BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application
of Rocky Mountain Power for
Authority to Increase its Retail
Electric Utility Service Rates
in Utah and for Approval of its
Proposed Electric Service
Schedules and Electric Service
Regulations

Docket No. 13-035-184

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HEARING PROCEEDINGS (VOLUME I)

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TAKEN AT: Public Service Commission
Hearing Room 403
160 East 300 South
Salt Lake City, Utah

DATE: Monday, July 28, 2014

TIME: 9:00 a.m.

REPORTED BY: Scott M. Knight, RPR

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COMMISSIONER: THAD LeVAR

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July 28, 2014

PROCEEDINGS

THE HEARING OFFICER: Good morning, ladies and gentlemen. This is the time and place duly noticed for a hearing in Docket No. 13-035-184, the matter of the application of Rocky Mountain Power for authority to increase its retail electric utility service rates in Utah and for approval of its proposed electric service schedules and electric service regulations, otherwise known as the Rocky Mountain Power general rate case.

My name is David Clark. To my left is Commission Chair Ron Allen. To his left is Commissioner Thad LeVar. We appreciate you being with us today. Let's begin by taking appearances of counsel. And, then, we'll address preliminary matters. A number of counsel present have already entered appearances, but for clarity in the record, let's have all counsel enter their appearances at this time. Thank you. We'll begin with the applicant.

MR. MOSCON: Matt Moscon and Yvonne Hogle on behalf of Rocky Mountain Power.

MR. JETTER: Justin Jetter representing the Utah Division of Public Utilities. And with me at the table is Dr. Artie Powell.

MR. COLEMAN: Brent Coleman with the Attorney

General's Office representing the Office of Consumer Services. And with me at the table is Dan Gimble.

MS. HAYES: Sophie Hayes representing Utah Clean Energy. And with me at the table is Mr. Rick Gilliam.

MR. PLENK: Good morning, Commissioners. My name is Bruce Plenk, along with Thad Culley. We're representing The Alliance for Solar Choice, otherwise known as TASC.

MS. ROBERTS: Good morning. Casey Roberts for the Sierra Club. And also here today on behalf of the Sierra Club is Dan Dansie, our local counsel.

THE HEARING OFFICER: Thank you. Anyone else who's present in the hearing room that is not--oh, pardon me.

MR. ROSSETTI: I'm Mike Rossetti of UCARE. And I'm not an attorney. Thank you.

THE HEARING OFFICER: Thank you, Mr. Rossetti.

Anyone else physically present in the hearing room?

I believe we have some participants on the telephone. If any counsel are present who desire to enter their appearance--present telephonically, that is, please do so now.

MR. BOEHM: This is Kurt Boehm for Kroger.

THE HEARING OFFICER: Thank you, Mr. Boehm.

Anyone else?

Thank you very much. We appreciate the Office of

Consumer Services working with the parties to develop an order of witnesses. I assume you're all aware of that order. It's--it was filed in the docket last week. Are there any questions about that, or are there any other preliminary matters the parties would like to raise?

Mr. Jetter.

MR. JETTER: One of the Division's witnesses, Stan Faryniarz, is not here yet. He's had some flight delays. And, so, we are hoping that he'll be here early afternoon. And I've discussed it with all the parties. I think that we've all accepted that if he's not here we may switch the order just a little bit.

THE HEARING OFFICER: We won't hear from him until he gets here. I promise you that.

MR. JETTER: Thank you.

MS. HAYES: Mr. Commissioner, also due to traveling constraints on the going-home side, it turns out that Mr. Gilliam will have to be completed with his testimony around 2:00 tomorrow afternoon. I just wanted to raise that in case it becomes an issue.

THE HEARING OFFICER: Thank you. And when you feel that it is, please let us know and we'll work through that issue so that we can hear completely from Mr. Gilliam. Thank you.

Other preliminary matters?

I should--

MS. ROBERTS: Commissioner, Sierra Club would appreciate the opportunity to make an opening statement, if the Commission would allow.

THE HEARING OFFICER: Other parties have a view on that?

MR. MOSCON: Yeah. If I could respond, I suppose, I guess I'd note, it's evident to the Commission already, that that's quite unconventional in these proceedings. We have entire rate cases without openings, much less a single issue. I assume that's because, unlike a traditional litigation format where you need to orient the tribunal to the testimony that's about to be presented--in this case, the parties and the commissioners have been receiving, reviewing the prefiled testimony for weeks, if not months now. So, I guess I'm wondering about the need for it.

I also wonder--the time--the effective use of time. There are seven parties here. And even if seven parties limited themselves to ten minutes, which, as you know, once you allow an attorney to start talking, it is sometimes difficult to stop--that would take up a significant amount of time. So, I suppose I would say of the Company would resist or think that it's not necessarily the best use of time and this proceeding with the testimony put forward. If the Commission feels like it would be useful, I suppose we'd like the opportunity to go afterwards,

because I'm not sure what we would be responding to because we have not come prepared with a traditional formal opening statement.

THE HEARING OFFICER: Any other parties desire to address the request?

It is not our typical practice to do so. We have reviewed the testimony extensively, but we're also very desirous of assuring that every party has a full opportunity to present information to us in as effective a way as they can. So, given those considerations, what is your final view of your request?

MS. ROBERTS: Thank you, Commissioner. The opening statement that I've prepared would be less than five minutes. And although I'm aware the commissioners, I'm sure, have been following testimony that's been filed, this case is obviously one of tremendous interest to the public and there are many divergent views. And I do feel that there is a role in this case for an opening statement to frame the issues before the Commission, especially as it's been narrowed down to just a single issue out of the general rate case. My opening statement is very focused.

MR. MOSCON: If I could just raise a question that maybe I should have before: I guess the thing I'm trying to consider is, in addition to these proceedings, we have the witnesses themselves prepare a two to four-minute summary of their testimony. And as I was hearing the counsel for the Sierra

Club talk, it caused me to think, Okay. Well, right there, it seems like, again, that amounts to a repetition of what each witness will put forward as a summary of their own testimony.

So, again, we'll be happy to comply with whatever the Commission orders but do believe it would be a little repetitious of not only the prefiled testimony but the summaries that we're about to hear, as well.

THE HEARING OFFICER: Any other counsel wish to speak?

We'll be in recess for about two minutes. Please stay where you are. We'll be back quickly, I promise. Thank you.

(Recess taken, 9:09-9:10 a.m.)

THE HEARING OFFICER: On the record.

I hope this is at least one promise fulfilled today. We're back quickly.

We are going to receive opening statements. We'd ask you to be brief, recognize that witnesses will be offering summaries and that we've received all of the testimony, but if counsel for Sierra Club would like to begin. And, then, we'll just work our way around the table. Thank you.

MS. ROBERTS: Thank you very much. Commissioners, my name is Casey Roberts. And I'm here today on behalf of the Sierra Club and its over 3,000 Utah members who are Rocky Mountain Power ratepayers. Sierra Club

appreciates the opportunity to participate in this hearing about a matter that is of significant importance to our members and supporters. Rocky Mountain Power is seeking to impose a monthly fee on net metering customers, based on its estimate of how much less electricity these customers purchase from the Company. This fee is not justified for two reasons. First, the fee is arbitrary. It applies to all net metering customers even if they purchase enough electricity to contribute more than their assigned share of fixed costs. On the other hand, it only applies to net metering customers and not to other customers that consume relatively little electricity, as well.

The Company has singled out for this fee one tiny group of ratepayers that is similar to the rest of the residential class in its consumption, without even considering the benefits that net metering customers provide, which leads me to my second point.

While the company has very roughly quantified the costs that an average net metering customer supposedly shifts to others, it has not provided any estimate of the benefits that net metering customers provide to the grid. Generation from customer-owned solar reduces the utility's need to generate or purchase electricity during times of the day and year when it's most expensive, prevents the utility from incurring costs related to meeting capacity and ancillary service requirements, and, by slowing load growth, defers the need for transmission and

distribution system expansion.

The Utah Legislature has called for an analysis of costs and benefits of net metering prior to the imposition of any charges, credits, or other changes in the rate structure. Sierra Club and Utah Clean Energy have both submitted evidence as to the benefits of distributed solar that shows, at a minimum, that the benefits balance the costs. However, the record in this case simply does not contain enough information to compare costs and benefits in a way that fully informs this Commission regarding the need for a net metering fee. Without a comprehensive analysis, as called for by the Legislature, Rocky Mountain Power cannot meet its burden of showing that the fee it seeks to impose on net metering customers is supported by cost causation principles, and this Commission cannot uphold its obligation to impose just and reasonable rates.

There's no need to rush to impose a fee before this important analysis can be done. While it is true that rooftop solar is growing in Rocky Mountain Power's service area, the amount of electricity generated by these systems is still extremely small. There is time to do a proper cost-benefit analysis that looks at the question from several different perspectives, including that of the utility, all ratepayers, and the State of Utah as a whole. That process will also allow further stakeholder discussion as to what assumptions should be made for a base case and what sensitivities will be evaluated. The

study recently completed for the Nevada utility commission is a good example of the type of well-conceived and thoroughly vetted study that this Commission should have the benefit of before it takes this significant step of singling out net metering customers for a new fixed charge.

I have one final point for the Commission's consideration: Utah will be developing a plan over the next few years to reduce the emission rate of greenhouse gases from its electric generating sector. Carbon-free generation, like rooftop solar, will become increasingly valuable in the coming decade. And that value must be taken into account when assessing the costs and benefits of net metering to Rocky Mountain Power's ratepayers. Prematurely imposing a fee that will slow the growth of rooftop solar just as those resources will become more valuable would be counterproductive.

Thank you very much.

THE HEARING OFFICER: Other parties who desire to make opening statements? It's not compulsory, but this is your opportunity.

MR. CULLEY: Well, thank you, Commissioners. In the interest of time, I think TASC's position in this case is well established and would say we'd concur with the opening remarks of the Sierra Club, so thank you.

THE HEARING OFFICER: Thank you.

MR. ROSSETTI: Commissioners?

THE HEARING OFFICER: Mr. Rossetti.

MR. ROSSETTI: Thank you. I did actually prepare a short presentation, but not being experienced in these matters, had anticipated being able to do that just before--what do we call it, cross-examination?

THE HEARING OFFICER: And that would be entirely appropriate and consistent with our practice.

MR. ROSSETTI: Okay.

THE HEARING OFFICER: So, you'll have that opportunity then.

MR. ROSSETTI: Thank you.

THE HEARING OFFICER: Thanks, Mr. Rossetti.

Any others?

Mr. Moscon.

MR. MOSCON: Thank you. I suppose there was some value despite my protestation to having the opening statement of the Sierra Club, because it actually appears to me how much has been misunderstood about the position that my client is taking in this proceeding. So, if I might simply introduce what my client is asking for and some of the reasons why very briefly to clarify and to direct the Commission to where in this case it will find that evidence.

One thing that is clear is that net metered customers are connected to my client's grid. They need to be. They rely on the grid. Solar, for instance, is simply not

available 24 hours a day, 7 days a week.

Maybe the easiest way that I can make this point--and this is something that will come up in some of the cross-examination that you'll hear today or maybe tomorrow--is if the Commission were to envision a subdivision going in with ten houses, and each of those houses in the backyard has a pole and a transformer and a wire that connects that house to the grid, when the Company puts in that infrastructure, when that subdivision is built, has that cost that goes out to its customers. If one of those customers then puts solar panels on its roof, those costs are still there. It's not like the Company is able to get a rebate from its contractor for the price of that pole, that distribution wire, that transformer. That cost is still there.

Furthermore, if that customer that has the solar panels on its roof experiences a cloudy day, needs power at night, its system fails, shade from a tree comes by, it's going to be relying on that pole, that transformer, and that wire.

Now, during the day, when it is generating, someone could come along and do a study and say, Hey, look at this. We're doing a study. And theoretically, right now, the Company's distribution system is not at its peak capacity. That distribution line's not being used. And, so, based on my theoretical calculations, there's excess capacity in that system. That's a value. That's a benefit. And why that's hypothetically true, in the real world it's not a benefit, because it's not like that

company can take that pole or that wire or that transformer and do anything else with it. It has to be there. It has to be there to serve that house. And it can't serve anyone else.

The Company can't move it, because that solar customer may need it. A cloud can go in front of the sun. Nighttime rolls around. And even if there is a capacity, it's not like the Company could build anything different. It's not like it could build a different design, because it doesn't know when that house will or will not need that solar power.

And I guess--before I leave that analogy, I guess the point is true, even if that house had solar when the subdivision was built, it wouldn't change what the Company would have to do. They would still have to put a pole and a transformer and a wire to connect that house.

And I think that analogy helps the Company--or excuse me--the Commission hopefully see the direction that the testimony will take in this case.

This is not an attempt by my client, contrary to what we just heard, to single out net metered customers because they use less power. That's incorrect. It's because whether you use a tiny amount, a large amount, a middle amount, you use that connection to the grid. Everyone uses it simply by being connected to the grid. You use it, period.

It is true that this facility charge only applies to net metered customers. That is correct, but it is not an attempt to

single them out in their harassment. They're already singled out. They have themselves opted into an existing special tariff. They are an identifiable class that they opt into by electing to net meter.

I dispute that we haven't--my client hasn't considered benefits. And the Commission will hear testimony about the cost deferral or avoided cost of 3 cents a kilowatt-hour. It will hear about studies that examined whether deeper solar penetration would allow the Company to defer generation costs and found out that it could not. So, there will be testimony to refute the statements that the Commission just heard.

And, finally, as far as the point being that the Commission should not rush into this, that it should take its time and seek further analysis, I suppose I'd simply ask the Commission to consider when a better time would be, when there would be less impact on the system, when there would be less impact on the customers that are the ones that this Commission watches over. These distributed generation net metered customer have been growing at a rate of 30 percent annually. And as Ms. Steward's testimony indicates, it grew by an additional 20 percent just between her filing of direct and rebuttal testimony. Delaying this proceeding will only have a greater impact and a greater source of disruption for the system to customers.

My client's witnesses will demonstrate that there are quantifiable costs and benefits and that the costs do outweigh those benefits and that the charges that it seeks are just and reasonable and that witness--or excuse me--that testimony will be brought forth this morning.

Thank you.

THE HEARING OFFICER: Thank you.

Any other preliminary matters before we begin?

Mr. Jetter.

MR. JETTER: I'd like to just give a very brief opening statement for a few additional things for the Commission to consider. What we currently have in the net metering program is the benefit of being provided to the net metering customers at the full cost of retail service to them. And under the Senate Bill 208 requirements--if, as has been suggested by some of the parties, there's insufficient evidence to reach any conclusion about what a just and reasonable charge would be or the cost-benefit analysis isn't sufficient in this docket, I think that Senate Bill 208 requires that those benefits also be suspended in addition to denying the imposition of an additional monthly fee.

And so, in light of that, the Division isn't requesting that the net metering benefits be suspended, but something that the Commission should very carefully consider in light of how Senate Bill 208 actually applies to both new and existing tariffs.

And the existing tariff provides a fairly significant benefit currently to net metering customers. Beyond that, the Division is not opposed to an additional proceeding to more fully analyze the benefits and costs associated with the net metering program and how it would look going into the future.

Thank you.

THE HEARING OFFICER: Thank you.

Just one other preliminary matter that should be mentioned at this stage: This is an evidentiary hearing. We have a public witness hearing scheduled for tomorrow evening at 5:00 p.m. If anyone's here to participate in that process, our apologies, but we will have that hearing, again, this location, beginning at 5:00 p.m. tomorrow evening.

So, if there are no other preliminaries, we'll look to the applicant to call its first witness.

MR. MOSCON: Thank you. We'll call Mr. Richard Walje.

THE HEARING OFFICER: Thank you.

Mr. Walje, will you raise your right hand, please? Do you solemnly swear that the testimony you are about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you very much. Please be seated.

RICHARD WALJE, being first duly sworn, was

examined and testified as follows:

THE WITNESS: Good morning, Chairman Allen, Commissioner Clark, Commissioner LeVar. I have a few summary comments I'd like to make about our filing. I'm pleased to introduce the company's technical witnesses who will provide testimony that demonstrates the Company's proposed $4.65-per-month facilities charge on net metering installations is in the public interest.

Mr. Douglas Marx will present evidence that distributed photovoltaic solar generation does not materially reduce the peak generation system capacity needed by net metering customers. He also explains that regardless of the amount of electricity that is generated by these installations, distribution costs are not necessarily reduced.

He also provides a preview of the potential impacts and additional cost on the distribution system when the number of installations on a circuit increases.

Ms. Joelle Steward will present evidence supporting the appropriateness and the fairness of the 4.65 charge and how that was developed through the Company's analysis. The charge is consistent with longstanding cost causation principles.

Mr. Greg Duvall will describe why the avoided cost recently determined by the Commission for smaller solar PV generation projects is the appropriate value for the energy from net metered installations.

In totality, these witnesses provide the Commission with the information it needs to make a determination in support of the Company's proposal.

We believe the Company has a responsibility to meet the needs of its customers while also responding as it can and as requested to changing societal and environmental considerations. We applaud the efforts of those who are making choices they believe benefit society. We work with our customers to provide solutions that meet their preferences, while assuring those solutions allow us to continue to provide fairly-priced service to all of our customers.

The docket has generated a great deal of public interest through the media coverage. Some believe that asking net metering customers to pay a relatively nominal fee for their use of the distribution system will hinder the further development of solar in Utah. Though I understand this is a view held by some, I haven't seen the information that validates that assertion.

We also understand that the current number of PV solar net metering installations in Utah is very low, but we have observed the passion and controversy surrounding the determination of the value in net metering in States where the number of solar installations is large. As has happened in other States, we believe the number of installations in Utah is likely to grow significantly, so now is the time to address the issues

associated.

The Company is ready, willing, and able to support more net metering installations. We do want customers to understand the impacts on the distribution system. And because of the current rate design, net metering customers are not fully paying for their use of the distribution infrastructure and customer services. In essence, we are only asking that they pay for the facilities they continue to use.

Ironically, without a connection to the distribution system, net metering is not even possible. Additionally, I can't remember the time when the Office of Consumer Services, the Division of Public Utilities, and the Company all agreed on the need for a fundamental change to a residential rate design.

It is important to note the Company's revenues will not increase as a result of the implementation of this monthly charge. Some parties in the case have reached a settlement with the Company on a revenue requirement. That amount is not contingent one way or another on what the Commission decides on the monthly charge.

We've been providing safe, reliable, and affordable electricity to our customers for more than a hundred years, and intend to do so for another hundred years or more. My comments on the evolving trends on the U.S. electric utility industry call into question whether the current decades-old regulatory construct will allow us, the Company, to provide the

electric infrastructure that will be required in order to provide customers with a platform they need to exercise choice and energy supply options and to deploy more sophisticated energy efficiency technologies.

In the end, I understand the Commission's role is to ensure that the policies are developed wisely and serve the best interest of all customers. If the Commission determines that it needs more information to further assess the cost of potential benefits of net metering, the Company welcomes the opportunity to participate in that process. However, consistent with the positions the Commission has previously taken in related dockets and the evidence and analysis provided by the Company, we believe we have more than adequately justified the proposed $4.65 monthly charge. The requested net metering charge clearly, in our view, is in the public interest.

Thank you for the opportunity to make some opening remarks.

THE HEARING OFFICER: Thank you.

BY MR. MOSCON:

Q. Thank you, Mr. Walje. Before I turn you loose for cross-examination, maybe it makes sense if I move to admit your testimony into the record. So, would you describe for us, Mr. Walje--did you cause to be filed in this proceeding direct and rebuttal testimony?

A. I did.

Q. And are you aware of any corrections or changes that need to be made to your testimony?

A. I am not.

Q. And if I were to ask you the questions set forth in the prefiled testimony, would your answers today be the same as the testimony as set forth?

A. They would be.

MR. MOSCON: Okay. Based on that, Commission, I move to admit the direct and rebuttal testimony of Mr. Walje.

THE HEARING OFFICER: Any objections?

It's received.

And let me note, for the record, that all of the direct testimony filed in the docket was received subject to objection at this time. It was received when we had our last hearing in this matter that addressed the revenue requirement and settlement of actually all the other issues in the case. And, so, I just wanted to note that for the record.

Let me also state: We have, as an order of witness presentation, first the Company, then the Division, Office, UCARE, TASC, the Sierra Club, and UCE. Let's use that same order for cross-examination and--unless there's objection to that. And if Mr. Walje is now available for cross, we'll turn to Mr. Jetter.

MR. MOSCON: He is. Thank you.

MR. JETTER: I have no questions for Mr. Walje.

Thank you.

MR. COLEMAN: I have no questions from the Office. Thank you.

THE HEARING OFFICER: Mr. Rossetti.

EXAMINATION

BY-MR.ROSSETTI:

Q. Just one quick question. If we recover the fixed costs for a net metering customer once for the net metering customer and once for the neighbor for whom the excess energy is delivered, would the Company financially benefit from that?

A. We have not done that analysis, but I don't believe so, because as demonstrated, we are--in Witness Steward's testimony, we are only trying to cover the gross amount of cost for the distribution system.

Q. Thank you for clarifying that.

EXAMINATION

BY-MR.CULLEY:

Q. Good morning, Mr. Walje. And good morning, Commission. My name is Thad Culley. I represent The Alliance for Solar Choice. So, I just want to start with page .11 of your direct testimony. We're going to start with line 228.

Okay. Great. So, starting there, you say, "As our Utah customers increasingly pursue self-generation and energy efficiency, retail sales and revenues will continue to decline. As discussed in my earlier testimony"--"in my"--"earlier in my

testimony, the weather-related 2014 Utah sales forecast has decreased by approximately 2.0 percent for the sales forecast used in the 2012 general rate case." So, first of all, let me ask: Have you heard the phrase "utility death spiral"?

A. I have.

Q. And as a CEO, you're aware that public statements are closely read by those in the financial markets.

A. I am.

Q. And you would agree that "utility death spiral" is hyperbole.

A. I would agree with that.

Q. And if the market saw the Company was in the death spiral, it might have a hard time attracting new capital. Is that correct?

A. Yes. I believe that would be the case.

Q. Okay. And do you agree that your statements that I just quoted are fairly measured and should not induce market panic?

A. I would hope that they wouldn't produce market panic.

Q. And is it fair to say that you see distributed generation as a major business risk but also an opportunity?

A. Correct.

Q. And is it fair to say that you see customer-owned distributed--generated specifically as both a risk and an

opportunity?

A. Yes.

Q. Okay. Let's turn to page .9--your direct, again--starting with line 201. Okay. You state there in that addition--"In addition to remaining a vertically integrated electric utility and a producer and provider of electricity, our role is changing to also include being a facilitator of energy services provided by other entities." So, I find this interesting. When you say "energy services," do you mean services that involve provision of electricity or does that also include a broader sweep?

A. I would say considering a broader sweep when I made that statement.

Q. So, if one of your customers entered into, say, an energy-savings contract with an entity that came in and helped do installation, install automated lighting controls, etc., would that be an example of a service that your company facilitates?

A. That would be.

Q. Even if they didn't use your grid to accomplish that service?

A. Because we believe that customers are desirous of being able to accomplish those sorts of things and we're happy to facilitate them as long as we recover the costs that are required for us to pull up that platform that gives them that opportunity.

Q. Okay. So I see. So, if an energy services company provided a service to a customer, there might be an opportunity for recovery.

A. I think it goes back to the point of net metering, where unless that customer can assure that facility's available all the time, demand reduction, for instance, they're still going to need poles and wires at those other points in time.

Q. Okay. Thank you. And in the context of that metering, an entity providing a net metering system to your customer, would you agree they really only need the grid when that system exports?

A. I believe they need that grid all the time.

Q. But the entity that's providing the service to the customer, do they need that--need the grid to provide that service?

A. If there is an entity that is providing energy directly to a customer, that entity does not need the grid; the customer does.

Q. All right. Thank you. So, in this vein, on page .9--let's see--starting with the last word on line 192, so-- ". . . that our monopoly position actually places a higher standard of care in asking for a price increase and providing customer service, because our customers can't 'vote with their feet or pocketbook' to do business with another electricity provider." First off, would you agree that this statement applies equally to

all ratepayers?

A. I would.

Q. And would you agree that you meet this higher standard of care by performing due diligence and making sure that an increase is necessary and justified?

A. Yes. That's the purpose of all of the evidence filed in our general rate case.

Q. Okay. Thank you. And in your opinion, do net metering customers currently have the opportunity to vote with their feet or pocketbook?

A. Under Utah State law, they're not allowed to go to another utility, but in essence, when they make decisions to invest in their own generation, they're making that decision.

Q. You agree they can't totally vote with their feet.

A. They could if they wanted to invest in some storage that would allow them to completely disconnect from our system.

Q. Okay. And that would not be in the long-term business interests of your company.

A. It depends upon many factors that are unknown today, whether that would or would not be.

Q. Okay. But as a facilitator, then, would you agree that your company has a long-term interest in reflecting the fair value of the grid for those services and your charges to customers?

A. Yes.

Q. Okay. Let's flip to page .10. I have a little bit more for you. And this is starting at 221, line 221. You state there that, quote, "We understand to some degree . . . these changes are inevitable, but we need to assure that we receive the funding that will be necessary to provide electric infrastructure that enables these opportunities," end quote. So, is your company's electric infrastructure currently inadequate to enable higher penetrations of customer self-generation?

A. Our current distribution network is not inadequate; however, as the penetration rate gets higher for distributed solar photovoltaic generation, it may, in fact, not be adequate because of the impacts that those technologies have on the distribution grid.

Q. Okay. And are you referring here to, I guess, proactive upgrades to the grid that would happen before additional interconnections?

A. No. I'm referring to the information that was provided in Witness Marx' testimony about the impact of increased penetration rate on the distribution assets as experienced by other utilities.

Q. Okay. I'll be sure to bring that up with Witness Marx.

And when you mention funding, am I to assume that these upgrades, if these are going to be--let me back up again. So, these would not be proactive upgrades, these would be

responsive.

A. They may or may not be, depending upon the circumstances of serving 740,000 Utah customers. I can't distill it down to one circumstance. This is primarily meant to say if, in fact, customers start using less electricity and we still have to have in place the electric infrastructure--either investments we made long ago or future investments we need to make to facilitate other services--then we should be able to receive that funding in order to provide the platform that customers want and need.

Q. Okay. And would you agree that this might include smart grid investments that would enable the utility to integrate renewables?

A. It might include smart grid investments and other sorts of investments, as well, to manage power quality and voltage changes brought on by photovoltaic solar.

Q. Okay. And for funding those, I'm--am I to assume that these upgrades would be paid for by ratepayers and included in the rate base?

A. Yes.

Q. Okay. But if you have these smart grid investments, these might also unlock additional benefits. Is that correct?

A. They might.

Q. And if those benefits are recognized, they might

help justify the investment over time.

A. They might.

Q. Okay. And would the Company justify investments like this with some kind of viability screening?

A. We would only propose making those investments that we could demonstrate hard-dollar savings for customers, as well as other benefits that we could measure and assure people that those benefits were derived from that investment.

Q. Okay. And I think you mentioned these types of modernization improvements or upgrades would not be necessary in the immediate future.

A. Correct.

Q. Okay. And if it turns out that increased solar penetration enables your Company to delay, modify, or cancel specific distribution upgrades, would you agree that the high standard of care you owe to ratepayers would require passing along these savings to ratepayers?

A. If we could identify the savings in such a way that we could assure that we continue the high level of reliable service we do today and we could aggregate enough solar generation to achieve that on a specific circuit, we would clearly look at that as an option.

Q. Okay. And that was on a specific circuit. So, let's see. On page .8 of your direct testimony, starting with line 168, you state that, "At the local transmission and distribution level,

projects are directly aligned with customer needs repeatedly during the course of the year. As an example, even though energy efficiency or local economic factors might reduce overall load increases, there can be local pockets of growth or areas of inadequate reliability that still must be addressed by distribution system improvements [sic]; and conversely, in cases where local load growth has slowed, projects are delayed, modified, or canceled." Did I read that correctly?

THE HEARING OFFICER: I know the question's for the witness. My copy says "investments," not "improvements." Second-to-the-last line.

MR. CULLEY: Right.

THE HEARING OFFICER: There's a word on line 172.

MR. CULLEY: It's on my page, too. I read it incorrectly. Thank you, Commissioner, for the correction.

BY MR. CULLEY:

Q. So, Mr. Walje, is it your point that some factors like energy efficiency and some economic conditions might have a more general effect and might not necessarily translate into local benefits?

A. Yes.

Q. And would you agree that it's difficult to pin down exactly where and when customer-initiated energy efficiency improvements are occurring?

A. It is. And that's why we do this periodically, to make sure we are attuned to what is actually needed by our customers.

Q. But I think as you noted, you would be able to identify aggregate customer generation on a circuit?

A. That is part of our process, yes.

Q. And would the company's demonstrated experience in studying solar output profiles--do you feel that you could conclude with confidence that the Company could estimate how much the system would generate on a particular day in a particular lotion?

MR. MOSCON: Before you answer, Mr. Walje--and I don't mean to cut you off--I'd simply like to kind of, I guess, raise one objection, which is, a lot of the question is tending to go into detail that goes beyond the scope of Mr. Walje's testimony, which simply was introducing testimony of other witnesses. He's--I don't object to a-- continuing answering this question, but I'll simply note questions such as forecasting future loads and whatnot certainly goes beyond the scope of testimony.

THE HEARING OFFICER: I'm sure-- pardon me--I'm sure the witness will inform us at that point.

THE WITNESS: Okay. Well, I will inform you right now that the way I was going to answer this question was, I think, in alignment with what counsel said, which is Mr. Marx's

testimony demonstrates that we don't actually achieve any capacity reduction needs on our distribution system. So, it's somewhat irrelevant for the distribution system how much PV solar's available on that circuit, because we will still have to design it to the peak demand that can occur when solar generation is not available. And, so, my answer to the question is that would not be a solution that we seek today in order to solve distribution capacity problems. And Mr. Marx goes into that in detail.

BY MR. CULLEY:

Q. Okay. Thank you. I just have a few more here. I know I said that last time, but this time I'll keep it. So, we're on page .1 of your rebuttal testimony at this point. Give you a second.

Okay. And starting with line 15, you describe Mr. Marx's testimony and state that the contribution from PV generation to meet the company's summer peak load serving requirement is negligible. So, in providing your overview of Mr. Marx's testimony, were you aware that he based that conclusion on a particular study that was produced by the Company in this proceeding?

A. I am aware of that.

Q. And that study referred to a single-circuit peak not the summer load serving requirement across the system.

A. I will defer to Mr. Marx. And you can ask him that

question.

Q. Thank you. Well, with that--and since we were talking about the possibility of deferring substation upgrades, are you aware that Mr. Marx's testimony states that the purpose of the study was to consider the potential of rooftop solar to defer distribution upgrades?

A. I am.

Q. And is it also your understanding that this was the purpose--I'm sorry. Strike that. Are you aware of any other study that has subsequently been undertaken by the Company to address the same question?

A. I am not.

Q. And would you be interested to know if any such study had occurred?

A. Yes.

Q. Okay. And because the grid is dynamic, your company tends to reevaluate its policies based on conditions and maybe emerging technologies. Is that correct?

A. Correct.

Q. So, what doesn't work today might work tomorrow.

A. Perhaps, but that's a very open-ended question. I'd have to have much more information in order to answer it.

Q. Sure. And one last very open-ended question: So, what doesn't work here might work there. Would you agree with that?

A. Again, same answer.

MR. CULLEY: Fair enough. Thank you, Mr. Walje. Appreciate your time.

THE HEARING OFFICER: Ms. Roberts.

MS. ROBERTS: Thank you.

EXAMINATION

BY-MS.ROBERTS:

Q. Good morning, Mr. Walje.

A. Good morning.

Q. Appreciate your swiveling here, getting eye contact with me.

A. I'm getting my--I'm working my core.

Q. This is the first time that Rocky Mountain Power has sought to impose a special fee--

THE REPORTER: Can you speak up a little bit?

BY MS. ROBERTS:

Q. My apologies.

This is the first time that Rocky Mountain Power has sought to impose a special fee on net metering customers, correct?

A. To my knowledge.

Q. Okay. And you filed direct testimony on the net metering issue.

A. I did.

Q. As did Ms. Steward.

A. Yes.
Q. Did any other witness file direct testimony relating to the net metering fee?
A. I am not certain.
Q. Okay. Are you aware of what the Company's direct case says about the benefits of net metering?
A. I do not.
Q. Okay. Please turn to page .16 of your direct testimony.
At the bottom of that page and continuing on to page .17, you state, ". . . it is important that the customers making the significant economic decision to invest in customer-owned generation understand the full cost implications they will see with self-generation ownership." Got ahead--
A. Yeah. I opened the wrong tab. Please give your citation again.
Q. Okay. Page .16 of your direct, beginning on line 359.
A. Page .16 of my direct, line 359.
Q. Yes.
A. Yes.
Q. So, read it again: ". . . it is important that the customers making the significant economic decision to invest in customer-owned generation understand the full cost implications they will see with self-generation ownership." Did I read that

correctly?

A. Yes.

Q. In light of that principle, is Rocky Mountain Power seeking to apply this fee to current net metering customers or only to those that install after the fee is approved?

A. In this filing, we are proposing that it applies to all net metering customers.

Q. So, customers who currently have rooftop solar installed on their roof have already made a significant investment decision without knowing the full cost implications, correct?

A. They have.

Q. You also mention in our direct testimony that there is an immediate larger impact on net metering customers, correct?

A. If our proposed increase for a facilities charge is approved by the Commission, the answer to that would be yes.

Q. I'm sorry. Could you repeat your answer?

A. Could you repeat your question?

Q. In your testimony--and I apologize; I don't have a page reference handy--you refer to the--basically, the small level of existing net metering customers, correct?

A. Correct.

Q. But you say that there is an immediate impact on non-net metering customers and that's why the Company needs

to go forward with this fee at this time.

A. There is.

Q. How large is the impact at this time on non-net metering customers? Can you quantify it?

A. Roughly 100,000, I believe.

Q. A hundred thousand dollars in total revenue?

A. Yes.

Q. And how many residential customers does the utility currently have?

A. Seven hundred and forty thousand, roughly.

Q. So, what is the per bill impact for non-net metering customers, if you can estimate that?

A. I do not have that information handy.

Q. Okay. Has Rocky Mountain Power received any complaints from non-net metering customers about this issue?

A. We have heard a few informal comments, but no formal complaints.

Q. Okay. Thank you.

A. None--excuse me--that I'm aware of.

Q. Thank you. Rocky Mountain Power offers a solar incentive program, correct?

A. Yes.

Q. And you recover the costs for that incentive program from other ratepayers.

A. Correct.

Q. And that recovery is being just and reasonable, correct?

A. Yes.

Q. And Rocky Mountain Power is allowed to ask other ratepayers to contribute to the solar incentive program because the distributed solar resource is viewed as an asset that benefits the entire system, correct?

A. I guess I would answer in this way: As a determination that the Commission decided to continue with that program, we had actually concluded that that wasn't necessarily a value to the--all of the customers, but when the decision was made, we fully implemented it.

Q. So, the Commission's view was that solar resource provided a value to other customers.

A. Yes. Our analysis was that it was not necessarily--not necessary to continue the evolution of solar in the State.

Q. Thank you. Mr. Walje, are you aware that the mayor of Salt Lake City has asked this Commission to decline your proposed fee?

MR. MOSCON: Before he begins, I guess I'll just again renew--we have a lot of questioning that seems to go beyond the scope of Mr. Walje's testimony, commenting on political commentators and the like. So, I guess I'll just object to questioning that goes beyond the testimony he's filed in the

proceeding.

THE HEARING OFFICER: I'll allow the question.

Do you have it in mind, Mr. Walje?

THE WITNESS: I am aware that multiple entities and elected officials have actually gone on record as opposing the increase. So, we don't need to ask about every one of them.

BY MS. ROBERTS:

Q. I wasn't planning to do that, to allay any concerns.

How many years have you been with Rocky Mountain Power?

A. I started on February 11 of 1986.

Q. And are you aware of this level of interest from political officials in any previous issue pending before this Commission?

A. Occasionally. There was an effort some time back to restructure the Office of Consumer Services that created quite a ruckus. So, indeed, I have been involved in one of these.

MS. ROBERTS: Thank you very much. No further questions.

THE HEARING OFFICER: Ms. Hayes.

MS. HAYES: Thank you.

EXAMINATION

BY-MS.HAYES:

Q. Good morning, Mr. Walje.

A. Good morning.

Q. If I could direct you to page .12 of your direct testimony, starting at line 264, you say, "Perhaps illogically, we continue to provide an award-winning portfolio of energy efficiency programs to meet our customers' and policymakers' expectations; even though when the insufficient monthly charge is coupled with the Company's changing role, increased energy efficiency investments and increasing number of residential net metering installations with the resulting lower sales, our ability to earn our authorized return becomes highly weather-dependent."

As the president of Rocky Mountain Power, are you familiar with PacifiCorp's integrated resource plan?

A. I am.

Q. Are you aware that in the 2013 IRP, the portfolio that contained the most aggressive energy efficiency acquisition was found to be the least costly and least risky of all the portfolios?

A. I did not supply evidence on the content of the IRP and how it interacts with this filing.

Q. All right. So, I'll just ask you, then, that--based on your testimony, is it your position that it's illogical to pursue cost saving and risk mitigating energy efficiency programs because they result in lower energy sales and a lower rate of

return?

A. Let me--I wish I'd put that testimony a little differently, but I would answer like this: Because such a large component of our fixed costs are recovered by usage, volumetric usage, we rely on continued actual growth on most of energy consumption and hot weather to assure that we receive enough revenue through usage in order to pay for our fixed cost.

So, my comment about illogicality was, we're working, as society wants us to, policymakers, to reduce the amount of energy consumed which we are okay with. We just want the regulatory construct to be in alignment with that societal and policy goal. Therefore, we do get a delay in revenues unless we file constant periodic rate cases, which is not one of the things we enjoy doing and our customers don't enjoy us doing.

Q. Thank you. I just wanted to clarify.

When the Company filed its rate case, the current rate case, including a request for a solar fee, did the Company request that the Commission look at the costs and benefits of its net metering program as required by the net metering statute in effect at the time you filed your case?

A. Well, I'm not an attorney, so I'm not going to opine on what the statute said. The attorneys will spend a lot of time on that topic. And, so, I can't answer that. I think it's up to the Commission, who have legal representation to determine

whether the evidence that's been provided meets 208, from their perspective.

Q. Sure. And did you--when the Commission issued its public notice of its obligations pursuant to the recently enacted SB 208, which changed the net metering law, did the Company supplement its case, its direct case, with evidence of the costs and benefits of its net metering program?

A. It did not, because our filing was specifically focused on the under-recovery of the use of the distribution system by current net metering customers.

MS. HAYES: All right. No more questions.

THE HEARING OFFICER: Thank you. Redirect?

MR. MOSCON: No. Thank you.

EXAMINATION

BY-THE HEARING OFFICER:

Q. Mr. Walje, I have a question. You referred to the incentives, the financial incentives that exist for residential customers to implement photovoltaic self-generation. Why did the Company take the position that those incentives were no longer necessary? Why does the Company take--

A. Commissioner Clark, we believe that residential customers have access to a Federal tax incentive, an investment tax incentive. The State provides an incentive. And the net metering structure itself, as represented in Witness Duvall's testimony, shows that the retail credit that a customer

gets for a kilowatt-hour of generation out of their net metering far exceeds the benefit of the energy provided by those installations, and that the five-dollar that--the fee--excuse me--the amount that's billed to all Utah customers in order to fund the Utah State and--solar incentive program isn't required under those circumstances.

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

Any others?

Counsel for Rocky Mountain Power?

MR. MOSCON: Thank you, Mr. Walje. You can step down.

THE WITNESS: Thank you, Commission.

THE HEARING OFFICER: Thank you, Mr. Walje.

MR. MOSCON: So, we will call, as our next witness, Mr. Douglas Marx.

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

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. Please be seated, Mr. Marx.

DOUGLAS MARX, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY-MS.HOGLE:

Q. Good morning, Mr. Marx.

A. Hi.

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

A. My name is Douglas Marx. I'm the director of engineering standards and technical services for Rocky Mountain Power.

Q. And can you give us a little bit of your background? I believe that this is the first time that you've testified before this Commission. Am I correct?

A. That's correct. This is the first time I've testified. I've spent 33 years working with Rocky Mountain Power. I started out as a distribution engineer. I've worked progressively through the company up through operations management, through metering, smart grid. And now I'm the director of engineering standards and technical services.

Q. Thank you. And as a witness for the Company, did you cause to be filed your rebuttal testimony with exhibits in this case?

A. I did.

Q. And do you have any changes to that rebuttal testimony?

A. I do not.

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

A. They would.

Q. Thank you.

MS. HOGLE: Your Honors, at this time, I'd like to submit Mr. Douglas Marx's rebuttal testimony, with exhibits, into the record.

THE HEARING OFFICER: Any objection?

It's received.

MS. HOGLE: Thank you.

BY MS. HOGLE:

Q. Mr. Marx, do you have a summary that you would like to provide to the Commission today?

A. I do.

Q. Please proceed.

A. Good morning, Commissioners. The purpose of my testimony is to demonstrate that customers with solar generation do not contribute in any material way to the reduction in peak loading requirements of the distribution network. And, in fact, due to the operating characteristics of present inverter technology, current conditions would require the Company to install additional equipment to mitigate voltage issues caused by voltage [sic] systems and incur additional costs to properly operate the system.

My key points are:

That the distributions are sized on electric demand; they are not sized on energy use. Electric demand is at its highest when the rooftop solar is approaching its lowest production level of the day. Rooftop solar generation does not reduce the peak load at a significant level enough to change design practices.

As customer load continues to increase, additional investments in distribution network will be required to continue to operate a safe and reliable service. Rooftop solar does not mitigate this need and does nothing for existing local distribution network capacity needs.

High penetrations of solar generation create operational and voltage challenges that require additional design and equipment to mitigate their effects.

As an electric utility, we have an obligation to supply safe and reliable electric energy at the time it is demanded; and in turn, this requires that we size our electrical infrastructure to meet the expected peak electrical demand. We must do this in an economical and cost-effective manner and in compliance with all applicable codes and standards, including voltage management. We study the system at various levels of granularity to determine load characteristics and patterns. And we build on this knowledge in using our experience to design and operate a very complex electrical distribution network.

At very low penetration levels of rooftop solar,

which the Company is presently witnessing, we see very little impact in the distribution system. What we have learned from other utilities is that as the penetration level increases, the operating characteristics of the electric system will change and present challenges that will need to be addressed. Being proactive in evaluating these effects will allow us to be prepared for an evolving network.

In 2010, the Company completed a very comprehensive rooftop solar study. The study was completed to understand whether a high penetration of rooftop solar could reduce the need for local system upgrades. Local system upgrades occur primarily for load growth and safety. In this case, load growth in the area was stressing the system to a point that a power transformer upgrade was needed. Local residents challenged the Company, asserting that rooftop solar would make the power transformer upgrade unnecessary.

In this study, the contribution of rooftop solar was calculated through complex solar modeling using data obtained from Federal resources, as well as self-collected LiDAR information for the specific area under consideration. It is important to note that LiDAR data was collected at a very high density to allow us to finitely determine the best application of individual solar panels on each rooftop in the study area.

The calculated solar generation contribution shown in the peak day chart of my testimony was derived from this data

and then compared to the circuit loading information. We analyzed the impacts for the highest circuit loading day for that year, which was August 2, 2010. This circuit has a mix of residential and commercial loads, as detailed in the study report. It is important to note that the load curves for residential customers are similar throughout the summer months.

In an effort to be highly conservative in the solar generation estimates, we assumed a best-case solar performance. This means clear-day conditions and no degradation in the generation output due to performance, dusting, or ambient temperature. In reality, there are many times when, due to overcast days, the solar contribution to the peak will be near or at zero. Thus, you can see that a 7 percent contribution level is a generous estimate. Based on our experience, and from a system perspective, this level of generation contribution will not change the design requirements for the network. I should also point out that the study assumed that every rooftop surface that had the proper sun exposure could be used for panels and that everyone in the study area would participate.

I appreciate the chart titled "The 3 States of Net Metering" supplied by Witness Miksis in his testimony. It is a realistic representation of a residential customer's energy usage pattern and the solar generation that is easy to understand.

The chart coincides directly with our 2010 rooftop solar study and the resultant peak day chart derived from the study. Both charts also show that the customer's electric demand is at its highest in the evening hours, coincident with the time period that solar generation is at its lowest output level. Furthermore, his chart shows that the solar generation drops to zero during the same time period.

Additionally, the chart displays the conditions when voltage management becomes problematic. If you extrapolate this chart to a residential area with the assumption that a large portion of those customers have solar generation, the compounding effects become quickly apparent and traditional voltage management techniques may no longer be suitable.

These are the practical impacts of rooftop solar. They are demonstrated every day in areas that have high penetration of rooftop solar and utilities are working hard to minimize the operational problems and maintain a safe and reliable electric system.

Thank you.

MS. HOGLE: Mr. Marx is available for cross-examination.

THE HEARING OFFICER: Thank you.

MR. JETTER: The Division has no questions. Thank you.

MR. COLEMAN: The Office has no questions.

THE HEARING OFFICER: Mr. Rossetti.

EXAMINATION

BY-MR.ROSSETTI:

Q. Well, that was quick. Let me ask a couple questions in my naive way. If they're wrong, let me know.

There's about a 2.6 cents per kilowatt-hour impact by net metering customers that flows into this, about $100,000. How much of that is related to peak load versus billing, etc., etc.? Do you have any idea?

A. I do not. It's probably a better question for another witness.

Q. Great. I'll save it. Have there been-- we've heard that when customers install solar--yes, when a customer installs solar, that there are costs that are still there--you're addressing those costs for the infrastructure. When a residential customer employs conservation or efficiency measures, are those costs still there; i.e., they reduce their peak load, but have we actually realized any improvement in the equipment or reduction of the transformer, replacement, etc., etc.?

A. Not on a local level, you don't see that.

Q. Okay. Is there no peak reduction at all from solar?

A. In a practical standpoint, no, because you have to take into consideration the operational characteristics of the solar panel, and the sunlight, the available characteristics of it,

and when the residential usage actually does occur at its peak level, not the total energy used.

Q. Uh-huh (affirmative). Okay. So, between the hours of 5:00 and 7:00, supposedly, there's--when it's peak load at residential houses, there's no reduction at all in the peak attributable to solar.

A. You're assuming the peak occurs between 5:00 and 7:00. There are several instances where it occurs later in the day.

Q. Okay. How about later in the day, between 7:00 and 8:00?

A. Yeah. There's no contribution from solar at that time. Given when you install solar panels for the highest energy production in Utah, there's no contribution at that time.

Q. Okay. Thank you. When it is overcast and solar contribution is reduced, has the Company done anything to measure the, say, air conditioning usage reduction that comes along with having reduced solar radiation flying into the house and heating up the walls, etc., etc.?

A. That's an interesting question, because you're assuming a single point in time. If you look at the system as a whole, especially as we start to build demand over several days of heat, I can actually get a higher peak on a cloudily day than I can on a sunny day.

Q. A higher peak? Would you mind explaining that?

A. The residual buildup over time in a home, what you will see is that our residential peak load actually occurs over a three to four-day period as the nighttime temperatures do not relax on the system. My load maintains itself and the residual heating on the home stays there. The air conditioners will continue to run at a higher level for a larger amount of time each day to reduce that temperature differential.

Q. Okay. So, you're saying that the peak on those days actually goes higher than on a day when the sun is . . .

A. As I stated, it's dependent on the characteristics over time.

Q. Okay. I'll address that later.

I think . . .

Thank you.

THE HEARING OFFICER: Mr. Culley.

MR. CULLEY: Thank you.

THE HEARING OFFICER: Pardon me. Mr. Culley.

MR. CULLEY: Thank you very much.

EXAMINATION

BY-MR.CULLEY:

Q. Mr. Marx, my name is Thad Culley. I'm counsel for--co-counsel for The Alliance for Solar Choice. And just for--I should apologize up front. I do have a lot of questions to ask you. And I'll try to keep this as short as possible. I estimate between somewhere 30 and 45 minutes for the Commission's

benefit. I don't know how that impacts our scheduling today.

THE COURT: Mr. Culley, if that schedule holds, we'll take a break somewhere during your cross-examination--

MR. CULLEY: Okay.

THE HEARING OFFICER: --just so you're aware.

MR. CULLEY: Great.

THE HEARING OFFICER: We'll probably break in the next 10 or 15 minutes.

MR. CULLEY: Thank you for that heads-up. I appreciate that.

BY MR. CULLEY:

Q. Okay. So, let's start--actually, just with the comment you just made, this phenomenon of residual heat. Is that a phenomenon that's confined to residential class?

A. It's not a phenomenon.

Q. It's not a phenomenon. But would you say that whatever it is is confined to residential class?

A. No, it is not.

Q. Okay. Let's move on to page .1 of your rebuttal testimony. Okay. So, you state that you've worked at RMP for 33 years now and your current title, director of engineering standards and technical services. And when did you assume the duties of this position?

A. In the spring of 2012.

Q. And what was your previous title with RMP

immediately before that?

A. I was the director of smart grid.

Q. Director of smart grid. And when did you begin that position?

A. The previous year--

Q. Do you happen to know what--

A. --2011. I think it was about June, July.

Q. Okay. So, it was hot out.

A. Yeah.

Q. So, can you give a brief overview of your general duties as director of smart grid?

A. The position of director of smart grid actually evolved from my previous position before that was--which was the director of metering assets and technology. So, with the increase in interest in smart grids and smart grid technologies as--coupled with the requirements of several State commissions to file annual or biannual smart grid reports, it became a point that we felt it necessary to create a department to specifically look at those issues.

Q. Okay. Great. And, currently, does the director of smart grid report to you or does that position evolve into your current position?

A. It has evolved into my current position. There is a manager of smart grid.

Q. Okay. Manager of smart grid.

So, you state here on line 12 that you--"I oversee all non-routine technical studies including"--I'm sorry--"distributed generation, power quality, and smart grid reports." Is that correct?

A. That's correct.

Q. And do your duties to oversee all non-routine reports extend to reports that are conducted in other jurisdictions?

A. Yes. In some cases, it does.

Q. Okay. And in overseeing these reports, do you have a hand in developing and designing the studies?

A. Yes, depending on the study.

Q. Okay. And selecting the team that's going to do the study.

A. Yes.

Q. Okay. Great. And would you--when you say "non-routine," does this mean the reports are typically more conceptual or more white papers or how would you describe it?

A. There are reports that are white papers. There are reports that are conceptual. There are reports that deal with specific problematic issues--

Q. Okay.

A. --I do work on.

Q. So, would you agree that reports like this that you oversee would be more generally applicable developing

company-wide policy?

A. They could be, yes.

Q. Okay. And do you agree with, I guess, your CEO, that evaluating the need for upgrades in specific locations is a matter that occurs fairly routinely.

A. Yes, it does. It's a different department.

Q. Sure. Okay. Let's look on page .2 of--sticking with rebuttal here, line 36. The question is asked, "Has Rocky Mountain Power studied the impacts or potential benefits or impacts of large penetrations of conventional rooftop solar in its service area?" So, is it your understanding that this question refers to grid or operational impacts as opposed to the customer impacts that are alleged in this--in the application?

A. The question was kind of open-ended. I assumed it was talking about any study that we had done.

Q. Okay. And in answering this question, you state, on line 39, that, "Yes. In 2011, the Company completed a study to evaluate the viability of rooftop solar and its ability to offset utility infrastructure upgrades . . . ." Would you consider the ability to offset utility infrastructure upgrades an issue of systemwide relevance for the Company?

A. Yes.

Q. And would you agree that a report on this topic would be the sort of non-routine technical study that you might be charged with overseeing?

A. Depending on the nature of the study requested, yes.

Q. Okay. And was this study, in particular, the one that was attached to your testimony, one that you oversaw?

A. Yes, it was.

Q. Okay. And is it fair to say the knowledge you have to gain from a study like this is whether solar might provide some benefit across the system in offsetting utility upgrades?

A. Yes.

Q. And if you wanted to develop a study that is informative to the Company system as a whole, would you want that study to consider the conditions under which an upgrade might be deferred?

A. Yes.

Q. And you agree with Mr. Walje that these factors that drive these upgrade decisions are location-specific.

A. Yes. What drives an upgrade is a location-specific item.

Q. Okay. And do you agree each circuit is fairly unique and might have its own time of peak, its own class characteristics?

A. No, not each circuit. I mean, when you look--when you start to model the system as a whole and then you look at the individual elements, they have similarities that can be used on other applications.

Q. Okay. But would you agree that each circuit may have unique amount of customer class--amount--unique amount of customers on that circuit?

A. Yeah. They all have a unique number of customers.

Q. Okay. I'm sorry. Let me rephrase that. So, if you're looking at the mix of residential to commercial customers--

A. Okay.

Q. --on a circuit, each circuit might have a different contribution to peak from those classes?

A. If I understood your question correctly, you asked that each class has a different characteristic depending on the circuit in which it's connected.

Q. Okay. Let me--maybe we need to rephrase this.

A. Yeah.

Q. We're getting down the wrong rabbit hole.

And, so, you would agree that circuits on the system peak at different times.

A. If you get down to finite numbers, yeah. We're talking minutes. We're not talking several hours of difference--

Q. Okay.

A. --depending on the circuits.

Q. But if a circuit was mostly commercial load, wouldn't you expect that to peak near midday, closer to noon or

1:00 or 2:00?

A. It depends on the type of commercial use.

Q. Okay.

A. Depending on the characteristic of the commercial customer, its load will peak at various times of day, depending on what kind of processes and equipment they run inside there.

Q. And that's something you would want to study and determine whether an upgrade would be required down the road.

A. We wouldn't study individual customer classes. We would study the circuit as a whole to see when it's reaching its overload capacities and when we need to deal with the issue. We're not dealing with the individual customer characteristics on that circuit to determine whether an upgrade is needed. The characteristics of the circuit as a whole need to be taken into account. You need to look at when does this circuit peak, what is the manner I have to design this circuit for. If it's 100 percent residential, yes, it will be a little bit different than if it's 100 percent industrial.

Q. And in a general matter, if you're to design a study, would multiple circuits and multiple substations, you know, provide more informative value to the extent that some may be similar to others in your system?

A. Yes. It would give you more value.

MR. CULLEY: Okay. At this time, I'd like to pass out a cross exhibit. Have my co-counsel distribute this.

THE HEARING OFFICER: We'll mark it as TASC Cross Exhibit 1.

MR. CULLEY: Apologies in advance for the kind of odd printing and flipping the pages around, so my apologies there.

BY MR. CULLEY:

Q. So, you have that in front of you, Mr. Marx.

A. I do.

Q. Okay. And would you--subject to check, this is a printout of a PowerPoint format document titled "2011 Integrated Resource Plan"--at least the front page is--"Smart Grid Update," dated December 14, 2012.

A. Yes.

Q. And if you flip it over to what it's numbered as page .5 on the PowerPoint presentation, which is page .3 of the cross exhibit, see this slide is titled "Conservation Voltage Reduction."

A. Correct.

Q. And you're familiar with all the studies that have been done on CVR.

A. Not all of them.

Q. Not all of them, but you're familiar with this general process.

A. I am.

Q. Okay.

MS. HOGLE: Excuse me, Your Honor. I'm sorry. I

apologize. Can he just ask whether the witness is familiar with this? I don't know what context this study will be used, so I just want to make sure that Mr. Marx is familiar with it, first.

THE HEARING OFFICER: I'll just receive that as a foundation objection.

Mr. Culley, will you pursue that, please?

MR. CULLEY: Sure.

BY MR. CULLEY:

Q. Mr. Marx, have you taken part in preparing smart grid updates in your role as director of smart grid?

A. Yes.

Q. Okay. And in your current role, do you generally follow the smart grid updates that are put out by the company?

A. I do.

Q. Okay. So, are you familiar with the 2011 integrated resource plan smart grid update that's before you?

A. I'm familiar with the smart grid update that I believe was used for the integrated resource plan. I am not familiar with the IRP in its entirety.

Q. Okay. That's fair.

Now, are you familiar with--as we said, the CVR, you're not familiar with all of them, but are you familiar with the initial study that was undertaken in Washington State?

A. I am familiar with it.

Q. Okay. Great. And would you agree that--if you turn

to page .5 on the second bullet, that this says, "To study the realistic value of CVR, four Washington circuits from the initial study were chosen for the 2012 pilot study"?

A. I'm familiar with that.

Q. Okay. And down to the third bullet, are you familiar with the second phase of the CVR study, where they expanded the number of circuits they were looking at?

A. I am.

Q. Okay. Great. And if I read this correctly, it says the 25 Washington circuits were examined for potential savings.

A. Correct.

Q. And nine circuits were viable for CVR application.

A. Yes.

Q. And, then, the last bullet says, "High-level CVR viability screening of 40 percent of distribution circuits." And each State was completed. Was this completed in Utah?

A. No. This was a specific team, Washington. What we did was just a cursory review of each of the circuits. It was a recommendation, but it was not implemented in its entirety.

Q. Okay. And I think we can skip some material. Would you agree that from a 40 percent of distribution circuit screening, that eventually the Company did 100 percent circuits?

A. I think there's a point to be made here, because when you're looking at conservation voltage reduction, you're

looking at reductions in energy usage. You are not finding reductions in peak demand. And I think that's the issue we're discussing, if I'm not mistaken.

Q. Sure. But in terms of developing a company-wide policy of this--this study went about it in a certain way. Would you agree?

A. Correct. The study went about it in a certain way.

Q. And at the very end of the day, it developed a screening tool that was applied to 100 percent of its distribution circuits. Is that correct?

A. It never did go to 100 percent of its distribution circuits.

Q. But a pretty substantial percentage.

A. A substantial portion.

Q. Okay. That's fair. I'll take that.

THE HEARING OFFICER: Mr. Culley, is it a good time--

MR. CULLEY: Perfect time.

THE HEARING OFFICER: --is it a good time for a break?

MR. CULLEY: Perfect time. Thank you, Commissioner.

THE HEARING OFFICER: We'll be in recess until 25 minutes to the hour.

(Recess taken, 10:29-10:36 a.m.)

THE HEARING OFFICER: Mr. Culley. We're on the record.

MR. CULLEY: The microphone's--

THE HEARING OFFICER: Let's be off the record.

(A discussion was held off the record.)

THE HEARING OFFICER: We're on the record.

Mr. Culley.

MR. CULLEY: Thank you, Commissioner.

BY MR. CULLEY:

Q. Mr. Marx, let's take back to your rebuttal testimony, page .2. We had already quoted this, but you said that the purpose of the study, the solar pilot study, was to, quote, evaluate the viability of rooftop solar and its ability to offset utility infrastructure upgrades. Is that correct?

A. Yes.

Q. And you know that through firsthand knowledge.

A. Yes.

Q. Okay. And did you personally select the team used for this study?

A. For the roof solar study?

Q. Uh-huh (affirmative).

A. Yes. Yeah. For the most part, yeah.

Q. And did the team include any engineers?

A. Yes, it did.

Q. So, this was a GIS team.

A. It was a cross-department effort using our GIS crews who looked at the geo-spatial data that can be used for this kind of a study. We used our engineers, who are very familiar with distribution engineering, as well.

Q. Okay. But in terms of who prepared the study, it's just listed as three of the GIS personnel. Is that correct?

A. Correct.

Q. Okay. And I think you would agree that GIS folks are pretty good at, you know, mapping available rooftops and accounting for spatial factors like shade.

A. Our guys are very good at it.

Q. Uh-huh (affirmative). And this--you'd stand by, with a lot of confidence, that the solar output modeling was good and accurate.

A. Yes.

Q. Okay. Was the purpose of this study to specifically evaluate the ability of the modeled solar to offset upgrades to the Northeast 16 circuit?

A. This study was, yes, with the intent of extrapolating that to a wider group.

Q. Okay. Well, I've distributed a--during the break, a second exhibit. I would ask that that be marked--identified at this time.

MR. PLENK: Counsel has this, but not the commissioners.

THE HEARING OFFICER: Thank you. We marked as TASC Cross Exhibit 2.

BY MR. CULLEY:

Q. And again, Mr. Marx, you would be familiar with smart grid annual reports--

A. Yes.

Q. --I imagine? Okay. So, let's take a look at just a few spots in this document. If you turn to the second page of the exhibit and step down to the third paragraph, it says, "PacifiCorp has performed studies to evaluate potential sites for solar installation and continues to work with customers, city officials, and other stakeholders interested in connecting distributed generation systems to the Company's electric grid." And you would agree that the smart grid solar pilot study in your testimony is just one study, right?

A. Yes.

Q. And would you agree that the copy of the smart grid solar study in your testimony is a full representation of the study prepared by the Company?

A. It's a representation of the study.

Q. Okay. And does the study, as it is attached to your testimony, address a discussion of the cost of solar panels?

A. Not the study itself.

Q. Okay. Is there more than one study related to the Northeast 16 circuit that was conducted by the smart grid

group?

A. In regards to solar or just in regards to system upgrades?

Q. In regards to the stated purpose of this study, which was to look at the ability to offset upgrades.

A. This was the only solar study that looked at Northeast 16. There are other studies that looked at the load growth in the area and the required remediations for that load growth.

Q. Okay. So, we step down another paragraph, the report provides more detail on this single study. It says, "PacifiCorp performed a detailed study on a distribution circuit in Salt Lake City to determine the viability of distributed solar generation in an urban setting. The evaluation included identifying the percentage of rooftops within the study area that were viable for solar panel installations, total project cost to install solar panels, and the required metering infrastructure."

A. Yes.

Q. And, so, I read that correctly. Does this sound like an accurate description of the study goals and methods that you describe?

A. Of that--okay. Let me make sure I understand. If you're referring to this study (indicating) --

Q. Uh-huh (affirmative).

A. --okay--this study didn't go into the cost. After this

study, we started looking into the cost. We started looking at the applications. So, that study in and of itself did not--we used that study as a springboard to perform other analysis in the area, and thus the chart we used when we started looked at circuit loading.

Q. Okay. And the study you held up has several appendix--or appendices that gives some data on how the study was--or the assumptions used and the numbers used in the study, correct?

A. Correct.

Q. And for this other, I guess, analysis you state, is any data or supporting information given in the record for that?

A. I don't believe so, no.

Q. Okay. So, turning to the next page of the cross exhibit, there's a figure which should be familiar to everyone. And this is titled "Figure 6." And this is substantially the same chart that appears in your rebuttal testimony, with a few changes to the text. Would you agree?

A. Yes.

Q. And would you agree, if you flip to the next page--two pages, actually--correct that--it would be the seventh page of the cross exhibit--

that this same chart appears in the 2014 smart grid report?

A. Yes.

Q. And do you still oversee the compilation of these

reports?

A. Yes, I do.

Q. Now, turning to the last bit of this exhibit, it's the Smart Grid Annual Report for 2012, which is dated June 29, but I believe for locating this in that--in the docket, it would--because it was a correction that was later filed. And, so, you would agree on this last page, this is, again, the same chart that appears in the 2012 update.

A. Yeah. I'll take your word for it. It's the same chart we've been using, yes.

Q. Okay. Are you aware of whether this was submitted to the Commission and whether comment was provided by parties on this?

A. I know the report was filed with the Commission and I know in the report that there were comments filed on it, yes.

Q. Do you recall whether the Office filed comments?

A. I do not recall who all filed comments, no.

Q. Okay. Do you recall any party raising the question of whether this study submitted any evidence of cost of metering or--cost to the utility?

A. I don't recall that, no.

Q. Okay. So, let's turn back now to page .2 of your rebuttal, starting at line 41, where you state that, "We selected a single distribution circuit located near the University of Utah

campus in Salt Lake City, Utah, for the study. This area has a very modest annual load growth of 2 percent and was an ideal candidate, as it has a diverse mixture of residential and commercial customers." So, when you say this was an ideal candidate for the study, are you saying that it was a good case study that could be relied upon to form company-wide policy?

A. Yes. It could be relied upon to form the basis, yes.

Q. Okay. So, in other words, would the results of a study on this circuit be informative to the Company on a broader basis as it looked at the question of deferring upgrades?

A. Yeah. I think we could use it for that purpose.

Q. And would the relevant criteria for that circuit be looking at when the circuit experiences its peak demand?

A. Again, there's some variability amongst the circuits depending on the customer mix. You know, you look at this specific circuit with its mix of residential and commercial. It may not be representative of a circuit that's 100 percent industrial or commercial or one that's largely populated with residential.

Q. And in your estimation, would this area, the study area, be one that is heavily populated residential?

A. It's pretty heavy, yeah. It's not--yeah, it's pretty heavy.

Q. And would you accept, subject to check that according to U.S. Census data, it's the--the ZIP code for the

study area included is the most dense in terms of population in all of Utah?

A. Yeah. I'll accept that.

Q. And do you still characterize that study area as typical of the system?

A. Typical as far as rooftop solar production goes, yes.

Q. And would you agree that the study you held up that's in your testimony, that it does not identify the amount of solar production that would need to occur at the time of circuit-- to offset infrastructure upgrades?

A. Can you say that one again?

Q. So, the study does not identify a target number for solar production that would have actually offset an upgrade on that--

A. Oh. No, it does not.

Q. And would you agree that the, quote, viability of using solar to offset upgrades would involve an analysis of the cost of installation versus the benefit it produced?

A. I'm not sure how to answer the question, because where I look at a distribution circuit, I'm looking at the peak loading requirements. I'm not looking at the energy production of the solar panels. And even on this circuit here, if I was to take these panels and tilt them to the west to maximize the offset of peak demand, it's not significant enough to change my

design parameters. So, I'm not sure how the energy plays into this.

Q. But you would agree that the only information about circuit peak in the study is Figure 8? We're back just to the study that's in the record here.

A. That's--yeah, that's the only chart that shows contribution to circuit peak.

Q. Okay. Does that show that solar production is minimal at the precise hour the circuit peaked on August 2, 2010?

A. It does.

Q. And the solar study--let's see--so, looking on page .13--

MR. COLEMAN: I'm sorry. Page .13?

BY MR. CULLEY:

Q. Yeah. I'm sorry. Let me be specific there. Page .13 of the solar study that is attached to your testimony, DLM-1R. So, the last paragraph says, "However, distribution system peaks do not occur on the same day as solar insolation peaks." And would you agree that the chart--the figure under there shows days and not hours?

A. Yes. That's the annual load curve for that circuit.

Q. But it says distribution load peaks occur on or about August 2, 2010--

A. Correct.

Q. --and that the peaks usually occur within two weeks. But does it give an hour that those peaks occur?

A. It does not.

Q. So, are you aware of--or maybe you have already indicated you're aware of this other analysis, but can you provide a little more detail on when that analysis occurred that looked at the actual hour--hourly peak information of that circuit?

A. When did we do the analysis to compare with the circuit?

Q. Uh-huh (affirmative).

A. We did it roughly the same time we actually did the report itself.

Q. Okay. So, that was not included in--

A. It was not included in the report.

Q. So--

A. We talked it occurs on August 2. We're not specific on the hour that it hit.

Q. Okay. So, is it your opinion that the solar output model that--was determined here is only relevant to that circuit, or is it relevant company-wide?

A. The solar output for that circuit is the same across Utah. I mean, it's dependent on the daylight availability in different geographic areas in Utah. And that only varies plus or minus ten minutes east to west in the State.

Q. Okay. So, would this model be helpful in verifying similar analyzes on other circuits?

A. Yes, it would be. You can see the best case solar is in the middle of the day.

Q. Okay. And if solar could be shown to have a strong location with, we'll say, 9 out of 25 circuits, might that be something that would be worth studying for?

A. Yeah, if we could find that.

Q. Okay. Would you recommend that the Company undertake this kind of analysis when it does its load research later, as indicated in this proceeding?

A. I don't think I can make that recommendation one way or the other, because you're talking about an area of load research that's used in general ratemaking, that I'm not familiar with how we do those samples and selections.

Q. Okay. But would this be the kind of analysis that would be relevant and potentially useful to look at in a cost-benefit analysis of the entire net metering program?

A. Yeah. Sure.

Q. And would you agree that if solar does correlate well with specific circuits or substation peaks, that even the smallest net metering system provides some reduction?

A. It provides--I'll agree with that on the basis that you assume that you consider the fact that it's not available 100 percent of the time, nor 100 percent time when a system may

peak on a cloudy day.

Q. And if you added up all known solar circuit or substation, you would be able to estimate the potential reduction when all things are working.

A. You could.

Q. Okay. Let's back up for a minute. I think I'm able to trim this down quite a bit, so I appreciate you . . .

So, on page .3 of your rebuttal, starting around line 56, you describe how this study came about in response to an upgrade project at Northeast Substation. And does the Company's analysis show solar contribution to peak at Northeast Substation?

A. In best-case solar, it does.

Q. Do you happen to know if the--when measured at substation level, that the peak occurs at the same time or is it possibly earlier in the day?

A. It seemed to be really close. I don't know--I don't have the substation data with me to tell you exactly what it is, but there's an interesting point there when you bring up the measurements at the substation level you're talking about four individual circuits coming off of this.

Q. Uh-huh (affirmative).

A. And you're talking about the contribution--the mix on all of those are going to be relatively the same, because they're in the same geographical area. So, I would say the

contribution of that level's going to be about the same in that the particular peak's going to be--the substation peak's going to be relatively the same time, as well.

Q. Okay. And if this were a circuit that was a more mixed load--so, say two of the circuits were heavily commercial--that's going to shift the substation peaks earlier in the day, won't it?

A. It's could shift it. I'm not going to say it's earlier or later in the day without the precise data. It depends on the load characteristics of those commercial customers.

Q. Sure. I would agree with that. I think I just want to hit one last point. You mentioned--let me find it in your testimony. This is responding to something you said earlier.

Okay. On page .7 of your rebuttal, question is asked on page .135 that--"What other experience does Rocky Mountain Power have with large penetrations of solar or other renewable resources?" And you give a couple of anecdotes from Oregon. Is that correct?

A. That's correct.

Q. And, so, these are--would you consider these fairly large systems, 500 kW and 363 kW?

A. Yes. They are large systems.

Q. Okay. And are you aware what the average residential net metering system is, as established by the record?

A. I remember reading it. I don't remember the

precise number. It's pretty small.

Q. Ballpark of two to three kilowatts--

A. Yeah. It sounds right.

Q. And do you recall answering--maybe say if you did answer--this data request for TASC that asked about these two examples?

A. Yes. I did answer a data request.

MR. CULLEY: It might be helpful if I just hand this out as another cross exhibit. And portions of it are in the record--are already attached as an exhibit to surrebuttal, but I'll go ahead and hand this out.

THE HEARING OFFICER: Off the record.

(A discussion was held off the record.)

On the record.

MR. CULLEY: Okay. Great.

BY MR. CULLEY:

Q. So, I guess it might be helpful to have two things in front of you. One would be your rebuttal on page .7. And if you could turn the exhibit that's just handed to you, TASC Data Request No. 11--

A. I wasn't given an exhibit.

Q. Oh, you weren't? I'm sorry.

MR. PLENK: My apologies.

THE WITNESS: I have been.

MR. CULLEY: Okay. Great. Thank you.

MR. COLEMAN: Just to be clear, we're talking about Data Request 2.11.

MR. CULLEY: Yes. Data Request--TASC Data Request 2.11.

BY MR. CULLEY:

Q. So, on line 139 of your rebuttal--start there--you say, "Pacific Power has incurred the cost of replacing distribution systems transformers to accommodate increasing numbers of"--"levels of NEM customers in its service territory. The primary reason for the need to replace transformers was the absence of a primary neutral connection on the existing transformer [sic]."

And in that Data Request 2.11, TASC asks the question, "Is replacing the transformer with no primary neutral connection required in each of those jurisdictions?" and--which you answered, "Yes." Is that correct?

A. Yes.

Q. And, then, when asked what levels of NEM penetration has Pacific Power had in Oregon, California, Washington, you provided a table below, which shows Oregon has 1.3 percent of--as a measure of capacity as percentage of system peak demand, California is at 1.9, and Washington is at 0.2 percent. Do you happen to know what the current penetration is for Utah for net metering customers as a measure of peak demand?

A. I do not know that.

Q. Okay. And then, in Question C, or subpart C of 2.11, it's asked, "If a transformer placement is required to accommodate interconnection of a NEM system, does the customer or utility pay the cost for placing the transformer? And please answer for each of Pacific Power's jurisdictions." And you answer for each that the customer does pay for the transformer to operate. Is that correct?

A. Yes. That's correct.

Q. And is that also the case in this jurisdiction, that interconnection customers will pay the cost?

A. If a transformer upgrade is required, yes.

Q. And just one last question: In terms of voltage regulation, is this something that could be addressed in IEEE standards that are being developed for smart inverters?

A. It's addressed right now in IEEE 1547.

Q. But, currently, smart inverters are not included in that for use. Is that correct?

A. That's correct.

Q. But that process is ongoing.

A. It is.

Q. And the Company is keeping itself informed of when this might change.

A. Yes, we are.

Q. And would you agree that when this becomes a

reality and smart inverters can be used, some of these voltage problems are not going to exist anymore?

A. I can't agree to it, because I'm assuming--in that context, I would have to assume that the customer's equipment is operating as intended. And I don't have to put in any kind of conditions for the eventual problematics we saw. That's the--like you said, the anecdotal evidence we gave in the State of Oregon is that failure of customer equipment that caused problems on my distribution system that we needed to mitigate.

Q. Sure. So, that's just maybe the price of doing right business, right? We expect things to fail every now and then, as a small percentage.

A. Yeah. You do expect things to fail. And they do fail.

Q. So, let's see. If--smart inverters can provide a benefit in that regard. Would you agree with that?

A. Yeah. I think smart--absolutely, smart inverters can provide a benefit.

Q. And do you have any projection of when--what level penetration Utah would need to see before you're going to have the same problems you've identified anecdotally here in Oregon?

A. No. I have no projections on that.

Q. Okay. So, it's possible that by the time Utah reaches significant penetration the landscape has changed and

smart inverters are commonplace.

A. It's possible. Yes.

MR. CULLEY: Thank you. I have no further cross.

THE WITNESS: Okay.

THE HEARING OFFICER: Ms. Roberts, your witness.

MS. ROBERTS: Thank you very much.

EXAMINATION

BY-MS.ROBERTS:

Q. Good morning, Mr. Marx.

A. Howdy.

Q. I'd like to ask one follow-up question relating to TASC Cross Exhibit No. 3, which I believe you still have in front of you. That's the data request.

THE HEARING OFFICER: Let me just note for the record, I haven't marked it. Do you intend to offer it, Mr. Culley? I--

MR. CULLEY: Yeah. Sorry, Commissioner. I would like to have that marked. I'm sorry.

THE HEARING OFFICER: We'll mark it as TASC Cross Exhibit 3. Thank you.

MS. HOGLE: I'm sorry. Your Honor, I do not believe Mr. Culley has submitted any of these into evidence. He has just--

THE HEARING OFFICER: Not yet.

MS. HOGLE: Okay.

MR. CULLEY: Commissioner, do you prefer that I do that now or is that commonplace to do at the end of the witness's testimony?

THE HEARING OFFICER: I think now's entirely appropriate. You've concluded your cross, so you offer all three of them into evidence and--

MR. CULLEY: I would move to have all three exhibits marked, 1, 2, and 3, into evidence.

THE HEARING OFFICER: All right. Any objections?

MS. HOGLE: Yes, Your Honor. I have an objection as to, I believe, Cross Exhibit 1 and 2. The reason being is that, for example, if you look at his Cross Exhibit No. 2, there are numerous pages to these smart grid reports that are missing. I believe there's a page here, No. 59--if he provides the entire studies, I would have no objection; but otherwise, I have an objection to just pulling out a few excerpts given anything that--that is offered that is not in its full entirety could be taken out of context.

And the same thing with his Cross Exhibit No. 1, I believe. I note for the Commission several pages are missing. And I'm not sure that Mr. Culley asked any questions in regards to the minutes that are attached to that cross Exhibit No. 1.

Those would be my objections. Thank you.

THE HEARING OFFICER: Thank you.

Mr. Culley.

MR. CULLEY: I would certainly concede anything I did not use on cross to be--not be included. But as a convenience, these are voluminous documents that are filed in the Commission's, you know, docket website, which could be--I could provide links to those if that would be acceptable.

THE HEARING OFFICER: I think that depends on your purpose, but if you're intending for the Commission to consider those aspects of the documents that you used in cross-examination exclusively, then we can receive them on that basis. And is that acceptable? Is that your intent?

MR. CULLEY: Yes. Yes, Commissioner.

THE HEARING OFFICER: And, so, we'll consider only those portions that were addressed by the witness and the--and counsel. And those--
they'll be received in evidence for that purpose.

MR. CULLEY: Thank you, Commissioner.

THE HEARING OFFICER: Ms. Roberts.

MS. ROBERTS: Thank you very much, Commissioner.

BY MS. ROBERTS:

Q. Referring to TASC Exhibit 3, which is the data request and back to the Company's response to TASC Data Request 2.11 and the table showing the net metering

penetrations for California, Oregon, Washington.

A. Okay.

Q. Okay. Mr. Culley asked you whether you knew what Utah's penetration was on this same criteria as listed in this table. And you weren't sure of that answer. Do you know how it compares to the level of net metering penetration in these States? Is it lower? Is it higher?

A. I really don't know, to be honest with you, if it's lower or higher. I don't know what the total--what we have to look at is the total nameplate rating of all the systems installed that we have record of, which I don't have at my hands here.

Q. Okay. That's fine. Thank you.

You use the phrase "conventional rooftop solar" several times in your rebuttal testimony.

A. Uh-huh (affirmative).

Q. What do you mean by "conventional"?

A. To me, that's rooftop solar that's installed on the same plane as the angle of the rooftop on which it's installed and to maximize the annual energy production of that panel, so . . .

Q. So, would unconventional roof solar be installed to perhaps the west-facing maximize peak--

A. Yes.

Q. I also have questions for you related to this solar pilot study which you and Mr. Culley were discussing and is

attached to your testimony. The distribution circuit highlighted in that study, was it selected due to the need for the substation upgrade or was it selected because of the characteristics you mentioned, the modest annual load growth and so on?

A. It was selected because of the response from the citizens in the city in the area stating that rooftop solar would completely eliminate the need for a transformer upgrade. And, so, we wanted to either prove or disprove that theory.

Q. Okay. On page .2 of your rebuttal testimony, you do say that this area has very modest annual load growth of 2 percent, correct?

A. Yes.

Q. You also state on page .3 that the--on line 56 of your rebuttal testimony that there was a need for a substation expansion to address load growth.

A. Correct.

Q. So, there was--the--despite the modest load growth in the area, there was a need to expand the substation.

A. Yes.

Q. And do you recall--and--because I don't think it's referred to in that study--how many years out the substation upgrade was anticipated to be required.

A. It was an immediate need.

Q. An immediate need. Okay.

And the substation involved in this study was the

northeast substation.

A. Correct.

Q. Is that correct?

Okay. And does that substation serve other circuits besides this circuit that is discussed in your exhibit?

A. Yes, it does.

Q. How many other circuits?

A. I believe three.

Q. Three? Are they also primarily residential circuits?

A. As I recall the area, they're indicative of each other, yes.

Q. Okay. Thank you. So, the objective of this solar pilot study was to figure out whether you could install enough solar to avoid the substation upgrade, correct?

A. Yes.

Q. And as part of that study, did your GIS gurus give any consideration to orienting--to unconventional solar to orienting the panels to the west?

A. In the initial study, we did not, but subsequent to that, we've done preliminary estimates that show what would happen if we did tilt those to the west.

Q. Are those preliminary estimates part of the record in this case?

A. They're included in my rebuttal testimony on page .6.

Q. I see where that's discussed in your testimony on page .6, but are there any exhibits documenting the Company's evaluation of the different orientation of the panels?

A. No. I did not submit any exhibits.

Q. Okay. Thank you. On page .4 of your rebuttal testimony, there's an unnumbered exhibit which you and Mr. Culley were discussing earlier. And this figure shows a peak reduction of 7 percent, correct?

A. With best-case solar, yes.

Q. Okay. Can you please direct me where in the exhibit to your rebuttal testimony the 7 percent figure is calculated?

A. I don't show the calculations for it.

Q. Are the data that one would need to re-create the 7 percent number be available in the exhibit to your testimony?

A. We have that data available. It is not in the exhibits.

Q. Okay. And that data is not available anywhere else in the record for this matter.

A. Not that I'm aware of.

Q. You mention that the load growth of the circuit was about 2 percent per year.

A. (Moves head up and down.)

Q. Was that load growth in the peak or the overall load growth? Do you recall?

A. We measure load growth at the peak because that's how I size my system.

Q. Okay. Thank you.

MS. ROBERTS: At this time, I'd like to introduce an exhibit.

Make sure the witness gets a copy.

UNIDENTIFIED SPEAKER: Yes.

BY MS. ROBERTS:

Q. I'd like to mark this document Sierra Club Cross Exhibit No. 1. Mr. Marx, will you please let me know when you've had a chance to review the exhibit?

A. Okay. I've looked at it.

Q. Would you please describe this exhibit, Mr. Marx?

A. It's data request from--looks like the OCS to Rocky Mountain Power.

Q. And have you seen the spreadsheet that's included in this exhibit before?

A. I have not, no.

Q. Looking at that spreadsheet and the preceding text of the data request, the data included in the spreadsheet provides information for various substations in Rocky Mountain Power system and gives the peak date and time for each of those substations, correct?

A. Yes.

Q. Okay. And I'd like to turn briefly, if you could,

these substations are listed in alphabetical order. If you could turn to the northeast substation, which is--I told you the pages aren't numbered, but I believe it's about five or six pages in.

A. Okay.

Q. Okay. The Northeast Substation and the column headers have not carried over here, so this may require a bit of flipping back, so take your time. But when did the peak occur on the Northeast Substation in the summer of 2013?

A. It states on July 1, 2013, at 1600 hours.

Q. And 1600 hours is 4:00 p.m., correct?

A. Yes.

Q. And, so, this substation corresponds to the circuit in your solar pilot study that's attached to your testimony.

A. Yes.

Q. So, the 4:00 p.m. peak for the substation is several hours earlier than the peak for the circuit that is shown in the figure in your rebuttal testimony on page .4, correct?

A. In 2013, the substation was--

(Reporter/witness discussion to clarify the record.)

THE WITNESS: It's--it shows the substation peak in 2013 was earlier than the circuit peak was in 2010.

BY MS. ROBERTS:

Q. Thank you. That's correct. These are different years of data.

Why might the substation peak occur earlier than

an individual circuit peak?

A. The loading characteristics of the substation, the--there's numerous factors: customer usage, daily temperatures, etc., you know, what preceding days heating looked like.

Q. Can you please describe the impact of loading on the other circuits and how that combined with a load on the circuit that you studied to give you the substation distribution peak?

A. The power transformer's metered separately and independently of the circuits, so it's just coincidental data that you see at the substation level.

Q. Okay. Thank you. So, your study showed that solar--the maximum solar production reduced the peak load by 7 percent, correct?

A. On that day, yes.

Q. On that day.

And earlier we discussed that the increase in peak load growth on that circuit was 2 percent per year.

A. Correct.

Q. So, wouldn't a 7 percent peak reduction offset over three years' worth of load growth--of peak load growth for that circuit?

A. Yes. It would defer for about three years.

Q. So, you could defer an upgrade for three years

based on a 7 percent reduction, in general.

A. Yes. If you had 7 percent reduction, yes. And it was available all the time.

Q. Starting on page .4 of your rebuttal testimony, you discuss a study that you undertook, or the Company undertook, in an effort to validate the model. I'm going to refer to this as the interval meter study.

A. Okay.

Q. Did the Company write up the results from the interval meter study?

A. There was no specific report on it. What we looked at was just to see where our assumptions for the peak time of energy usage did validate what we saw in the model--

Q. Okay.

A. --and solar production, yes.

Q. Okay. And you state--this is on--beginning on line 80--that, "We installed interval meters on several NEM customers to measure their total solar production, energy delivered to Rocky Mountain Power, and energy received by the customer from Rocky Mountain Power." How many customers were involved in this interval meter study?

A. Seven.

Q. Seven customers. And were these customers on the same circuit?

A. No, they were not.

Q. I should clarify my question: Were they on the same circuit as each other?

A. No, they were not.

Q. They were--okay. Were any of them on the circuit profiled in the solar pilot study?

A. No.

Q. But this interval meter study was designed or intended to validate the results of the solar meter study.

A. Yeah. To validate our assumptions in the output, yes.

Q. Okay. Were the seven customers all residential customers?

A. They were.

Q. And how did you select those seven customers to be included in the study?

A. Based on when they were putting in their rooftop solar system so that we could work with their electrical contractor to get a production meter installed at the same time. We did not go back and do any retrofits.

Q. Thank you.

In selecting those seven customers, did you make any effort to ensure that they were somewhat of a statistically valid sample of your net metering customers?

A. No.

Q. So, they could have had much larger or much

smaller solar panel installations than your other customers.

A. Oh, yes.

Q. And do you remember--you do discuss, beginning here on page .5 of your rebuttal testimony, this data for when their systems production peaked and when their consumption peaked, correct?

A. Yes.

Q. One thing that's not in your testimony--and I'm wondering if you recall this--is what their contribution was at the system peak. You know, you give the 7 percent figure relating to the other study. And I'm wondering if there's a similar--

similar data regarding the percentage contribution to peak for those seven customers from this study.

A. I don't remember calculating that. What we were looking at was when does their peak occur. And that's all we were looking at.

Q. Okay. So, it's possible that those customers' solar production at the time of peak could have offset 80 percent.

A. No.

Q. It's impossible.

A. Not 80 percent peak.

Q. More than 7 percent?

A. Yeah. There was a few that would give you more than seven.

Q. Okay. But these data aren't part of the record.

A. No, they're not, because, like you said, they're not statistically significant. We just used it as a benchmark measure, what the meter has, per se, to see what we could get, make sure our assumptions were accurate, which they were.

Q. Does the Company have any plans to install--to do further interval meter studies?

A. We actually do that all the time, as far as the load research data. And--I mean, we do break that out according to customer class--
residential, industrial commercial. If there's a rate tariff for a customer class, we generally do a study to make sure that it's valid, it's statistically significant, and it's valuable. And the reason I did bring the chart for the residential load study for the test case with me, just because it was of interest when it showed the residential peaks on Utah residential load curve, so . . .

Q. How many customers have interval meters--how many net metering customers have these meters installed now?

A. I don't know that--the true number. I know we quit collecting data on the seven that we had installed for my purposes.

Q. So, data are available from the Company relating to total generation, total consumption from some number of customers.

A. For a finite period of time. We quit collecting the data after we validated our model.

Q. The meters are still operational on the residences, though.

A. I don't know if they still are or not.

Q. Okay. Thank you. I have a few more questions relating to Sierra Club Cross Exhibit No. 1. And this relates to a response that you gave Mr. Culley's question earlier about the variation in when different substations peak.

A. Uh-huh (affirmative) .

Q. And I would just like--let's just turn to the first page of this actual spreadsheet beginning with Substation 106 South.

A. Okay.

Q. And these substations are listed in alphabetical order, so I haven't manipulated this spreadsheet in any way that you can discern, correct?

A. Correct.

Q. Okay. Could you go down the list for the first, say, half of this page and just indicate the times that each of these substations peaked? If you could convert to the 12-hour clock for the rest of us in this room, that may help. So, just read off a dozen or so of the peak times for the substations.

A. And you want them in order? So, we have 4:00 p.m., 4:00 p.m., 3:00 p.m., 6:00 p.m.

Q. That's 4:00 p.m., isn't it?

A. 1800 hours?
Q. Oh, I'm sorry. I thought you were on the next line. My apologies.
A. 1800 hours is 6:00 p.m.
Q. Absolutely.
A. And, then, we have 4:00 p.m., 4:00 p.m., 5:00 p.m., 4:00 p.m., 4:00 p.m. Skip a couple. 4:00 p.m., 1:00 p.m. 5:00 p.m., 6:00 p.m.
Q. Okay. Thank you. Now, the circuit that you studied in the solar pilot study that you and Mr. Culley were discussing--
A. Uh-huh (affirmative) .
Q. --the past-year exhibit, that peaked at approximately 7:00 p.m., correct?
A. The circuit did in 2010, yes.
Q. The circuit in 2010 peaked.
That peak time is later than all of the other substation peak times that you just read off this exhibit, correct?
A. Of the ones I read off, yes. I haven't read the entire list, though, so I can't speak to the list in its entirety.
Q. Of course.
A. I'm sure you've looked at it.
Q. But is it fair to say that the 7:00 p.m. peak time on that circuit is not necessarily representative of all of the substation distribution peaks on your system?
A. I think it's fair enough, yeah.

Q. It's fair enough.

A. Like I said, I haven't looked at the entire list, so I don't know how it comes in.

Q. Okay. But you're confident that based on that single study, you can say that there are no distribution reduction benefits for your entire system based on the study of that one circuit.

A. Right. Remember, I'm not relying just on the fact that it's a 7 percent reduction at that hour of the day. We also look at the availability of that. I have to size for the demand peak that will be seen on that circuit at any time of the year so that I can maintain my voltage so that I can maintain the customer's energy demands. That's what I'm designing for is the peak of the system. So, if that solar system is not contributing at the time of the peak, the time of the peak shifts when solar production's not available--that's what I have to size my distribution network. I can't size it based on energy reduction. It doesn't work.

Q. So, your study did show a 7 percent energy reduction on that day.

A. On a best-case solar, assuming every rooftop in that area had solar production on it.

Now, you know, if you want to look at that as a mandate and say that every customer on that circuit must have it, that's what we are basically referring to in that study.

Q. The Company's net--requested net metering facilities charge is not based on any estimates of the cost of adapting the electrical grid to handle export from net metering customers, correct?

A. I really don't know what's all embedded in that cost request.

Q. Have you quantified any cost to the utility of adapting the grid to handle distributed generation?

A. Not for Rocky Mountain Power. As I've said, we don't have the level of penetration that would require that yet. But talking to other utilities, seeing the challenges they face, we know there will be some challenges with that.

Q. Considering the current growth in net metering customers, has the Company estimated how many years it has before it reaches the penetration level experienced by these other utilities?

A. I have not, no.

MS. ROBERTS: Okay. Thank you. No further questions.

THE HEARING OFFICER: Ms. Hayes.

MS. HAYES: Thank you.

EXAMINATION

BY-MS.HAYES:

Q. Good morning, Mr. Marx. I just have a very few questions. You mentioned several time this morning that you

size your system for demand. And your estimates of demand don't differentiate based on the attributes of specific customers, do they?

A. Our load size will give you that information, yes. It can tell you, but we don't on individual circuits break it down by that category, no.

Q. Okay. And do your studies assume a diversity of load, that is that not all appliances will be on at the same time all--at--

A. Yes.

Q. Okay. And, then, the residential distribution peaks are different from system peak. Is that correct?

A. That's correct, yes.

Q. And, then, at--let's see. At higher penetrations of solar, would storage or demand response possibly help facilitate the integration of higher penetrations of solar?

A. Storage will.

Q. But not demand response.

A. Demand response would be impartial to the source of the energy.

MS. HAYES: Okay. Thank you. That's all.

THE HEARING OFFICER: Redirect, Ms. Hogle?

MS. HOGLE: I don't have any. Thank you, Your Honor.

THE HEARING OFFICER: Questions?

Thank you, Mr. Marx. You're excused.

THE WITNESS: All right. Thank you.

MR. ROSSETTI: Is it possible I ask follow-up questions, you know, redirect? Is that what it's called?

THE HEARING OFFICER: Redirect is for the counsel that is sponsoring the witness, typically, so . . .

Ms. Roberts, you--did you have something you--

MS. ROBERTS: It's a matter for the commission--I would simply like to move that Sierra Club Cross Exhibit No. 1 be moved into the record.

THE HEARING OFFICER: Any objections?

And, again, we'll receive these for the matters that were addressed by counsel with the witness.

Thank you.

Your next witness.

MS. HOGLE: The Company calls Ms. Joelle Steward.

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

THE WITNESS: Yes.

THE HEARING OFFICER: Thank you. Please be seated.

JOELLE STEWARD, being first duly sworn, was

examined and testified as follows:

EXAMINATION

BY-MS.HOGLE:

Q. Can you please state your name and place of employment for the record?

A. My name is Joelle Steward. I'm the director of pricing, cost of service, and regulatory operations for PacifiCorp.

Q. And as a witness in this case, did you prepare rebuttal and surrebuttal testimony in Phase II in this case?

A. Yes.

Q. With exhibits?

A. Correct.

Q. And do you have any changes--

(Dial tone interruption.)

THE WITNESS: No.

THE HEARING OFFICER: Off the record.

(A discussion was held off the record.)

THE HEARING OFFICER: We're on the record.

Go ahead, Mrs. Hogle. Thank you.

BY MS. HOGLE:

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

A. They would.

MS. HOGLE: The Company moves for the admission of the rebuttal and surrebuttal testimony with exhibits of Ms. Joelle Steward.

THE HEARING OFFICER: Objections?

They're received.

BY MS. HOGLE:

Q. Ms. Steward, do you have a summary for the Commission today?

A. I do.

Q. Please proceed.

A. Thank you. The summary encompasses my rebuttal--my direct, my rebuttal, and my surrebuttal testimony in support of the Company's net metering facilities charge. Rocky Mountain Power is proposing to implement a net metering facilities charge of $4.65 per month for recovery of costs related to the distribution system and customer services. The facilities charge is an addition to the $6 monthly customer charge agreed to in the stipulation for all residential customers.

Alternatively, the Company is agreeable to recovering these facilities costs through a charge based on the installed facilities--facility size for each installation. This was the approach that was proposed by the Office of Consumer Services. The Company calculates this charge at a $1.55 per installed kW.

The proposed charge is applicable to only

residential net metering customers. The calculation of the charge is shown in my exhibit RMP __JRS-1R. The need for the charge is due to the residential rate structure in which a significant portion of the fixed costs are recovered through energy charges.

As a result of this structure, when net metering customers reduce their usage and receive a kilowatt-hour credit for the excess generation based on the retail energy rate, these customers significantly reduce their contribution to the recovery of the fixed cost. The recovery of these costs then shifted to other customers through higher energy rates. These higher energy rates further increases the compensation to the net metering customer.

The Company is not proposing a similar charge for nonresidential customers who are on net metering, because the rate structures for these customers typically include demand charges, which provide this recovery of a fixed cost related to the distribution system and customer services.

As I've noted, the costs included in the proposed charge are related only to the distribution system and customer services. The calculation of the charge is based on the average cost per residential customer for these services. The distribution system costs are comprised of the substations, the poles, the transformers, the wires, the meters, the service drops. All of this infrastructure is necessary to serve these

customers.

The customer service cost in the charge are comprised of the cost for meter reading, for billing, for answering or responding to phone calls, customer communications, processing payments, and providing online access to accounts.

These costs do not go away with the existence of or the growth in net metering. These distribution and customer service costs are allocated to classes based on essentially three drivers: the contribution to the distribution system peak; the non-coincidental peak, which is the maximum usage for all customers; and by the number of customers. None of these costs are allocated or incurred based on overall energy usage; however, the costs are entirely recovered through energy rates.

The current rate structure is heavily dependent on energy rates for recovery of costs and were historically developed for full requirement service. This essentially just means that customers--full requirement service is where customers take all their service from the utility and are not self-generating, as well.

The rates, therefore, have been developed for customers with these characteristics of taking all service from the utility. The net metering customers, however, are not similarly situated to the other residential customers because they serve a portion of their usage through their own generation,

which is typically solar. These customers have a different load factor and a different load shape than the average residential customer.

The proposed net metering charge is essentially designed to ensure that net metering customers pay as much as the average residential customer for the distribution and customer service cost. Even with the proposed charge, nearly 60 percent of these costs will be recovered through the energy charge and 100 percent of the transmission and generation costs will continue to be recovered through the energy charges. So, even with the charge, the net metering customers continue to receive a price signal and a significant benefit through their reduced energy use.

Ensuring that net metering customers pay at least as much as the average customer is fair because these customers take from our system about the same amount of electricity as the average residential customer, and therefore the distribution infrastructure and the customer services are in place and necessary to serve these customers. And as was explained in--by Mr. Marx, the timing of the output of that solar generation does not readily coincide with the timing of the distribution system peaks which occur over the hours of 4:00 to 7:00 p.m., which is when the solar generation is rapidly diminishing. Therefore, the system is still designed to serve that maximum expected usage during the period.

However, because the costs are in the energy charges, they are not recovered from the net metering customers commensurate with the demands placed on the distribution system, since they are not billed for their full energy usage, but they are billed just for the energy net of the excess generation.

While some parties argue that this reduction in energy is similar to customers who undertake energy efficiency efforts, a net metering customer's avoidance of a kilowatt-hour purchase from the grid is not the same as a customer's avoidance of kilowatt-hour of consumption by energy efficiency. With energy efficiency, a customer avoids both consumption and the purchase of electricity and generally reduces their consumption at the time of the distribution peak, reduces their maximum peak, or their non-coincidental peak--NCP, we call it--and increase their load factor. Whereas, when a customer adds contributed generation, purchases from the grid may be reduced, but the total consumption may remain unchanged, which the Company must be prepared to serve in the event of cloud cover or an outage of the customer's facility.

Additionally, the customer's non-coincidental peak may remain relatively unchanged, which can be seen in the diagrams included in my rebuttal testimony. And this non-coincidental peak drives the allocation of any distribution investments, such as the secondary lines and transformers.

Several parties have argued that the Commission cannot impose this charge at this time because there's insufficient evidence that the costs exceed the benefit, as required by Senate Bill 208. However, the Company believes there is sufficient evidence, based on the Commission's own finding about what costs and benefits can be reflected in avoided cost. Mr. Duvall explains this in more detail; however, I will summarize it to say that the avoided cost value for solar is about 3 cents per kilowatt hour in 2015. This compares to a retail energy rate that the net metering customer avoids or is credited with, which ranges from 8.8 cents to 14.4 cents. This results in a gap of about 6 to 11 cents that benefits would have to exceed.

So, while the Company is not opposed to the Commission undertaking a more detailed evaluation of the costs and benefits for net metering the current gap between the monetary value that customers receive for their generation and the avoided cost value that the other--that other solar generators receive is wide enough to support the conclusion that the benefits of customer solar generation, particularly in regards to the distribution system and customer services--they do not exceed the costs; and therefore, adoption of a net metering facilities charge at this time is appropriate.

The proposed $4.65 per month translates to less than 1 cent per kilowatt-hour in closing that gap of 6 to 11

cents.

The Company believes it's important to adopt this change now--this charge now while the number of impacted customers remains small but it is growing, and the level of cost shifted to other customers is small. The Company is planning to continue to study the impacts on the system and allocations due to customer generation and may propose additional changes to rates in the future. However, this additional data is not necessary to support the proposed change at this time, which--because these costs, which are limited to distribution system and customer services, are supported by cost causation, and it is therefore reasonable to adopt it at this time.

And that concludes my summary.

MS. HOGLE: Ms. Steward is available for cross-examination.

THE HEARING OFFICER: Thank you.

MR. JETTER: No questions from the Division.

MR. COLEMAN: The Office has no questions. Thank you.

THE HEARING OFFICER: Mr. Rossetti.

MR. ROSSETTI: Thank you.

EXAMINATION

BY-MR.ROSSETTI:

Q. First of all, thank you for responding to all of our data requests.

A. You're welcome.

Q. I do have a couple of questions--well, more than that, I suppose. Let's see how it goes. Would you please briefly summarize the factors that have been used to determine the $4.65 charge? Feel free to skip over the elements contributing to the total distribution retail costs. So, in your spreadsheet, you show a number of factors such as kilowatt-hours and that.

A. Correct. So, essentially, what we did is we calculated the average cost per customer for all of these facilities for the distribution facilities and for customer service costs. We subtracted out the revenue we'll collect through the $6 customer charge, the remaining amount translates to 162 million, or $18.19 per customer that we would need to recover through the energy charges.

That's--$162 million, if you take it over the total kilowatt-hours, becomes 2.6 cents per kilowatt-hour in all energy rates, recovers for distribution and customer service costs. So, we then took that, applied to the--the energy--forecast energy net billed energy we would receive from net metering customers to determine what the deficiency is that net metering customers would not be paying compared to the other residential customers.

Q. Okay. Thank you. So, the--what would you ask for to completely recover the fixed cost? I believe in your testimony

you said that this doesn't recover it all but it recovers a certain portion of it. Is that--was that a correct--

A. Correct, because we still assume that we're getting recovery of a portion of these costs through the energy usage that is being billed to net metering customers. So, we've not tried to double-count. We've tried to take into account that we will be getting recovery through some energy charges, but not enough.

Q. Is there any intention to increase that in the future to more fully recover the fixed charges?

A. Well, what we're looking to do in the future is actually possibly propose a new rate design, rate structure mechanism that may be better suited to these customers and this type of service. And that mechanism could more closely resemble a nonresidential customer where there is a demand charge in addition to an energy charge and the regular customer charge. And that structure may actually help capture both the benefits and the cost more fairly for these customers, because that demand charge could be based on the time of the distribution peak and the energy charges could be based on time of day. So, if these customers are offsetting their usage during a higher priced period but taking usage during lower price period, that would all be captured through a more refined rate design.

Q. Okay. Thank you. Would you please repeat the

definition of line 11, the net metering kilowatt-hours? What does that represent?

A. This represents the forecasts for the net billed kilowatt-hours for the net metering customers.

Q. Thank you. Are there any fixed costs recovered from net metering customers currently?

A. Yes.

Q. Okay. And that is recovered from the portion of the gross minus the excess. Is that correct?

A. Well, it would be recovered through both the customer charge, which is currently $5 and through some portion of their energy usage.

Q. Great. Just wanted to be clear on that.

What is the percentage of total consumption--let me make sure I say this right, because I can't read my writing because I'm nervous--what percentage of total consumption does net metering excess represent, say, today or at the end of the study period, June of 2013, whichever you prefer?

A. Well, I know that the excess generation--if I'm understanding you correctly--of what they were--their usage was essentially netted against was--it was about 161 kilowatt-hours, on average, per customer. So, while their net billed usage is--I think it was about 511, once you take into account that usage that was excess generation being applied, you know, later in the billing period or even carried forward into

other months, they actually approach more of an average residential customer.

Q. Okay. Why is gross consumption used as the basis for the net metering fixed cost calculation?

A. Gross consumption is not used. Gross consumption for whom? For--which line?

Q. On line 11.

A. That's the net amount. So, that's not a gross number; that's a net.

Q. Okay. And I hope it's okay to say this, but in one of the rebuttals--in the rebuttal to my testimony, I was told that that represented the gross consumption by the customer, not the net production. And that actually coincides with the numbers provided in other exhibits from the Company.

A. No. I believe we maybe have a misunderstanding of terminology.

Q. Okay.

A. This is the amount of energy they took from the Company net of any excess. This is what we would bill on. Maybe point me where you're . . .

Q. Yes. I'm--scampering here.

Anyone else see it, let me know.

THE HEARING OFFICER: Let's be off the record.

THE WITNESS: I've found it. It's in my rebuttal,

on line 352.

THE HEARING OFFICER: Just a moment.

On the record.

THE WITNESS: I think the line you're referring to is on line 352 in my rebuttal. And it says, Instead, the $13 million in kilowatt-hour is the annual net billed usage by the net metering customers.

BY MR. ROSSETTI:

Q. Okay. So, the net billed usage.

A. Correct.

Q. Not the net excess generation.

A. Right. It does not include that excess generation.

Q. Okay. I'm struggling to understand this.

THE HEARING OFFICER: Do you need a minute, Mr. Rossetti, to look through your papers?

We can go off the record.

MR. ROSSETTI: I'll think about it for a minute.

BY MR. ROSSETTI:

Q. Is wear and tear and requirement system modifications due to net metering relevant to the establishment of a facilities charge?

A. We have not, as part of the calculation of this charge, assumed any additional cost related to these customers. But I think in looking at costs and--you want to consider that there are additional costs represented, but we have not even

tried to capture those costs for net metering. This is just a charge to try to have the net metering customers pay the same as the average residential customer for the same facilities.

Q. Okay. It's been used in some justification. Let's see. Would you say that the average residential net metering customer's excess perfectly offsets their grid consumption?

A. No.

Q. What has been the growth in residential net metering excess generation--back into the grid--which I think you're calling net metering kilowatt-hours--

A. (Moves head up and down.)

Q. --since your original testimony was filed in percentage? Do you have a rough idea?

A. No. I don't know what the net usage change has been.

Q. How about capacity change?

A. You mean how many new installations have been in place?

Q. Well, the capacity of the new installations.

A. I know it's exceeded--I know we've responded to data responses that provided that information. I don't know it off the top of my head.

Q. Yeah. I think it's somewhere around 30 percent was the claim.

And, then, might as well not ask what percentage of

the total gross consumption this represents.

Do you have any idea what the net metered production, meaning the outflow from a residential customer, represents for total residential consumption going into the meter for all customers, residential customers? Do you know what percentage that is?

A. I'm not sure I followed that. Can you ask it again?

Q. For all the solar--or net metering customers who generate excess--

A. Uh-huh (affirmative) .

Q. --the total of that excess compared to the total consumption by all residential customers. So, the total kilowatt hours in here is 6,203,000.

A. Oh, what the total? No, but if we take that--

Q. That's 6 million and divide it by the 13 million.

A. Well, if we take the 13 million--if I'm following you here, we know that 13 million does not take into account the excess generation. And I know through the data we provided in data responses, that that excess generation is about 161 kilowatt-hours per customers. If we take that by the number of customers, we could get there, but I can't do it off the top--without a calculator.

Q. They're handy.

So, if you will bear with me, let's say a--just--I don't know--can I ask what-ifs in this?

THE HEARING OFFICER: You can ask what-ifs as long as you're clear about doing it.

BY MR. ROSSETTI:

Q. Okay. I have a couple of what-ifs. What if a customer has solar, they consume 1,400 kilowatt-hours in a month, they generate 700 kilowatt-hours of excess, which means they get billed for 700 hours kilowatt-hours? That's the break-even point, right? That's the average customer consumption is 700 kilowatt-hour.

A. Did you say they used 1,400?

Q. They use 1,400.

A. From the utilities--from the utility, not just what's offset by the generation at the time of the generation?

Q. They sucked in through the power line 1,400 kilowatt.

A. Okay.

Q. And they pushed out 700, but they were billed for 700 because they got credit.

A. Right.

Q. Is that the break-even point? At that point, have they paid the average fixed cost recovery?

A. Yeah. So, about 700 kilowatt-hours is the average customer.

Q. Okay.

A. But then that customer would clearly be above

average.

Q. Okay. If somebody consumes 700 kilowatt-hours--

A. Uh-huh (affirmative).

Q. --from the grid, sucks it out of the power lines, but they don't generate any excess, they just have a few panels, they never generate excess, how much of that customer has not paid their fair share? If they consumed 700 kilowatt-hours--

A. Uh-huh (affirmative).

Q. --how much--has that customer not paid their fair share of the fixed costs at that point?

A. Well, if they've paid for 700 kilowatt-hours, then they've paid about the same as an average residential customer for its fixed cost.

Q. Would we call that fair? I'm sorry. That's probably not an appropriate question.

So, in my final--thank you for bearing with me--

A. Uh-huh (affirmative).

Q. --my final case study here: Instead of solar, this customer uses aggressive conservation and efficiency techniques and reduces their consumption to 700 kilowatt-hours. This customer has paid their fair share, too. Would you--they have paid their average fixed cost for all residential customers?

A. They paid the same as an average residential customer, yes.

Q. Thank you. I'm probably never going to get back to

that kilowatt-hour thing.

And, then, let's see. In your testimony--let's see. This is a--the rebuttal testimony. On line 196, you were asked a question about--

A. Let me get there.

Q. Have a sticky tab on it?

A. Okay.

Q. In response to a question, is it similar to customers--is net metering similar to customers who use efficiency? And you say, "A net metering customer's avoidance of a kilowatt-hour purchase from the grid is not the same as a residential customer's permanent avoidance of a kilowatt-hour of consumption via energy efficiency or demand-side management. When a residential customer adopts energy efficient appliances or behaviors, both energy consumption and energy purchase from the grid are reduced. They also reduce energy consumption at the time of system peak . . . ."

Reading that, it sounds to me like the only difference is peak demand. The solar customer has reduced consumption, so has the conserver, but is it correct that in the context of this statement here that you're saying that the real only difference is in peak demand?

A. No. You actually didn't continue reading on to the rest of that sentence, which says, ". . . improving load shape . . ." So, those energy-efficient customers are improving the load

shape and load factor ". . . and ultimately the class and system load factor."

Q. Which is related to peak demand. Isn't that correct?

A. Well, it relates to how peaky they are and how costly it is to serve a peaky customer. So, a customer with distributed generation, they're going to be much more peaky in their use, which ultimately costs the utility more. It's a less efficient use of the system. Whereas, an energy-efficient customer, they flatten their load better. And, so, it's a lower--it's a higher load factor and it's less costly for the utility to serve.

Q. Okay. Thank you. Has that been monetized?

A. I don't know what--

Q. Well, I mean, has the value of that--

A. Well, we calculated--we show there the difference--in Diagram A and B, I show the difference in a load factor between an average residential customer and a DG customer. We did not show it on Exhibit--or on Diagram C that load factor.

Q. Okay. Thank you. So, there's no dollar figure associated with that benefit of consideration.

A. No. Not that I have here, no.

Q. Okay. Trying to figure out how I'm different from conserver.

Okay. And, then, hopefully this will be my final question. And I do have--if I figure out my question about the

kilowatt-hours later, is there any way I can ask that question later?

THE HEARING OFFICER: Yes. Your timing's impeccable. We're going to break for lunch. You can consider how to frame that question over lunch. As soon as you've asked this one, we'll break for lunch until 1:30.

MR. ROSSETTI: Okay. Thank you.

BY MR. ROSSETTI:

Q. "UCARE argues"--I'm sorry. This is in your rebuttal testimony, line 327.

A. Okay.

Q. "UCARE argues there's a considerable financial benefit realized by the Company as a result of the excess generation being used to serve a net metering customer's neighbor and through the expiration of the excess credits at the end of the . . . program year. Do you agree?"

The answer is, "No. The [sic] argument overlooks the fact that the cost to those neighbors"--"neighboring customers for that non-dispatchable energy is between 8.8 [whatever] cents . . . [and] is considerably higher than the customer's avoided cost of energy," emphasis. "Since that rate includes fixed costs, that neighbor essentially ends up paying for the fixed costs required to serve the net metering customer that the net metering customer does not pay by virtue of the rate structure."

Does that not mean that the neighbor who has not used the utility to get that energy has paid for the fixed costs for the credit that is later redeemed by the net metering customer?

A. Well, that net metering customer--I don't know if I'm answering this exactly--if I followed your question correctly--that net metering customer is essentially banking their usage and because they're going to take at a later period through the crediting process. And, so, that--the neighbor is paying for their usage as they would any other way. But because of that crediting process and that we're only billing on the net and not the total usage, those costs end up getting sifted through higher energy rates to all customers because our net amount that we bill on is different than what is actually required to serve customers.

Q. Okay.

A. Does that answer it?

Q. Not really. The point I'm trying to understand is here, we--we've--meaning the Company has tried to justify charging the--or recovering the fixed cost, because when the solar customer later uses the network grid redeeming those credits, they're not paying anything. Is that correct?

A. That's--

Q. Okay.

A. That is correct, yes.

Q. The neighbor who received the excess energy paid

fixed costs.

A. Uh-huh (affirmative).

Q. But they were not actually pulling energy across the network. So, if we're talking about actual usage of the grid as a justification, doesn't this wash?

A. No, I don't think so.

Q. Okay. Thank you.

THE HEARING OFFICER: We'll be in recess until 1:30. Thank you very much.

(Luncheon recess taken, 12:01-1:30 p.m.)

THE HEARING OFFICER: Are we on the record?

I think we're all back from our noon recess. And we're ready to have Mr. Rossetti continue his questions.

MR. ROSSETTI: Thank you, Commissioner.

EXAMINATION (CONTINUED)

BY-MR.ROSSETTI:

Q. Just a couple more questions. Thank you. Do you have any measure of what--conservation and efficiency customers who put solar have employed?

A. No.

Q. Nothing like that?

A. No.

Q. Okay. Typically, they do before putting solar in.

If a solar residential customer is on grid but not net metering--in other words, they're using some form of

storage--buffering storage--are the fair share of fixed cost being recovered from these customers?

A. I'm not aware that we have that situation. I think if you have generation, then--and you're interconnected, then you're on net metering--

Q. Okay.

A. --or you're on Schedule 31 requirements if you're a large customer.

Q. So, this is a new technology. I was just wondering if you considered that--if they were able to do that, if you would consider them as being--I don't know the right word--prone to additional charges because they have solar but they're not net metering, they're using buffering storage of some kind, do you think that they would be subject to some special fee?

A. I guess I'm not sure--would they be subject to this fee? Or you're talking about in the future if this occurs--I can't tell you what the rate would look like in the future under that situation.

Q. Okay. Great. I'd like to refer you to your rebuttal testimony, line 347.

A. Okay.

Q. "Have you identified other errors in UCARE's analysis and assertion?"

"Yes." The answer is, "Yes. On page .9, UCARE claims a reduction of emissions based on his claim that

'residential NEM customers produced [13 million] kilowatt-hours of . . . electricity for the reporting period.' However, this figure that it characterizes as excess electricity, which appears in [your spread]"--"[in spreadsheet], is not excess electricity produced by net metering customers; instead, [13 million] kilowatt-hour is the net billed usage by net metering customers." Is that correct?

A. Correct.

Q. So, referring back to your spreadsheet on line 11, is this the same 13 million kilowatt-hours that we were just discussing?

A. Correct.

Q. So, then, that is not the excess that has been produced by the net metering customers. That's their actual consumption.

A. Well, it's their actual net bill consumption. It's what goes into the billing determinants that we use to design rates over.

Q. Okay. So, that is the--if I look at my meter and I have No. 14, which is my net production, and No. 24, which is my gross consumption, it's the difference between the two.

A. No. We don't measure your gross consumption. All we--our meters we have--there's two registers on the meters. One is registering everything the customer takes from the utility. And the other meter is registering all the excess generation put

back on the utility. And, then, through the billing process, those two are netted. We do not measure and cannot currently measure the customer's actual consumption that is offset by their own generation.

Q. I'm sorry. That's my--

A. Oh, okay.

Q. --that's my ignorance in knowing what the proper term is. So, what should I call the billed usage, then?

A. Call it net billed usage.

Q. Net billed usage. And the excess that's put back into the system, what should I call that?

A. We can call it the excess.

Q. The excess. Okay. So, this 13 million is the total--yeah, what is the term for the total energy that gets measured by the meter coming into the house?

A. This is the net billed amount. So, this is part of the kilowatt-hours that becomes essentially the denominator over which we design the rates.

Q. Yes. I'm just trying to make sure I fully understand this number, because I think wrong--and I hate to accuse you of getting something wrong, because--

A. I don't know that it's wrong. In fact, this is based on the forecast kilowatt-hours of what is billed to net metering customers.

Q. Okay. Just to be clear, absolutely clear, there's

three numbers involved when a residential customer has net metering. There's the total kilowatt-hours that comes in from the grid.

A. Uh-huh (affirmative).

Q. It shows up as No. 24 on my particular meter. There is the excess electricity that goes out. That's No. 14. And, then, there's the total billed, which is the difference between the two.

A. Right.

Q. Which one does this number represent?

A. This is the net billed amount.

Q. Thank you. I'll address my concerns with this in my summary later.

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

THE HEARING OFFICER: Thank you.

Mr. Culley.

MR. CULLEY: Thank you, Commissioner.

EXAMINATION

BY-MR.CULLEY:

Q. And good afternoon, Ms. Steward. How are you?

A. Good afternoon.

Q. My name is Thad Culley. I'm counsel with The Alliance for Solar Choice. Just have a few quick questions for you, keep this thing moving.

A. Okay.
Q. Let's see. Starting on page .9 of your--
this is your rebuttal testimony, line 176. Okay. So, you state that ". . . distribution system costs are incurred and allocated to customer classes based on customers' contribution to either the distribution system, [that's] (substations and primary lines), the non-coincidental peak"--sorry--
" (line transformers and secondary lines) or by the number of customers, [which are] (service lines and meters)."
NEM customers have relatively the same daily peaks as other residential customers. Isn't that distribution system peak as a cost driver going to be relatively similar for net metering and non-net metering customers?
A. Is the cost driver--I'm sorry. Can you repeat the question?
Q. So, if non-net metering customers and net metering customers have similar peaks--
A. Yes.
Q. --on the days of system peak, is that affecting the allocation of cost to residential class in the same way?
A. If they're--yes. I mean, if they have peaks around the same time, then, yes.
Q. And on diagram 8 on page .8 of your rebuttal testimony, is that roughly what that shows, that the ultimate level of peak is similar between residential customers without

DG and those with--

A. Yes.

Q. At the time of peak for the residential customers without DG, can you say approximately where the demand for the DG customer is on that?

A. So, in this example, which is based on just an average facility size of 3.2 kW, at that peak hour there, they're about 1.5 kW. Is that what you're looking for?

Q. Yes. And the reason they are not 2.6 at that point, or a little over 2.5, is because they are consuming some of that generation on-site. Is that correct?

A. Presumably, yes.

Q. Okay. And if that is the case, would they be reducing their contribution to the class peak at that time?

A. They would be reducing their contribution to, yes, the class peak, but the distribution facilities are still going to be sized to meet their peak.

Q. Okay. But in terms of--the residential class is diverse and you count on some load diversity--

A. Uh-huh (affirmative).

Q. --to come up with these aggregates. So, to the extent you took net metering customers, if they all shared this kind of average profile, they would contribute less to this peak here. Is that correct?

A. They would contribute less to that peak; however,

that's not consistent with how the distribution system is sized.

Q. Okay. Let's move to page .23 of your direct testimony, please. And this is starting with line 498.

A. Okay.

Q. So, here we're talking about commercial or nonresidential net metering customers: So--". . . for nonresidential rate schedules, the demand charges provide a significant portion of distribution and retail fixed cost recovery; therefore, at this time, the Company is not proposing a net metering facilities charge for nonresidential net metering customers until additional analysis can be completed to evaluate cost-shifting impacts by these customers."

For this case--in preparation for this case, did you do an analysis to come to that conclusion, that nonresidential customers cover a significant portion of their distribution and retail-based cost recovery?

A. It's--it happens through cost of service and in rate design, which costs go into which rate. And, so, you can look and see, you know, demand costs are being recovered through demand charges.

Q. But did you look specifically at nonresidential net metering customers to see how much they're exporting, if--or if they're exporting?

A. No.

Q. And have you done any analysis to determine

whether nonresidential customers may actually provide net benefits to your system?

A. No.

MR. CULLEY: I don't think I have any further questions. Thank you very much.

THE HEARING OFFICER: Ms. Roberts.

EXAMINATION

BY-MS.ROBERTS:

Q. Good afternoon, Ms. Steward. Your direct--let me start over. The Company has asserted in its more recent testimony that the benefits of net metering solar are equal to the avoided costs as determined in this Commission's prior PURPA dockets, correct?

A. Correct.

Q. Do you discuss that topic in your direct testimony?

A. No.

Q. Does Mr. Walje discuss that in his direct testimony?

A. It's been a while since I read Mr. Walje's direct testimony.

Q. I want to ask you some questions about your Exhibit 1R, which has been discussed already a bit. Just turn there.

A. Okay.

Q. Your analysis here relies on the premise that every customer owes the utility. Every residential customer owes the

utility some minimum contribution to fixed cost every month. Is that correct?

A. That's correct.

Q. Okay. And that minimum contribution, I believe through the distribution and retail fixed cost, is about $24 a month.

A. Right. That's the average cost for the distribution of customer services.

Q. So, you expect all your residential customers to contribute at least $24 in fixed costs each month.

A. Well, no, because the rate structure is based--

(Reporter/witness discussion to clarify the record.)

THE WITNESS: The rate structure has these costs entirely in energy, so it's going to be tied to energy usage, even though that's not consistent with how the costs are incurred. So, some customers will pay less, some customers pay more, while on average these are the costs to serve all residential customers.

BY MS. ROBERTS:

Q. Okay. So, Rocky Mountain Power's not seeking to impose a fee to recover these fixed costs from other customers that consume about as much as an average net metering customer, correct?

A. Well, we have a $6 customer charge for all residential customers to contribute at least some portion, a

minute. And, then, we also have a minimum bill in--that was agreed upon in the proceeding.

Q. What is that minimum bill amount?

A. I was afraid you were going to ask me. I remember what we proposed. It goes up to $8.

Q. Okay. Thank you. So, that's--$8 is about a third of the $24--

A. Correct.

Q. --fixed cost that you're requiring net metering customers to contribute towards each month.

A. Correct.

Q. Okay. Not all the net metering customers are the same, correct?

A. Not all non-net metering customers are the same.

Q. So, some net metering customers have low usage, some have high usage.

A. Right. But on average, their net billed usage is 511 kilowatt-hours a month.

Q. You said earlier in response to Mr. Rossetti's question that 700 kilowatt-hours was roughly the break-even point at which a customer--

A. I said that's the average usage.

Q. That's the average usage for net metering customers.

A. No. The average--let me finish--that's the average

usage for residential customers. For net metering customers, the net billed usage is about 511, but then we know that they take about 700 kilowatt-hours, including the excess generation.

Q. Okay. So, some net metering customers might have high usage that they--net billed kilowatt-hours from the company, notwithstanding their lower amount, correct?

A. Correct.

Q. So, a lot of large households in Utah--maybe a small 2 or 3-kilowatt system--still consuming a lot of power from--purchasing a lot of power from your company, correct?

A. Correct. And even with this charge, they'll pay more because they'll have more kilowatt-hour usage and most of these costs are still recovered in the energy rate.

Q. Aren't those customers already paying their fair share of fixed cost?

A. Well, I don't agree with the term "fair share." I mean, we designed rates on the average basis we designed rates for all customers. So, you know, on average, these customers use 700 per month. It's always going to change by month and by type--by customer.

Q. You don't agree that some customers will be paying double for fixed costs if they have high usage once they're also facing this net metering fee.

A. No, not necessarily.

Q. Not necessarily?

A. No. You said they double. Is that what you said? No. That's just inherent in the way the rates have been designed, are heavily based on energy.

Q. So, a customer that's buying, say, 800--a net metering customer who's purchasing 800 kilowatt-hours a month of power, that's more than your average residential customer, that customer is already contributing this minimum $24.19 to your fixed cost.

A. Right. They will be paying more than other smaller use customers, but that's the same for all customers, whether they're net metering or not.

Q. Except these net metering customers will also be paying the monthly net metering fee, correct?

A. Yes, because their net bill amount is less than what they actually paid.

Q. I was--I'm sorry. My earlier question referred to a customer whose net bill amount is--

A. Right. But on average, a net metering customer has lower usage--lower net billed usage. And that's what we've been designing the rates around, we've done the costs on an average cost basis.

Q. Has Rocky Mountain Power done an analysis on how many net metering customers already contribute the minimum 24.19 in fixed cost through their energy rates?

A. Well, we know that customers--the net billed amount is 511. And so, on average, these customers are not contributing to that overall $24.

Q. I'm not asking you about the average. I'm asking you about the full range of net metering customers--

A. Right.

Q. --and trying to understand what portion of net metering customers who are--have above-average consumption for that group--

A. Uh-huh (affirmative).

Q. --are already purchasing enough power from your company to provide the minimum $24 in fixed costs each month.

A. No, we don't have that specific level of data for all net metering customers.

(Reporter/witness discussion to clarify the record.)

THE HEARING OFFICER: Ms. Steward, it might help if you pull the microphone a little closer to you. Then you'll have coverage when you turn, face counsel. That would be helpful. Thank you.

THE WITNESS: Well, and actually, I think we do have--we know how much each customer uses, but we did not do the breakdown of the net metering customers between their excess and net billed.

BY MS. ROBERTS:

Q. Okay. I understand what you're saying. You

mentioned earlier that the costs of integrating contributed solar into the grid sort of increased expenses relating to the transformers and other distribution system expenses that have been discussed while we're here, that that should be considered as part of cost-benefit analysis. Am I correctly paraphrasing your earlier statement?

A. Yeah. When I said that, I was actually thinking more of the cost of the program. It's more--much more manual-type billing and associated with these customers, as well as doing the contract and all the interconnection agreement work, as well. But those costs would be--in addition, we have not quantified for this purpose.

Q. So, these administrative costs, then, aren't part of the net metering proposed charge that you're seeking to collect.

A. Well, they are in the sense that the average cost--retail cost for all customers is--it's $30 million. And they're a part of that $30 million, which is $3.40 per customer per month. So, those costs are still essentially being socialized across all customers.

MS. ROBERTS: No further questions.

THE HEARING OFFICER: Ms. Hayes.

EXAMINATION

BY-MS.HAYES:

Q. Thank you. Good afternoon, Ms. Steward.

A. Good afternoon.

Q. I'm really going to try not to be redundant. Okay. You've explained your Exhibit JRS 1R already quite well. But--so, I'm going to try and skip over some background questions, but if I'm being confusing, just let me know.

So, the--I'm particularly looking at line 14, the average dollars per kilowatt-hour for remaining distribution and retail costs that are not recovered through the customer charge. Is that correct?

A. Yes.

Q. Okay. So, for every kilowatt-hour consumed by the residential class, two and-a-half cents of their rate goes to pay for those distribution and retail costs, not recovered by the customer charge.

A. Correct.

Q. I tried to come up with an acronym. I couldn't.

So--then, in your exhibit, you take that two and-a-half cents--and I'm rounding--sorry--and multiply it by the net billed--net metering kilowatt-hours to calculate the distribution and retail costs associated with net metering kilowatt-hour consumption. Is that correct?

A. Right.

Q. Okay. So, then, you add that two and-a-half cents a kilowatt-hour aggregated on to the bills of net metering customers and then subtract it from the non-net metering residential customers. Is that correct?

A. I think I lost you.

Q. Oh, this isn't in the exhibit. You--well, the--it's basically you take that two cents a kilowatt-hour, aggregate it into a $4.65 fee, which you add on to the bills of net metering customers, which then offsets a portion of the energy rate for other customers.

A. Right. So, the revenue we would collect from the 4.65--so, in the stipulation, we've presented it both ways with what the energy rates would be with the net metering facilities charge and without. And, so, without the net metering facilities charge, the energy rates go up, yes.

Q. Okay. So, in other words, you've calculated the distribution and retail costs not recovered in the customer charge and also not recovered by net metering customers' lower-than-average consumption.

A. I'm sorry. Could you repeat the question?

Q. Yeah. Sorry. I'm just--so, that 4.65 is basically the distribution and retail costs that are not recovered by the customer charge and not recovered by net metering customers average consumption.

A. Correct.

Q. I'm so glad. I feel like I'm winning.

So, the Company, according to this calculation, is adding two cents, on average, per kilowatt-hour to the energy rate paid by net metering customers but then aggregated it into

the fixed fee. Sorry. I think I already asked that.

A. Yeah. I think that was the one I was confused on.

Q. Yeah. Sorry.

So, 4.65 is the additional amount that the average net metering customer would pay if it consumed 700 kilowatt-hours a month versus 511 kilowatt-hours per month.

A. Correct.

Q. Okay.

A. If they're net energy--if they're net billed energy.

Q. Okay. Does Rocky Mountain Power have residential customers that, without solar generation, consume about 511 kilowatt-hours per month?

A. Sure.

Q. Okay. And, then, there are more-than-average customers, etc. Okay.

So, essentially, the amount paid per month by the net metering customers, on average, has been increased by two cents a kilowatt-hour; is that correct--two and-a-half?

A. I think you're reading the two and-a-half cents wrong. 2.6--I mean, it's been increased by the 4.65, which--

Q. Is based on the two and-a-half?

A. Ultimately, because it's based--the two and-a-half cents is used to calculate how much revenue we'll be getting for the fixed cost through that 511 kilowatt-hours, on average, right.

Q. So, then, if you multiply 2 1/2 cents by the

difference between 700 and 511, you get 465. Is that correct?

A. I think so. It's not exactly the formula we used here, but I think they're the same.

Q. I did a lot of math the other night.

So, does it cost two cents more per kilowatt-hour to serve net metering customers?

A. It costs--

Q. Two and-a-half cents.

A. Yes, because they're taking the power from our system that--and are the cost of that system includes the 2.6 cents.

Q. So, from a cost causation point, your cost of service studies shows that it's two and-a-half cents a kilowatt-hour more expensive to serve net metering customers.

A. No. This is the cost of serving all customers, regardless of net metering or not.

Q. Right. So, you haven't looked at specifically the cost causation of net metering customers compared to other customers.

A. We don't have them broken out in a cost-of-service study.

Q. So, you're not saying it costs more--two and-a-half cents more to serve net metering customers.

A. No. We're saying it costs about the same as all other customers.

Q. Okay. Right. But you're charging them the two and-a-half cents more per kilowatt-hour in order to match their--the net metering revenue with Rocky Mountain Power's average consumption for the class.

A. We're trying to better reflect cost causation and have net metering customers pay for their usage on the system.

Q. Right. Okay. In a typical residential neighborhood where the houses are roughly the same size, does the consumption vary from house to house, depending on a whole range of factors?

A. Sure.

Q. Do you charge those customers different amounts for the distribution costs to serve each of those homes?

A. No. We have one rate structure with multiple rate components that we do essentially average rates for all residential customers.

Q. Right. So, they--but if they use different amounts because you collected them an energy rate, they'll pay different amounts, correct?

A. Correct.

Q. Are the distribution costs incurred by Rocky Mountain Power for each of those customers different from house to house?

A. Not necessarily, no.

Q. All right. So--okay. Thank you.

So, based on this calculation, you're charging the net metering customers more regardless of consumption because on average they consume less.

A. They're billed less.

Q. All right. Have you provided evidence about gross consumption?

A. "Gross consumption" meaning how much they use regardless of where they get it from?

Q. Yeah.

A. No.

Q. Okay. Let's move on. In your surrebuttal testimony at lines 89 through 90--

A. Okay.

Q. --you say similar--let's see.

Oh, wait. Am I in the right testimony? Okay. I just got a little lost for a minute.

You talk about a similarly situated qualifying facility would be paid three cents per kilowatt-hour while a net metering customer gets compensated nearly three times that. Is that an accurate sort of summary?

A. Sure. Yes.

Q. But that so-called similarly situated qualifying facility would have to be over three megawatts in size and interconnected to the transmission system and would also receive a capacity payment, correct?

A. I think you have to direct that to Mr. Duvall--
Q. Okay.
A. --avoided cost qualifications.
Q. But apart from what you have in here and what I will discuss with Mr. Duvall, do you provide an evaluation of the similarities or differences between utility scale and distributed solar beyond--beyond noting that they're both solar generators?
A. You might want to direct that to Mr. Duvall, as well.
Q. Okay. But you do conclude, based on Duvall's testimony, that he has reasonably compared the cost and benefits of net metering using an avoided cost method for large-scale solar resources, correct?
A. Yes. That's the--my understanding of Mr. Duvall's testimony is that the avoided cost value to be determined by the Commission for evaluating solar generation was--comes out to three cents per kilowatt-hour for 2015.
Q. Okay. Thanks. All right. Moving on to surrebuttal--your surrebuttal testimony starting at line 134--
A. Okay.
Q. --the question is, "What is the logical conclusion if the Commission were to agree with the arguments of the parties that there is insufficient evidence at this time to implement a facilities charge for net metering?" You say that taking this argument to its logical conclusion, the Commission would have to suspend the net metering program altogether because there

is insufficient evidence justifying the current net metering tariff. So, you talk about making this conclusion on logical grounds. I'm assuming you weren't making a legal conclusion. I think that's what you mean by that.

A. Yeah.

Q. So, as an employee of a utility, are you familiar with what happens when the Company files changes to a tariff or proposes changes to a program or service?

A. Kind of broad. What happens?

Q. Yeah.

A. We go through a process.

Q. Yeah. Right. Well, let me--this might clarify things: I'd like to introduce a cross exhibit at this point.

THE HEARING OFFICER: We'll mark this UCE Cross Exhibit 1.

MS. HAYES: Thank you.

BY MS. HAYES:

Q. All right. So, I printed this off the internet yesterday. So, I'm going to represent to you that it is Utah Public Service Commission Rule 746-405-2, which--however, I didn't print out the whole rule. I would like to point you to--oh, I marked it. So, on the third page, there's a section--it's right under (E), "Approve"--"Approval of filed tariff sheets." It's (E) (1).

A. Uh-huh (affirmative).

Q. Would you read that, please?

MS. HOGLE: Excuse me. Can I just kind of indulge the Commission. First, I don't even know if you are familiar with this, Ms. Steward. Have you ever seen this before?

THE WITNESS: I vaguely--I don't remember--I don't know I've read it word for word.

THE HEARING OFFICER: Ms. Hayes, would you like to lay a foundation for using this document? Let me just say if you simply want to present the provision to us, we're aware of our rules and--

MS. HAYES: Okay.

THE HEARING OFFICER: --now specifically aware of what this says.

MS. HAYES: Sorry. That's fine. I just--she--Ms. Steward made this conclusion evidently on logical grounds. And I just feel like there are some procedural grounds that contradict that conclusion. And, so, I was hoping to just point this out.

THE HEARING OFFICER: I think you can ask her if she's familiar with this--

MS. HAYES: Okay.

THE HEARING OFFICER: --if she considered this in reaching her conclusion. You can do that.

BY MS. HAYES:

Q. Are you familiar with this commission rule?

A. Not explicitly.
Q. And did you consult this rule in your conclusion?
A. We--I also clearly state it is not the Company's proposal.
Q. Okay. But you do talk about it. You talk about this logical conclusion.
A. No. I not consult this rule.
Q. Okay. All right. This rule doesn't say that--when it files a tariff, it has to stop providing all of its services until a new rate or service is approved, does it?
MS. HOGLE: Objection. Ms. Steward, have you read that rule in its entirety so that you know--
THE WITNESS: No, I have not since I've been sitting here.
BY MS. HAYES:
Q. All right. Do you know who bears the burden of proof for establishing changes to rates or services?
MS. HOGLE: Objection. It's a legal conclusion.
MS. HAYES: All right.
THE HEARING OFFICER: Sustained.
BY MS. HAYES:
Q. So, you didn't consult any legal precedent or case law when you made this conclusion.
MS. HOGLE: Objection. Asked and answered. I believe she's already answered the question.

THE HEARING OFFICER: Well, it's slightly rephrased. And if you--do you recall the question?

THE WITNESS: Well, we did not propose the--that net metering be suspended. I mean, what--my testimony says is taken to the logical conclusion is that that's a possibility the Commission may ultimately need to consider, because the SB 208, I believe, refers to both charges or credits to net metering customers.

BY MS. HAYES:

Q. All right. And, so, it's not your proposal, but it's your position that the Commission would immediately suspend the existing tariff based on logical grounds.

A. If the Commission felt that there was not sufficient evidence in this proceeding that the costs outweigh the benefits--or the other way around, the benefits outweigh the costs and could not impose the 4.65, then likewise, it doesn't seem reasonable that the credits, the compensation that net metering customers get is also--could also be deemed reasonable.

Q. In your experience, working for the utility, are you familiar with any incidence of the--
there being insufficient evidence of a proposal that then necessitated a revocation of existing tariffs?

A. I don't know if there are other situations like this.

Q. All right. That's fine.

Your--let's see. Is it correct that residential net metering penetration is about--at about a tenth of a percent?

A. I'll take that subject to check.

Q. Okay. And it--there's more commercial megawatt hours net metered than residential. Is that correct?

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

Q. And in your proposal, you're looking only at distribution costs and distribution peak. Is that correct?

A. Distribution costs and customer service cost.

Q. Right. Sorry. Retail costs, as well.

And then--but you haven't looked at system peak, for example.

A. No. We use the system peak to allocate generation of transmission costs and we have not proposed any change to the rate structure for net metering customers associated with those costs. Those entirely reside in the energy charge.

MS. HAYES: All right. I think that's all of my questions. Thank you.

THE HEARING OFFICER: We'll be off the record.

MS. HOGLE: I just have one question.

THE HEARING OFFICER: On the record.

Ms. Hogle.

MS. HOGLE: Thank you.

FURTHER EXAMINATION

BY-MS.HOGLE:

Q. Ms. Steward, you represented to-- responded to a question from Mr. Rossetti that the Company had not provided evidence of each net metering as customer total or gross consumption. In order to know the amount of total or gross consumption, would it be necessary to add a second meter for each net metering customer to measure the total production by the net metering customer's generation?

A. Correct. That would be a second meter.

MS. HOGLE: Thank you.

THE HEARING OFFICER: Any questions from commissioners?

Commissioner LeVar.

EXAMINATION

BY-COMMISSIONER LeVAR:

Q. I'd like to propose a hypothetical. As I was looking at the existing and proposed clarifying, this question comes to mind: If the Commission were to approve this fee that's been proposed and if there were a net metering customer or--well, customer with solar panels who generates very little excess electricity, would that customer have the option to opt out of receiving any credits for the excess generation and also opt out of the fee at the same time?

A. That's not currently part of our net metering proposal. It's not something that I've actually considered.

Q. Okay. I'd like to clarify something you said in your

introduction. And I apologize if this is in your testimony somewhere that I didn't find. You stated that the proposed fee is less than one cent per kilowatt-hour, on average. Was that referring to billed usage or excess?

A. Billed--it's basically taking the $4.65 divided by the 511, total usage.

Q. Total usage, billed usage.

A. Yeah.

Q. The Company's--one other question: And the Company's chosen to propose this as a flat fee to all net metering customers. Are there any of the Company's objectives in terms of costs and benefits that would or would not be satisfied if instead of a fee, the net metering credits were reduced--did a percentage of retail in a manner that would generate the same amount of revenue?

A. Yeah. That's another way to do it. It's a little bit more complex billing. And I think it's more complex for the--it may be more complex for the net metering customer to understand. But, yes, rather than excess being the full retail rate if it was a different amount, it would just be a different type of rate structure. We went with the more simplistic fixed charge.

COMMISSIONER LeVAR: That's all I have. Thank you.

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EXAMINATION

BY-THE HEARING OFFICER:

Q. I have a couple of questions, also. And these are from a theoretical or philosophical perspective as--and I address them to you as the designer of the Company's rate structure.

Regarding minimum bill customers, I believe you have about 8,000 of those. Is that correct, roughly?

A. I don't know if it's the--I can consult my page real quick.

There's 98,000 bills, so that would need to be divided by 12, yeah.

Q. Roughly.

A. Yeah.

Q. Excuse me. Are your cost causation and recovery concerns equivalent for those members of this class who are not net metering customers--

some subset is, I believe. And I'd be interested if you have an idea what the subset is, percentage--

on a percentage basis, for example. But are your concerns the same for all members of this class?

A. For residential class?

Q. Uh-huh (affirmative).

A. Yeah. I mean, it's generally been our concern about fixed cost recovery and having that fixed cost recovery coming through energy rates. And, so, we do have that concern

more broadly. But this is a very distinct type of customer, as well, the net metering customer. It doesn't fit the same profile as other residential customers. And, so, they are distinguishable.

Q. And regarding the other minimum bill customers, what would the distinction be? Could you articulate it for us?

A. The other minimum bill customers?

Q. Uh-huh (affirmative).

A. No. I mean--so, we've agreed to an $8 minimum bill. That was a settled amount. You know, we believe that average cost per customer is $25 per customer. And that would represent a fair monthly fixed charge. Eight dollars is a compromise with the parties for a minimum bill.

Q. If I were to explain to residential customers in general why a net metering charge would be imposed on part of this--part of the customers who receive a minimum bill but not others, what would my explanation be? How would the Commission articulate that rationale?

A. I guess I'm confused by "the minimum bill." So, the minimum bill applies to all customers--

Q. Uh-huh (affirmative).

A. --but it has a minimum level of kilowatt-hour consumption as sort of within that. But to us the difference with these customers is that they--it's the rate mechanism of net metering allows, you know, a larger credit than what the actual

benefits are to the system. And, so, they're actually being compensated at these energy rates. And, therefore, they're not paying for the fixed costs that are necessary to serve them. And, so, the 4.65 helps balance those interests between the net metering customers and all other residential customers who ultimately end up picking up those costs.

Q. So, I think what I'm hearing you say is the distinction is that the net metering customers are providing energy for which they're being compensated at the full retail rate, whereas the other minimum bill customers are receiving a minimum bill for some other reason.

A. They're receiving a minimum bill that because they're very small use customers and the minimum bills reflects the fact that there are these fixed costs associated with them. You know, we still think the $8 is probably lower than we would like, but that's, you know, where we've reached agreement with the Office and the DPU. Typically, we disagree on residential rate design with the Office and DPU in most cases. And this net metering facilities charge is actually one issue that we've always agreed--I mean, we seem to be in agreement on. So, it's sort of unique in our experience of residential rate design.

Q. If the net metering charge is imposed, have you looked down the road to what might happen to it, if anything, when or if penetration would reach 10 percent or 20 percent of the residential customer base?

A. No. What we've kind of looked at is, and what we're starting to do a little research on is, how we can distinguish these customers, sort of separate them out in the cost-of-service study and develop a cost allocation designed for them, and then rates that would better reflect that cost causation.

I think we want to add more transparency into the rates for these customers. We'd like to add it in for all customers. But the net metering, in particular, we can better capture that through, like, a fixed charge, a demand charge, and a three-part--or a--and an energy rate. And at the minimum, you know, the fixed charge, the 10.65 that was ultimately proposed here would be the starting point for that fixed charge that we would propose for a subgroup.

Q. And are there reasons why you didn't propose the more disaggregated approach to net metering customers? In other words, looking at all the costs and including a demand charge and those kinds of things that you've sort of --in your direct testimony and your summary today, is there a reason why those weren't presented in connection with this case?

A. We're really on a learning curve with solar. Solar is--it's rapidly evolving. The technology costs are coming down. We're learning more as that penetration increases. I think we're all going to continue to learn--and refining residential rates, refining all rates is something we're constantly doing. And, so,

down the road we want a little more data in order to better refine that kind of rate structure for these customers.

But we didn't want to wait, you know, another--and at this point, it would be another two years before we would have new rates that could go into effect. But we wanted to do something now to address it before, you know, we got to those high penetrations, because we recognize it would probably require a rate case to do that. And in the event we somehow are out of a rate case for many years, we would like something in place that better captures that cost causation as this customer group grows.

THE HEARING OFFICER: Those are all my questions. Any questions based on those of the Commission?

Thank you, Ms. Steward. You're excused.

THE WITNESS: Thank you.

THE HEARING OFFICER: Ms. Roberts.

MS. ROBERTS: I actually had one question relating within the scope of the Company's redirect, if I may.

THE HEARING OFFICER: That's fine. It could address ours, as well. We allow that occasionally. We just want the best information we can receive, so . . .

MS. ROBERTS: Absolutely. I agree. That's very important.

FURTHER EXAMINATION

BY-MS.ROBERTS:

Q. You were asked about the need to add an additional meter in order to capture information about gross consumption. Am I recalling that correctly?

A. Yes.

Q. Are you going to be adding additional meters of that type as part of the load research study you mentioned in your rebuttal testimony?

A. Yes. We're seeking to add an additional--both a meter to measure the full consumption, as well as a load research meter on the consumption they receive from the utility.

Q. And how many customers will be included in that study?

A. I want to say 62.

Q. All residential?

A. All residential net metering, yes.

Q. Why is the study limited to 62 customers?

A. Well, it's--the load research--that's being handled through a different group department--

research department, but my understanding that is a statistically valid sample size.

MS. ROBERTS: Okay. Thank you very much.

THE HEARING OFFICER: Thank you. You're excused.

Next witness.

MR. MOSCON: The Company would call Mr. Greg

Duvall.

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

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. Be seated.

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

EXAMINATION

BY-MR.MOSCON:

Q. Good afternoon, Mr. Duvall. Have you prepared and submitted rebuttal testimony in this proceeding?

A. Yes, I have.

Q. And do you have any corrections that need to be made to your testimony?

A. No, I don't.

Q. And if I were to ask you the questions set forth in your prefiled rebuttal testimony, would your answers today be the same as they are in the papers that were submitted to the Commission?

A. Yes.

MR. MOSCON: Based on that, I would move to submit the rebuttal testimony of Mr. Gregory Duvall into the record.

THE HEARING OFFICER: Any objections?

They're received.

BY MR. MOSCON:

Q. Mr. Duvall, have you prepared a summary of your testimony that you could share with the Commission?

A. Yes, I have.

Q. Please do.

A. Okay. So, in my testimony, rebuttal testimony, I respond to the Commissioners' April 16 public notice requesting input on SB 208. I provide evidence that the costs of the net metering program to customers and the Company, which ranges from 8.8 cents to 14.4 cents per kilowatt-hour, is over three times the value of the energy, which is about 3 cents per kilowatt-hour. And the difference in this cost must be absorbed by non-net metering customers.

My rebuttal response--I'm sorry. Given this large disparity, I conclude that the net metering charge of $4.65 per month proposed by the Company or less than 1 cents per kilowatt-hour is justified at this time.

My rebuttal testimony responds to the testimony of three intervenors. I'll summarize why each of their respective conclusions is flawed. I note Dr. Mulvaney's cost-benefit analysis is incomplete because it does not include the 8.8 to 14.4 cents cost to the customers. I also note that the 6.1 cent per kilowatt-hour that results from his use of the California method is twice the amount that's produced by the recently

approved avoided cost here in Utah.

It's driven, in large part, by the assumption that the avoided energy cost is always based on displacing a combined cycle gas plant, the fuel cost. But the Company's actually able to displace a number of resources. And that's modeled through its production cost model, the grid model.

In addition, I note that he's included a capacity cost during the test period based on the cost of deferring a simple cycle consumption turbine, an approach that was recently rejected by the Commission in Docket 12-035-100, the renewable avoided cost proceeding.

And then, finally, I note that his results are not intuitive and do not reflect reality, as they reflect the highest energy value in May, which is in the middle of the spring runoff hydro season where typically your avoided energy costs are at their lowest.

Next, I address the testimony filed by Mr. Miksis, who argues the Commission should defer consideration of a monthly charge until additional study work is done. I believe that the Commission has enough evidence in front of it in this proceeding to make the determination that it needs to make under SB 208.

Finally, I address the testimony of Ms. Wright and Mr. Gilliam, who also recommend the Division put off the discussion until further analysis can be done. I noted--as noted

previously, the Commission has adequate evidence, I believe, at this time.

Ms. Wright also presents a value solar study claiming the value of solar is nearly equal to the cost of solar for residential customers. I point out that Ms. Wright's avoided cost study includes adders for environmental cost and fuel risk, which have been previously addressed by this Commission in the renewable avoided cost docket and rejected.

In addition, Ms. Wright's avoided cost study suffers from the same deficiency as Dr. Mulvaney's study in that it assumes energy avoided costs are based on displacing the fuel from a gas plant resulting in energy avoided costs that are about two cents higher than what would be produced by the Company's production cost model.

So, in conclusion, I believe the 3-to-1 disparity between the costs and benefits in net metering gives the Commission sufficient evidence to approve the Company's proposed monthly fee.

Thank you.

MR. MOSCON: Thank you.

Mr. Duvall is available for cross-examination.

MR. JETTER: Division has no questions for Mr. Duvall.

MR. COLEMAN: The Office has no questions. Thank you.

EXAMINATION

BY-MR.ROSSETTI:

Q. Back to me. Okay. Just have a couple of questions. How much does it cost the Company when my solar system generates an excess kilowatt-hour, it goes to my neighbor? How much does it cost to deliver that kilowatt-hour?

A. I don't know.

Q. Okay. If I'm sharing the same little junction out at the corner of my lot, which is actually my particular case--so, it goes through a little bus bar and directly into my neighbor's house, no idea what the cost of that is. Would you--sorry. I should let you answer the question.

A. Yeah, I guess I don't. I think it's probably more of a technical issue. I think you'd probably need to have the--sort of the backbone system to provide voltage support and reliability and all that.

I'm not quite sure the example that's being put forward.

MR. MOSCON: And I guess--I'm not trying to overlawyer this for the Commission. I was going to make an objection of assuming facts not in evidence. I think some of the questioning about a system in Mr. Rossetti's yard, none of us have the specifics, but we probably have different ideas of whether or not his system really is feeding his neighbor's directly or not. So, I'm not sure how the witness answers those

questions, but I guess I'll just--I'm not trying to stifle questioning, but I'm noting that I think we're running into that problem, where the Company and the questioner have different ideas of how that equipment is operating.

THE HEARING OFFICER: Thank you. I think Mr. Duvall said he's unclear, as well, so . . .

BY MR. ROSSETTI:

Q. Okay. How much is that neighbor charged for that excess kilowatt-hour that I have produced and sent over some unknown path to his house?

A. My understanding is that they would pay anywhere from 8.8 cents per kilowatt-hour to 14.4 cents per kilowatt-hour, depending on which rate block they're in.

Q. Okay. Was any fuel consumed in the production of that kilowatt-hour--was any Company fuel consumed by the Company, you know, in production of that kilowatt-hour of excess that was delivered to the neighbor?

A. Again, it's kind of a--I guess there's the supporting system. I think this Commission has determined that there are integration costs to solar. And that would typically be done--provided by one or more thermal resources--

(Reporter/witness discussion to clarify the record.)

THE WITNESS: It would be done by the use of a thermal resource which uses fuel.

BY MR. ROSSETTI:

Q. Okay. So, I take it your answer was no, no fuel was consumed. That's really all I wanted to know from you. Thank you.

THE HEARING OFFICER: Mr. Culley.

MR. CULLEY: Thank you.

EXAMINATION

BY-MR.CULLEY:

Q. Mr. Duvall, good afternoon.

A. Good afternoon.

Q. So, you mentioned part of your testimony was responding to past witness about-- whether SB 208 requires cost-benefit consideration. Is that correct?

A. Can you point me to where you're looking?

Q. It's from your summary. Maybe I'm misquoting you. If you could give me the gist of that critique.

A. No. That's--I think that's right.

Q. Fair enough. And are you aware of other States that have undergone cost-benefit analyses of their study of their NEM programs?

A. I'm aware of other States that have done that, most recently the State of Nevada. But I would just point out that the SB 208 language doesn't call for a study. Calls for public notice, opportunity for comment, and a determination by the Commission. But it doesn't actually use the word "study" or

"analysis" anywhere that I could see.

Q. Okay. So, if we look at QFs, particularly here, would you agree that across the country, the eligibility for receiving a QF rate, given that there are different methodologies in different places, that eligibility is standard, would you agree that's the case for--I'm talking just for getting QF, not talking about standard rates.

A. Well, I thought I heard you talking about standard rates, but it's required to offer avoided cost to QFs of 100 kilowatts or less.

Q. Right. And some States set their standard rate, which is a minimum of 100 kW. Some set it higher; some set it lower--or not lower. Relative to each other is what I mean. But overall, the types of technologies that can participate with QFs, it's going to be standard across the country. Is that right?

A. Yeah. That's correct.

Q. And QFs can locate pretty much wherever they like, where they interconnect that's feasibly for them--feasible for them.

A. Yeah. That's correct.

Q. Now, would you recognize that net metering programs have a lot more restrictions on eligibility and system sizes and wherever they can locate?

A. I'm really not familiar with the requirements of the net metering program.

Q. Okay. Would you accept, subject to check--I can provide, actually--if you would like, I can provide the definitions from statute what is a customer generator system, or we could just accept it, subject to check--that it's an eligible facility that uses--that is used to supply energy to or for specific customer that has a generating capacity of not more than 25 kilowatts for a residential facility or not more than 2 megawatts for a nonresidential facility, and omitting one little bit about the governing authority wants to approve credit.

MR. COLEMAN: I'm sorry. Can you pass on the cite to that?

MR. CULLEY: Oh, yes. So, this is Section 54--or, I mean--sorry--it's Title 54, Chapter 15, Section 102.

MR. COLEMAN: Thank you.

MR. CULLEY: You got it.

BY MR. CULLEY:

Q. And second criteria is, "Located on or adjacent to the premises of the electrical corporation's customer, subject to the electrical corporation's service departments." Third criteria is, "Operates in parallel, is interconnected." I'm paraphrasing here just for brevity here.

So, the point is, net metering customers have certain restrictions they need to locate with the customer's load. Is that correct?

A. Yeah. I presume that's based on what you just

read.

Q. And if generation is located next to customer's load, transmission constraints wouldn't be an issue with that. Isn't that correct?

MR. MOSCON: Objection, I guess, to vagueness. Are you talking--are we talking about the self-generation at their own house or the exported energy that goes out to the grid?

MR. CULLEY: Be happy to clarify.

THE HEARING OFFICER: Thank you.

BY MR. CULLEY:

Q. Let's talk about without exports at all here. If a customer generator is consuming on-site, that electricity was not delivered to them, that doesn't implicate transmission constraints. Is that correct?

A. That's correct, during the time that they are producing.

Q. And if they export and that electricity is consumed nearby without getting up to the transmission level, which would be a problem, I think, that's not contributing to transmission constraints. Is that right?

A. Well, I would take exception with the notion that it couldn't go beyond the local neighborhood. I mean, we don't--electricity just flows where it's going to flow, but . . .

Q. But to the extent it doesn't use the transmission system to go across the State.

A. Yeah, but that's only during the time that the customer would be producing. For the remaining hours of the year when the sun's not shining or there's cloud cover or things like that, they'd be using the system just like any other customer.

Q. Okay. And a QF could locate anywhere, so they may or may not--that would be a specific-- you'd have to look at that case-by-case. Is that correct?

A. For transmission constraints, I presume?

Q. Yes.

A. Yes.

MR. CULLEY: What I'd like to do--this is a cross exhibit that's already been introduced today. It's marked as TASC Cross Exhibit 3. If I can approach, I'll provide a copy.

THE HEARING OFFICER: You may approach. You may approach.

BY MR. CULLEY:

Q. Okay. I'd like to look at TASC data Request 2.18. And in subpart A, we ask, "Has the Company completed a solar integration study?" And your response below is, "No." Is that correct?

A. That's correct.

Q. And subpart B says, "Is it Mr. Duvall's contention that there is no difference in terms of energy value, line losses, generation capacity value, and transmission and distribution

value between large-scale solar farms and rooftop systems that serve on-site load and are often located close to load centers?" And you answered, "No."

A. Yeah, that's correct, because the question was--basically said, Is it my contention there's no differences in all of that list? But I think if there were items that would be different between a QF and a--whether it's on a rooftop or out somewhere, there may be some distribution loss savings associated with a rooftop facility, but I would also consider the energy to be non-firm. With QFs, we actually have contracts. They have obligations to deliver. So, we have firm power coming from QFs. And I would think that the rooftop solar would be non-firm. So, those two factors are a bit offsetting, because losses would increase the rooftop solar and lack of firmness would decrease it.

Q. And has thing company--let me rephrase this. Do you have knowledge of the ongoing efforts to produce a solar integration study?

A. Secondhand, yeah, our integrated resource planning group is--I haven't seen the schedule for that. We were ordered to produce two different studies out of the avoided cost docket. One was the ELCC, energy load carrying capability study. That one's nearly complete. And the other one is a solar integration study, which would be next in line.

Q. Okay. And if you don't have knowledge, this is

fine, but do you have knowledge of whether that solar integration study will look at small systems? I mean, of any variation--100 kW, 10 kW--or is this going to be more of the QF size facilities up to 3 megawatt on the study right here?

A. I'm not in charge of scoping that. I don't think that's a fair question.

MR. CULLEY: I don't have any further questions. Thank you.

THE HEARING OFFICER: Ms. Roberts.

EXAMINATION

BY-MS.ROBERTS:

Q. Good afternoon, Mr. Duvall.

A. Good afternoon.

Q. Follow up on one of Mr. Culley's questions in reference to the data request response where you said you didn't think--there were no differences between those two types of solar resources. And you mentioned that there may be some items that were different. And you said specifically distribution losses could be a difference between those two types of resources, but that it essentially doesn't matter, because you consider the rooftop resource to be non-firm. Am I correctly summarizing what you just testified to?

A. That's right.

Q. Okay.

A. Which would make the three cents, which is the

firm price for QFs, about the same for rooftop.

Q. Well, my question is that you seem to be discussing different potential costs and benefits of rooftop solar. But you--you're making an assumption that the diminished value of it being a non-firm resource kind of eliminates any potential benefit that might come from rooftop solar. And I'm wondering whether the company's considered doing any actual analysis balancing out the potential costs and potential benefits, as you have summarized.

A. Of the rooftop solar?

Q. Uh-huh (affirmative).

A. Well, I think it's probably inevitable that some of the States, including Utah, are probably, you know, going to want to look at that.

Q. Okay. You also mentioned, in response to one of Mr. Culley's questions, that the Utah Statute SB 208 doesn't call for this Commission to do an independent study or analysis. Did I correctly state your position and response to Mr. Culley's question?

A. Yeah. And I'm looking at my testimony on page .1.

Q. Okay.

A. Bottom of the page .1 and top of page .2. And that was a group of words I was working from.

Q. That's good. I'm looking at those words, as well.

A. Okay.

Q. And it says the governing authority shall determine, after written notice and opportunity for public comment, whether the costs and the benefits--you know, which one will exceed the other, to paraphrase the end of that.

A. Right.

Q. Doesn't the Commission making a determination call for some kind of study or analysis of the underlying question?

A. Well, I think that's--I mean, that's why I provided the information I provided, because I think a lot of this work has already been done in the avoided cost setting, that we've looked at the value of solar QFs. And that was a--you know, we looked at a lot of different issues. We looked at the environmental adders. We looked at the fuel risk volatility adders and other things like that. I mean, it was fairly recent. That order was in August of 2013. So, it's something the Commission's fairly recently looked at. And I thought it was applicable in this case. And it's up to the Commission as to whether they think it's applicable.

Q. Thank you, Mr. Duvall. Since we're going to be having a lot of discussion, I think, today, about the difference and similarities between qualifying facilities and rooftop solar systems, could you offer your understanding of what a qualifying facility is?

A. Well, and we're talking about solar qualifying

facilities, so they would qualify as a small power producer up to 80 megawatts. This Commission has two schedules-- Schedule 38, which is for facilities over three megawatts, and then Schedule 37, which is for facilities up to three megawatts.

Q. Thank you. And what laws govern this Commission's determination as to avoided cost for qualifying facilities?

MR. MOSCON: So, I guess I'll object, if we're looking for legal conclusions as to the breadth of all laws that are governing. So, I'm not sure if she's asking what statutes do or don't apply. But if you understand the question subject to that objection, I don't mean to cut you off.

THE WITNESS: Yeah. I mean, the overriding legislation is the Federal PURPA, Public Utility Regulatory Policies Act of 1978. I don't know what else is applicable beyond that.

BY MS. ROBERTS:

Q. Okay. So, that's some Federal law that guides this Commission in its exercise of discretion regarding qualifying facilities, correct?

A. That's correct.

Q. Does that Federal law apply to the State's net metering mandate for utilities?

MR. MOSCON: Objection to the extent it calls for a legal conclusion.

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

BY MS. ROBERTS:

Q. Mr. Duvall, could you explain your position in the Company? I think that I--that was introduced in your direct testimony many months ago and I'd like to be reminded.

A. Sure. I'm the director of net power cost, and in that role am responsible for all our power cost studies, whether they're for setting rates in a general rate case or setting avoided costs. Also have--the load forecasting group reports to me. And I am also in charge of renewable compliance with renewable portfolio standard laws.

Q. And you offer Commission--I'm sorry. You offer testimony to this Commission regarding the Company's proposed avoided cost methodologies for qualifying facilities, correct?

A. So, my testimony was in response to testimony from other parties who put in valuation studies or addressed the issue of solar valuation. In that regard, I rebutted what they put in. And I also put in evidence that I thought was useful for the Commission to make a determination under SB 208.

Q. Thank you, Mr. Duvall, but I apologize. That was not my question. I'm asking more generally about your duties at the Company and asking whether you intend to file testimony in this Commission's avoided cost dockets for qualifying facilities.

Is that part of your role in the Company?

A. That is part of my role. I was the witness on avoided cost methodology in 12-035-100.

Q. And in order to offer your opinion to the Commission regarding their avoided cost methodology, you have a basic level of familiarity with the applicable rules that govern--that apply under PURPA and this Commission precedence, correct?

A. Yeah. I've got a general understanding of past Commission orders on avoided cost and what they've done in the past, those sorts of things.

Q. Okay. And you stated earlier today that you're not that familiar with the requirements of the net metering program.

A. That's correct.

Q. Okay. So, you don't consider yourself to have that kind of working knowledge of the laws that govern the net metering program.

A. I do not. And I'm not an attorney, anyway.

Q. So, the rules could be different from the ones that apply in an avoided cost qualifying facility proceeding. Is that correct?

A. I'm sure they are.

Q. On page .2 of your rebuttal testimony, you state--and let me know when you're there.

A. I'm there.

Q. Okay. You state that, "In another docket, the Commission addressed the value of solar as it applies to qualifying facilities. The benefit of the freed-up power in 2015 is about $30 per megawatt-hour." And you are referring to Docket No. 14-035-T04 in that sentence, aren't you?

A. Yes, I am. And the reason I did that is because--that's our proposal in front of the commission, but we've proposed for Schedule 37 to adopt the things that the Commission adopted for Schedule 38. But Schedule 38, every pricing proposal we put together is individually customized to a project and the numbers are confidential, so I wanted to have a source of information I could use that wasn't confidential, so I looked to our Schedule 37 filing.

Q. Thank you. So, the Commission hasn't approved this $30 per megawatt-hour as your new Schedule 37 rate.

A. They have not, but they've approved a methodology for Schedule 38 which produces those types of numbers.

Q. The Commission hasn't necessarily agreed with you yet that the factors relevant to Schedule 38 also apply to Schedule 37.

A. No, they haven't. That docket is still in process.

Q. Thank you. What are the existing Schedule 37 rates for--the existing Schedule 37 rates? I'll just leave it at that.

A. I--my recollection is, because of the way the

capacity payment works, that QFs get paid for the highest 15 minutes of production during a month. So, basically, they get their nameplate for the capacity. And during the sufficiency period, there's a payment for the avoidance of the simple-cycle combustion turbine. So, when you add the capacity to the energy, the current rates are somewhere around $100 a megawatt-hour.

Q. So, the Company has proposed a significant reduction in that rate.

A. We've proposed a rate method that moves it from about $100 to $30 in the first year.

Q. Okay. Thank you. What is your understanding of what kinds of avoided costs can be included in the rate paid to qualifying facilities?

A. I think lots of things. I mean, but it's usually capacity and energy. Certainly, the Commission considered environmental cost and fuel risk--risks avoidance cost in the last docket.

Q. What was the basis for the Commission rejecting those costs, if you recall?

A. I'd have to go read the order.

Q. Is it your position that the Commission is required to rely on its existing avoided cost methodology for the purposes of assessing the benefits of net metered solar?

A. Well, I think it's a useful metric. I mean, it

doesn't--I don't see a difference between solar generation, whether it's on a rooftop or a hilltop. They should be fairly similar in nature in terms of their value.

Q. But you don't think that the Commission is required to apply the avoided cost value to rooftop solar?

A. I don't think so, no.

Q. Okay. Still on page .2 of your rebuttal, sir, on line--beginning on line 44, you referred to a difference between the cost and benefits of net metering. You gave a range from 5.8 cents to 11.4 cents. Is that correct?

A. That's correct.

Q. And you got those two numbers by subtracting three cents per kilowatt-hour from the different retail rate tiers.

A. That's correct.

Q. Okay. And, so, here you have defined the benefits to the utility of net metered solar as equal to the PURPA avoided cost rate.

A. Yes.

Q. And you've defined the cost to the utility as the retail rate.

A. That's right.

Q. So, is it your view that SB 208 requires this Commission to undertake an evaluation, after appropriate notice and opportunity for public comment, of whether 8.4 cents is greater than 3 cents or whether the reverse is true?

MR. MOSCON: Objection to the extent it calls for a legal conclusion. I don't object if the question is what the Company did or anything like that, but if she's asking for a legal conclusion, I'll object to that request.

THE HEARING OFFICER: Mr. Duvall, just express your opinion--

THE WITNESS: Okay.

THE HEARING OFFICER: --in response to the question, please.

THE WITNESS: Yeah. I think it was asking for a legal opinion. And as I mentioned before, I'm not a lawyer.

BY MS. ROBERTS:

Q. Mr. Duvall, you've offered an opinion about what you believe the term "benefits" in SB 208--how that term should be defined, correct?

A. No, I haven't. I've offered evidence to the Commission on what I believe the benefits are and what I believe the costs are. And the Commission can interpret SB 208 in the way they see fit. I'm just providing evidence for them to work with.

Q. Thank you. So, you have offered your opinion to the Commission that the cost of the retail rate and the benefits of the avoided cost rate, Rocky Mountain Power proposed net metering facilities charge is not based on the difference between the retail rate and the avoided cost rate, is it?

A. No. In fact, that difference was what you were citing, the basically 6 to 11 cents, and the $4.65 charge is about 1 cent per kilowatt-hour.

Q. Uh-huh (affirmative). So, how does that relate to the 4.65 monthly charge?

A. I'm sorry. How does what relate?

Q. I'm sorry. The difference between the costs and benefits that you have cited, 6 to 11 cents, how was that incorporated into the company's rationale for the proposed fixed charge?

A. Well, I wasn't in charge of preparing the fixed charge. I believe that was all based on cost of service as described by Ms. Steward.

Q. So, when Rocky Mountain Power was developing the structure of the charge that it was going to propose, they weren't aware of your assessment of what the benefits were of net metered solar.

A. I don't know what they were aware of, but my understanding was it's all about cost of service. And that was detailed in Ms. Steward's testimony.

MS. ROBERTS: I have no further questions.

THE HEARING OFFICER: Ms. Hayes.

MS. HAYES: Thank you.

EXAMINATION

BY-MS.HAYES:

Q. Hello, Mr. Duvall.
A. Good afternoon.
Q. We meet again to discuss avoided costs.
A. That's right.
Q. Actually, thanks to Ms. Roberts, I just X-ed out half of my questions for you.
A. Perfect. Well, I've only got five more pages that she didn't ask about.
Q. All right.
THE HEARING OFFICER: Ms. Hayes, just before you start, we're about at a point of a recess.
MS. HAYES: Uh-huh (affirmative).
THE HEARING OFFICER: How much do you have?
MS. HAYES: I would say 15 minutes is my--is a good outside estimate. And I really apologize if that's way off, but I don't have very many questions.
THE HEARING OFFICER: We won't hold you to it, but why don't we take a break until ten after the hour.
(Recess taken, 2:58-3:12 p.m.)
THE HEARING OFFICER: We're back on the record.
Ms. Hayes.
MS. HAYES: Thank you, Commissioner Clark.
BY MS. HAYES:
Q. Hello again.

A. Hello again, too.

Q. All right. I would like to point you to page .5 of your testimony, starting at line 101.

A. Got it.

Q. You say, "There is no reason to apply different standards to rooftop solar versus a QF with regard to energy value, capacity value"--

THE REPORTER: A little slower, please.

MS. HAYES: Oh, I'm so sorry. Would you like me to start over?

THE REPORTER: Thank you.

THE HEARING OFFICER: Before you do that, we tried to open some doors, but I'm having difficulty hearing just because of noise in the hall, so I think we'll at least close these couple--thank you, Mr. Rossetti.

Maybe we can leave a couple open in the back and get some--let's try--see if we can get a little cross breeze going. Thank you.

Ms. Hayes.

MS. HAYES: Thank you.

BY MS. HAYES:

Q. So, back to my reading, which I will do slower, at line 101, you say, "There is no reason to apply different standards to rooftop solar versus a QF with regard to energy value, capacity value, integration costs, or the imputation of

environmental costs or other adders. These were all decided in Docket No. 12-035-100." Is that correct?

A. That's correct.

Q. And you participated in that docket, correct?

A. Yes, I did.

Q. And the issue of whether it was appropriate to evaluate demand-side solar in the same manner as supply-side QFs was not addressed in that docket, was it?

A. No, it was not.

Q. But here you're asking the Commission to make that determination. Is that correct?

A. That is correct. I'm--I presented the information in this docket from that docket as what I think is something the Commission can rely on.

Q. Okay. Are you familiar with Utah Docket No. 09-035-27?

A. Not by number.

Q. Okay. It was called in the matter of the proposed revisions to the Utah demand-side resource program performance standards.

A. I wouldn't have been involved in that.

Q. Okay. So, that wasn't something you consulted in making your recommendation.

A. No, it was not.

Q. So, I'm assuming you're not aware that the Utah

Commission has specifically ruled on the issue of evaluating distributed solar programs as demand-side resources versus supply-side resources?

A. I'm not aware, no.

Q. All right. Are you familiar with the five demand-side management cost-effectiveness tests?

A. I've seen them recently, but I don't work with them.

Q. All right. And, so, you're not aware that the five cost-effectiveness tests that are used in Utah to evaluate demand-side management programs are similar to the solar cost-benefit analysis recently completed in Nevada.

A. Well, that's actually where I saw it was in the E3 study in Nevada. And they had the five different tests.

Q. Okay. And, so, based on the fact that you didn't review this docket, you're not--I suppose you haven't made a recommendation to the Commission to revoke its prior ruling to evaluate distributed solar consistently with demand-side management programs?

A. Yeah. As I said, I'm not familiar with that.

Q. All right. And, then, just one question about avoided costs, for kicks and giggles. PURPA avoided costs deal with sales of electricity to the utility. Is that correct?

A. Yeah. That's correct.

Q. Whereas, net metering is a billing mechanism that credits kilowatt-hour generation against consumption. Is that

correct?

A. Well, I would characterize it as--I mean, it could be thought of as sale to the utility at the tail block rate.

(Reporter/witness discussion to clarify the record.)

MS. HAYES: Okay. No further questions.

THE HEARING OFFICER: Thank you.

Redirect?

MR. MOSCON: Yeah.

BY MR. MOSCON:

Q. Mr. Duvall, I just have two short topics to cover with you. The first is: I'll direct your attention to some questions you were asked by Mr. Rossetti. And it was the line of questions about whether or not you knew how much the Company was getting or pocketing for the power that he--you know, his system was--you know, providing to the neighbor. And I guess I just want to ask this, to clarify your testimony for the Commission: Is it your understanding that the power company is able to for free? Because I believe that was the implication, provide power to--whether it's Mr. Rossetti's neighbor or anyone else as a result of excess provided by net metered customers.

A. No.

Q. So, just to explain that, why or why not?

A. Yeah. The limited understanding I have is if a customer generates more than they use from their net metering,

it gets into the system, but it's included in their bank. And, so, when it's returned to them, the Company has to generate something to make that power.

Q. And, so, is what you're saying equivalent to the credit at retail rate?

A. Yes.

Q. The second topic I wanted to address with you is: You were asked by counsel--actually, by multiple counsel on the QF Docket 12-035-100. Do you recall those questions?

A. Yes, I do.

Q. And you had in an answer stated words to the effect that in that docket the Commission had recently declined to attribute value to avoided environmental risk or price hedges, fuel hedges. And a question was asked, would you know why they did that? And you responded words to the effect, "I'd have to read the order." Do you recall that?

A. Yes, I do.

MR. MOSCON: If I might approach.

THE HEARING OFFICER: Yes.

MR. MOSCON: And I apologize. Not knowing I'd be doing this, I don't have copies, but I'll represent to everyone that I'm handing Mr. Duvall a copy of the order in 12-035-100, and I'm turning to pages 41 to 42.

BY MR. MOSCON:

Q. And I'll ask you, Mr. Duvall--I--I've

underlined--please note that's not part of the original order--a couple of lines. If you could just read that really quickly, the underlying section.

A. Okay. "We have a difficult time, however, drawing a correlation between avoided distribution and transmission costs that may be projected and tested with a reasonable degree of certainty (e.g., through transmission studies) and environmental risk factors (e.g., costs associated with adapting to changing climate) based upon divergent and speculative projections."

Q. And the next sentence I've underlined there.

A. "Thus, for the foregoing reasons, we approve no specific adjustments to value fuel price hedging, fuel price volatility, or environmental risks."

Q. So, Mr. Duvall--now, I made a note--

THE HEARING OFFICER: Do you have an objection?

MS. ROBERTS: No. I just actually wanted to know what page you were on, because I have my own copy of the order.

MR. MOSCON: Forty-one and forty-two.

And I was about to note for the record--this will help you as well--the sections I underlined, there's a paragraph in between those two lines that he read. So, that first paragraph was in the first full paragraph on page .41 and the

second one was the first full paragraph of page .42.

BY MR. MOSCON:

Q. Mr. Duvall, does that refresh your memory as a participant in that docket, what the Commission's findings were to answer the question that was posed to you? Do you know why the Commission declined to assign a value to a potential of diverting threatened environmental risks?

A. Yeah. From what I just read, the Commission determined that the estimates were speculative.

Q. And as a participant, and again, following up on a question that you were posed, was it your understanding that that was based on some kind of legal limitation or a factual determination?

A. That would have been a factual determination.

Q. Okay. Thank you. No further questions.

THE HEARING OFFICER: Thank you.

Ms. Roberts, any questions based on those?

MS. ROBERTS: Yes. I do have one clarifying question.

FURTHER EXAMINATION

BY-MS.ROBERTS:

Q. Mr. Duvall, as you just testified, your understanding was that the Commission's decision to reject, including the other avoided costs, was based on the inadequacy of the evidentiary record in that matter?

A. Yeah. The estimates that were prevented--or presented into the record were too speculative for the Commission to adopt them for purposes of avoided cost.

Q. So, is it possible that such evidence could be presented that would establish--basis for those avoided costs that could satisfy the Commission?

A. Well, I think--I don't know. I mean, as I recall, UCE had presented testimony in that case and had some numbers they put together. And those were rejected, so they'd have to present something different.

Q. So, the Commission has not held as a legal matter that there are no such avoided costs associated with solar resources--no fuel hedge costs, no avoided environmental costs? Is that your understanding?

A. If I understand your question right, yeah, the decision to exclude those costs was not based on the legal opinion.

MS. ROBERTS: Okay. Thank you very much.

THE HEARING OFFICER: Anything further?

MR. MOSCON: No. Thank you.

MR. ROSSETTI: Since I was mentioned by counsel, am I allowed to address?

THE HEARING OFFICER: If you'd like to, yes, Mr. Rossetti, sure.

MR. ROSSETTI: Thank you. Appreciate the

introduction.

FURTHER EXAMINATION

BY-MR.ROSSETTI:

Q. When the customer who generates excess electricity regardless where that excess goes, they get a credit. Is that correct?

A. They do. That's right.

Q. Later in the day, they redeem that credit, which means electricity is coming into their facility, their house, for which they don't have to pay. Is that correct? Because it's a credit, they're getting a full retail rate credit.

A. Yeah. They get paid full retail rate for that excess power.

Q. Okay. And the argument is because we're actually--that customer redeeming that credit is using the grid, then they therefore should have to pay their share of the fixed cost based on the consumption that they've redeemed the credit for, correct?

A. That was the subject of Ms. Steward's testimony.

Q. Well, but you mentioned it and he just brought it up, so I'm just trying to be clear here, because you know how the system works, right?

A. Right.

Q. That's your job. Okay. Then, whoever gets that excess electricity, however far it goes in the network, they pay

full price for that electricity.

A. That's right. They pay full price and the NEM customer receives the full price.

Q. Thank you. And the customer that pays full price did not incur--I'll be specific here--100 percent of the cost to the Company to provide that electricity. Is that correct?

A. I don't know that I have the expertise to answer that question.

MR. ROSSETTI: Thank you.

THE HEARING OFFICER: Thank you.

Anything further, Mr. Moscon?

MR. MOSCON: (Moves head from side to side.)

THE HEARING OFFICER: I have a couple of questions, Mr. Duvall.

THE WITNESS: Okay.

EXAMINATION

BY-THE HEARING OFFICER:

Q. If I want to try to understand the benefits associated with the net metering customer's power that's generated, would I be right to take, in your mind, at least, the avoided cost number that you proposed--the three cents a kilowatt-hour and multiply that times the total generation of the net metering customers on--in Utah? Would that give me a sense of the dollar benefit that those customers are affording?

A. Yes, it would.

Q. And, then, if I wanted to understand the cost, would I be right to take the charge that the Company's proposed--again, this is from the Company's perspective--and multiply that times the--well, you help me. What would I multiply that by to get?

A. To get the cost.

Q. To get the cost?

A. Yeah. It would be the 8.8 cents to 14.4 cents.

Q. Full retail--

A. Full retail.

Q. --rate that you described.

A. Yeah. And when you mentioned the cost to the Company, that's--you know, really in a rate case, that's cost to non-NEM customers.

THE HEARING OFFICER: Thanks.

THE WITNESS: All right.

THE HEARING OFFICER: Any other questions from other commissioners?

Thank you.

Any follow-up, Mr. Moscon?

You're excused, Mr. Duvall. Thank you.

Mr. Moscon.

MR. MOSCON: That concludes the Company's witnesses.

THE HEARING OFFICER: Thank you.

Mr. Jetter.

MR. JETTER: One of our witnesses is still having travel difficulties. And, so, we have discussed it with the Office of Consumer Services that we're going to reverse order, if that's okay with the Commission.

THE HEARING OFFICER: That's a good approach. Thank you.

MR. JETTER: Thank you.

THE HEARING OFFICER: Thanks to the Office for your flexibility. Mr. Coleman.

MR. COLEMAN: Thank you.

THE HEARING OFFICER: Before you sit down, Mr. Gimble--but we're glad you set a good example for everyone here by taking your coat off. Everyone's got their coat on.

THE WITNESS: I did one thing right.

THE HEARING OFFICER: Formality thing.

Do you solemnly swear that the testimony you are about to give shall be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.

THE HEARING OFFICER: Thank you. Please be seated.

Mr. Coleman.

MR. COLEMAN: Thank you, Commissioner.

DANIEL GIMBLE, being first duly sworn, was

examined and testified as follows:

EXAMINATION

BY-MR.COLEMAN:

Q. Mr. Gimble, will you state your name and position, business title for the record?

A. Yes. My name is Daniel E. Gimble. I'm a manager with the Office of Consumer Services, 160 East 300 South here in the Heber Wells.

Q. Thank you. As part of your responsibilities in this docket, did you cause to be filed rebuttal testimony, dated June 26, 2014, as well as an attached exhibit OCS Exhibit 5.1R?

A. Yes.

Q. Do you have any recollections or modifications to that rebuttal testimony?

A. No.

Q. If I were to ask you those questions again today, would your answers be the same?

A. They would.

Q. Did you also cause to be filed in this docket surrebuttal testimony, dated July 17, 2014?

A. I did.

Q. Do you have any corrections or modifications to that testimony?

A. I do not.

Q. If I ask you those same questions today, would your

answers be the same as contained in your prefiled testimony?

A. They would.

MR. COLEMAN: At this time, I would move for admission of Mr. Gimble's rebuttal and surrebuttal testimony, Exhibits OCS-5R Gimble with the associated exhibit, OCS Exhibit 5.1R, as well as OCS--excuse me--Exhibit OCS-5.SR Gimble into the record.

THE HEARING OFFICER: Any objections?

They're received.

BY MR. COLEMAN:

Q. Mr. Gimble, do you have a summary statement of the office's position?

A. I do.

Q. Please proceed.

A. Good afternoon--warm afternoon, I guess. Let me just start with our recommendation. The Office recommends that the Commission approve a residential net metering charge of $1.54 a kW in this case. Since our proposed rate is aligned and based on the rate and size of an individual PV systems, net metering customers--

Q. I'm sorry. Mr. Gimble, I'm sorry. Can you slow just a touch for our--

A. Sure.

Q. --for the benefit of our reporter? Thank you.

A. Smaller solar PV systems will pay less than net

metering customers with larger systems. The Office knows that a dollar-per-kW rate design is consistent with the approach recently implemented last December by the Arizona commission on an interim basis.

Let's talk about the evidence. There's been a lot of discussion on that today already, a lot of exchange in cross-examination. The Office submits that there is sufficient evidence on the record to support implementing a net metering facilities charge in this proceeding. And I want to touch on a couple of areas. First, cost shifting. The Office believes that the Company provided sufficient evidence showing a distribution-related cost shift from net metering residential customers to non-net metering residential customers. Absent the proposed facilities charge, this cost shift will increase as participation in the net metering program expands.

Another point I want to make: The lower and variable energy requirements of the net metering customers, coupled with the fact that the fixed distribution costs are recovered via energy rates in the present rate design, results in net metering customers not paying an appropriate share of cost needed to invest in maintaining the distribution system.

So, from a cost causation standpoint, net metering customers still rely on distribution grid when their PV systems are off line in the evening hours, overnight, early morning, not producing sufficient energy to meet load needs. This can

happen at any time during the day because that energy--or the production they produce is intermittent. If you have stormy weather, those systems could be fully down or partially down. And there's a third way to use the system. And that's to export power into the grid. So, that's the first area.

The second area is--that I want to talk about in terms of the evidence is the value of solar. You've heard quite a bit about that. You've just had Mr. Duvall up here talking about avoided costs.

What the record shows is, some parties submitted a new analysis of costs and benefits while other parties referred to existing regulatory processes such as avoided cost in IRP cases where a similar set of costs and benefits were evaluated. In particular, the Office found the Commission's recent order in the avoided cost Docket 12-035-100, to be compelling in a number of ways. And Mr. Duvall just talked about that. And I want to go touch on three points related to that order.

First, the order indicates that the avoided cost rates for solar QF resources are substantially lower than the net metering avoided cost estimated by UCE and the Sierra Club. UCE is approximately 11.6 cents a kWh. Sierra Club is about 6.1 cents kWh. The avoided cost is about three.

Secondly, the order states that potential costs associated with environmental risk and fuel price volatility should be accounted for in the Company's IRP modeling and

evaluation process. So, that's the Commission's words there.

Third, due to its policy of allowing QFs to retain a REC, the Commission did not accept any proposed adjustments to value environmental risks or fuel price volatility in that avoided cost order.

So, what we draw from this is that the Commission's findings are instructive because it does provide a value for solar resources using a well-established production cost model, grid, and also has a direct bearing on whether environmental risks fuel price volatility and so forth would be excluded or included in the valuation net metering benefits.

So, just to conclude, while the Office believes that the record is adequate, we fully realize that the Commission may decide, based on the evidence presented in this record, to require additional cost-benefit analysis prior to authorizing either a net metering charge or credit. Obviously, if the Commission goes in that direction, we don't oppose you going in that direction. And we will fully participate in that process.

But we want to caution the Commission a little bit. We would strongly recommend that the valuation method used by the Commission, that the legal--policy, and factual circumstances that are unique to Utah and rely on information consistent with recent IRP and ratemaking dockets or else you may end up with unintended consequences. So, that's going to require the Commission to take evidence if you open up this

new proceeding on what specific cost and benefit categories, as well as modeling parameters, should be included in the net metering analysis.

Lastly, the Office would agree with the Division that if you do open a separate docket to decide this issue further, it should be concluded by about a year from now, mid-2015, at least prior to the next general rate case.

I guess one final comment: Obviously, the net metering facilities charge has attracted considerable public attention. So, the Office believes it's very important for the Commission to clearly communicate its net metering policy and expectations relating to the net metering rate changes; or, alternatively, the process by which it intends to further evaluate net metering costs and benefits should you go down that path.

And that concludes my summary.

MR. COLEMAN: Mr. Gimble would be available for cross-examination.

THE HEARING OFFICER: Thank you.

Mr. Rossetti.

EXAMINATION

BY-MR.ROSSETTI:

Q. My turn already? Wish I could take shorthand.

So, hello.

A. Nice to meet you.

Q. Good afternoon.

A. Good afternoon.
Q. Part of your claim is that net metering customers overall reduce their energy consumption.
A. Do you want to point where in my testimony or are you just asking?
Q. You were just saying in your summary that net metering customers not only generate excess, but they also overall reduce their energy needs from the grid.
A. That's the primary benefit associated with the production is to reduce their energy needs that--export onto the grid is more of a secondary benefit--
Q. Yeah.
A. --is my--that's my understanding of the program.
Q. Yeah. Okay. So, ignoring any excess, then, does this mean that you consider a net metering customer, by just reducing their energy requirements from the grid, is not paying--not helping in the recovery of the fixed costs?
A. Yes. I mean, what--if this net metering facilities charge is not approved and implemented by the Commission, then there will be a cost shift from net metering customers to the rest of the residential class. Albeit it a small cost shift, it is a cost shift.
Q. Yes, but just to be clear, ignoring any excess that they might generate and get credit for, they reduce their energy consumption and that means they reduce their contribution to

the recovery of fixed cost.

A. Yes.

Q. Okay. And that's part of your justification, I believe.

A. Yes.

Q. How is that different from conservation and efficiency measures?

A. I think there's a significant difference between a residential customer--I'll call it an EE-- energy efficiency, program, so EE. EE program versus a net metering program. In terms of a customer that's on an energy efficiency program, their reduction is more permanent. If they go out and participate in a program that has a high-efficiency refrigerator, for example, or some other appliance, that is more certain in terms of reduction of the load and more permanent, versus the net metering customer whose, you know, load profile is more intermediate.

Q. Okay. And if a customer--go ahead.

A. I have other things that I can talk about in terms of distinguishing, if you want to hear them, but that's one thing.

Q. I'd love to hear them.

A. Another example that I raised in my testimony was the fact that quite a few residential customers participate in a load-controlled program known as Cool Keeper. That's a dispatchable program. It's subject to the utility's control. Utility

does not have that kind of control with net metering customers in terms of dispatchability. So, there's a different kind of value to be assessed in terms of load control program versus net metering.

So, I think there--

Q. --by a net metering customer could enroll in the Cool Keeper program?

A. I believe that it can, yes.

Q. Yes. Okay.

THE HEARING OFFICER: Mr. Gimble, did you have a chance to finish your answer?

THE WITNESS: I did.

BY MR. ROSSETTI:

Q. Okay. So, as I mention in my surrebuttal, I like doing n+1 and n-1 calculations, so would you find it necessary--would you consider it necessary to make any kind of adjustment, say, if half of the residential customers engaged in such aggressive conservation and efficiency measures that they dramatically reduce their bill, thus cost shifting to all those other half of customers, the impact of reducing their energy consumption?

A. Again, I think the energy efficiency programs are a different, if you will, animal versus metering more predictability, more certainty. If there was a significant movement to join a program, I think all parties would want to take a look at the

potential impacts of that.

Q. Okay. So, I hate to beat a dead horse here, but there's a lot of people that do engage in conservation and high efficiency. In fact, usually people putting solar in do that first. And just simply by doing that, we are shifting the fixed cost recovery to other customers. Is that correct?

A. That's correct.

MR. ROSSETTI: Okay. Thank you. I think that's all I'm qualified to ask.

THE WITNESS: Thank you.

THE HEARING OFFICER: Before we go on, I realized I skipped over the Company and Mr. Jetter. Did you have questions? I apologize for that.

MR. MOSCON: No. I actually thought--I agreed with the format thinking, because otherwise, you know, I--as we go through the case thinking: Will I be having my cross-examination questions rehabilitated by successive people? So, I thought, Okay. This is great. But, no, we don't have any questions of this witness.

THE HEARING OFFICER: Mr. Jetter.

MR. JETTER: The Division also has no questions for Mr.--

THE HEARING OFFICER: I apologize.

MR. PLENK: I guess that means it's my turn, Commissioner Clark.

THE HEARING OFFICER: That's right. Thank you.

EXAMINATION

BY-MR.PLENK:

Q. Good afternoon, Mr. Gimble. How are you today?

A. Good afternoon. Good to see you again.

Q. Likewise. Good to see you again.

I want to go back to your rebuttal testimony on page .4, where you talk about the process being used in this case, and have you take a look at your answer on lines 100 through about 118, where you provide--I'm summarizing your testimony. I think it would be fair to say you think this is--this whole net metering and fairness requires a separate docket and deliberate review, full opportunity, including a net metering cost-benefit analysis from the Company and so on, so forth. Did I fairly summarize what you said?

A. Pretty much, yeah.

Q. And has that happened since your rebuttal testimony was filed? Did we get the Company to set net metering cost/benefit analysis for all customer classes as required by SB 208, as you mention in lines 107; or a technical conference in 109; or collaborative process in line 117?

A. What the Company did file was testimony--Mr. Duvall's testimony related to the avoided cost docket. We look--took a hard look at that, went back to the Commission's orders and responded to that in surrebuttal. So, our position has

evolved, as often happens in any kind of case, to support--we've supported the metered facility charge all the way through our testimony.

But in terms of the need for the--a cost-benefit study in a separate docket, our position has evolved on that. Whereas--if the Commission wants to go down that path, you know, we're supportive of that. We don't oppose that. And we still think what we set forth here is, you know, what the Commission should generally follow if it opens, you know, a separate docket, but our position has evolved.

Q. Again, just so I'm clear, there hasn't been a net metering technical conference, as you suggested would be significant, right?

A. There hasn't been.

Q. And there hasn't been a collaborative process, because it was just the Company's surrebuttal testimony that was filed, correct?

A. Correct. But we did look at new evidence presented by the Company that related to avoided cost Docket 12-035-100. And like I just said, we took a closer look at that order and think there is evidence there for the Commission to--based on the decisions that they made in that QF case, to go forward with the facility charge in the current proceeding.

Q. Right, but I understand that that fulfilled one of the items--I think the items on line 106 and 107--but when you talk

in the next paragraph about a collaborative process in bringing in a variety of parties, and so on and so forth, that didn't happen, right?

A. It hasn't happened. And this would be our proposal for--a guideline for the Commission to follow if they open a separate docket.

Q. And, then, the one piece I wanted to follow up on when you say you decided that what the Company had done in the other case was adequate, did that cover all affected customer classes as required by SB 208? I'm assuming you're getting at the point that this case really is just focused on the residential class and it didn't do anything for the commercial classes, yet--and I'm curious if you disagree with me that SB 208 wasn't restricted just to residential customers, was it?

A. My reading of SB 208 does extend beyond the residential class, but the net metering facilities charge is just applicable to the residential class. That's what the proposal is applicable to.

Q. But wouldn't you agree if it turned out that net metering--commercial net metering customers had a beneficial impact on the whole net metering system of the Company and there were--

let's just say for the sake of discussion that there was--there were revenues generated from commercial net metering that provided a benefit that exceeded any cost of the residential net

metering, that there may be a reason to look at those two things together? Wouldn't you agree with that?

A. I don't think Senate Bill 208 is clear on that.

Q. Okay. And you've had a chance to look at studies in other States that took a look at net metering charges, correct?

A. I looked at Arizona.

Q. Okay. Let's talk about Arizona for a minute. In Arizona, the corporation commission established, as you mentioned, an interim rate that was on a per-kilowatt basis and appeared to be the model that you followed. Is that right?

A. Based on what happened--transpired in that docket, it was something that, you know, the Office helped the Office develop its proposed rate design. So, we did look at that and saw that they had an alternative approach to what the Company was proposing here, which was a flat charge.

Q. And in that Arizona case, did you happen to notice or do you recall how many experts testified before the Commission and presented testimony and were cross-examined?

A. All I know is that RUCO testified before them, the Arizona staff had evidence in the record, because the Commission entered a finding that--in terms of the proposed net metering facilities charge offered up by the staff, in RUCO they entered a finding that it should be--that the $3-per-kW ballpark was reasonable.

Q. Just to clarify, RUCO is the equivalent to your Office here, correct?

A. Correct.

Q. And would it be fair to say that the settlement--that the result in that case was a result of a settlement among the parties?

A. That's my understanding. My understanding was, a settlement between the solar interests and RUCO and they presented that to the Commission.

Q. And do you understand that other than testimony from the one RUCO staff member, were there studies presented that fleshed out the costs and benefits in Arizona to Arizona Public Service and Arizona customers regarding the cost or benefits of net metering?

MR. COLEMAN: I'm going to object to the question. I think the docket in Arizona must speak for itself. Mr. Gimble didn't participate in the docket. He's indicated that the Office looked at the analysis, but I'm not sure that Mr. Gimble can be expected to understand all the testimony and the numbers of witnesses that participated in a docket in a separate jurisdiction.

MR. PLENK: Mr. Coleman, I understand your concern, but the point is, if the conclusion that the Office has come to is the Arizona commission order has some precedential value and the Office is taking a position that a charge similar to

the Arizona charge is appropriate and Mr. Gimble has suggested that a full cost-benefit analysis with technical conference and collaborative process is the way to go and they didn't do that in Arizona--and I'm certainly happy to have him answer, subject to check--that would seem to undercut the value of that Arizona precedent. And that's the reason why I think the question is a legitimate question.

MR. COLEMAN: I don't think he testified that the Arizona proceedings have a precedential value in Utah. I believe his testimony indicated that the--you know, it speaks for itself, but I believe he testified that, you know, the Office looked at--and reviewed the Arizona proceeding as a model but not as a precedential determination for this Commission.

MR. PLENK: Let me--I think perhaps the use of the word "precedential" is incorrect, Commissioner. And I appreciate you clarifying that, Mr. Coleman. I think that it's the only example that Mr. Gimble used as the basis for determining the Office's charge. He's given no other examples as a basis for the charge of a dollar fifty- something per kilowatt.

MR. COLEMAN: Again, I'm going to assert that Mr. Gimble's testimony speaks for itself.

THE HEARING OFFICER: To the extent that the questions are phrased to address Mr. Gimble's reliance on that proceeding and the outcome of that proceeding in preparing his testimony, we'll allow--can you rephrase your question and

proceed, then?

MR. PLENK: Sure. I'd be happy to.

BY MR. PLENK:

Q. Mr. Gimble, let's try to narrow this down a little bit. Did you have a chance to determine if the Arizona commission did the things you suggested this commission do to fully vet costs and benefits of net metering?

A. I haven't read all the testimony in that case or really any of the testimony. I read the order.

Q. And it was an interim order, correct?

A. It was an interim order.

Q. And do you have any idea of the effect that's had on applications for residential installations of solar in Arizona since January 1, the effective date of that order?

A. I do not have any knowledge on that.

Q. Well, let me ask you, subject to check, if you'd be shocked to learn that the applications for solar dropped by about 50 percent after that charge was enacted. Do you think that's possible?

A. I don't have any anything--I'd have to see something in front of me. I don't see any kind of information that would suggest that.

MR. PLENK: I apologize to the parties and the commission that I wasn't really anticipating using this.

BY MR. PLENK:

Q. Mr. Gimble, let me just show you a screen shot--may I approach the witness, Your Honor? I apologize after the fact.

Mr. Gimble, this purports to be a screen shot of a newscast from Arizona. And I'm just asking you if those numbers seem--that appears to be legitimate. And I'm happy to have you do this subject to check.

A. It just shows one--so, what is the source?

Q. The source is a news channel in Phoenix.

MR. COLEMAN: I'm going to--I guess I'm going to--I feel like I need to object to the foundation of the document. The accuracy of the information is unclear. And I'm not also sure really of the relevance of the effect of Arizona determinations and decisions made by Arizona customers to a Utah proceeding.

MR. PLENK: Well, Mr. Coleman's implying there's no effect of having a net metering charge. I'd be happy to have that put into the record as testimony. But the question is, if Mr. Gimble doesn't know anything about this and can't comment on it, I'll accept that as an answer. He's still looking at it, you know.

THE HEARING OFFICER: Yeah. I think--Mr. Gimble, have you ever seen this before? Do you know anything about the information that's presented there?

THE WITNESS: This is the first I'm seeing this slide.

MR. PLENK: That's fine. Okay. Good. Thank you.

BY MR. PLENK:

Q. Let me just ask you that question generally, Mr. Gimble. If there's a net metering charge of the sort you're proposing or the sort the Company's proposing, do you have an opinion as to what effect that would have on new solar installations?

A. I think there is a myriad of factors that would go into a decision in terms of whether a customer would invest in a solar--a net metering facility, enter into a solar PV system, including--

you know, the price of the system, the net metering facility charge, obviously would play into it. But other factors: Investment tax credits. A number of things: How their roof was situated, are they situated--are they well situated for a solar PV rooftop apparatus.

Q. And, so, those other factors being equal, if it costs more to put in solar rather than less because of the net metering charge, would you expect that to have an impact or not? In other words, if the cost--if all those things were in place that you mentioned and there's a net metering charge, do you think that would have an effect or not?

MR. COLEMAN: I'm not sure Mr. Gimble--I'm going to object. Are you asking for Mr. Gimble to speculate upon

potential net metering customers' decision-making processes? I don't think he's qualified to make that determination.

THE HEARING OFFICER: He's asking for Mr. Gimble's opinion.

Do you have an opinion?

THE WITNESS: Do you want to reask, please?

BY MR. PLENK:

Q. Sure. If all the other items--the tax credit and so forth--remain in place and we then add a net metering charge of some sort, either a per-kilowatt charge, as you suggested, or a flat charge the Company has proposed, do you think that would have a negative effect on applications for solar installations?

A. It could depend on where a solar--a potential solar net metering customer thinks residential prices are going.

Q. Okay. Let me go back to an item that came up in earlier testimony. And that was the proposal that I believe Ms. Steward--I think that--
yeah, I think Ms. Steward mentioned that the Company's planning on doing a load study later this year. Did you hear that testimony?

A. I heard that testimony, and I responded to it in my surrebuttal.

Q. And do you believe that that study will provide additional information that would be useful to the Commission in making the full analysis required by SB 208?

A. I think it'll provide useful information on net metering load shape, load factor. And it will be useful at least in the next general rate case in terms of perhaps designing a separate tariff for residential net metering customers, if it's available by then.

Q. So, the--

A. I should say if the results are available by then.

Q. Sure. The Company is hoping, I guess, that if the Commission adopts their proposal, that the net metering charge would take effect on or about September 1 of this year. Is that your understanding?

A. That's my understanding.

Q. And that would obviously be before that load study was even started, let alone completed, correct?

A. Correct.

Q. And do you believe that to comply with SB 208, that that load study should involve residential customers only or it should also--net metering customers or it should include commercial net metering customers, as well?

A. I think the effect should be on the residential net metering.

Q. And is that based on your reading of Senate Bill 208?

A. I think, given the--there's already--in terms of the commercial class, there's already a demand charge there, as

explained by the Company's witness, Ms. Steward. What we don't have is something comparable on the residential, so I think it's more important to launch the residential load research study and get that completed first.

Q. You mention that you have looked at studies about costs and benefits of net metering in other States, correct?

A. Can you point to my testimony?

Q. I thought you just mentioned it in your summary, but give me a moment and I'll try to find that. Actually, let me just ask you if you did. Have you looked at other studies?

A. No. I just looked at my--my testimony just responds to Mr.--I think it was Mr. Gilliam's testimony--in terms of--I think Mr. Gilliam asserted that other States had concluded that benefits exceeded cost, in terms of net metering benefits exceeded costs. And I just--in my surrebuttal, I rebutted that and just said a lot--that there is information out there saying that a lot of commissions are taking a fresh look at the net metering issue from a cost-benefit analysis standpoint.

Q. And in your review of those studies to do that rebuttal, did any of them limit the study to residential class that you saw?

A. I can't recall.

Q. Did you have to support incentives for solar when that was before the Commission?

A. I believe so, but I think we had some conditions in

there that we recommended to the Commission. I didn't--I wasn't part and parcel of that docket, but I think we did have conditions in there.

Q. And you'd agree, would you not, that if there are incentives, positive incentives for solar offered by the Company--and at the same time there's a charge for net metering customers, it would have the effect of diluting those incentives? Would you agree with that?

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

Q. Sure. If the customer's getting--I believe it was $1.20 that--is that the correct number for the incentives from Rocky Mountain Power this past year?

A. I believe so, but subject to check.

Q. Okay. Subject to check. And if a customer were to receive that incentive and then have to start paying a charge--a net metering charge, wouldn't you agree that that would dilute the incentive, meaning it would reduce it?

A. I can't speak for a net metering customer, if that would reduce their incentive to . . .

Q. It's not an opinion question what they think. It's if you give somebody 50 cents and you take back 10, have you reduced the amount that they have?

A. Yeah, just in terms of simple math.

Q. Is it your testimony, Mr. Gimble, that in the 12-035-100 QF case, that we had some discussion about that,

there was discussion about small-scale distributed generation solar on an individual's home?

A. Is it my testimony that that was addressed in that docket?

Q. Yeah.

A. That isn't my testimony.

Q. Was it?

A. No.

Q. Is it your testimony that the PURPA rules for qualifying facilities use a different criteria than the cost-benefit analysis that is implied by Senate Bill 208?

MR. COLEMAN: I'm going to object-- obviously, allow him to answer the question, but to the extent it would call for a legal conclusion, I would object.

MR. PLENK: Glad to respond to that, if you'd like.

THE HEARING OFFICER: Mr.--please.

MR. PLENK: The question really is it's not a legal conclusion. It's the Office's position that the testimony that we have here is that the-- that docket provided information that the Commission should rely on here, then the question is whether there is a different standard used in that proceeding which would make it inapplicable to be directly utilized here.

And, so, the question is whether there was a different standard being used in the QF analysis from what's

required by Senate Bill 208. Obviously, Senate Bill 208 wasn't passed at the time of the earlier hearing, but it has been passed since. And so, to rely on it, it would require that there be some compatibility between the two standards used in the two different cases.

And what I'm asking Mr. Gimble is whether he believes that the rules for QFs that we used in that earlier case are the same rules that are applicable to the full cost-benefit analysis required by Senate Bill 208 that's now in place and, per the Commission's earlier order, is to be considered in this case.

THE HEARING OFFICER: Mr. Gimble, do you understand the question? Do you have a response?

THE WITNESS: I'm not--to some degree, I understand it, but can you delineate the rules associated with Senate Bill 208 that you're specifically talking about?

BY MR. PLENK:

Q. Well, I'm not aware of any rules. Are you?

A. That's what you just said. You said rules associated with Senate Bill 208. That's how I understood your question.

Q. Okay. Maybe I used a bad word. Let me try to redo it. Senate Bill 208 requires a cost-benefit analysis. Do we agree on that?

A. It did direct the commission to look at costs and benefits of net metering and impacts on the utility and affected

customers. That's my understanding of Senate Bill 208.

Q. And does PURPA and the regulations concerning qualifying facilities have used the same sort of mechanism and considered the same costs and benefits that you understand would be used in the analysis required by Senate Bill 208?

A. PURPA is a Federal--is Federal legislation that dates back, I think, to the late '70s and to the early '80s. And the standards there talks about the avoided cost standard is one of ratepayer neutrality and indifference in terms of what the utility compensates to a QF provider, if that's the question.

Q. Well, I guess the question is: Are net metering customers the same as QFs?

A. No.

Q. There was discussion earlier that the Nevada study that Mr. Duvall referred to mentioned the five cost-effectiveness tests that have frequently been used. Are those the same things as the cost-benefit analysis that you think would be required under Senate Bill 208?

A. I think that the Commission--as my testimony indicates, after reviewing Mr. Duvall's testimony, that the Commission could look at its order in 12-035-100 in the QF case and make a determination that based on the evidence in its order in that docket that it could approve the proposed net metering facility charge. That's my testimony.

Q. But it wouldn't be required or precedential.

A. Come again with that.
Q. The Commission doesn't have to say, We've already decided everything in this case. We're done with Senate Bill 208 because of the earlier case and be done with it that way, right?
A. The only--as I understand Senate Bill 208, it just directs the Commission to look at costs and benefits. To parties provided cost/benefit analyses, the Company has provided evidence related to Docket 12-035-100 that relates to avoided costs. That resulted in the Office taking a closer look at the Commission order. And we addressed that order in our surrebuttal testimony. My summary did that.
Q. Okay. Let me switch gears on a couple of other quick topics. You agree, do you not, there's no evidence in the record that net metering customers have caused voltage control issues or any other damage to the Company's system, correct?
A. Correct, not at this low penetration level.
Q. And do you agree there's evidence in the record that net metering customers reduce the overall load of the Company throughout the day and thus the Company incurs fewer operational costs from those net metering customers?
A. I don't think my testimony says that.
Q. At some point in your testimony, you proposed to grandfather existing net metering customers from any new charge adopted by the Commission today, correct?

A. Yes, but I need to qualify that. I said that that's the Office's preference, but there may need--there may be legal barriers in the Commission. If it wants to consider that--should direct the party attorneys to address them in legal briefs.

Q. I believe you mentioned, in response to a question from Mr. Rossetti, that you thought that actions taken by energy efficiency customers were more permanent than the activities or the loads produced by net metering customers. Did I hear you correctly?

A. You did.

Q. Would you agree that the 25 to 30-year life expectancy of solar panels probably exceeds the life expectancy of most--of many light bulbs, even--well, not LEDs.

A. I'm not going to go there.

Q. That's a good point. Okay. CFLs. What about CFLs?

A. Probably CFLs, but LEDs, maybe not.

Q. Equivalent to LEDs. All right. Okay.

Does the Office support policies which in general result in cleaner air in Utah?

A. I'm sorry. I was still--

Q. You were still laughing. Does the Office support policies which--at this Commission which may result in cleaner air in Utah?

A. In terms of the--give me an example in terms of

what you--in terms of cleaner air. In terms of reducing PM10?

Q. Well, let's just say in general in Utah, would you agree that if less coal was burned to meet the power requirements of Utah customers, the air in Utah generally would be cleaner without worrying about the details of PM10, NOx-Ox, etc.?

A. Well, if less coal is burned in Utah, then perhaps, you know, more coal would have to be burned in other States. I mean, it could be a zero-sum gain.

Q. Well, let's say that enough solar was installed in Utah to eliminate half of the coal burning in Utah. Would that be a positive development?

A. I think it could be a positive development depending on if it was cost-effective from the standpoint of the customers we represent.

Q. And wouldn't you agree that the customers that the Office represents would undoubtedly have improved health conditions or other side benefits from that? Is that correct?

A. I think this goes beyond my testimony. But if the air is cleaner in the Salt Lake Valley, there is ostensibly less health impacts, if that's . . .

Q. Okay.

A. But it goes beyond my testimony in this case.

MR. PLENK: Great. Thank you.

THE HEARING OFFICER: Ms. Roberts.

MS. ROBERTS: Thank you very much.

EXAMINATION

BY-MS.ROBERTS:

Q. Good afternoon--

A. Good afternoon.

Q. --Mr. Gimble.

At the time you filed your direct testimony in this phase--and I'm looking at page--

THE HEARING OFFICER: Is your mike on?

BY MS. ROBERTS:

Q. --24 of your direct testimony, the very top of page .24.

A. I'm there.

Q. Okay. And you stated, "At this point, the Commission would need a more complete set of information to accurately determine the value of net metering output and compare it to the total costs of serving a residential net metering customer."

Did I read that correctly?

A. You read it correctly.

Q. Well, you've changed your view based on Mr. Duvall's testimony.

A. Our position is that, yeah, as it evolved, as it sometimes does, and depending on the case--move from direct to rebuttal to surrebuttal, as you, you know, have more evidence

presented or you go through discovery process, sometimes your position on an issue changes, evolves.

Q. So, you're familiar with the Commission's order--I guess it's from August 16, 2013--that the Company's witness Mr. Duvall was asked about on his redirect.

A. I'm generally familiar with the order.

Q. And the discussion between the Company's attorney and Mr. Duvall was that the Commission had declined to include other avoided costs as part of the avoided cost payment to qualifying facilities based on the factual record in that case, correct?

A. He said "other avoided costs." What do you mean by that? Can you specify?

Q. I believe it was such as the fuel hedge value and perhaps some avoided environmental compliance costs were discussed.

A. I think the Commission terminology was "environmental risks."

Q. "Environmental risks." Okay.

Is it your understanding of the commission's order, as well, that it found the factual record before it at that time inadequate to support including those as passionate of the avoided cost payment?

A. It did. And it pointed out--one thing it pointed out is that the RECs stay with the QFs. And that was one reason

why they didn't include the hedging, if you will, in the environmental risk that they were already compensated sufficiently. That's what the Commission opined in its order.

It's in my testimony, if you want--it's in my surrebuttal, if you want to go to that.

Q. I do not not believe you. I'm just thinking. I apologize.

Other than the solar incentive program, some RECs are transferred to the Company for installations that they have--

(Reporter/attorney discussion to clarify the record.)

BY MS. ROBERTS:

Q. Is it your understanding that under the solar incentive program offered by Rocky Mountain Power, it receives some portion of the RECs for rooftop solar installations?

A. I believe that's the case, but I'd have to check that.

Q. Okay. So, that might be a basis that distinguishes rooftop solar installations, at least those that receive solar incentive program funding from qualifying facilities, correct?

A. It could be a basis for distinguishing.

Q. Switching gears a bit, is load growth a driver of increased utility expenses?

A. It can be.

Q. Okay. And when load increases, what additional costs does the facility incur?

A. Can we step back to my response to that? It kind

of depends on where the Commission is in terms--or--the Commission--the Company is in terms of its load resource balance. So, if you have loads increasing, make more efficient use of resources, then load growth can actually--if you're in access position, you know, beneficial because revenues are allocated over more customers. But if you're in a situation where a utility needs resources, then load growth can be a driver of cost.

Q. If peak load is higher, the Company has to bring on units from its generation fleet that are more expensive to operate, correct?

A. That can be the case, but the Company heavily relies on market purchases--

Q. Okay.

A. --to fulfill its--or satisfy its load needs. And at times, it can get those at attractive prices.

Q. So, if the Company's demand for market purchases goes up due to an increase in load, will they pay more for each unit of energy that they buy on whatever energy exchange they're trading on?

A. That can possibly be the case. It depends on how they've gone about in terms of securing their market portfolio. Some of this stuff is done significantly ahead of time.

Q. Okay. Let's step back to a more general question, perhaps. Does reducing load growth slow the increase of the

utility's revenue requirement, as a general matter?

A. Can you restate that? Sorry.

Q. Does reducing load growth--

A. Okay.

Q. --slow the increase of the utility's revenue requirement?

A. It can.

Q. Okay. And is that why energy efficiency programs are deemed a benefit to ratepayers?

A. They're deemed a benefit because they're evaluated in an IRP process against other alternative. And if they're cost-effective, then they're deemed to be beneficial to ratepayers.

Q. Thank you. So, energy efficiency programs do reduce load growth, correct?

I don't intend this to be a trick question.

A. The way the Company actually treats energy efficiency resources is like a resource. And they compare it to all other resources in comparing portfolios in their IRPs. So, you'll have energy efficiency as a significant component usually in the portfolios that are tested in their IRP process.

Q. Okay. Thank you for that explanation.

Would you agree that reducing load growth is a benefit to other ratepayers?

A. I think generally, yes. It might be found in a

specific situation, but generally, yes.

Q. And do qualifying facilities reduce load growth?

A. No.

Q. Would you consider that a difference between qualifying facilities and rooftop solar, then?

A. I think they're similar from the standpoint that-- in terms of the production that comes from a net metering facility is used to meet a net metering customer's load primarily. And, then, if there's excess, it's put to the grid.

Q. Do qualifying facilities produce energy that they use to meet their own load?

A. I think some cogeneration projects actually do. And, then, they sell the excess to the utility.

Q. But solar qualifying facilities, I guess, is probably more helpful to make the comparison. Do they--does their production result in reduced load growth?

A. No.

Q. Okay.

THE HEARING OFFICER: Ms. Roberts, if you're going to move to another area, I think we'll take a recess.

MS. ROBERTS: I have one or two more questions on this particular topic, and then--

THE HEARING OFFICER: Why don't you finish those?

MS. ROBERTS: Okay. Thank you very much,

Commissioner.

BY MS. ROBERTS:

Q. I believe you stated earlier that some significant portion of a rooftop solar net metered customer own production is used to satisfy its own load, correct?

A. Correct.

Q. So, you agree that that is a difference between a solar QF and a rooftop solar unit that's net metered.

A. That appears to be a difference.

Q. Might that difference be relevant to the benefits that those two systems offer to the utility system?

A. From the standpoint of location, if there could be a difference in terms of the net metering customer--you know, within the distribution system, whereas a solar QF would be supplying power, yeah, outside of the distribution system. I mean, from a locational standpoint, it would be a difference.

Q. And why is that difference significant, Mr. Gimble, to the benefits assessment?

A. Because of the proximity of the net metering customer to the feeder--the utility's feeder system versus a solar QF.

Q. A solar QF is more remote from the load.

A. It could be.

Q. So, there's a difference, perhaps, relating to line losses and--I just want to understand--

A. It's not something that I looked at.
Q. Okay. Thank you very much.
THE HEARING OFFICER: Let's take a ten-minute recess. We'll start again at 4:35, which might raise the question in some of your minds how late we're going.
Chair says 10:00. Does 5:30 work for everyone?
So, we'll--let's break until 20 till. Give you a chance to find some cool air somewhere, if you can.
(Recess taken, 4:26-4:40 p.m.)
THE HEARING OFFICER: On the record.
Ms. Roberts.
MS. ROBERTS: Thank you very much.
BY MS. ROBERTS:
Q. Mr. Gimble, I had a chance to organize my thoughts during the break, so hopefully this will go more smoothly.
You're familiar with the language in SB 208 that we've been discussing today about cost and benefits, correct?
A. I've read the bill.
Q. Okay. Benefits isn't really defined anywhere in that statute, is it?
A. It just says the Company will--no, it isn't.
Q. Okay. Does the Legislature in that bill use the term "avoided cost" or "PURPA" or "qualifying facility" in the section in which it discusses cost and benefits?
A. It doesn't.

Q. Okay. Thank you. I'd like to ask you some questions about the distribution benefits, avoided distribution benefits, which has been a topic of considerable discussion. What is your understanding of the Company's evidence with regard to the peak load reduction benefits of rooftop solar? What is the Company's evidence? Another way of asking that.

A. I'm sorry. Restate that, please.

Q. What is the Company's evidence that rooftop solar does not reduce distribution peaks?

A. The Company has alluded to a rooftop solar study that it did for north--I'm trying to remember the name of it. It's Northeast-something 16, which was done by or performed back in August--I think it was August 2, 2010, to indicate at least on that feeder system or on that circuit that it peaked at 7:00 p.m.

Q. Is there any other--the Company's presented that our--that comes to mind at the moment?

A. Yeah. I think Mr. Marx, in terms of his testimony in responding to cross-examination today, indicated that you know the peak is--

distribution peak, you know, can be at 4:00, but it can be sustained until after 7:00. And by that time, net metering production falls off dramatically by the time you get to 6:30, 7:00, 7:30.

Q. If the peak occurs at 4:00 p.m., is there a benefit in terms of peak load reduction by solar?

A. Solar should have--generally speaking, solar should have a higher coincidence.

Q. So, the earlier the distribution peak, the higher the benefit provided by the distributed solar resource.

A. Yes, but this can change every year.

Q. Why would it change every year?

A. Because feeder systems can peak at different times because of--you know, as you have different conditions.

Q. But the general principle, the earlier the distribution peak, the more solar benefit to that peak. That principle would carry on year after year, correct?

A. If it peaked at 1:00 or 2:00 p.m., obviously solar would--solar is at its peak, it would have more coincidence with distribution peak.

MS. ROBERTS: Okay. I'd like to approach the witness and share an exhibit that was already introduced as Sierra Club Cross Exhibit No. 1, if I may.

THE HEARING OFFICER: You may.

BY MS. ROBERTS:

Q. Mr. Gimble, this exhibit is a data request submitted by your office to the Company, correct?

A. Correct.

Q. And are you familiar with this data request?

A. Yes. I'm generally familiar with it.

Q. Okay. Now, I did ask Mr. Marx a few questions

about this exhibit earlier regarding when the distribution peaks are occurring on the various feeders. Do you recall Mr. Marx's responses to those questions?

A. I generally recall them.

Q. Based on your knowledge of this data--and feel free to flip through the sheets a bit more--would you say there's a large variation in when these distribution substations experience their peaks?

A. It looks like most of them peak between 4:00 p.m. and 7:00 p.m.

Q. And, so, the stations that are peaking at 4:00 p.m. might have a greater than 7 percent--might experience a greater than 7 percent reduction due to solar. Would you agree with that statement?

A. I would agree with that.

Q. Okay. I have no further questions regarding that exhibit.

You stated earlier that the Office's recommendation was that the net metering facilities charge not apply to existing customers, correct?

A. That was my testimony in my direct, yes. I--the Office couched it in terms of it was our preference.

Q. Preference?

A. We thought there could be some legal issues in terms of basically grandfathering the existing customers. And if

the Commission desired that as an option in terms of grandfathering, it should request the party attorneys to brief the issue.

Q. Okay. Why do you think--so, on the one side, there are legal concerns about grandfathering. Why, on the other hand, is it the Office's preference that the fee not apply retroactively? What are the policy reasons underlying that preference?

A. It was in consideration of gradualism.

Q. Can you explain that a bit more?

A. Yes. In terms of ratemaking principles, one of the ratemaking principles the analysts tend to look at in terms of cost causation, fairness, rate stability, gradualism in terms of--this is a new policy in terms of gradualism, as the Commission wanted to consider that if it could legally consider it, because we indicated it should be briefed--it was one thing they could consider if they wanted, bring gradualism into the picture.

Q. Thank you. Would you agree that there have been many different ways of framing costs and benefits that have been raised in this docket and in the testimony today?

A. I think the testimony today--the Company's testimony if that's what you're talking about.

Q. I'm talking about all the parties' different representations and concepts of what cost and benefits might

mean. There's some diversity there, no?

A. There is diversity.

Q. And do you think that based on this existing record, the Commission has sufficient guidance about how to compare the costs and benefits, considering the many diverse framing of those concepts that the parties have brought?

A. I would need to understand what you mean by "guidance."

Q. Okay. Are you familiar with the recent study that was completed by E3 for the Nevada utility commission?

A. It was attached to your witness's testimony. And I didn't read it carefully, but I did look at it over the weekend.

Q. Okay. Did you see the part of that executive summary where they discussed the different types of cost and benefit tests that were evaluated in the study?

A. I did. And I noticed that it didn't pass all the tests. It passed some tests. It didn't pass other tests. And the primary reason that I understand why it passed, for example, the RIM test and the PACT test, was that there was a multiplier of 2.4 having to do with the RECs. And in terms of those RECs, the RECs go to the utilities so they can use it to meet their RPS requirement. That's my understanding in reading this.

Q. Thank you. I wasn't actually--I wasn't asking you about the results of study. They're varied depending on which time frame you're looking at and which cost- effectiveness test.

What I wanted to ask you is, do you feel that there's value in comparing costs and benefits under the Ratepayer Impact Measure test, under Utility Cost Test? Under those different frameworks, is that helpful? That's the kind of guidance I'm wondering if you agree that the Commission would benefit from having is those different cost/benefit tests.

A. I think there could be benefit there. But conversely, I think the Commission has made it quite clear in their order in 12-035-100 that in terms of at least solar QFs, it wasn't going to consider adding compensation, if you will, to those facilities for environmental risk, for fuel price volatility, etc.

Q. The Commission wasn't thinking about evaluating the costs and benefits of net metering when it ruled in the particular docket that you're referring to, was it?

A. It was looking at solar QFs.

Q. Okay.

A. So, from the standpoint of the value of solar, it did, you know, render a decision, but it was solar QFs.

MS. ROBERTS: Thank you. No further questions.

THE HEARING OFFICER: Ms. Hayes.

MS. HAYES: Thank you.

EXAMINATION

BY-MS.HAYES:

Q. Good evening.

A. Good evening. Good afternoon.
Q. I'd first like to direct you to page .7 of your surrebuttal testimony at line 189.
A. I'm there.
Q. Do you think that functionalizing costs by production, transmission, distribution, etc., is typically the first step in the process of allocating cost to rate schedules, and you recognize, for analytical purposes, separating net metering cost and benefits by functional category? Is that correct?
A. That's correct.
Q. Is it the Office's notation benefits exceeding costs in one functional category could be used to offset costs in another category? I can give you a for example if you . . .
A. If you want to give me the example, sure.
Q. So, for example, if energy generation benefits were found to outweigh costs, could that excess value be used to offset distribution and transmission costs, for example?
A. You know, I think that would have to be up to the commission in terms of how it establishes kind of its parameters in looking at costs and benefits in what categories of cost and benefits that it's going to include, if it goes forward in a separate proceeding or a separate process to consider cost and benefits.
Q. Okay.
A. Then, it would be up to their--you know, discretion.

Q. Okay.
A. But--
Q. So, you proposed sort of analytically functionalizing these costs, but you're not making a position on whether costs and benefits can outweigh each other.
A. I think the Commission would have to take evidence on that in terms of what costs and benefit categories it was going to look at in terms of, you know, if it did open up a separate process to examine this--
Q. Okay.
A. --those types of issues.
Q. Then, let's move on to same testimony, lines 314 to 319. That's at page--it's the last line of 314 and on to page--or last line of page .11 on to page .12. You say that--oh, I'll wait for you.
A. Give me the line number again, if you would.
Q. Oh, 314.
A. I'm there.
Q. You say that if the Commission's decision to implement a net metering fee is delayed beyond the current case--is it the Office's position that it will be appropriate to levy a net metering fee regardless of what evidence or analysis may show in a comprehensive net metering evaluation?
A. The Office's position is that it has sufficient evidence to implement a net metering facilities--a residential net

metering facilities charge in this docket.

Q. Right. But you say--you're talking about if the Commission doesn't do that and it delay--you say delays implementation.

A. Okay.

Q. And I'm just wondering if the Commission ordered a new proceeding to look at the cost and benefits, if the Office would be willing to evaluate the evidence and analysis on an--in an impartial manner, because it sounds like you've concluded that net metering fee will be implemented regardless of what any evidence is presented in a separate proceeding.

A. I address that--I think in my summary, whatever the Commission does in terms--if it opens up a separate process, we'll participate fully and comply with whatever process and whatever guidance that the commission gives in terms of the information that it wants to review in such a process.

Q. Okay. Thank you. I am assuming you heard some of my cross-examination, or all of it, of Mr. Duvall. Are you familiar with Utah Docket 09-035-27?

A. It doesn't ring a bell.

Q. Sure. So, as I said before, it was in the matter of the proposed revisions to the Utah demand-side resource program performance standards. And the Commission issued an order in response to a report submitted--by a report of guidelines and recommendations on demand-side management

program submitted by the Demand Side Management Advisory Group. Are you in the Demand Side Management Advisory Group?

A. I think at the time--was it 2009? Is that what you said?

Q. Uh-huh (affirmative).

A. I think I was involved in--somewhat in that process.

Q. Yeah.

A. It's coming back a bit.

Q. I have your name on a list of participants.

I would like to distribute another cross exhibit.

A. Thank you.

Q. Thank you. Does this look familiar to you?

A. Yes. I haven't seen it in a while.

Q. It's been a while, right?

A. It's familiar.

Q. All right.

THE HEARING OFFICER: For the record, Ms. Hayes, I think this is UCE Cross Exhibit 2. Is that right?

MS. HAYES: Yes.

THE HEARING OFFICER: So, I'm going to mark it that way.

MS. HAYES: And I'm not sure I offered Cross Exhibit 1 for admission, but perhaps I will offer both of those when I conclude questioning Mr. Gimble.

BY MS. HAYES:

Q. So, would you read, for the record, what this document is?

A. In the left corner, it says, "In the matter of the proposed revisions to Utah demand-side resource program performance standards."

Q. And, then, in the right corner.

A. "09-035-27."

Q. And it's the order that was issued on October 7, 2009. Is that correct?

A. That's correct.

Q. Would you turn with me to page .15 of this order and read this top paragraph?

A. "We concur with the recommendation to evaluate small-scale renewable resources such as solar photovoltaic projects"--

Q. It's a terrible word.

A. --"on a similar basis as energy efficiency and load management until other economic tests are available. Thus, all five tests will be performed. Should any of the tests fail, the Company and parties may present arguments, and we shall consider, whether the program is in the public interest for reasons other than economic efficiency."

Q. Thank you. And you are familiar, I'm assuming because you were just discussing them with Ms. Roberts, the

five cost effectiveness tests used in evaluating energy efficiency programs.

A. I'm familiar with them.

Q. Would you turn with me to page .3 of the order? It's--and read the first full sentence on--at the top of page .3, starting with "further"?

A. The one that's highlighted?

Q. Yeah.

A. "Further, the Company has developed more sophisticated methods for estimating utility cost savings from DSM programs rather than relying on avoided costs approved for Schedule 37 payments to small qualifying facilities."

Q. So, it appears, does it not, that the Commission has considered the issue of using avoided cost to evaluate distributed solar resources and decided that the five cost-effectiveness costs were an improvement over avoided costs when valuing demand-side and distributed solar resources, doesn't it?

A. From what I just read, it's a DSM program.

Q. And then, on page .15, page .15, the Commission--

A. Yes. It says, "All five tests will be performed."

Q. For small-scale renewable resources such as small-scale photovoltaic projects, correct?

A. That's how the order reads.

MS. HAYES: No further questions.

Can I--oops--move to admit Utah Clean Energy Cross Exhibits 1 and 2 into the record.

THE HEARING OFFICER: Objections?

They're received.

MS. HAYES: Thank you.

THE HEARING OFFICER: Redirect?

MR. COLEMAN: Just one particular point.

FURTHER EXAMINATION

BY-MR.COLEMAN:

Q. Mr. Gimble, you were asked about the Office's efforts to support programs or projects that can potentially result in clean air, air--cleaner air efforts. Do you recall that?

A. I recall that.

Q. Does the Office have free rein to support any project that is proposed?

A. No. We have to comply with our statutory authority.

MR. COLEMAN: May I approach?

THE HEARING OFFICER: Yes.

BY MR. COLEMAN:

Q. I'm going to go ahead and hand Mr. Gimble what I'm going to represent is 54-10a-301 from 2013. If you would just go ahead and read subsection (1) for me, please.

A. Where it starts, "There is created within the Office"?

Q. My apologies. Down here (indicating).
A. Down here. "Powers"--
Q. 54-10a-301, sub . . .
A. This is, "Powers and Duties of [the] Office." And it says, under subheading (1), "The office shall: (a) assess the impact utility rate changes and other regulatory actions related to an applicable public utility on: (i) residential consumers; and (ii) small commercial consumers." Back to (b), "Assist a residential consumer or a small commercial consumer in appearing before the Commission; and (c) through its director, advocate, on the office's own behalf and . . . its own name a position most advantageous to: (i) residential customers; (ii) small commercial customers." Do you want me to continue?
Q. Just through subsection (1).
A. Okay.
Q. Thank you.
A. Sure.
MR. COLEMAN: I have nothing further.
THE HEARING OFFICER: Questions for Mr. Gimble?
COMMISSIONER LeVAR: I have a couple.
THE HEARING OFFICER: Commissioner LeVar.
EXAMINATION
BY-COMMISSIONER LeVAR:
Q. I'd like to clarify a little bit your recommendations

to the Commission regarding messaging in your summary. At the end of your surrebuttal, you suggested that whatever policy direction we engage in we should take an active role in messaging. And, then, on page .1 of your surrebuttal specifically, you seem to be saying--and tell me if I've got it wrong--but if we do not approve the fee in this docket, we should inform both current net metering customers and the general public. That's the part I want to ask about. If I'm reading this right, you're saying if where we don't impose the fee in this docket, we need to inform the general public. What should that message to the general public be in that situation?

A. Well, I think my testimony reads in the context--sorry. Turn on the mike.

My testimony's in the context if you open up a separate proceeding and take additional evidence, then I think the public needs to know kind of what your timeline is in terms of considering additional evidence, what process are you going to use and, you know, kind of what your objectives are.

Q. So, that's toward providing participation in that docket. Is that what you're getting at?

A. Just to communicate, because there's been such a public interest in the net metering issue, what the Commission's intentions are going forward.

COMMISSIONER LeVAR: Okay. That's all I have. Thanks.

EXAMINATION

BY-CHAIRMAN ALLEN:

Q. Mr. Gimble, there was a moment while you were up here and I was reminded of something I couldn't find in the testimony, and maybe you can help me out here. I don't know that in the context of the public contact--maybe an asserting of this could be a deal killer for solar. Do we have any elasticity of demand of the situation--do we know whether a $4 or $5 fee is going to cause a concomitant decline in applications for new solar? What's--did I just miss it or do we not have that kind of information in this case?

A. I can't recall a--it's filed in the elasticity of demand information, if that's your question.

Q. Are you aware of any studies or anything that's come out of other States that are looking at this issue? I don't have a background in economics, so I'm curious what you've come across.

A. My review of what's around in other States is limited. I don't know if they requested that kind of information be provided in terms of their analysis of costs and benefits--

Q. Okay.

A. --associated with net metering.

Q. Do you happen to have an opinion of what nearly $5 charge would do to a decision to build a 10, 15, or 20,000-dollar solar system?

A. Do I have an opinion on how that would impact?

Q. Based on your extensive experience here with the Office.

A. I don't have an opinion on how that would impact an individual customer, you know. I guess the average customer would be about 3.2 kWs, but under our proposal, it would be approximately $5. But there are a lot of customers that are less than that, as well, but the average customer's about 3.2.

Q. So, what we're really hearing there may not be a lot of information on that subject. It's too new, maybe, the concept, the issues that we're dealing with.

A. The Office hasn't viewed it from the standpoint of the decision making by an individual net metering customer or potential net metering customer, whether they would-- whether that would impact their decision or not.

CHAIRMAN ALLEN: Okay. Thank you.

THE HEARING OFFICER: Any further questions?

MR. MOSCON: Would the Commission indulge me to ask one follow-up question based on what occurred to me based on questioning by Mr. Allen?

THE HEARING OFFICER: Is there an objection?

Okay. Mr. Moscon, go forward.

MR. MOSCON: May I approach the witness?

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EXAMINATION

BY-MR.MOSCON:

Q. I bring this up because I assume you do not have with you testimony of Company witness Joelle Steward.

A. I may, but go ahead and bring it up.

Q. Did you review any of the testimony of the Company in preparing materials?

A. I did.

Q. I'm handing you an excerpt from the testimony of Joelle Steward. And I've underlined a portion. And for purposes of everyone else that wants to follow along, maybe you should note the page and line number that I've underlined there.

A. Sure. It's page .7 on rebuttal testimony of Joelle R. Steward, lines 143 through 146.

Q. Okay. And would you read that for us?

A. "As noted in my direct testimony, the number of customers installing facilities and participating in net metering has grown by over 30 percent annually."

THE REPORTER: A little slower, please.

THE WITNESS: Sorry. "As noted in my direct testimony, the number of customers installing facilities and participating in net metering has grown by over 30 percent annually. In just the five months since my direct testimony was prepared, the total number of net metering customers has grown

by nearly an additional 20 percent."

BY MR. MOSCON:

Q. Thank you. Would you agree with me that if at the time the Company published its intention to impose a facility charge on net metered customers with the filing of the Company's rate case, that in the five months after that, with all the publicity that's been noted in this case, the fact that rather than slowing, net meter customer applications continue to rise--wouldn't you agree with me that that is, in fact, the type of evidence that was just asked about as to whether or not this proposed fee is going to have a crisis-type impact on customers signing up for solar power?

A. It's--I think the chair--Chairman Allen asked me about elasticity studies. That isn't necessarily an elasticity study, but what it does demonstrate is that it doesn't seem to be stemming the tide to invest or lease in solar PV systems in Utah.

MR. MOSCON: Thank you.

THE HEARING OFFICER: Any direct, Mr. Coleman?

MR. COLEMAN: I have nothing further. Thank you.

THE HEARING OFFICER: You're excused.

THE WITNESS: Thank you.

MR. COLEMAN: Or I can stop for a little while to go to 5:30.

THE HEARING OFFICER: So, we're wondering if we ought to proceed tonight and begin a new witness. Are the parties that are--
we're mindful of Mr. Gilliam's plane commitment. And is there anything else that ought to factor into our determination of whether we just press on for a few minutes?

MR. JETTER: No. We're okay.

THE HEARING OFFICER: Either way.

Are parties able to give us a sense of how much cross-examination there is for Mr. Gilliam?

MR. MOSCON: The Company does not have an extensive amount.

MR. JETTER: I'd just take little, if any, from the Division.

MR. COLEMAN: Bear with me while I search through my papers.

Not terribly extensive. Some, but not terribly extensive.

MR. MOSCON: I'd be willing to--and I haven't, of course, discussed this with any other parties, but if tomorrow in the 30 minutes before the lunch hour--if we haven't already gotten to him, to just take him out of turn at a time like that. I think something like that would be fine and dandy.

MR. GILLIAM: So do I.

THE HEARING OFFICER: All right. Then, we'll be

in recess until tomorrow at 9:00 a.m. Unless there's any preliminary matter or procedural matter that any party would like to address now.

Thank you all. We'll see you tomorrow. We'll go off the record.

(Proceedings adjourned at 5:14 p.m.)

CERTIFICATE

This is to certify that the foregoing proceedings were taken before me, SCOTT M. KNIGHT, a Registered Professional Reporter and Notary Public in and for the State of Utah, residing at South Jordan, Utah;

That the proceedings were reported by me in stenotype and thereafter caused by me to be transcribed into typewriting, and that a full, true, and correct transcription of said proceedings so taken and transcribed is set forth in the foregoing pages, inclusive.

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

Scott M. Knight, RPR

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