be based on the cost of that renewable resource rather than a thermal plant?

A That is correct.

Q Is it correct that in the Company's past IRPs, they didn't always include renewable resources as the least-cost, least-risk resource in the preferred portfolio?

A The preferred portfolio makes up the resource additions that are part of a least-cost, least-risk plan, given the forecasts of prices and conditions at that time. So what's actually in the preferred portfolio changes every year when we do an IRP or an IRP update. And, yes, there have been times when it has not contained renewable resources.

Q In the current IRP, there's a wide variety of various resources, including renewable resources in the preferred portfolio, correct?

A Yes.

Q I'd like to direct you to page 9 of your direct testimony. This includes the list of those resources the Company considers deferrable in the preferred portfolio?

A That's correct.

Q Can you tell me what you mean by deferrable when you say "considered deferrable," what that means?

A Those are resources that we would consider removing from the IRP preferred portfolio when we add QFs.

Q Thanks. And the next major baseload renewable resource is the 2029 geothermal project, correct? That's on line 186.

A Yes.

Q Where is that geothermal resource located?

A Oregon. Portland.

Q Okay. And under Rocky Mountain Power's like-for-like approach, a Utah QF would be paid capacity payments based on this 2029 geothermal project in Portland? There's a 3-megawatt hydro resource and they are selecting -- they want to be paid -- their avoided cost rate would be based on GRID market purchases until 2029, and then starting in 2029, they'll be paid capacity payments based on this geothermal resource?

A It's difficult to see whether there's a distinction between this geothermal resource and a thermal resource for the purposes of Utah avoided costs.

Q So I had thought that in your testimony, you considered hydro generation like, or similar to, geothermal generation, right?

A Yes.

Q So I thought that a hydro resource would be -- or the geothermal resource would be deferred by -- or the avoided cost rate payments would be based on the next deferrable-like-resource in the IRP, which in this case is a 2029 geothermal resource.

A I guess in my testimony I gave the example of a baseload resource deferring the 2029 simple cycle. I don't know that a renewable resource based on the Utah rules would necessarily defer the geothermal resource.

Q I'm looking at the Company's proposal in this case and if you are a Utah wind QF, my understanding of the Company's proposal is that, looking at this list of what the Company calls deferrable resources, that the Utah wind resource would be paid capacity payments based on the 2031 acquisition of Dave Johnston wind.

A Okay.

Q Is that correct?

A Yes.

Q So as I understood it, a hydro resource would be considered like a geothermal resource in terms of determining its payments under your the PDDRR methodology?

A They're certainly both renewable and they would seem to be like, but I guess I just don't know that there's a distinction between a baseload renewable resource and a baseload non-renewable resource for the purposes of Utah avoided costs.

Q So is the Company proposing in this case that, starting in 2029, if you're a renewable hydro project, you would give up your renewable energy

certificates to the Company in 2029?

A Certainly if that hydro project is being paid based on the geothermal resource, but if it was being based on a simple cycle, it would not.

Q So what is the Company proposing in this case? So if you look at your testimony on page 8, starting at line 167, it says, "Biomass, biogas, hydro, and other renewable resources with similar output profiles would also be eligible to displace the geothermal resource."

A What line is that again?

Q Line 167 to 168.

A In direct?

Q In your direct testimony, opposite side of the page. And then you go on, "Any renewable resource with relatively flat output over a daily and monthly time frame would be considered a resource of the same type as the geothermal resource in the 2017 IRP."

A Yes.

Q So my assumption was that -- and then when I flipped over to the next page, the one where you have the list of all the various resources -- that since there is a 2029 geothermal resource, if a Utah hydro project came to you, they would be paid an

avoided cost rate based on energy payments until 2029 and capacity payments based on a geothermal resource starting in 2029?

A Yes.

Q Okay. Great. So if there was no geothermal resource in your IRP, though, then the hydro resource would be paid based on the next deferrable thermal resource, correct?

A That's correct.

Q And in your IRP, you've got a thermal resource in 2029, the Utah North simple cycle turbine -- and this is on line 175 -- and then a 2030 Willamette Valley combined cycle combustion turbine. And where is the Willamette Valley combined cycle combustion turbine located?

A It's in West Main, Oregon.

Q Okay. And that is considered deferrable by a 3-megawatt hydro unit?

A To the extent other things earlier than that have been deferred, yes.

Q Okay. So you consider an Oregon west geothermal project deferrable by a Utah hydro unit, as well as an Oregon gas-fired unit deferrable by a Utah hydro unit?

A Those are the capacity additions in the

IRP preferred portfolio, yes.

Q Okay. Thanks. So let's use another hypothetical here. Let's assume in your 2017 IRP that you only identified two types of resources: A thousand megawatts of wind in 2020, and a thousand megawatts of wind in 2025. That's all the IRP says that you're going to acquire. Now, would this 2000 megawatts of wind provide some capacity value to the Company?

A Certainly in the IRP analysis, the capacity contribution of the wind would be taken into account as it builds a portfolio of resources necessary to serve customers over the (inaudible) so, yes.

Q It might be helpful -- maybe it's only me -- but it might be helpful if you say the yes first, and then give the explanation. I think it's very helpful that you give the explanation, but sometimes it's hard to know whether you're getting to the yes or no.

A Okay.

Q So if the 2017 IRP did not include any solar thermal resources in the preferred portfolio, then a Utah solar facility would only be paid energy prices based on the GRID model in all years?

A To the extent that there were no solar resources in the IRP and no thermal resources in the IRP, then I believe there would still probably be some market transactions that were assumed to provide capacity during the term of the IRP. Those tend to go all the way through the end of the IRP study period. We tend to maximize our use of those lowest cost capacity resources, but the solar price would be based on deferring market capacity.

Q So, yes?

A Yes.

Q Thanks. So under these circumstances, PacifiCorp could acquire 2,000 megawatts of wind generation, but a Utah hydro or solar facility would only be paid energy and not capacity over its entire 15-year contract term?

A The wind resource would be paid the fixed costs of a wind resource in the IRP portfolio because we believe that's a reasonable change to the IRP portfolio consistent with the least-cost, least-risk standard. The solar resource would be paid market price because that is consistent with the IRP preferred portfolio as well.

Q So, yes?

A Yes.

Q So if the IRP does not call for the acquisition of thermal resources or a renewable resource of the same like-kind, then they're not paid capacity based on the circumstances that I have described.

MS. HOGLE: I'm sorry. Excuse me. Objection. I think he's mischaracterizing Mr. MacDaniel's [sic] testimony. I believe Mr. MacDaniel [sic] has said "yes" to the extent that the resource is displacing market purchases. Those markets purchases, to the extent they're displacing capacity, are being paid capacity; is that correct, Mr. MacDaniel [sic]?

A Yes. Market purchases are a capacity resource which we procure as part of our least-cost, least-risk IRP preferred portfolio, and we would compensate QFs for those to the extent it's appropriate to do so, based on the portfolio.

BY MR. SANGER:

Q So your market purchases are short-term purchases in the market, a two- to five-year period?

A I mean, it could be one hour, two.

Q And those include some capacity benefits is what Ms. Hogle was trying to clarify?

A Yes.

Q It's a small capacity. They're energy purchases but they're not a hundred percent energy?

A Correct.

Q So in my example of the preferred portfolio including 2,000 megawatts of wind and no other resources, if Rocky Mountain Power entered into contracts with a thousand megawatts of Utah solar, then would that defer any of the planned Utah wind resources?

A I would need to run the IRP models in order to determine what our least-cost, least-risk plan would be with a thousand megawatts of solar. A thousand megawatts of solar is a very substantial acquisition. We did add about a thousand megawatts of solar in 2016 thereabouts, so it does happen, but it would be very difficult to say -- for me to say using the PDDRR methodology or anything, that a least-cost, least-risk plan could be -- that we could shortcut the entire IRP process and conclude how a thousand megawatts of solar wind would contribute to our preferred portfolio.

Q I'm sorry. I didn't quite know whether that was a yes or no.

A Could you repeat the question?

Q So if Rocky Mountain Power entered into

contract with a thousand megawatts of Utah solar PPAs, then that would not defer a single megawatt of the 2,000 megawatts of wind resources in the preferred portfolio?

A   I don't know. That's what we need the IRP to tell us.

Q   And you have -- how many years of experience do you have working with PacifiCorp?

A   Eight years.

Q   Eight years experience. Now, if you were to guess, would you guess that the acquisition of a thousand megawatts of solar might defer a single megawatt of the Utah wind?

MS. HOGLE: Objection. That's speculative. I believe he's already testified that he wasn't sure, that he didn't know, whether there would be a displacement.

BY MR. SANGER:

Q   What if Rocky Mountain Power acquired 2,000 megawatts of solar? Is there any point at which you become sure that at least a megawatt of that wind would be deferred by the acquisition of Utah solar?

A   At some point it would have to, but I don't know what that point is.

Q Okay. Thank you. So I want to move on a little bit here now to renewable energy certificates. I think we answered this before, but I just want to make it clear. So in our previous example, we talked about a biomass unit being deferred by a hydro unit -- the 2029 period of a biomass unit -- so under that circumstance, if the QF is paid based on the deferred cost of a renewable biomass project, then it is paid those fixed costs and gives up its renewable energy certificates, correct?

A Yes.

Q Conversely, if they're paid based on the cost of a thermal resource, then they keep their renewable energy certificates?

A That's correct.

Q And I assume it would be the case if the resource in the preferred portfolio was a biomass unit that did not qualify under the RPS, then the QF would keep its renewable energy certificates?

A The intent is that there's an alignment between the retention and -- customers are indifferent between the renewable energy credits they would have received from the resource being deferred and what they receive from the QF, so, yes.

Q So the key distinction in terms of REC ownership is whether the resource in the preferred portfolio qualifies under the RPS?

A Whether it provides renewable energy credits, there's no RPS in Utah, so --

Q Under a RPS?

A I mean, it doesn't even have to be an RPS. The renewable energy credits could be used for lots of things. There's voluntary sales, we're in compliance with -- future environmental federal law potentially could look at renewable energy credits.

Q So it's the creation of renewable energy certificates that makes the difference?

A Yes.

Q Thanks. So I wanted to, again, move on to another subject. Do other states have renewable avoided cost rates?

A Yes.

Q And I'd like to refer to your rebuttal testimony on page 10, lines 201 to 212. There, you state that renewable avoided cost rates are paid based on the incremental value of RECs transferred to a QF to the utility based on the value of those RECs for RPS compliance.

A I said that generally that would be a way to set avoided costs.

Q Well, so you're asked the question how are they typically implemented and -- yes, so you say -- thank you. What other states use a renewable avoided cost rate?

A I'm familiar with Oregon and I know that California has some, but just based on case law that I have seen cited. I don't have particular details on that.

Q So when you're talking about how they're typically implemented, you're talking about Oregon?

A No.

Q Okay. You're talking about Oregon and California?

A It's my understanding of how one would calculate the incremental value.

Q Right. I was trying to understand what was your sample size, what areas were you basing that opinion on. I heard Oregon and California.

A I guess it -- I don't have a larger sample that I have verified is calculated this way.

Q Okay. Oregon was one of the states in your sample. I wanted to go over how Oregon's renewable avoided cost methodology works. Are you familiar with that?

A I am.

Q So -- and I understand the Company is not supportive of that methodology; is that correct?

A That is correct.

Q But I'd like to just get some of the facts of that right now. So is the Oregon renewable avoided cost rate based on the incremental value of the RECs transferred from the QF to the utility?

A No.

Q Maybe you could explain how the Oregon renewable avoided cost rate is calculated?

A So in Oregon for standard avoided costs, which is basically a spreadsheet calculation similar to our Schedule 37, they have a proxy resource, renewable resource, from the IRP. It may not have been selected in the IRP preferred portfolio and, in fact, current rates are not based on an IRP resource that was selected in the preferred portfolio. And in the deficiency period, when Oregon is assumed to be -- to have run out of renewable energy credits for compliance with its RPS, the cost of that renewable resource is used to set the avoided cost price. So the all-in cost of, currently, a wind resource, is used to set the avoided cost price. And there are some adjustments in that calculation to account for other renewable resources. And so there's adjustments to integration costs and capacity contribution that -- the concept being, the other resources may provide more capacity value than the wind resource and that they should be compensated to account for that additional value.

Q And in Oregon right now, the date of deficiency is 2028, correct?

A Under the standard tariff, the date of deficiency is 2028, yes.

Q And under the renewable tariff, as well?

A They both happen to be 2028.

Q That's just a coincidence?

A Yes.

Q So starting in 2028, the fixed and variable costs of the deferrable wind resource are what's paid to the QF under the renewable rate?

A I believe so, yes.

Q Okay. And as you testified a minute ago to the Commissioners, the Oregon renewable avoided cost rate is not limited by like-for-like?

A It does allow for any resource to be paid and it's calculated based on wind resource.

Q So going back to your statement on page 10

when you were talking about how they're typically implemented and how they're generally implemented, in at least half of your sample size, that's not how they're implemented, that the rates are not based on the value of the REC that's transferred for RPS purposes.

A   Okay.

Q   I wanted to move on to the issue of Wyoming transmission and whether that's -- Wyoming wind and transmission and whether that's a deferrable resource.

COMMISSIONER LEVAR: Mr. Sanger, this might be an appropriate time to take a break, assuming we're really close to the end, to give our court reporter a break.

(A short break was taken.)

COMMISSIONER LEVAR: We're back on the record, and before we continue with Mr. Sanger's cross-examination, the court reporter has asked me to give everyone a reminder to please be deliberate in your speaking. Getting an accurate record of this proceeding is important for a lot of reasons, so please remember that as you're speaking. With that, we'll go back to Mr. Sanger.

BY MR. SANGER:

Q Mr. MacNeil, I'd like to ask you about the Wyoming wind and transmission now.

A Okay.

Q So as I understand it, Rocky Mountain Power's position is that Utah QFs do not displace or defer the Company's Wyoming wind resources because they do not interconnect with or use the Company's Wyoming transmission system; is that correct?

A That's our position.

Q So does this mean that a Wyoming QF that interconnects with or uses the Company's Wyoming transmission system could partially displace or defer the Wyoming wind?

A Potentially, yes.

Q Now, does the Company's Wyoming wind RFP allow non-Wyoming wind generation to bid into it?

A Yes.

Q So is it possible that the RFP could select a non-Wyoming wind resource, or is PacifiCorp only going to select Wyoming wind generation in its RFP?

A The RFP explicitly includes wind across our system, so to the extent that wind at any location is cost-effective, either inside or outside of Wyoming, then we would expect to include it in our selection of RFP results.

Q So if the Company's RFP selected a non-Wyoming wind resource located where there is sufficient transmission to Utah, could a Utah wind resource defer that non-Wyoming wind resource?

A So our QF PDDRR methodology looks at the preferred portfolio from our IRP, and the current preferred portfolio in the IRP includes the wind resources which we discussed previously, a 2021 wind resource, also 2031 in Wyoming, and 2036 in Goshen in Idaho. So those are the resources that are available to be deferred by a QF. At this time, to the extent that an additional opportunity comes up to procure wind in some other location, once we execute that contract, that contract will go into our analysis and be accounted for, but those potential contracts are not available to be deferred by QF's.

Q So you're basing what is deferrable based on the IRP rather than the RFP that this Commission ordered you to revise to include non-Wyoming wind?

A Yes. The deferrable resources -- for the purposes of calculating avoided costs -- are resources in the IRP preferred portfolio.

Q So let's go to the real world now. Could

a Wyoming wind resource take the place of or defer a resource acquisition in your Wyoming wind RFP?

A At the moment, we have a signed contract with a Wyoming qualifying facility and to the extent that contract remains valid and so on, that would reduce our ability to procure any additional resources in the RFP.

Q So what about a Utah wind resource? Assume for the sake of argument -- you said this is possible -- that your wind RFP might select a non-Wyoming wind resource, so that could be the resource that PacifiCorp would acquire, correct?

A Yes.

Q So that could be the actual resource that PacifiCorp could acquire?

A Yes.

Q And could, in actuality, a Wyoming wind QF that's of the same size defer that non-Wyoming wind resource?

A I guess I don't quite understand what you mean by defer. By the time we finish the RFP and pick a resource, that resource will no longer be deferrable. If, before the RFP finishes, we sign a QF in Wyoming, sorry, we sign a QF in Utah and before we've completed our RFP analysis, it may be the result that because of this new QF in Utah, it's no longer economic to acquire this non-Wyoming wind resource from the RFP. Maybe, had that QF not been there, it would have been economic, but since that QF was added, perhaps you could say that's deferrable. But I don't know all the details of the models and so on that would pick those portfolios. And for QF avoided costs, we use the IRP preferred portfolio even though, you know, there is new information that we're collecting all the time. But the only changes to the preferred portfolio we make are signed contracts, and it would have to be pretty explicit resources which are acquired, basically.

Q So as I understand it, the methodology that the Company is proposing here to use, the PDDRR methodology, does not account for that potential actual circumstance?

A Like I've mentioned previously, those potential actual circumstances are well beyond our ability to predict what the outcomes are going to be. PDDRR is a simple mechanism to take the IRP, which is heavily vetted, public, and so on, and use that to develop a wind cost that we believe are just and reasonable.

Q The answer was yes?

THE WITNESS: Can you please repeat the question?

MR. SANGER: Can the reporter repeat the question?

(The question was repeated.)

A The current PDDRR methodology does not account for potential supplied resources that could be acquired between now and the next IRP preferred portfolio coming out.

Q And the Company has also issued a solar RFP, correct?

A That's correct.

Q And is it possible that this solar RFP could select PPAs that have prices and benefits that are better than the all-in economic benefits associated with the Wyoming wind and transmission?

A It is possible that there will be opportunities to acquire solar that provide economic benefits. Those economic benefits could be bigger than those benefits from the wind and transmission. Just because they're bigger doesn't mean that you can't necessarily have both, and it is also possible, though, that as in the prior example, the procurement of these solar resources could cause the Wyoming wind and transmission no longer to be economic.

Q Thank you. As I understand it, you are basing your recommendation on using the last IRP, that list of resources, rather than an RFP that may be issued right now. So if it's in the IRP, then it flows into the PDDRR methodology, correct?

A If it's in the RFP, or we have signed a contract, acquired a resource, that's what's accounted for in the PDDRR methodology, not the potential outcomes of ongoing RFPs or negotiations and so on.

Q Are you familiar with the IRP process?

A Generally.

Q So is it correct that, usually, the IRP identifies the least-cost, least-risk resource for planning purposes?

A It identifies a least-cost, least-risk portfolio, yes.

Q And then, usually, as I understand it, what happens is the IRP is acknowledged or approved or accepted, whatever the individual state does, and then after that, the Company issues its RFP. Is that usually the planning steps, how it happens?

A That is one way to do it, yes.

Q Is that kind of the idea, that the IRP

figures out what you need and then after your need is identified, then you go out and issue the RFP?

A   That certainly is a good way to do it because everybody's on the same page and it allows you to -- no one is surprised by the result in that instance.

Q   So in this circumstance, we're not doing that, correct?

A   In this circumstance, we issued a wind RFP to procure resources that were identified in the IRP, and we're also issuing a solar RFP to gain additional information about the potential supply of solar resources and the potential costs and benefits that could occur.

Q   Just so I'm clear and understanding, this particular time you are issuing RFPs prior to the IRP being ruled upon in any particular state?

A   I'm not familiar with the timeline of acknowledgment, acceptance, et cetera, that's necessary for the IRP before an RFP might be issued.

Q   So do you know whether or not the IRP has been approved or acknowledged in the state of the Utah?

A   I don't know.

Q   And in Oregon?

A I don't know.

Q Would you accept, subject to check, that at least in Oregon, the IRP has not yet been acknowledged?

A Yes.

Q So let's assume, for the sake of argument, that this RFP is being issued prior to IRP or IRP acknowledgment. In that circumstance, would it be reasonable to use something other than what is in the IRP, the preferred portfolio in the IRP, but to use what the Company is actually doing on the ground in terms of acquiring resources?

A So the intent through all this --

Q So, I guess, maybe you can answer it yes or no and then provide your explanation.

A Would it be appropriate to use something different, that's the question?

Q Yes.

A And the answer is yes. And the first question in my summary was, what methodology should be used to produce avoided cost pricing for QFs consistent with the customer indifference standard. That's ultimately what we're doing here, and we believe the PDDRR methodology using the IRP preferred portfolio accomplishes that. And there may be instances where other information comes along and it would be appropriate to change what we're doing. To the extent we get solar RFP results which are well below what current avoided costs are, we should probably bring those to you and say, look, our process is broken, we need to change this because we have very strong evidence that avoided costs are less than what's currently being calculated under the PDDRR methodology. I'm not proposing that here, but if there's a difference between avoided costs being calculated and avoided costs in reality that's not consistent with the customer indifference standard, then it's appropriate to amend those.

Q   So in certain circumstances, it may be appropriate to not use the preferred portfolio that's identified into IRP in the PDDRR methodology?

A   Certainly.

Q   Thank you. I'd like to move on to the QFQ. Can you provide a brief explanation -- I think you did in the beginning of your testimony -- but another brief explanation of what the QFQ actually is and make sure we're on the same page?

A   The idea of the QFQ is that customers should not be obligated to pay QFs for the same increment of capacity -- for avoiding the same increment of capacity in the Company's portfolio. So if two QFs come along and receive prices that are based on the same increment of capacity, as we noted, the aggregate effect is the highest cost resources are avoided first and there's a declining avoided cost as we add additional resources to our system. So the idea of the QFQ is to ensure that QFs can receive prices, prices that they can lock in for a certain length of time, subject to the rules in Schedule 38, but also to ensure that customers are maintaining indifference and are protected from overpaying.

Q   I apologize. It was not a very good question. Can you tell us what it actually is, not it's purpose, but what is this thing, QFQ?

A   The QFQ is the list of all of the QFs that are currently negotiating for contracts with the Company.

Q   Thanks. And the Company's basic principle regarding incorporating QFs in the QFQ is that you should not pay any more than the avoided cost, correct?

A   Correct.

Q   Should it also be a basic principle, with

regard to incorporating the QFQ, to ensure that avoided costs are not set below the Company's actual avoided costs?

A   Certainly, it's appropriate to set avoided costs at avoided costs.

Q   Thank you. I'm going to refer to your direct testimony at page 35, and there's a table there. Now, I read this table as showing the difference for various resource types between the avoided cost prices and Schedule 37 based on the current GRID proxy method and either the proxy PDDRR method using the May queue, or using the proxy PDDRR method using the August queue; is that correct?

A   Correct.

Q   And switching to the PDDRR methodology for the May queue resulted in a price reduction for all resource types, and switching to the August queue resulted in a rate decrease for all types except for wind, correct?

A   That's correct.

Q   And the difference between the May and the August queue was around $2 to $3; is that correct? Looking at the May and August queue?

A   Yes.

Q   And that's over a three-month period,

correct? About three to four months?

A Yes.

Q So over a three- to four-month period of time, the prices changed $2 to $3?

A I guess I would like to clarify that it's not related to the passing of time that these prices changed. We took the queue in May -- and we agree that using the entire QFQ is inappropriate for setting Schedule 37 rates -- and so as an alternative, based on Parties' indication that the entire QFQ was too much -- we put in a QFQ that removed a bunch of those resources which were in the queue in May. So we assumed that -- we had evidence that those resources were not signed, and we don't know what might be signed that is later queued, but we believe that was a reasonable midpoint on which to base the Schedule 37 avoided costs. And I would point to Figure 1R in my rebuttal testimony which provides a clear illustration of these numbers. It's on line 482, page 23.

Q I guess the definition of "clear" is in the eye of the beholder.

A I guess the point is, we have demonstrated the effect of the QFQ. We have the entire queue in May -- that's on the right -- we have the Company's proposal which is the August position -- that's in the middle -- and we have the signed queue with no QFQ, assuming no QF additions occur during the pendency of the Schedule 37 tariff. So there's the trend. Those are the impacts of the QFQ on avoided costs. We believe the August proposal is reasonable and, you know, that's what we support.

Q   So getting the QFQ correct is very important because it can have a pretty significant change in the avoided cost prices?

A   Certainly.

Q   Thanks. I'd like to move on to your testimony, your surrebuttal testimony, and I can refer you to the page number, but I just wanted to paraphase your testimony in that, it's your position that it is impossible to evaluate the reasonableness of Coalition witnesses John Lowe and Neal Townsend, as well as Utah Clean Energy witness Ken Dragoon's recommendations, because they have not provided supporting calculations?

A   That is my position, yes.

Q   Are you familiar with how the Oregon and Washington Commissions have made or are making methodological changes in avoided cost rates?

A   I am generally familiar.

Q I would like to provide a REC cross-examination exhibit. May I approach the witness?

COMMISSIONER LEVAR: Yes.

(REC Cross-Examination Exhibit No. 1 marked.)

BY MR. SANGER:

Q Are you familiar with this document?

A I believe I've seen it. I believe I attended some of the stakeholder meetings associated with this process.

Q Can you summarize what you think it is?

A Washington is reconsidering how to prepare an avoided cost methodology that is applicable to qualifying facilities.

Q And is one of those issues, what is the appropriate avoided cost methodology for calculating QF energy and capacity rates?

A It is.

Q And as you mentioned, you participated in some of those workshops. Did you help prepare PacifiCorp's comments in that proceeding?

A It probably went through my email box, so, likely.

Q And did PacifiCorp provide any supporting calculations or work papers with those comments?

A I don't believe so.

Q And do you know how long those comments were?

A No.

Q Would you accept that they were only six pages?

A Okay.

Q So do you think it's reasonable for the Washington Commission to set an appropriate avoided cost methodology for calculating QF energy and capacity rates based on six pages of comments without supporting calculations?

MS. HOGLE: Objection. The reason why I'm objecting is because I don't think it's relevant to avoided cost rates and our calculations here in Utah.

THE WITNESS: Can I respond?

COMMISSIONER LEVAR: Is the objection withdrawn or do we need to deal with the objection?

MS. HOGLE: The objection is withdrawn.

A I believe the stakeholder process here is intended to find information to inform that process. So I believe the fact that there's only comments in this is appropriate at that stage of that proceeding.

BY MR. SANGER:

Q Thank you. Are you familiar with how Oregon adopted its current renewable avoided cost rates?

A I am, generally.

Q And did you participate in that process?

A No.

MR. SANGER: I'd like to hand out both of them at the same time, REC Cross-Examination Exhibit Nos. 3 and 4. May I do so at this time?

COMMISSIONER LEVAR: Yes.

(REC Cross-Examination Exhibit Nos. 3 and 4 marked.)

BY MR. SANGER:

Q REC Cross-Examination Exhibit No. 3 was a ruling in Docket UM1396. Was this the docket that the Oregon Commission adopted renewable avoided cost rates?

A I believe so, but I was not involved in that docket, or particularly in avoided costs at the time.

Q So I'd like to refer you to page 3 of REC Exhibit No. 3, and this is a ruling reopening a case to accept comments. And on page 3, it discusses the two various approaches for calculating rates during

the resource deficiency period. And it discusses that, if a peaking resource precedes another major resource, the avoided cost will be based on the market plus a premium for capacity, and the market rate will be in effect until the start of the next major resource.

For the renewable QF, which the developer will cede the RECs over to the utility, the proposed QF may choose an avoided cost stream based on the avoided cost of the major renewable acquisition.

When the major avoidable resource is a gas plant, Gas CCCT, all QFs may choose an avoided cost stream based on the cost of the Gas CCCT.

In your brief, limited review of this, does that kind of encapsulate what the Oregon process is for renewable avoided costs?

MS. HOGLE: Objection, Your Honor. I believe that Mr. MacNeil has testified that he was not part of this proceeding and he did not even participate, and so I don't think Mr. Sanger has provided sufficient foundation to even question Mr. MacNeil about this. So I object to even the question.

COMMISSIONER LEVAR: Mr. Sanger, do you want to respond to the objection?

MR. SANGER: Yes. So I think we have established that Oregon has a renewable avoided cost rate methodology. Mr. MacNeil is familiar with that, explained what it means. My question is, on this exhibit, the Oregon Commission has made a proposal to adopt a renewable avoided cost rate methodology. That is on page 3 of the exhibit. And what I would like Mr. MacNeil to answer is not whether he participated in the case but to read this page and tell me if that is generally consistent, on a high level, with the current methodology. This could be a page from any document, and I'd like him to take a look at it and tell me whether or not it's consistent with his understanding of the current Oregon renewable avoided cost methodology.

COMMISSIONER LEVAR: Whether any of these three options that are on this page are consistent?

MR. SANGER: Yes.

COMMISSIONER LEVAR: Ms. Hogle, do you have anything else to say on your objection with that clarification?

MS. HOGLE: I do. Thank you. And I guess my reaction to that is that this is the first time that we've taken a look at these documents. It could be taken out of context. I'd like to see the full record of the proceeding to see how these three questions relate to that. I think it's insufficient material for him to be asking the question, given Mr. MacNeil did not participate in that proceeding.

COMMISSIONER LEVAR: Does any other party in this docket have anything they want to add to this objection? As I'm considering the relevance of this, I'm recalling that as the line of questioning began, this was based on Mr. MacNeil's criticism of other parties' proposals for lacking sufficient calculations and background. I think there's some relevance. I think our relevance on this is -- does have its limits, but at this point, I think I'm not prepared to cut off this particular question.

THE WITNESS: Please repeat the question.

BY MR. SANGER:

Q What I would prefer is if you look at page 3, where it says, "For resource deficiency periods, avoided costs will be based on one of the following." And my question to you is whether that summary is, at least on a high level, generally consistent with what the current Oregon renewable

avoided cost methodology is?

A I understand that the standard renewable costs in Oregon continue to use this methodology, and when the Commission considered changing the methodology for nonstandard QFs, it adopted a different approach and neglected to establish a renewable avoided cost methodology at that time, and it is continuing to consider the appropriate renewable methodology for nonstandard QFs. And pertinent to this, I was not involved in this, but what I identified in a case in Oregon is the REC price, the implied REC price that Oregon customers pay to QFs who choose to have -- to defer renewable resources is in the ballpark of $20 to $30 per megawatt hour for just the REC. So if you have nonstandard rates, you're a wind resource, if you opt to also cede your REC -- that's electronic and has no impact on the system other than RPS compliance -- those resources are paid an extra $20 to $30 per megawatt hour.

Pertinent to this -- this is what the Commission ordered -- I don't know that they truly appreciated what they were ordering at the time, and I certainly expect that this may be changed in the near future because I do not believe a $20 to $30

REC price is an appropriate price for the Company to acquire renewable energy credits (inaudible)RPS. So it's an example of, these are the rules, but if we don't fully understand how those are going to be applied and the results, you can see things that are just foolish in the outcomes that are not apparent in very reasonable statements of principle and methodology.

Q So I think the answer was yes, that this summary is -- on a high level, represents the current Oregon Schedule 37 approach.

A I said that it still is correct for the standard rates, yes.

Q Thank you. So the next question I wanted to ask you is, would it surprise you that PacifiCorp believed that in consideration of this proposal, that the questions were primarily legal and policy in nature and therefore should not require evidentiary proceedings?

MS. HOGLE: Objection. Mr. MacNeil doesn't know what PacifiCorp believed or did not believe, so I think that question is objectionable.

BY MR. SANGER:

Q I'd like to refer you, then -- I'll move -- I believe that she's correct that I haven't

laid the proper foundation so I will attempt to do that. If you refer to REC Exhibit No. 4, page 9 of 10, at the bottom of that -- you could look at the first page as well, which are PacifiCorp's opening comments responding to this document -- if you look at the bottom of that page it says, "Procedural Issues." And the question is, "Which of these issues should be the subject of evidentiary proceedings?" And then PacifiCorp says, "PacifiCorp believes that the issues raised in Order No. 10-448 are primarily legal and policy in nature and therefore should not require evidentiary proceedings. However, if the Commission determines that the avoided cost framework should be modified further, PacifiCorp may recommend that those new modifications be subject to evidentiary proceedings."

A That is what it says.

Q Does that surprise you?

A It doesn't surprise me because these rates have remained in effect since this happened and it took my analysis of the results to point out how preposterous it was. Had we known, we would have brought this up much sooner.

Q And under these "preposterous rates" for

renewable rates in Oregon, are there a large number of renewable QFs entering into contracts with PacifiCorp now?

A I'm not sure of the total number of QFs which have entered into rates based on this methodology. I know we did procure a couple hundred of megawatts of solar resources in Oregon under the standard methodology. I do know that currently Utah customers, in fact, are allocated the largest share of those costs. It remains to be seen because renewable rates have not been paid to QFs, whether Utah will continue to pay for those RECs that Oregon is intending for, based on its RPS compliance.

Q I just have one further line of questioning. So I'd like you to refer to John Lowe's direct testimony. There's an exhibit to that which is the current Oregon avoided cost rates.

A I don't believe I have the exhibit.

Q I can hand it to you, sir. Is that the current PacifiCorp Oregon Schedule 37 or, at least at the time of this filing, was it the current one?

A I believe it is the current one, yes.

Q Are you aware of whether any QFs have been able to enter into contracts with PacifiCorp under that schedule?

A I'm not sure.

Q Okay.

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

COMMISSIONER LEVAR: Thank you. I think we'll go to redirect now from Ms. Hogle. And there's a point that I was just reminded of. Just for clarification on the record, we're using the abbreviation "RECs." There's a party that is abbreviated "REC," and then there is a term of art that we're using, so it might be good to avoid the abbreviation for clarify in the record. Usually, context would clarify that, but to avoid potential confusion, let's try to avoid using the acronym "REC" as we're speaking. Ms. Hogle, with that, we'll go to you for redirect.

REDIRECT EXAMINATION

MS. HOGLE: Just maybe a couple. I think he answered one of them already.

BY MS. HOGLE:

Q Mr. MacNeil, do Oregon rules include renewable rates for Schedule 38?

A Not at this time.

Q During Mr. Sanger's line of questioning, he was also asking you -- and I think he took you

through a table in your testimony regarding the differences in prices between the queue in May and the queue in August 2017. How long will the prices be in effect for Schedule 37?

A So from the time the Commission approves the new tariff and it takes effect until it approves a new tariff and that tariff takes effect. So we file annually following -- within 30 days of our IRP or IRP update, and if it's a smooth process it could be approved within 30 days. If it's not smooth, we did get a rate update this year in, I believe, June, but the current proposal is still on the table so it could be a while.

Q For the prices in the August queue, will the Company be making another filing in June 2018, approximately?

A Yes. So following the filing of the 2017 IRP update in March 2018, we will be filing to update Schedule 37, and it will include new assumptions and so on at that time. We would include a reasonable portion of the QFQ at that time as well.

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

COMMISSIONER LEVAR: Any recross,

Ms. Hayes?

MS. HAYES: No, thank you.

COMMISSIONER LEVAR: Mr. Sanger?

MR. SANGER: No, thank you.

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

COMMISSIONER CLARK: I don't, currently, but I'm wondering if we could make certain that Mr. MacNeil would be available, potentially, after the other witnesses have testified. I might have a question or two for him then.

COMMISSIONER LEVAR: Any concerns, Ms. Hogle, with that?

MS. HOGLE: The Company has no concerns. He will be made available. Thank you.

COMMISSIONER LEVAR: Commissioner White, do you have any questions?

COMMISSIONER WHITE: I'll reserve any questions that I have to a later time.

BY COMMISSIONER LEVAR:

Q I have a couple for you. And this question may not be within your job duties. If it's not, just let me know. But since Rocky Mountain

Power filed -- PacifiCorp filed its 2017 IRP on the issue of deferring like-resources during the -- establishing the deficiency period based on like-resources, has PacifiCorp been calculating Schedule 38 pricing under that methodology since the filing of the 2017 IRP that contained deferrable resources?

A   Yes. So once the 2017 IRP was filed, we have been employing the like-for-like deferral, which came out of Order 12-035-100, and that includes a queue of solar resources deferring solar, wind deferring wind, other resources deferring thermal.

Q   So that's already happening in Schedule 38, correct?

A   Yes.

Q   Just a couple of different questions on two different issues. Are you aware of any Schedule 37 projects that connect to the transmission system?

A   I'm not familiar with what the interconnection rules are -- not rules, but specifics are for those resources.

Q   So you don't know, yes or no, whether all Schedule 37 projects connect directly to the distribution system?

A I do not.

Q I want to ask you about something about Mr. Lowe's testimony and surrebuttal. I think it's pretty much the same suggestion in both, and this is to queue position. I'll just read from Mr. Lowe's direct testimony, and I believe his statement in surrebuttal is about the same. It says, "A more reasonable position would be to use the historic percentage of QFs that are constructed as compared to the entire queue or certain completion milestones that show a proposed project is likely to be constructed like competing" -- I should have given you the line numbers. I'm sorry. I'm on page 24 of Mr. Lowe's direct, lines 503 through 506. I don't know if you have that in front of you. And my question is -- it's a hypothetical one -- but looking at that language, if we were to consider ordering something along the lines of what is suggested there, is there sufficient specificity, or are there more details that -- if we were inclined to order something like that, would you need additional details from an order to know how to implement something like that?

A I would definitely need additional details.

COMMISSIONER LEVAR: That's all the questions I have. Thank you, Mr. MacNeil.

MR. SANGER: I have a question. Is now the time for me to move for the admission of my cross-examination exhibits or should I do that later?

COMMISSIONER LEVAR: Now would be an appropriate time for that.

MR. SANGER: I'd like to move for the admission of my cross-examination exhibits, REC Exhibits 1, 2, 3, and 4.

COMMISSIONER LEVAR: If any party has any objection, please indicate to me.

MS. HOGLE: I just have a comment. I see three cross-examination exhibits; I don't see four. I apologize.

MR. SANGER: REC Cross-Examination Exhibit No. 3 was the ruling, and you have 1396. And I can hand you a copy if I neglected to do so.

COMMISSIONER LEVAR: If this helps, I have a 1, 3, and 4, but I don't have a 2.

MR. SANGER: You're right. I did not use Cross-Examination Exhibit No. 2, so I will not move for the admission of that.

COMMISSIONER LEVAR: So your motion

is for 1, 3, 4?

MR. SANGER: Yes.

COMMISSIONER LEVAR: Okay. If any party objects to this motion, please indicate to me. I'm not seeing any objections, so the motion is granted. Ms. Hogle, do you have anything else?

MS. HOGLE: The Company rests its case, however, Mr. MacNeil will be available for any questions that the Commission may have after questioning the other witnesses. Thank you.

COMMISSIONER LEVAR: Thank you. Let's go to Mr. Jetter now.

MR. JETTER: Thank you. The Division would like to call and have sworn in Dr. Abdinasir Abdulle.

DR. ABDINASIR ABDULLE,

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

BY MR. JETTER:

Q Would you please state your name and occupation for the record?

A My name is Abdinasir Abdulle, A-b-d-i-n-a-s-i-r A-b-d-u-l-l-e, and I am working for the Division of Public Utilities. I'm here to testify on their behalf.

Q Thank you. And in the course of your employment with the Division of Public Utilities, did you have an opportunity to review the filings in this case?

A Yes, I did.

Q And did you create and cause to be filed with the Commission three DPU prefiled testimonies which are direct testimony, rebuttal, and surrebuttal, along with any exhibits that --

A Yes, I did.

Q Do you have any corrections or edits you'd like to make to this?

A No.

MR. JETTER: I'd like to move at this time to enter those three prefiled testimonies into the record.

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

BY MR. JETTER:

Q Thank you. And following up on that, briefly, if you were asked the same questions in those testimonies that you have prefiled today, would your answers remain the same?

A Yes.

Q   Thank you. I have no further questions for Dr. Abdulle. He's available for cross.

COMMISSIONER LEVAR: I think I will go to Mr. Snarr first.

MR. SNARR: No questions.

COMMISSIONER LEVAR: Ms. Hogle, do you have any questions?

MS. HOGLE: No questions.

COMMISSIONER LEVAR: Ms. Hayes.

MS. HAYES: Yes, just a few. Thank you.

CROSS-EXAMINATION

BY MS. HAYES:

Q   Good morning, Dr. Abdulle. You have testified that like-for-like deferral is one way to preserve customer indifference, but you have also testified that it is not the only way to preserve customer indifference; is that correct?

A   Yes.

Q   Under the traditional proxy PDDRR method, a renewable resource can displace a thermal resource, no problem, right?

A   Currently, that's the case.

Q   Do you think it's appropriate that having renewable resources in the preferred portfolio

should make avoided cost pricing more restrictive for renewable QFs?

A I didn't see this case as being more restrictive, but if that's the case, I don't think it's wise.

Q Okay.

COMMISSIONER CLARK: Chair LeVar, I'm having difficulty hearing the witness.

COMMISSIONER LEVAR: If there's a way to adjust the microphone closer to your mouth.

BY MS. HAYES:

Q So under the Company's proposal when there is a renewable resource in the preferred portfolio, there's a limitation on the types of renewables we're allowing to make deferrals; is that correct?

A Yes. The Company is proposing like-for-like.

Q So having renewable resources in the portfolio does make pricing for QFs more limiting, doesn't it?

A Yes, in a sense.

Q So you've testified that the Company's proposal leads to the calculation of a specific avoided cost for each resource type, correct?

A Yes.

Q But it does more than just calculate pricing specific to each resource type, doesn't it? I'll explain that a little bit. The pricing assumptions limit resource deferrals to resources of the same type, correct?

A Yes.

Q So the utility's proposed pricing effectively limits what a QF can defer; is that correct?

A Yes. When I tested the proposal limits, it's like-for-like, so far.

Q But in reality, a QF will defer whatever is next deferrable, correct?

A The current methodology which says defer what's next, not considering the like-for-like, is the next thermal that should be deferred. But currently the way they're proposing is still the next -- the next like resources should be deferring.

Q Okay. But, sort of putting aside the modeling assumptions, won't what is actually deferred, in reality, just be whatever is next, regardless of type?

A Can you rephrase the question?

Q It just seems like, regardless of what the modeling assumptions are, what will actually be

deferred is just whatever comes up next.

A I don't understand what you are saying.

Q Okay. Forget it.

A It's the model we are talking about.

Q Okay. So you recommend that Schedule 37 QFs be placed in the middle of the Schedule 38 queue; is that correct?

A Yes.

Q Do you have reason to believe that potential Schedule 37 QFs will come online after half of the Schedule 37 -- half of the Schedule 38 projects?

A I don't follow it.

Q Well, you've recommended that the Schedule 37 projects come in in the middle of Schedule 38 queue, right? I'm just wondering if you have reason to believe that chronologically those Schedule 37 projects will, sort of, happen after those will actually come online?

A Well, the way I understand it is, the queue process, it's not when it's coming -- nobody knows when they will even come. But what we're saying is that it's unfair for the Company or for ratepayers that we don't consider any queue at all putting (inaudible) at the beginning. It's also unfair to put it at the end, so we're just coming up with a compromise position of the middle to be reviewed later on.

Q How many megawatts, roughly, is the middle of the queue?

A I don't have a number for that.

Q Would you accept, subject to check, that based on Mr. MacNeil's surrebuttal testimony -- or rebuttal testimony -- it's about 750 megawatts?

A I would accept that, subject to check.

Q I believe at the time of Mr. MacNeil's rebuttal testimony, the queue was roughly 1,500-megawatts long. We can confer at a break if that's incorrect. So do you have reason to believe that it takes the same amount of time for 25 megawatts of Schedule 37 QFs to come online as it does 750 megawatts of Schedule 38 QFs?

A The question is, do I believe that it will take the same amount of time, 25 and 700? I don't know. I don't have any way to say. If we bring the 25 now, it will come faster than the others and whatever will bring it first.

Q Okay. That's all my questions.

COMMISSIONER LEVAR: Mr. Sanger?

CROSS-EXAMINATION

BY MR. SANGER:
Q Very short cross-examination, Dr. Abdulle. I'd like to refer to your testimony on page 4, your rebuttal testimony. There is a question starting on line 70 where you are being asked to comment on Mr. Townsend and Mr. Lowe for the Coalition's recommendation that for all QFs regardless of size, the 2021 Wyoming wind resource should be the appropriate proxy for calculating avoided cost. Do you remember that question?
A Yes.
Q I want to go to the bottom, the last two sentences of your answer, starting on the end of line 82 where you state that, "The Commission has neither acknowledged nor approved the projects or the IRP analysis supporting them. It may be premature to include them in avoided cost calculations." That is your testimony, correct?
A That's why it's in there.
Q If the Commission acknowledges or approves the projects for the IRP analysis, do you then believe that it may be mature or the appropriate time to include them in the avoided cost calculations?
A Yes, but it will all depend on the

calculations of avoided cost and the IRP calculation. All those things will be factored in.

Q Okay. So I heard Mr. MacNeil here talk earlier that under at least the PDDRR methodology, that as soon as they file it, the preferred portfolio and other inputs and assumptions are calculated in the Schedule 38 rate process. Do you agree with that?

A Yes.

Q So in this case, since these are not included in the preferred portfolio, then you're recommending that they not be accounted for in Schedule 38 until after the IRP is acknowledged and approved?

A Even though the statement is saying it's not included, it's premature. I think including it would be okay.

Q Okay. Thank you. I have no further questions.

COMMISSIONER LEVAR: Any redirect, Mr. Jetter?

MR. JETTER: I have no redirect. Thank you.

COMMISSIONER LEVAR: Commissioner White, do you have any questions?

COMMISSIONER WHITE: No questions.
COMMISSIONER LEVAR: Commissioner Clark?
COMMISSIONER CLARK: No questions. Thank you.
COMMISSIONER LEVAR: I don't have any, so thank you, Dr. Abdulle. Mr. Jetter, anything further?
MR. JETTER: Nothing further from the Division.
COMMISSIONER LEVAR: We'll go to Mr. Snarr.
MR. SNARR: We'd like to call Cheryl Murray as a witness on behalf of the Office of Consumer Services.

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

BY MR. SNARR:
Q Could you please state your name, business address, and by whom you're employed?
A My name is Cheryl Murray. My business address is 160 East 300 South, and I am employed as a utility analyst for the Office of Consumer Services.

Q Did you prefile direct and rebuttal testimony in this docket?

A Yes. On October 3, 2017, I submitted seven pages of direct testimony, and on October 31st, I submitted three pages of rebuttal testimony.

Q Do you have any corrections you would wish to make to either your direct or rebuttal testimony?

A No.

Q And if you were asked those same questions today, would your answers be the same?

A Yes.

MR. SNARR: I'd like to move the Office of Consumer Services exhibits, identified as OCS 1D and OCS 1R, into evidence.

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

BY MR. SNARR:

Q What specific issues did you address in your testimony?

A In my direct testimony, I provided the Office's position regarding the issue of renewable energy certificate ownership, and the Company's proposals for including Schedule 37 qualifying QFs in the QFQ. In rebuttal testimony, I addressed an issue raised by Mr. Neal Townsend regarding the Company's proposed Wyoming wind projects.

Q Do you have a summary of your prefiled testimony?

A Yes.

Q Could you please provide that?

A Yes. First, I want to reiterate that any proposal or recommendation not addressed in my direct testimony does not indicate Office support or opposition to a particular issue.

Renewable resources identified in the Company's integrated resource plan include RECs, which would accrue to ratepayers upon acquisition of those resources. In this docket, the Company proposes that a QF -- if a QF defers a renewable resource that would otherwise produce RECs, renewable energy certificates, for the benefit of customers, the Company should retain the QF-generated renewable energy certificates for the benefit of the customers.

The Office's third said the Company's proposal is a reasonable way to allocate those renewable energy certificates and that only by allowing the Company to keep those QF-generated renewable energy certificates, can the PURPA customer indifference standards be met.

Regarding the Company's proposal to include Schedule 37 QFs at the end of the QFQ, as stated in my testimony, the Office believes that including Schedule 37 QFs in the QFQ is appropriate. However, placement at the end of the QFQ would likely not produce the most reasonable result. The Division of Public Utilities suggests including Schedule 37 QFs at the midpoint of the QF pricing queue and reevaluating this proposal in the future as appropriate. The Office supports the Division's recommendation.

On behalf of the Renewable Energy Coalition, Mr. Townsend advocates for including the Wyoming wind projects as deferrable resources for avoided cost pricing purposes. He also recommends that the Commission consider whether Schedule 37 and 38 renewable QFs should be credited with the equivalent of avoided transmission costs, given the linkage between the development of the 2021 Wyoming wind resources and the addition of new Wyoming transmission capacity. However, if and when PacifiCorp declares it is not going to pursue the wind projects, he recommends that the resource be removed from the avoided cost calculation. The office agrees that if the Commission allows the Wyoming wind resources to be included as a deferrable resource for avoided cost pricing but the Company decides for any reason not to pursue those resources, they should immediately be removed from avoided cost calculations.

In my rebuttal testimony, I stated that under the circumstances I just described, the Wyoming wind resources should be removed from avoided cost pricing calculations or avoided cost pricing would be overvalued and the ratepayer indifference standard could not be upheld. To clarify this point, the concept is to calculate as accurately as is reasonable, appropriate avoided cost pricing. Thus, whether avoided cost pricing would be higher or lower with the inclusion of Wyoming wind resources, if those resources are not acquired, they should not be included as deferrable resources.

Q Does that conclude your summary?

A Yes.

MR. SNARR: We would make Ms. Murray available for cross-examination.

COMMISSIONER LEVAR: Thank you.

Mr. Jetter, do you have any questions?

MR. JETTER: I have no questions. Thank you.

COMMISSIONER LEVAR: Ms. Hogle?

MS. HOGLE: Just a couple. Thank you.

CROSS-EXAMINATION

BY MS. HOGLE:

Q Ms. Murray, you just testified about your support, or the Office's support, for the midpoint of the queue. Were you in the room when Mr. MacNeil testified about the Company's filing in August?

A Yes.

Q Does the 36 percent of the queue and the Company's August filing, is that reasonable as compared to the midpoint of the queue that the OCS proposes?

A I haven't done an actual calculation of what the difference would be in the avoided cost pricing. I think that what we're looking at is the idea that Schedule 37 QFs be included in the queue. I'm not sure that anyone has provided a precise evaluation as to where it is most appropriate. So what we're looking at is what we think is a reasonable way to start and to continue to look at the issue.

Q Certainly, but I believe that one of the challenges that the OCS had with respect to the Company's original May position was that it was too extreme in terms of the prices. Am I characterizing that correctly?

A Our original position -- which is still our position -- is that if you put it at the end of the queue, we think that is very, very likely to be an inappropriate placement.

Q And why is that?

A Well, because if you look at the size of the QFs, if you look at the time it takes to build a QF, there are, in our estimation, there are generally differences in how long it takes to build a larger QF as opposed to a 3-megawatt QF. So calculating it based on -- and also, the larger QFs, I can't give you a number or a percentage of how many actually get built, but we do know that there are a fair amount that fall out of the queue without being built. And so if a lot of your pricing is based on that number, then it is very likely that your Schedule 37 pricing will not be appropriate.

Q So it will produce -- if you put them at the end of the queue, it will produce much lower

prices because it assumes --

A   Yes.

Q   So isn't 36 percent less than the middle, then -- wouldn't that produce avoided cost prices that are higher than the midpoint that the OCS proposes?

A   Potentially. I guess I have to say I am not certain -- was his 36 percent based on capacity, or megawatts, or on a number of QFs in the queue.

MS. HOGLE: Thank you. No further questions.

COMMISSIONER LEVAR: Ms. Hayes, any questions?

MS. HAYES: No questions. Thank you.

COMMISSIONER LEVAR: Mr. Sanger?

MR. SANGER: No questions.

COMMISSIONER LEVAR: Any redirect, Mr. Snarr?

MR. SNARR: No.

COMMISSIONER LEVAR: Commissioner Clark, do you have any questions?

COMMISSIONER CLARK: No questions.

COMMISSIONER LEVAR: Commissioner White?

COMMISSIONER WHITE: No questions.

COMMISSIONER LEVAR: I don't have any. Thank you. Do you have anything further, Mr. Snarr?

MR. SNARR: No. That concludes our presentation.

COMMISSIONER LEVAR: Thank you. With the concerns that Mr. Sanger raised this morning on one of his witnesses, I think we'll go to Renewable Energy Coalition first and then conclude with Utah Clean Energy. So we'll go to you, Mr. Sanger.

MR. SANGER: I call Mr. John Lowe to the witness stand.

JOHN LOWE,

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

BY MR. SANGER:

Q Mr. Lowe, can you please provide your name and position?

A John R. Lowe, and I'm an executive director and founder of the Renewable Energy Coalition.

Q Thank you. And under your direction, or as you prepared it, did you prepare direct and surrebuttal testimony including exhibits, in this proceeding?

A   Yes.

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

A   Yes.

MR. SANGER: I move for the admission of the direct and surrebuttal testimony and exhibits of Mr. John Lowe on behalf of Renewable Energy Coalition.

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

BY MR. SANGER:

Q   Mr. Lowe, do you have a summary of your testimony?

A   Yes, I do. I'm going to not read this, but summarize it. I believe Rocky Mountain Power has proposed some very significant changes to the methodology for Schedule 37, and the Coalition's position is that we don't believe that those are necessary and may be inappropriate in some ways. We are concerned about the approach of like-to-like on renewables, which has been discussed quite a bit in the hearing so I don't know that I need to go into detail on that issue. We're also concerned about whether the Wyoming wind and transmission projects should be considered for the purpose of avoided cost development and whether they're deferrable or not deferrable, or at least planned under the IRP. I'm not sure that Mr. MacNeil's proposal on the separate avoided cost rate -- we don't believe that it's inconsistent with our understanding of the customer indifference standard.

Also, with regard to the ownership of RECs, I think the Coalition's position is as it's been in Oregon, that the ownership of RECs under a renewable situation -- renewable avoided cost, renewable contract -- is: resource sufficiency, project keeps the RECs; resource deficiency, project turns over the RECs to the utility. But under a standard avoided cost involving a baseload or a thermal project, that the RECs would belong to the project.

With regard to the queue, my testimony indicates that we are not in support of the position that Rocky Mountain has proposed on putting Schedule 37 at the end of the queue. We have obviously proposed some other thoughts on how to approach that, recognizing that there probably does need to be more conversation about that. But, in general, I would say that I don't understand why Schedule 37 --

which is involving small projects that are usually pretty nimble in terms of coming online and don't really involve a lot of cost compared to Schedule 38 projects -- why we're being quite so concerned about some of these issues, frankly. So that's my summary.

MR. SANGER: Thank you. Mr. Lowe is available for cross-examination.

COMMISSIONER LEVAR: And I'm wondering if we should break a little bit early for lunch, just for continuity purposes as we move through cross-examination. I'm not seeing anyone objecting to that, so why don't we break for approximately one hour and we'll reconvene at about 12:45.

(A recess was taken.)

COMMISSIONER LEVAR: We are back on the record. Mr. Lowe, you're still under oath. And Mr. Sanger, did you have anything else before cross-examination?

MR. SANGER: No, thank you.

COMMISSIONER LEVAR: Okay. I think we'll go to Ms. Hayes next.

MS. HAYES: Thank you.

CROSS-EXAMINATION

BY MS. HAYES:

Q I have one question. Mr. Lowe, you have recommended putting Schedule 37 QFs into the Schedule 38 queue based on metrics such as the percentage of projects that have been developed or development milestones; is that correct?

A Yes.

Q Given that recommendation, or that willingness to subject Schedule 37 QFs to that queue, would you support eliminating the 25-megawatt annual cap on Schedule 37 development?

A Absolutely. I don't recall that there's a cap anywhere else in the other service states of PacifiCorp, or even Idaho Power, for that matter, where the Coalition operates.

MS. HAYES: I have no other questions.

COMMISSIONER LEVAR: Mr. Jetter, do you have any questions for Mr. Lowe?

MR. JETTER: I have no questions. Thank you.

COMMISSIONER LEVAR: Mr. Snarr?

MR. SNARR: No questions.

COMMISSIONER LEVAR: Thank you. Ms. Hogle?

MS. HOGLE: I just have a few.

CROSS-EXAMINATION

BY MS. HOGLE:

Q Mr. Lowe, just wanting to go back to the question that you just responded to. Did you file testimony in the Wyoming proceedings dealing with Schedule 37?

A Yes.

Q Isn't it true that Wyoming has a cap for Schedule 37 rates?

A I don't remember a cap in terms of total megawatts.

Q Subject to check, will you accept --

A Oh, absolutely.

Q Okay. I just wanted to clarify that. I wondered if my questioning would jog your memory. Okay. Can you please turn to your direct testimony, starting in line 296, please?

A Okay.

Q And I believe you respond to the question, "Can a renewable rate work with RMP's current Schedule 37 methodology?" Correct?

A Yes.

Q And then you -- I believe you then use Oregon's non-PDDRR methodology and renewable rates,

correct, when you cite Exhibit A?

A   Yes.

Q   Can you turn to that Exhibit A, please?

A   Okay.

Q   And before that, you say in your testimony on lines 300 -- and I'll just read it for you, "At the time the rates were set, the Oregon Commission determined that Rocky Mountain Power's next planned renewable resource acquisition was 2028." I'd like you to go to page 5 of that Exhibit A, please.

A   Okay.

Q   As I understand it, those are the avoided cost prices for standard fixed avoided cost rates for Schedule 37, correct?

A   Yes. That's what it says, standard fixed.

Q   So I'd like you to go down to where that 2028 for Rocky Mountain Power's next planned renewable resource acquisition would be, and go all the way to that second table to the right.

A   Yes.

Q   And I deal with dollars per megawatt hours so I know it says 471, but that would be $47 per megawatt hour is what that would represent in terms of the standard fixed avoided cost prices; is that correct?

A   Yes.

Q   Now, I'd like you to turn to page 7 of that Exhibit A.

A   Okay.

Q   And my understanding is that's the prices for renewable fixed avoided cost prices for Schedule 37, correct?

A   Yes.

Q   Going down to that column -- the first column down to 2028, again, and across to that second table there. Am I correct that that would be, then, $74 per megawatt hour for renewable fixed avoided cost price for --

A   The on-peak price.

Q   Right, for Schedule 37. So that's a difference of about $25 or so?

A   I'd have to do the math but somewhere in that neighborhood.

Q   And so why is that so different? Why is the difference so much?

A   Well, the standard avoided cost is based upon a thermal or baseload kind of resource, and the renewable resource is based upon a renewable resource, such as wind, in this particular example. So those costs are obviously different. Presumably, there may be some value associated with RECs in there, but I don't know what that is. I don't know if it's 5 cents or 1 dollar, I have no idea. But, generally, I think it's a difference between the resource type that is considered in the stat. I think there's fixed -- excuse me, thermal plant 2028 under this particular schedule and renewable as well for that same date by coincidence. I think that was discussed earlier by Mr. MacNeil.

Q Isn't the only difference, really, who retains the RECs? Is that the difference, who retains the RECs?

A Well, certainly starting in 2028 under the renewable price, the RECs would be retained by the utility. And not retained -- excuse me -- retained by the utility under the renewable rate beginning 2028 under the prices we were looking at on page 5, the standard rates. The presumption is the RECs are retained by the project for that entire timeframe because it's not renewable.

Q Okay. So are you comparing something, like, given that you quoted it in your testimony in Utah, is that what you're proposing in Utah? Is that your proposal here, those numbers?

A I don't know that we proposed any numbers.

I think we were proposing a process or a methodology similar to Oregon. Presumably, the numbers should be something similar, I would guess, but I don't have any idea. I didn't do any analysis like that. I don't do that type of thing, actually.

Q Do you know what the value of a REC is in the market now? Just curious.

A I don't work with that every single day. The last thing I heard was somewhere in the neighborhood of a dollar.

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

COMMISSIONER LEVAR: Any redirect, Mr. Sanger?

MR. SANGER: Yes, thank you.

REDIRECT EXAMINATION

BY MR. SANGER:

Q So referring to the exhibit that Ms. Hogle just referred you to, I'd like to go back to page 7, where Ms. Hogle pointed out that the rate in 2028 for a wind QF, the on-peak rate was $7.46. Now, is it your understanding that that rate is based on the cost that PacifiCorp had in its last IRP for wind resources?

A That, I can't tell you for sure because there was a lot of controversy, so to speak, when rates were set. I can't tell you for sure, if that's the case. Typically, it would be the case, okay? But we had some abnormal things going on in the last year or so with some of these filings that disrupted that normal process, so I can't confirm it one way or the other.

Q If it was the case that it was based on the last IRP numbers, then wouldn't the resource cost that resulted in this $7.46 be PacifiCorp's resource cost that it estimated in its IRP?

A Yes.

Q So this would have been the cost that PacifiCorp estimated that a wind generation resource would be in its 2015 IRP?

A Correct.

Q And then in its 2017 IRP, if the cost of wind generation is cut down, then this rate would correspondingly come down?

A Absolutely. And the dates might change as well, depending on when the resource was timed.

Q So if there's any inaccuracy in these prices, then it's because PacifiCorp's IRP is inaccurate?

A Or changed, yes.

MR. SANGER: Thank you.

COMMISSIONER LEVAR: Any recross? Commissioner Clark, any questions for Mr. Lowe?

COMMISSIONER CLARK: Yes, thank you.

BY COMMISSIONER CLARK:

Q I want to just give you an opportunity to help us a little more with your queue position position. And for the record, I'm referring to what you have said on page 16 of -- I think it's your surrebuttal. We just have a couple of sentences on this, but what I'm wondering is if you have applied any of the alternative approaches that you describe here and identified the percentage that would pertain. For example, have you, on some basis, calculated an historical percentage, or one based on completion of milestones?

A Well, I think we're fairly knowledgeable about some of those kinds of things. I believe that the completion rate has changed over time. For example, when I first started in this business in '81 with PacifiCorp, we had a couple thousand projects that were looking at developing, and ultimately the Company entered into 70, approximately, QF contracts. I believe around 50 of those actually were built back in the mid '80s. Now we're looking at a different generation of types of projects, particularly with solar. I think we're seeing, maybe, a little bit different completion rate that's happening, but I believe that intelligence is available. It's probably in the range of, like, 70, 75 percent. Projects that are actually contracted for ultimately get built.

But in terms of any quantification beyond that in terms of what the resulting prices and so forth, no, we haven't done that kind of analysis.

Q The first approach you identify, I think, is historic percentage of QFs constructed in relation to the entire queue, right?

A Correct.

Q And so what historical period would you think we should use and, again, I'm just wondering --

A Well, I think you should look at -- number one, I think you should look at signed contracts, probably. That's probably the best metric to look at to use. And then I would look at, based upon those signed contracts -- not people that have asked for indicative pricing or have begun an inquiry process on a power purchase agreement or those kind of things but actual signed contracts -- then look at, over time, how many projects out of this test group of signed contracts, maybe over a three-year period. Because we know that when people sign contracts, they have, typically under the terms of the contract, about three years to complete the contracts -- or the construction -- along with interconnection stuff that takes maybe as long as that as well. So three years is probably a pretty good time frame for looking back at determining how many of those signed contracts actually developed, and using that result to adjust, you know, what's actually in the queue.

Q So you'd recommend that method as opposed to the historic percentage of constructed projects in relation to the queue, in relation to the queue rather than in relation to signed contracts?

A Well, I would look at what I just described.

Q Because we've got three different methods that are mentioned here in your testimony and I'm trying to understand.

A Well, those were suggestions on the kinds of metrics that might be considered rather than picking the very end, or picking the very beginning, or picking some midpoint. This at least has a little more logic and a little more analytical basis to it, and the history, I think, demonstrates that it's a valid way of looking at it. There may be different ways of taking that particular metric and that particular timeframe and applying it to something. I don't know that we're married on one approach or the other, we're just trying to suggest some general approaches that should be considered, frankly.

COMMISSIONER CLARK: Thanks very much.

COMMISSIONER LEVAR: Commissioner White?

COMMISSIONER WHITE: Just a quick follow-up question on Commissioner Clark's questions.

BY COMMISSIONER WHITE:

Q Would that process occur on a yearly basis? What would that look like in terms of that process if the Commission were to administer and, I guess, vet those averages?

A Well, once again, Commissioner Jordan, I don't know that we have thought to the next level of that process, but we're rather suggesting a more general metric or approach. But it may be, for example, something that would be looked at on an annual basis and may be adjusted. Once you got your three-year picture every year, adjust it based upon what's happened in the additional year. In other words, kind of a rolling situation. But once again, that's just one out of -- probably everybody in this room will have a slightly different twist to it.

But the point I'm trying to get to is that there has to be some reasonable and fair way of analyzing this queue business or the projects that actually get built for determining their impact on the avoided cost prices in some manner. And there's been all kinds of suggestions. We're just suggesting some metrics based upon my experience with the amount of time it takes for projects to get built and the amount of time it takes for the interconnection process, and the amount of projects that typically or historically we've seen drop out of the process. We've got something there that we think is a reasonable way to consider.

COMMISSIONER WHITE: I have no further questions.

COMMISSIONER LEVAR: Just for clarification, the current process for Schedule 37 in Utah is that the Schedule 37 projects do not receive any pricing adjustments based on the 38 queue?

THE WITNESS: That's my understanding just based upon the proxy method which doesn't get into that queue business at all.

COMMISSIONER LEVAR: That's the only question I have. Thank you, Mr. Lowe. Mr. Sanger?

MR. SANGER: I have no further questions for Mr. Lowe, but if there are no other questions, I'd like to ask that he be excused from the hearing for the rest of day.

COMMISSIONER CLARK: No objection.

COMMISSIONER LEVAR: From any other parties? You're excused. Thank you, Mr. Lowe.

MS. HAYES: Mr. Chair, I don't foresee this being an issue given the time, but I did want to raise it. If we could have Mr. Dragoon testify today, that would be our preference, given his travel needs. But it does look like we may be finishing the hearing today, but I did want to raise that issue.

COMMISSIONER LEVAR: If there's no objection from Mr. Sanger, just in the interest of being safe, should we go to Mr. Dragoon next?

MR. SANGER: We're happy to have the

hearing proceed however everybody else wants it to proceed.

COMMISSIONER LEVAR: Okay. Let's go to Utah Clean Energy next.

MS. HAYES: Utah Clean Energy will call Mr. Ken Dragoon.

KEN DRAGOON,

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

BY MS. HAYES:

Q Mr. Dragoon, will you please state your name and position for the record?

A Ken Dragoon. I'm the proprietor of Flink Energy Consulting.

Q Did you file direct, rebuttal, and surrebuttal testimony on October 3rd, October 31st, and November 21st, 2017, respectively, in this docket?

A Yes.

Q And do you have any corrections or modifications to any of that testimony to make today?

A No, I don't.

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

A Yes.

Q Do you have a summary of that testimony you would like to provide today?

A Yes, I do.

Q Please proceed.

A Mr. Chairman, Commissioners, thank you for this opportunity to speak with you.

The Company's proposal will result in avoided cost pricing that is discriminatory against QFs. It's not just and reasonable and it would change the historical meaning of avoided cost.

By limiting renewable QFs to deferring resources of similar types, they may be denied access to prices reflecting the Company's true avoided costs. Why, for example, should a renewable QF be denied the avoided costs from deferring an expensive thermal unit added early in the study horizon just because a low-cost similar renewable resource appears later in the portfolio? That is the Company's proposal as I understand it, and it seems utterly contrary to both past practice and the purpose of PURPA to allow QF resources access to true avoided cost prices.

I appreciate the Commission's intent to allow renewable QFs to defer other renewables in the portfolio, but QFs should not be denied access to true avoided cost pricing in the process. PURPA calls for compensating QFs for a utility's actual incremental avoided energy and capacity costs, not just those not associated with a subset of comparable resources that happen to show up in an IRP portfolio.

The Company's direct testimony claims that we cannot accurately compare the cost and value of one renewable resource based on the cost of a renewable resource with different characteristics. They say that renewable resource characteristics are so different from one technology type to another that they can't be compared. They liken it to comparing apples to doughnuts, concluding it can't be done. And, yet, the Company and standard practice throughout the country in the nearly 40-year history of PURPA has allowed renewable QFs of all stripes to defer thermal units. It was a founding concept. The Company's conclusion is a striking departure from precedent and calls for a brief review of how they came to that very surprising conclusion.

The Company illustrates their point with an example in which a solar resource defers a wind resource. In the example, the solar plant brings nearly four times as much effective capacity value than the wind resource. So in their example, each megawatt of solar would defer almost 4 megawatts of wind and get a capacity payment based on 4 megawatts of wind. That sounds like a lot of money, and it would be. Of course, 1-megawatt solar produces a lot less energy than 4 megawatts of wind, so they reduce the huge capacity payment by the deferred energy -- the wind -- and end up with big negative energy payments. In short, they calculate a capacity payment that is very high and then claw it back with negative energy payments. Though the math seems to work out, this is pretty extreme, and the Company's conclusion is that it simply can't be done.

I agree that this is, to say the least, an unsatisfactory way to compare resources and set avoided costs, but I disagree that it can't be done fairly, simply, and accurately. My testimony took a lot of heat for being short on details. This was on purpose because some significantly new ground is being broken, and it deserves more thoughtful, preferably cooperative, problem solving than is typically available in adversarial proceedings such as this.

Nevertheless, I was struck that their example would have been completely different and make much more sense by changing a single word in their direct testimony. If, instead of deferring resources based on the relative effective capacity value, they deferred resources based on energy value, the results would have made a lot more sense. So just to illustrate using the Company's example: In very round numbers, 1 megawatt of solar would produce a little less than 3,000-megawatt hours of energy per year. 1 megawatt of the wind project would produce a bit less than 4,000-megawatt hours per year. If solar defers wind based on energy instead of capacity, each megawatt of solar would defer about three quarters of a megawatt of wind. That would be -- doing that means that each megawatt hour of solar is deferring 1-megawatt hour of wind energy. So already we're much closer than what we expect, 1 megawatt of solar deferring 3/4 of a megawatt of wind.

Now, there are other differences between the resources to take into account, the main one being capacity. One megawatt of solar brings about 6/10 of a megawatt of effective capacity, and

.75 megawatts of wind brings about a tenth of a megawatt of capacity. So you've got about half a megawatt more effective capacity from the solar plant than the deferred wind, and that should be credited back to the solar plant. The value of the energy is a little different, too, because of the timing, so another adjustment should be made for that, etc. But there are other things like integration costs.

That this approach seems to work in this example doesn't, of course, mean that it works in all cases or that it's the best approach. But my point is, that just because the Company came up with a bad way of doing it doesn't mean there isn't a good way.

I urge the Commission to approve an avoided cost pricing method that fairly compensates QFs for energy and capacity that the utility will actually avoid, consistent with the objectives of the PURPA statute. The Company's proposal does not do this.

Having reviewed the testimony in this docket, here are my recommendations: The Commission should not approve the Company's proposed implementation of Schedule 38 avoided cost pricing.

Instead, I recommend the Commission adopt either or both of the following: Either use IRP portfolio resource costs to establish an avoided cost floor, or approve the recommendations of the Renewable Energy Coalition and allow renewable QFs to choose either renewable or a non-renewable avoided cost rate, a concept which I supported in my rebuttal testimony as a potentially more durable solution than setting an avoided cost floor.

Second, require further, more thorough evaluation of methods for setting renewable avoided cost prices based on the deferral of renewable resources of all types.

My recommendations seek to further the Commission's intention of allowing renewable QF avoided costs be based on IRP preferred renewable resource costs while ensuring just and reasonable avoided cost rates. The Company's proposal's restrictions would result in undue changes in the definition of avoided costs, resource deferral, and the historical application of resource sufficiency and deficiency. Thank you very much. That concludes my testimony.

MS. HAYES: Mr. Dragoon is available for cross-examination.

COMMISSIONER LEVAR: Thank you. Mr. Sanger, do you have any questions for this witness?

MR. SANGER: I do not. Thank you.

COMMISSIONER LEVAR: Thank you. Mr. Jetter?

MR. JETTER: I have no questions. Thank you.

COMMISSIONER LEVAR: Mr. Snarr?

MR. SNARR: I have no questions. Thank you.

COMMISSIONER LEVAR: Ms. Hogle?

MS. HOGLE: No questions. Thank you.

COMMISSIONER LEVAR: Commissioner White?

BY COMMISSIONER WHITE:

Q I just want to follow up on a point you made in your summary regarding discrimination. In the context of PURPA, can you help me understand what the specific discrimination is that would be imposed by Rocky Mountain Power's current proposal?

A Well, I'm not a lawyer so I would be over my skis a bit to give you a legal definition, but what I meant simply is that their proposal is discriminating against renewable QFs by subjecting

them to having to take avoided costs that are actually below the actual avoided costs that the Company would receive.
Q So is it fair to say that -- it sounds what you're describing is that your criticism is inaccurate, I guess. It does not capture the true avoided cost, it's not necessarily discriminatory, it's an accuracy issue?
A Well, because not all QFs are renewable. That's what I had in mind.
COMMISSIONER WHITE: That's all I have. Thank you.
COMMISSIONER LEVAR: Commissioner Clark?
COMMISSIONER CLARK: I have no questions. Thank you.
COMMISSIONER LEVAR: I don't have any, either. Thank you, Mr. Dragoon.
MS. HAYES: Thank you. At this time, I would like to move the admission of Mr. Dragoon's direct, rebuttal, and surrebuttal testimonies.
COMMISSIONER LEVAR: If any party objects to that, please indicate to me. I'm not seeing any objections, so the motion is granted.
MS. HAYES: If we are continuing with

Utah Clean Energy's witnesses, then I will call Ms. Kate Bowman to the witness stand.

KATE BOWMAN,

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

BY MS. HAYES:

Q Ms. Bowman, will you please state your name and position for the record?

A My name is Kate Bowman, and I'm the solar project coordinator at Utah Clean Energy.

Q Did you file direct, rebuttal, and surrebuttal testimony on October 3rd, October 31st, and November 21st, 2017, respectively?

A Yes, I did.

Q And I should note that your rebuttal testimony contained an exhibit.

A Yes.

Q And do you have any corrections to make to any of your testimony?

A Yes, I'd like to make two corrections. Fist, my surrebuttal testimony on the title page is incorrectly labeled, "Rebuttal testimony," so I'd like to correct that to say "surrebuttal." And the second correction, in my rebuttal testimony, I'd like to make a correction beginning on line 37. I'd like to replace the number "18" with the number "25" and then omit the parenthetical following that. So the complete sentence would read, "In reality, only 25 small QF projects have ever been completed in Utah and only 5 Schedule 37 projects were completed in 2016, with a total capacity of 12.2 megawatts."

Q Thank you. With those corrections, if I asked you the same questions today, would your answers be the same?

A Yes.

Q Do you have a summary you've prepared?

A Yes, I do.

Q Please proceed.

A Thank you for the opportunity to speak on this issue this morning. In my testimony, I address the Company's proposal to apply the Schedule 38 pricing method and also the Schedule 38 queuing protocol to small qualifying facilities who take standard offer rates under Schedule 37. And I explain that it's inappropriate to apply this pricing method to Schedule 37 projects and that doing so would result in artificially low avoided cost prices for small QFs.

First, small QFs would be burdened by the complexity of participating in the Schedule 38 process and particularly the queuing process, which isn't warranted for these relatively small projects which are simple and completed relatively quickly.

And second, it's inappropriate to include small QFs in the queue, which includes projects that are unlikely to ever be built. Doing so would artificially cap pricing for small QFs and would prevent these lower cost resources from being built.

I recommend no changes to Schedule 37 at this time except for an adjustment to Schedule 37 rates to account for avoided line losses for small QFs that are not connected to the transmission system. And although Utah Clean Energy's primary position is that Schedule 37 projects should not be included in the queue, if they are, I believe, the 25-megawatt cap on small QFs should be eliminated. And that's my summary. Thank you.

MS. HAYES: Ms. Bowman is available for cross-examination.

COMMISSIONER LEVAR: Thank you. Mr. Sanger, do you have any questions?

MR. SANGER: Yes, I do have a question.

CROSS-EXAMINATION

BY MR. SANGER:

Q Ms. Bowman, your primary recommendation is that there be no changes to the Schedule 37 except for an adjustment for line losses?

A Yes, that's correct.

Q Renewable Energy Coalition has similarly recommended no changes to Schedule 37, with the exception that QFs be provided a renewable avoided cost in addition to a nonrenewable avoided cost. Would Utah Clean Energy find that recommendation acceptable?

A Can you rephrase the question?

Q So the current Schedule 37 only allows a QF to sell non-renewable power. It's based on the costs -- Schedule 37 rates are based on the fixed and variable costs of a thermal resource. Renewable Energy Coalition has recommended that that option remain, but in addition, a renewable QF be provided the opportunity to defer and be paid for deferring a renewable resource acquisition, the Company's renewable resource acquisition. Is that something that Utah Clean Energy could also support?

A Without knowing -- getting too much into the details of how the proposal would manifest itself specifically, in concept, that's something Utah Clean Energy would support.

MR. SANGER: Thank you.

COMMISSIONER LEVAR: Thank you. Mr. Jetter, do you have any questions?

MR. JETTER: I do have a few brief questions.

CROSS-EXAMINATION

BY MR. JETTER:

Q Good afternoon. The questions I have are just to clarify a little bit about your understanding of the 25-megawatt cap. Is it your understanding of the 25-megawatt cap that that cap is a cumulative cap on annual projects, or do you understand it as a cumulative cap on 37 perpetually, or a cap on the current pricing included in the current published tariff, at which point it would be recalculated?

A I understand it as a cap on the total capacity of projects that are able to take standard issue Schedule 37 pricing on an annual base.

Q Okay. And if it were the case that that was a cap at which point it will be repriced, would that change your opinion of the cap?

A So that -- just to clarify your question that the cap would be repriced on some sort of timeline based on projects that had been -- QF projects which had since been completed?

Q So I can give you a hypothetical to better explain. If Rocky Mountain Power proposed a pricing which is updated annually and the pricing was -- let's just -- random number here -- like, $30 per megawatt was the pricing -- and you reached 25 megawatts of capacity under that pricing and it trigged a recalculation of that same cap, so another 25-megawatt increment and let's say this happened, hypothetically, in June. Would that be troubling to you to have it repriced at a 25-megawatt increment?

A I think, conceptually, if I understand, I don't see any issues with the idea of if small QFs are not included in the queue, repricing, having some sort of cap and on the amount of capacity that can receive a standard offer price set at a certain price and then refreshing the queue when that cap is reached. So if I'm understanding your question, conceptually, I don't see an issue with that. It would depend on what that cap was and how often the cap was refreshed.

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

COMMISSIONER LEVAR: Thank you. Mr. Snarr?

MR. SNARR: I have no questions.
COMMISSIONER LEVAR: Ms. Hogle?
MS. HOGLE: Just a couple. Thank you.
CROSS-EXAMINATION
BY MS. HOGLE:
Q Ms. Bowman, in your summary, I believe you discussed Utah Clean Energy's resistance to adopting the Schedule 38 methodology for Schedule 37, and I believe you generally stated that it was too complicated and that Schedule 37 projects should not participate in the queue. Do you recall that?
A Yes.
Q Do you agree that under the Company's proposal, Schedule 37 QFs would still receive published rates? So the QFs would not actually be involved in the calculation, because whatever the calculation is, they would receive published rates.
A It's my understanding they would receive a published rate, as you describe based on a more complicated methodology.
Q And then you also talked about or recommended that line losses be accounted for with Schedule 37 avoided cost pricing. Can you provide a little bit more detail on how that would be

calculated?

A I don't have a detailed calculation at this time, but my recommendation was specifically that if a small QF does not interconnect to the transmission system and the Company is therefore able to avoid line losses associated with transmission line losses, that the QF is credited with that avoided cost.

Q But you don't know --

A I don't have a calculation to propose.

MS. HOGLE: Thank you. Those are all my questions.

COMMISSIONER LEVAR: Any redirect, Ms. Hayes?

MS. HAYES: No, thank you.

COMMISSIONER LEVAR: Commissioner White?

BY COMMISSIONER WHITE:

Q Just a follow-up. I think I might be asking something similar to what Ms. Hogle asked, but in terms of the burden, can you help elaborate a little bit more on terms of the potential burden or extra transactional costs, etc. that would be -- that the Schedule 37 QFs would be subject to under that if that Schedule 38 methodology were imported

to those size of projects?

A   Sure. Without commenting on the Schedule 38 proposal itself which I haven't addressed, my understanding is that the Schedule 38 methodology is more complicated and designed because larger QFs do you have a significant impact on the Company's avoided costs, whereas a smaller QF project is maximum 3 megawatts, which is roughly comparable even to the size of some large net metering projects. They're much smaller and much simpler, so the need for a more complicated Schedule 38 process -- there isn't a need for a more complicated process because these projects are relatively small, they're capped at a total of 25 megawatts per year, so all of the Schedule 37 projects which come online in a given year are smaller than your average, individual, single Schedule 38 project. And so there's no need for a more confusing and complicated process to determine pricing for these projects.

Q   So I guess the question is, is it more complicated, potentially, to vet the actual components of that methodology? I guess what I'm getting at is, is there any additional costs associated with taking that price when a Schedule 37 project takes that standard price?

A   I think the most significant impact to applying the Schedule 38 methodology to small QFs would be the queue, which is what I've mainly focused my comments on, and the impact of placing a small QF either at the end of the queue or at a position that is inappropriate. If the QF receives pricing based on a queue of projects ahead of it that ultimately are not constructed, then that QF will have received avoided cost pricing that's too low. And that has the largest potential effect on a QF's ability to build projects at avoided cost.

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

COMMISSIONER LEVAR:
Commissioner Clark?

COMMISSIONER CLARK: No questions.
Thank you.

COMMISSIONER LEVAR: Do you know how many Schedule 37 projects, if any, are connected to the transmission system?

THE WITNESS: I don't know.

COMMISSIONER LEVAR: Would you assume there are some, or you still don't know?

THE WITNESS: I still don't know.

COMMISSIONER LEVAR: Thank you.

That's all I have. Anything else, Ms. Hayes?

MS. HAYES: No, I think that's everything.

COMMISSIONER LEVAR: Mr. Sanger?

MR. SANGER: Thank you. I'd like to call Mr. Neal Townsend to the witness stand, please.

NEAL TOWNSEND,

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

BY MR. SANGER:

Q Thank you, Mr. Townsend. Can you please provide your name and position?

A My name is Neal Townsend. My position is principal at Energy Strategies.

Q And on whose behalf are you testifying today?

A I'm here on behalf of the Renewable Energy Coalition.

Q And if I asked you the questions in your direct and surrebuttal testimony today, would your answers be the same?

A Yes, with two minor corrections.

Q Can you please point us in the direction of those corrections?

A In my direct testimony, at line 198, page

9 on my copy, I have a parenthetical that says, "Excluding market floor." That should be stricken. So the sentence would begin, "Because its PDDRR calculated value declined significantly after ten years."

Q Thank you.

A And then on my surrebuttal testimony on line 129, there's apparently a typo. It says, "Fixed cost after the 15th year OO," the term. I think that's to be "to."

Q I'm sorry, which page and line number are you on?

A I'm on page 7, line 129. My version has two "Os" after the word "year."

Q Thank you.

A That's all of my corrections.

Q Have you prepared a summary that you're prepared to provide to the Commission this morning?

A I have. Good afternoon. In my direct testimony, I respond to several changes proposed by Rocky Mountain Power to the calculation of avoided cost pricing for qualifying facilities seeking pricing under either Schedule 37 or Schedule 38. I note that currently RMP uses the proxy PDDRR method to calculate avoided cost under Schedule 38. RMP is proposing to implement changes to the proxy PDDRR method and to adopt this method to determine avoided cost pricing under Schedule 37. While I support RMP's proposal to calculate renewable avoided cost prices based on the deferral of renewable generation resources in its integrated resource plan, or IRP, I oppose RMP's proposal to limit the displacement to resources of the same type, i.e., wind for wind, solar for solar, etc.

RMP's proposed restrictions are unreasonable because they prevent a renewable QF from being fairly compensated for its ability to defer renewable plants that the Company is planning to add, solely because the QFs resource type differs from the resource type that the Company determines is deferrable sooner in its IRP. Implicit in RMP's advocacy for these restrictions is the notion that the Company is somehow unable to partially or wholly defer a wind plant when a renewable QF using a different technology timely comes online.

This premise is highly implausible. When considering adding new resources in its IRP, the Company must consider the impact of long-term QF contracts on the need for Company-owned capacity after taking account of the capacity characteristics of the QF resources. This evaluation must be performed irrespective of the QF resource type. The idea, say, that new solar QF contracts would have no influence on whether Company-owned wind resources need to be added in the future is unreasonable and objectionable.

Instead, I recommend that any renewable QF seeking avoided cost pricing under either Schedule 37 or 38 should have its avoided cost pricing based on the next deferrable renewable resource irrespective of resource type with appropriate adjustments for capacity equivalence. For Schedule 37, if the Commission adopts the proxy PDDRR method to calculate avoided costs, I believe that removing the like-for-like restriction will provide a more reasonable and equitable treatment of RMP's avoided costs. Similarly, for Schedule 38, removing RMP's proposed like-for-like restriction will provide a more reasonable and equitable treatment of avoided costs for all Schedule 38 renewable QFs. In addition, I recommend that the 2021 Wyoming wind resource be considered the proxy resource for all QFs seeking avoided cost pricing unless and until RMP declares that it's not going to pursue this project, regardless of whether such a declaration results from a Commission decision, or for any other reason. The Commission should also consider whether a QF should also be credited with the equivalent of avoided transmission costs, given the linkage that exists between the 2021 Wyoming wind resource and the related transmission capability.

Finally, I recommend the Commission reject RMP's suggestion that federal production tax credits should be removed from the real levelization payment calculation. In my surrebuttal testimony, I reiterate my recommendation that RMP's like-for-like proposal for establishing avoided cost pricing for renewable QFs be rejected by the Commission; that the PSC reject any attempts by RMP to make ad hoc adjustments to the avoided cost calculation method, such as removing production tax credits from the real levelization payment calculation and; finally, that the 2021 Wyoming wind plant be considered the next deferrable resource unless or until RMP declares it is not going to pursue this project, regardless of the rationale for such a declaration. That concludes my summary.

Q Thank you. I wanted to ask Mr. Townsend a couple of clarifying questions that I think might not have been entirely clear from Mr. Lowe's earlier

testimony. So Renewable Energy Coalition's recommendation in this case regarding Schedule 37 is that the current approach to Schedule 37 should be retained with an adjustment to allow renewable resources to be deferred; is that correct?

A That's my understanding, yes.

Q So the Renewable Energy Coalition's position is that the queue change -- which is part of Rocky Mountain Power's proposed changes -- should also be rejected?

A Correct.

Q However, if you're going to have a queue adjustment to Schedule 37, then the Renewable Energy Coalition's recommendation is that you use a historic, reasonable, forecast of QFs that complete their way through the queue to commercial operation?

A That's correct.

MR. SANGER: Thank you.

COMMISSIONER LEVAR: Do you have anything else before we go to cross-examination?

MR. SANGER: No, thank you.

COMMISSIONER LEVAR: Ms. Hayes, do you have any questions for this witness?

MS. HAYES: I do not.

COMMISSIONER LEVAR: Mr. Jetter?

MR. JETTER: No questions.
COMMISSIONER LEVAR: Mr. Snarr?
MR. SNARR: No questions.
COMMISSIONER LEVAR: Ms. Hogle?
MS. HOGLE: Just a minute.

CROSS-EXAMINATION

BY MS. HOGLE:
Q I have a couple. Mr. Townsend, did you read Mr. MacNeil's testimony?
A Any of it? Yes.
Q His rebuttal testimony in particular?
A Yes, I did.
Q Would you mind turning to his rebuttal testimony, page 25, figure 4R? Am I correct that this is the Company's -- figure 4R -- is the Company's demonstration of solar deferring the 2021 wind?
A Yes, that's the Company's depiction.
Q Okay. Do you agree that, based on this figure, if you look at Utah solar deferring 2021 wind, that prices drop to negative, about 125 even, up until 2030 or in 2030? Do you admit that that's true?
A That's what the graph shows. I assume these are nominal prices.

Q And so in your -- as I understand your testimony, is it your testimony that Utah solar be able to displace 2021 wind; is that correct? And so you would then recommend that QFs receive negative $125 per megawatt hour pricing?

A My position is that Utah solar should definitely be able to defer the 2021 wind and, potentially, the associated transmission. Now, these are not the prices that the QF will get paid. We pay on a real levelized basis for capacity, and that's what the QF would receive. And that would probably take into account all the changes that need to be made for solar versus wind in the calculation of that. In addition, when the energy -- because we have talked about it today already -- there's a distinct difference in the amount of energy that would be produced by solar versus wind, and that gets captured in the GRID runs. And when you combine those two, capacity and energy, you get a fairly reasonable avoided cost. These are PacifiCorp's approaches to establishing avoided cost pricing. And the fact that you get an unusual result is just the fact of applying this method when you're substituting one resource for another. We've been doing the same thing for quite some time when we have allowed a renewable to defer a thermal. This is just simply an extension of that to allowing one renewable to displace a different renewable. That's all we're doing.

Q Mr. Townsend, just following up on that, did you have an opportunity to demonstrate how your proposal could be calculated when the Company requested additional information from you on this very topic?

A No. I did not calculate a number. This case is about method, not about the price itself, and that's very clear in this case. Let's keep in mind that my proposal is, as I just stated, simply an extension of the current way we've been doing things where a renewable has been deferring a thermal, and we make adjustments for capacity contribution in that process. I'm just extending that to a renewable displacing a renewable.

The prices that result from doing that, these are PacifiCorp's IRP prices and so they're not my prices; they're PacifiCorp's prices. Therefore, since it's based on the cost effectiveness of their IRP, they are reasonable by definition, in my mind.

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

COMMISSIONER LEVAR: Any redirect, Mr. Sanger?

MR. SANGER: I do not have any redirect. I note that I neglected to move for the admission of Mr. Townsend's testimony, so I would like to do that at this time, if possible.

COMMISSIONER LEVAR: If anyone objects to that, please indicate to me. I don't see any objections, so the motion is granted.

MS. HAYES: May I also just interject here briefly, to move for the admission of Kate Bowman's testimony as well, which I neglected to do?

COMMISSIONER LEVAR: And I neglected to remind you. If anyone objects to that, please indicate to me. I'm not seeing any objections, so the motion is granted. Anything further for this witness, Mr. Sanger?

MR. SANGER: No, I do not.

COMMISSIONER LEVAR: Commissioner White, do you have any questions?

BY COMMISSIONER WHITE:

Q Just in terms of -- you described how this is really not much different than what's been done with thermal resources in Schedule 38.

A   Correct.

Q   Can you elaborate on how that would look, or that process would look, if you were to apply that concept in the Schedule 37 context, if you were going to try to adjust for location or other characteristics?

A   I think we've only adjusted for capacity contributions. And it's actually done in Schedule 37 now because you've got different prices for different type resources, that capacity equivalence adjustments are already included in the current method. So we're just continuing to do that in this new method. And we're just really substituting in the fact we're going to run this GRID run to calculate the energy, and that's where we're going to get some big differences because of the displacement difference of the amount of energy.

Q   Would that change if it were a different renewable resource that was in the portfolio?

A   Change in terms of what?

Q   I guess the process in terms of how that -- I'm just trying to look at how this would be updated. Is that a more complex proposition or is it the same?

A   I think it's the same that we've been doing because if a renewable came today and said, I want renewable pricing under Schedule 38, it's going to be based on a thermal resource and they're going to make an adjustment for capacity equivalence on the capacity side, and they're going to displace based upon a capacity equivalence adjustment the amount of energy of the thermal resource. And so we're just continuing to do that. We're just expanding the pool of deferrable-type resources beyond what it is today. It's not really that much different.

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

COMMISSIONER LEVAR: Commissioner Clark, do you have any questions?

BY COMMISSIONER CLARK:

Q Yes. I think I'm going to cover, maybe, the same concept, but I wanted you to do it in connection with figure 4R again, which is page 25 of Mr. MacNeil's rebuttal. Would you restate -- I know you have answered the question when Ms. Hogle asked it -- but restate why, in your view, the 2030 price would not be negative $130, or whatever it is, per megawatt hour, why that's not what the QF would actually realize.

A   Well, I think these may be nominal values -- you'd have to ask the Company that, I didn't prepare this graph so I'm not the right person to talk about this graph -- but my belief is this is nominal because in a real levelized world, everything is positive. You start out low and you go up over time. That's the way real levelization works, and you're just looking on the energy side. We're going to make a big, huge adjustment on the capacity side when solar is displacing wind. That happens because of the capacity contributions of the two types of resources, solar being much more capacity credited than the wind. But then when you get to the energy side, you're going to simply displace a quarter of the energy that that wind plant was going to produce, so you're going to replace that other three quarters with probably thermal generation. So you're going to get a big negative number. And that makes sense when you combine it with the capacity side, and then you're looking at the total all-in number and you're going to get a reasonable outcome, in my opinion.

Q   I understand better what you said the first time.

A   This is one of those where you have to work through the numbers and they start to make sense.

COMMISSIONER CLARK: That concludes my questions.

COMMISSIONER LEVAR: I just want to follow up a little bit on what Commissioner White was asking just to make sure I'm understanding your description of the difference between Schedule 37 and Schedule 38. Now that we have a filed IRP that has deferrable renewable resources, aren't the Schedule 38 calculations now being done where the capacity payments during the sufficiency period are based on a like renewable -- the next like renewable in the IRP? Is that how --

THE WITNESS: The sufficiency period? That would be based upon market transactions.

COMMISSIONER LEVAR: I'm sorry. I meant deficiency period. Yes, I meant deficiency period. Isn't that being calculated under Schedule 38? Now that there's an IRP with renewable resources, isn't that being calculated --

THE WITNESS: I don't know how they're doing it since they published a new IRP and since it hasn't been acknowledged. I would assume, though, that once they have a new IRP, they're using their interpretation of that. I'm just saying that interpretation ought to be adjusted to just allow a renewable resource to displace a renewable resource, not this like-for-like, which I think is too restrictive.

COMMISSIONER LEVAR: Thank you. I understand. I don't have any further questions. Thank you, Mr. Townsend. Mr. Sanger, do you have anything further?

MR. SANGER: No, thank you.

COMMISSIONER LEVAR: Anything further from any other party before we adjourn? Thank you. We're adjourned.

(The hearing concluded at 1:50 p.m.)

REPORTER'S CERTIFICATE

STATE OF UTAH)

COUNTY OF SUMMIT)

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

THAT the foregoing proceedings were taken before me at the time and place set forth in the caption hereof; that the witnesses were placed under oath to tell the truth, the whole truth, and nothing but the truth; that the proceedings were taken down by me in shorthand and thereafter my notes were transcribed through computer-aided transcription; and the foregoing transcript constitutes a full, true, and accurate record of such testimony adduced and oral proceedings had, and of the whole thereof.

I have subscribed my name on this 13th day of December, 2017.

Mary R. Honigman
Registered Professional Reporter #972887

B