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BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

TRANSCRIPT OF PROCEEDINGS
Evidentiary Hearing
Tuesday, February 7, 2023
Jefferson City, Missouri
Volume 2

In the Matter of the Application)
of Union Electric Company d/b/a)
Ameren Missouri for Approval of) File No. EA-2022-0245
a Subscription-Based Renewable)
Energy Program)

KENNETH J. SEYER, Presiding
REGULATORY LAW JUDGE

SCOTT T. RUPP,
CHAIRMAN
JASON R. HOLSMAN,
GLEN KOLKMEYER,
COMMISSIONERS

REPORTED BY:
Tracy Taylor, CCR No. 939

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1 The following proceedings began at 9:03 a.m.

2 JUDGE SEYER: Good morning. Today is
3 February 7th, 2023. The time is 9:03. This is a
4 continuation of the evidentiary hearing in the case
5 captioned as In the Matter of the Application of Union
6 Electric Company, doing business as Ameren Missouri,
7 for Approval of a Subscription-based Renewal Energy
8 Program. It's the Public Service Commission File
9 EA-2022-0245.

10 My name is Ken Seyer and I am the
11 Regulatory Law Judge presiding over the hearing, which
12 is taking place in the Commission's hearing room in
13 the Governor Office Building.

14 All right. First thing I'd like to cover
15 this morning before -- before we take any witness
16 testimony, Mr. Lowery, it came up during
17 Ms. Forsberg's testimony yesterday, she had mentioned
18 that there were work papers and such that would
19 support I believe her -- her Schedule S1 and S2.

20 MR. LOWERY: I recall, Your Honor, yes.

21 JUDGE SEYER: Okay. Would it be possible
22 to submit those documents as one of your exhibits?
23 And if there are any other work papers that would
24 support her -- her modeling of the Investment Tax
25 Credit versus the Production Tax Credit, if those

1 could be included with that exhibit as well or
2 separate exhibit.

3 MR. LOWERY: That's absolutely no
4 problem, Judge. I will say that in terms of some --
5 I'm going to ask logistically how you'd like us to do
6 this. These are -- I believe, you know, they're --
7 they're big spreadsheet models with a lot of tabs and
8 data behind them. Printing them is probably -- might
9 not even be possible.

10 So if we submitted them electronically as
11 an Excel file in the docket and offered -- I mean how
12 logistically would you like for me to do that?

13 JUDGE SEYER: Well, it doesn't
14 necessarily have to be filed through the electronic
15 filing system, because I assume all the other parties
16 have --

17 MR. LOWERY: They have them.

18 JUDGE SEYER: -- the documents.

19 MR. LOWERY: We could -- how about -- how
20 about if we just submitted a CD and we offered the CD
21 as an exhibit?

22 JUDGE SEYER: Well, or I was going to
23 suggest that you just e-mail --

24 MR. LOWERY: Okay.

25 JUDGE SEYER: -- attach it to an e-mail

1 to I believe Exhibits@PSC.mo.gov.

2 MR. LOWERY: Okay.

3 JUDGE SEYER: Exhibits, plural, with an S
4 on the end.

5 MR. LOWERY: Okay.

6 JUDGE SEYER: And I believe that will get
7 it to us.

8 MR. LOWERY: Would it be acceptable if
9 we -- I mean if we do it at the end of the hearings
10 today or tomorrow or would --

11 JUDGE SEYER: By the end of tomorrow
12 would be perfect.

13 MR. LOWERY: That's no problem. Yeah.
14 Yeah. Thank you.

15 MR. WILLIAMS: Will -- will that be
16 Exhibit four- -- 15?

17 MR. LOWERY: Yeah. Do you want to assign
18 a number now or -- that's fine.

19 JUDGE SEYER: Yes. If you could make
20 that Exhibit 15, because 14 was your opening -- 13 was
21 your opening.

22 MR. GRAHAM: Your Honor, if I may -- I'm
23 going to get into the habit of speaking into the
24 microphone from the beginning, if I can.

25 If I may, the question has come up are

1 you speaking of work papers for the direct as well as
2 the surrebuttal, both or what --

3 MR. LOWERY: I took it as surrebuttal,
4 Your Honor, because that's when that comparison -- and
5 that's the latest information. But I mean --

6 MR. GRAHAM: That's what I took it as too
7 here, but my staff has asked that question and so they
8 want to know.

9 JUDGE SEYER: Well, work papers that
10 would support what -- testimony or schedule in the
11 direct testimony, so.

12 MR. LOWERY: So there -- so if we -- and
13 we just -- we're happy to do this as well, but
14 Ms. Forsberg submitted direct testimony and there
15 would be work papers supporting some of this
16 information there.

17 And then she submitted supplemental
18 direct at a time when it appeared that we were going
19 to pivot only to the PTC.

20 And then submitted surrebuttal when the
21 question has arisen about whether the ITC -- and I
22 think as the testimony indicated, the company believes
23 it is going to be the most favorable. So we can
24 submit all of those or just a part of them, I --
25 whatever the Bench prefers.

1 JUDGE SEYER: I would prefer all of them.

2 MR. LOWERY: Okay.

3 MR. GRAHAM: Your Honor, if I may, that
4 feeds into a problem that arose yesterday and in this
5 hearing. Now we're talking about bringing in work
6 papers in support of direct testimony which she
7 either modified or withdrew and, therefore, which
8 Staff did not respond to.

9 And so we're going to have work papers
10 supporting ideas or themes that Staff has never had a
11 chance to reply to. So I just want to advise the
12 Commission of that.

13 JUDGE SEYER: Okay.

14 MR. LOWERY: Judge, those work papers
15 will be highly confidential, just for the Bench's
16 information.

17 JUDGE SEYER: Understood. All right.
18 Then let's proceed. And correct me if I'm wrong,
19 Mr. Lowery, but you have no further witnesses to call,
20 correct?

21 MR. LOWERY: That is correct, Your Honor.

22 JUDGE SEYER: All right. Then
23 Ms. Plescia, would you call your first witness.

24 MS. PLESCIA: Yes. We would like to call
25 Maurice Brubaker, please.

1 JUDGE SEYER: All right. Good morning,
2 Mr. Brubaker.

3 THE WITNESS: Good morning, Judge.

4 JUDGE SEYER: Would you raise your right
5 hand, please.

6 (Witness sworn.)

7 JUDGE SEYER: Thank you. Go ahead,
8 Ms. Plescia.

9 MAURICE BRUBAKER, having been first duly sworn,
10 testified as follows:

11 DIRECT EXAMINATION BY MS. PLESCIA:

12 Q. By whom are you employed and in what
13 capacity?

14 A. I'm employed by Brubaker and Associates
15 as president.

16 Q. And what is your business address?

17 A. 16690 Swingley Ridge Road, Chesterfield,
18 Missouri 63017.

19 Q. Are you the same Mr. Brubaker that caused
20 to be filed in this case Exhibits 300, the rebuttal
21 testimony of Maurice Brubaker; and Exhibit 301,
22 surrebuttal testimony?

23 A. I am.

24 Q. Do you have any additions or corrections
25 to that testimony?

1 A. I do not.

2 MS. PLESCIA: I would go ahead and submit
3 that the -- testimony into evidence.

4 JUDGE SEYER: All right. And correct me
5 if I'm wrong, but that would be Exhibits 300, 301 and
6 302, correct?

7 MS. PLESCIA: No. Actually I think
8 there's just rebuttal and surrebuttal.

9 JUDGE SEYER: Okay. Oh, I'm sorry.

10 MS. PLESCIA: Yeah. We have
11 Mr. Schuerman as --

12 JUDGE SEYER: Right.

13 MS. PLESCIA: -- the last one.

14 JUDGE SEYER: Right. Is there any
15 objection to the admission of 300 and 301?

16 MS. PLESCIA: Okay. Then I'll tender the
17 witness for cross.

18 JUDGE SEYER: All right. Exhibits 301
19 and 300 are admitted.

20 (MIEC Exhibits 300 and 301 were marked
21 and received into evidence.)

22 MS. PLESCIA: Your Honor?

23 JUDGE SEYER: Yes.

24 MS. PLESCIA: Would it be a good time for
25 me to go ahead and ask that Mr. Schuerman's

1 testimony -- go ahead -- that we go ahead and put that
2 in the record unless somebody has an objection?

3 JUDGE SEYER: All right. That is
4 actually Exhibit 302. So is there any objection to
5 that testimony coming into evidence?

6 Hearing none, Exhibit 302 is admitted.

7 (MIEC Exhibit 302 was marked and received
8 into evidence.)

9 JUDGE SEYER: All right. Mr. Lowery or
10 Ms. Grubbs, would you like to cross-examine the
11 witness?

12 MS. GRUBBS: Thank you, Your Honor.

13 CROSS-EXAMINATION BY MS. GRUBBS:

14 Q. Mr. Brubaker, in your direct testimony
15 which has been marked as Exhibit 300, you describe the
16 RSP rates, the Renewable Solution [sic] Program rates,
17 as an overlay on top of subscribing customers'
18 existing regular tariffed rates, correct?

19 A. That is correct, yes.

20 Q. So just to be clear, by that do you mean
21 that the subscribers are always going to pay at least
22 their regular tariffed rate?

23 A. Yes. That -- that's correct. The
24 regular tariff rate remains in effect and subscribers
25 pay that rate. And then in addition -- I call it an

1 overlay because it's in addition to the regular tariff
2 rate, so they pay that as well.

3 **Q. Thank you.**

4 MS. GRUBBS: Those are all my questions
5 for now.

6 JUDGE SEYER: All right. Thank you.

7 Mr. Brubaker, could I get you to move
8 your microphone a little closer to you?

9 THE WITNESS: I've got the same problem
10 as Staff counsel had yesterday.

11 MR. GRAHAM: I share your pain.

12 THE WITNESS: Is that better? Is that
13 all right?

14 JUDGE SEYER: Yes. That is better.

15 THE WITNESS: Thank you.

16 JUDGE SEYER: Thank you.

17 Mr. Opitz, do you have any questions for
18 the witness?

19 MR. OPITZ: Briefly.

20 CROSS-EXAMINATION BY MR. OPITZ:

21 **Q. Good morning, Mr. Brubaker.**

22 **A. Good morning.**

23 **Q. In the discussion you just had talking**
24 **about paying the overlay charge for this RSP program,**
25 **you represent several subscribers to this program; is**

1 **that correct?**

2 A. Yes, that's correct.

3 **Q. And can you tell me what the value to**
4 **those subscribers is from participating in a program**
5 **where they're paying an additional charge for?**

6 A. Yes. The value that customers see in the
7 program is that it gives them access to renewable
8 attributes that are associated with the generation of
9 renewable energy and that's an intangible. It's an
10 attribute that's been created in the marketplace.

11 But it allows those customers to use
12 those attributes to satisfy their renewable energy
13 goals in terms of reduction of greenhouse gas
14 emissions, so it's very valuable to them. And it's
15 very helpful to have it offered by the local utility
16 just because the local utility is better able to -- to
17 construct and manage those facilities than are most
18 customers.

19 **Q. And is there a value to the**
20 **non-subscribing customers of Ameren Missouri due to**
21 **the fact that commercial/industrial customers have**
22 **subscribed to this program?**

23 A. Yes. There's an economic benefit because
24 the revenues from this program are a credit to the
25 costs to be paid by the non-subscribers so that's a

1 major benefit. It's -- the -- the renewable
2 attributes, as I said, are a -- an attribute. They
3 are produced at zero cost.

4 So what really happens is the subscribers
5 pay a cost that they're willing to pay in order to
6 have the attributes, and then the revenue from the --
7 that acquisition goes to offset the rates that
8 everybody else pays.

9 **Q. And you were in the hearing room**
10 **yesterday, correct?**

11 A. I was.

12 **Q. And do you recall some of the**
13 **discussion -- and I can't remember the witness now --**
14 **but about whether the subscriber rate was competitive**
15 **or not competitive enough? Do you recall that**
16 **discussion?**

17 A. I do.

18 **Q. And I guess what is your view about the**
19 **rate that the subscribers are paying?**

20 A. Any time you can charge something for --
21 something you produce for no cost, it's a good deal, I
22 think. And that's exactly what we have here. There's
23 no incremental cost to produce the RECs, and so
24 starting off, it's a -- it's a positive benefit.

25 There was discussion about maybe Ameren

1 could sell those in the marketplace. Right now -- the
2 last I looked last week, the going price for -- for
3 RECs that would be comparable is like two to three
4 dollars a megawatt hour, which is quite a bit lower
5 than what the subscription price is. So I think
6 it's -- it's a reasonable outcome

7 MR. OPITZ: That's all the questions I
8 have, Your Honor.

9 JUDGE SEYER: All right. Thank you.

10 Mr. Thompson, do you have any questions?

11 MR. THOMPSON: No questions, Your Honor.

12 JUDGE SEYER: All right. Ms. Greenwald?

13 MS. GREENWALD: No questions, Your Honor.

14 JUDGE SEYER: All right. Mr. Williams?

15 MR. WILLIAMS: Not at this time, thank
16 you.

17 JUDGE SEYER: Mr. Graham?

18 MR. GRAHAM: No, sir.

19 JUDGE SEYER: All right. I do have --
20 well, actually Chairman Rupp, do you have any
21 questions?

22 CHAIR RUPP: No. Thank you.

23 JUDGE SEYER: Do any of the other
24 Commissioners have questions? Okay.

25 QUESTIONS BY JUDGE SEYER:

1 Q. So I do have a couple of questions,
2 Mr. Brubaker. If I can direct your attention to your
3 direct testimony, page six.

4 A. Yes, sir.

5 Q. All right. Now, the renewable resource
6 charge, that is essentially the subscription price for
7 a subscriber, correct?

8 A. Correct.

9 Q. Okay. On page six in your direct
10 testimony, you -- you assert that -- that due to
11 improved economics resulting from the change in the --
12 from the Investment Tax Credit plan to the Production
13 Tax Credits plan, it would result -- well, it would
14 result in improved economics that should pass through
15 to the subscribers. Is that -- I'm kind of --

16 A. Essentially.

17 Q. -- I'm kind of clumsily saying this.

18 A. Let me try?

19 Q. Yeah.

20 A. Basically I was recognizing that the
21 pricing for the subscription charge in the first place
22 was tied to the cost of the project.

23 Q. Okay.

24 A. And so when the cost of the project came
25 down, I thought it would be equitable to recognize

1 that in the level of the subscription charge. That
2 was the basis for -- for that recommendation.

3 **Q. And so do you still maintain that same**
4 **position today?**

5 A. Subject to what the final economics of
6 the project are. If it turns out that the economics
7 of the project are going to go above what the original
8 charge would have been, then no, I would not -- not be
9 there.

10 **Q. Okay. And like you said, you were here**
11 **yesterday and heard testimony that project costs have**
12 **increased, correct?**

13 A. Correct.

14 **Q. And so should those increased project**
15 **costs pass onto the subscribers?**

16 A. I don't think automatically. Because the
17 subscription price, although tied initially, the
18 basics -- basis for the contract is those charges.
19 And so it's really kind of an obligation on the part
20 of both parties to honor that.

21 And since -- since it's not based on
22 cost-of-service but based on what people will pay for
23 them, I thought it would still be equitable to
24 recognize that unless the cost of the project goes up
25 above what it originally was.

1 **Q. Who -- who in your opinion -- I say**
2 **who -- should cover those increased project costs?**
3 **Would it be the ratepayers?**

4 A. The ratepayers. The ratepayers get all
5 the -- all the direct benefits. The ratepayers get
6 the capacity value and the energy value out of the
7 project. The subscribers are only getting the
8 intangible benefits in the form of the renewable
9 attributes, which are produced at zero costs.

10 **Q. Okay. Thank you. That's all the**
11 **questions I have.**

12 A. Yes, sir.

13 JUDGE SEYER: Ms. Grubbs, do you have any
14 recross?

15 MS. GRUBBS: I don't, thank you.

16 JUDGE SEYER: Do any of the other parties
17 have any recross?

18 All right. Hearing none, Ms. Plescia, do
19 you have any redirect?

20 MS. PLESCIA: Yes, I do.

21 REDIRECT EXAMINATION BY MS. PLESCIA:

22 **Q. Mr. Brubaker, could you describe your**
23 **understanding of the level of demand among**
24 **rescribers -- subscribers or would-be subscribers to**
25 **this program?**

1 MR. WILLIAMS: I'm objecting to that,
2 because I believe it goes beyond the scope of any
3 cross-examination or inquiry by the Commission.

4 MS. PLESCIA: On Mr. Opitz --

5 MR. GRAHAM: Staff -- I'm sorry.

6 MS. PLESCIA: I'm sorry. Mr. Opitz
7 brought --

8 JUDGE SEYER: Hold on. Mr. Graham?

9 MR. GRAHAM: Staff joins that objection.

10 JUDGE SEYER: All right. On the --

11 MS. PLESCIA: Mr. Opitz brought up the
12 idea --

13 JUDGE SEYER: Just a second, Ms. Plescia.

14 MS. PLESCIA: Sure.

15 JUDGE SEYER: Mr. Graham, I'll -- I'll
16 direct your attention to your microphone.

17 MR. LOWERY: We need to get him one to
18 put on his shirt there.

19 JUDGE SEYER: There we go.

20 MR. GRAHAM: I was just responding to the
21 enthusiasm of counsel behind me in trying to get her
22 question in. I didn't have time to get the mic out.

23 I join in the objection. Staff joins in
24 OPC's objection. Thank you.

25 JUDGE SEYER: All right. Ms. Plescia.

1 MS. PLESCIA: Mr. Opitz asked
2 Mr. Brubaker some questions about the value of the
3 program to the subscribers. And I think that my
4 question goes directly to the value issue.

5 JUDGE SEYER: I'll allow it for that
6 limited purpose.

7 MS. PLESCIA: Thank you.

8 THE WITNESS: Would you mind repeating
9 the question?

10 BY MS. PLESCIA:

11 Q. Sure. Could you describe your
12 understanding or -- or recollection of the level of
13 demand that there was for the RSP in terms of
14 subscribers that you're aware of?

15 A. The program is oversubscribed.

16 Q. I have no other questions.

17 JUDGE SEYER: All right. Thank you,
18 Mr. Brubaker.

19 THE WITNESS: Thank you, sir.

20 JUDGE SEYER: Thank you for your
21 patience.

22 THE WITNESS: Thank you for yours.

23 JUDGE SEYER: Ms. Plescia, do you have
24 any other witnesses to call?

25 MS. PLESCIA: No, thank you.

1 JUDGE SEYER: All right. Mr. Opitz, call
2 your first witness.

3 MR. OPITZ: Your Honor, Wal-Mart calls
4 Mr. Andrew Teague to the stand and he is testifying
5 virtually. I believe he's online now.

6 JUDGE SEYER: Okay. I see that
7 Mr. Teague is on our feed. So Mr. Teague, good
8 morning.

9 THE WITNESS: Morning.

10 JUDGE SEYER: Would you raise your right
11 hand, be sworn in, please. Thank you.

12 (Witness sworn.)

13 JUDGE SEYER: Thank you.

14 ANDREW TEAGUE, being first duly sworn, testified as
15 follows:

16 DIRECT EXAMINATION BY MR. OPITZ:

17 Q. Mr. Teague, can you state and spell your
18 name for the record.

19 A. Andrew Teague, A-n-d-r-e-w T-e-a-g-u-e.

20 Q. And where are you employed and in what
21 capacity?

22 A. Wal-Mart, as a senior manager.

23 Q. Did you prepare pre-filed testimony in
24 this case that has been premarked as Exhibits 400,
25 rebuttal testimony of Andrew Teague; and Exhibit 401,

1 the surrebuttal testimony of Andrew Teague?

2 A. I did.

3 Q. Do you have any corrections to that
4 testimony?

5 A. I do not.

6 Q. If I were to ask you the questions posed
7 in those documents today, would your answers be the
8 same?

9 A. Yes, they would.

10 Q. And the information contained therein is
11 true and correct, to your knowledge and belief?

12 A. Yes, they are.

13 MR. OPITZ: Your Honor, at this time I'd
14 offer Exhibits 400 and 401 into the record.

15 JUDGE SEYER: Are there any objections?

16 Hearing none, Exhibit 400 and 401 are
17 admitted into evidence.

18 (Wal-Mart Exhibits 400 and 401 were
19 marked received into evidence.)

20 MR. OPITZ: And I would tender the
21 witness for cross-examination.

22 JUDGE SEYER: Okay. Would it be
23 Ms. Grubbs?

24 MS. GRUBBS: Yes. Thank you, Your Honor.

25 CROSS-EXAMINATION BY MS. GRUBBS:

1 Q. Mr. Teague, are you familiar with the
2 company's proposed Renewable Solutions Program rider
3 tariff?

4 A. Yes, I am.

5 Q. And you had, in testimony, described a
6 potential concern about needing to add a provision to
7 the tariff that clarified that Renewable Energy
8 Credits, or RECs, would be retired on behalf of
9 subscribers. Do you recall that?

10 A. Yes, I do.

11 Q. So if we look at Sheet Number 83.3 of the
12 proposed tariff, do you have that available? And I
13 will represent for the record it's EFIS num- --
14 Exhibit -- or Item Number 11 in the docket.

15 A. I do, yes.

16 Q. Okay. So if we turn to Sheet Number
17 83.3, about halfway down the page there's a subheading
18 that says Other Program Provision and Terms. Do you
19 follow me?

20 A. Yes, ma'am.

21 Q. And the second provision under that reads
22 that the RECs, R-E-C-s, associated with the generation
23 output of currently subscribed program resources will
24 be retired on behalf of subscribed customers and shall
25 not be used for any other purposes during the term of

1 subscription, including for the company's compliance
2 with RES, R-E-S, requirements. The program is
3 considered a voluntary program, unrelated to
4 compliance with RES requirements; therefore the
5 Commission is not actively monitoring the retirement
6 of RECs or allocation amongst customers.

7 Did I read that accurately?

8 A. Yes, you did.

9 Q. So is there anything additional that --
10 then you would add or alternate language that you
11 would propose for that provision to address your
12 concern?

13 A. No. That's sufficient.

14 Q. Okay. Thank you very much for your time.
15 That's all I've got right now.

16 JUDGE SEYER: All right. Ms. Plescia, do
17 you have any questions for the witness?

18 MS. PLESCIA: No questions.

19 JUDGE SEYER: All right. Mr. Thompson?.

20 MR. THOMPSON: No questions, Your Honor.

21 JUDGE SEYER: Ms. Greenwald?

22 MS. GREENWALD: No questions. Thank you.

23 JUDGE SEYER: All right. Mr. Williams?

24 MR. WILLIAMS: Not at this time, thank
25 you.

1 JUDGE SEYER: Mr. Graham?

2 MR. GRAHAM: No.

3 JUDGE SEYER: All right. Chairman, do
4 you have any questions?

5 CHAIR RUPP: I do not.

6 JUDGE SEYER: Do any of the other
7 Commissioners have any questions? All right. Hearing
8 none, I do have a couple of questions, Mr. Teague.

9 QUESTIONS BY JUDGE SEYER:

10 **Q. For large customers such as Wal-Mart,**
11 **what options are available to meet your renewable and**
12 **carbon-free energy goals?**

13 A. Oftentimes, we'll partner with utilities
14 or engage in Power Purchasing Agreements. Those are
15 the two main ones. We're also looking at ways to
16 build out renewable energy ourselves.

17 **Q. Okay. Is it possible for large customers**
18 **to -- to simply purchase Renewable Energy Credits to**
19 **satisfy their -- their renewable and carbon-free**
20 **energy goals?**

21 A. In some cases, yes. Wal-Mart, however,
22 is trying to acquire green energy without any offsets.

23 **Q. I'm sorry. Could you repeat that -- the**
24 **last part of that sentence?**

25 A. Wal-Mart -- Wal-Mart is trying to --

1 I'm -- sorry I'm getting some feedback. Wal-Mart is
2 trying to acquire green energy without any offsets.
3 So RECs may not be sufficient in that case.

4 **Q. Okay. In this particular -- for this**
5 **particular project, are you aware that the solar**
6 **panels themselves will be located in Illinois;**
7 **whereas --**

8 A. I am.

9 **Q. I'm sorry.**

10 A. Sorry. Sorry.

11 **Q. And what was your answer to that?**

12 A. I am, yes.

13 **Q. Okay. Would Wal-Mart prefer to have the**
14 **energy produced in the state that it's located in**
15 **rather than a neighboring state?**

16 A. That would be preferential, yes.

17 **Q. Why is that?**

18 A. We would rather -- we -- we do prefer to
19 have a lo- -- direct location of the energy with
20 the -- where it's being consumed.

21 **Q. Is there some corporate policy behind**
22 **that?**

23 A. If there is, I'm unaware of it.

24 **Q. Okay. Are you aware that the Staff of**
25 **the Commission has suggested that large customers**

1 could install their own solar resources, I think what
2 is referred to as behind the meter renewable energy,
3 and the -- the Boomtown project isn't needed. Is
4 Wal-Mart in a position to install its own solar
5 resources?

6 A. There are case in which we are unable to
7 install the solar resources ourselves.

8 Q. But there are cases where you are able
9 to?

10 A. There are, but they would not be
11 sufficient to satisfy our needs.

12 Q. Do any of the Wal-Mart star -- stores in
13 the country have its own solar generation resources?

14 A. Yes.

15 Q. How many are we talking about?

16 A. I -- I do not know the number off the top
17 of my head, but I think the number is at least in the
18 hundreds.

19 Q. Okay. And without going too far off
20 track, is -- are these situations where they -- the
21 solar panels -- is it solar, for one thing?

22 A. In the majority of the cases, I do
23 believe it's solar.

24 Q. Okay. And is it a situation where those
25 solar panels are located on the roofs of your stores

1 or in -- on -- on the ground nearby, if you know?

2 A. I believe we have both roof mounted and
3 outlying areas with solar panels.

4 Q. Okay. And -- but those would all be
5 considered behind the meter?

6 A. Yes.

7 Q. Okay. All right. Those are all the
8 questions I have.

9 JUDGE SEYER: Ms. Grubbs, do you have any
10 recross?

11 MS. GRUBBS: No, thank you, Your Honor.

12 JUDGE SEYER: Anyone else? All right.
13 Hearing none, Mr. Opitz, redirect?

14 MR. OPITZ: Very briefly.

15 REDIRECT EXAMINATION BY MR. OPITZ:

16 Q. Mr. Teague, the Judge was asking you some
17 questions about Wal-Mart's methods of procuring
18 renewable energy. Do you recall that?

19 A. Yes, I do.

20 Q. And is it your understanding that a PPA
21 is not an option for your stores in Missouri?

22 A. That is my understanding.

23 Q. And when Wal-Mart procures renewable
24 energy for its stores, that process is generally
25 location-specific or jurisdictional-specific; is that

1 correct?

2 A. That is correct.

3 Q. And in this case Wal-Mart has elected to
4 subscribe to the RSP program?

5 A. That is correct.

6 MR. OPITZ: That's all the questions I
7 have, Your Honor.

8 JUDGE SEYER: All right. Excuse me.
9 Okay, Mr. Teague. Thank you for your testimony.

10 THE WITNESS: Thank you.

11 JUDGE SEYER: Okay. And my
12 understanding, Mr. Opitz, is that that is your only
13 witness.

14 MR. OPITZ: That's correct, Your Honor.
15 Mr. Teague was Wal-Mart's only witness in this case.

16 JUDGE SEYER: Okay. All right. Then I
17 believe, Mr. Thompson, for the Sierra Club, call your
18 first witness.

19 MR. THOMPSON: Your Honor, we call Sarah
20 Shenstone-Harris. She should be participating via
21 WebEx.

22 JUDGE SEYER: Okay. And I do see that
23 she's on the WebEx feed.

24 Ms. Shenstone-Harris, would you raise
25 your right hand, please, to be sworn in.

1 (Witness sworn.)

2 JUDGE SEYER: All right. Thank you. Go
3 ahead, Mr. Thompson.

4 SARAH SHENSTONE-HARRIS, being first duly sworn,
5 testified as follows:

6 DIRECT EXAMINATION BY MR. THOMPSON:

7 **Q. Ms. Shenstone-Harris, would you please**
8 **state and spell your name for the record.**

9 A. Sarah Shenstone-Harris. And that's
10 S-a-r-a-h, and the last name is S-h-e-n-s-t-o-n-e,
11 hyphen, Harris, H-a-r-r-i-s.

12 **Q. Could you please state your employer and**
13 **its business address?**

14 A. Yes. Synapse Energy Economics and that's
15 at 485 Massachusetts Avenue, Number 3, in Cambridge,
16 Massachusetts, and the zip code is 02139.

17 **Q. Ms. Shenstone-Harris, did you cause to be**
18 **filed in this matter surrebuttal testimony which has**
19 **been premarked as Exhibit Number 500?**

20 A. I did.

21 **Q. Do you have a copy of that surrebuttal**
22 **testimony in front of you?**

23 A. Yes.

24 **Q. For that testimony, were you asked a**
25 **series of questions to which you provided answers?**

1 A. I did.

2 Q. Were all the answers that you provided

3 true and accurate?

4 A. Yes.

5 Q. Did you have any corrections to your

6 testimony?

7 A. No.

8 Q. If I asked you the same questions today,

9 would your answers be any different?

10 A. They would.

11 Q. They would?

12 A. Yes, they would.

13 Q. They would be -- sorry. Can I repeat

14 that question if I --

15 A. Sorry. I misheard.

16 Q. If I asked you the same questions today,

17 would your answers be any different?

18 A. Oh, no, they would not. Sorry.

19 Q. Okay. Thank you, Ms. Shenstone-Harris.

20 MR. THOMPSON: With that, Your Honor, I

21 would like to enter into evidence Exhibit Number 500.

22 JUDGE SEYER: All right. Is there any

23 objection to the admission of Exhibit 500?

24 All right. Hearing none, Exhibit 500 is

25 admitted.

1 (Sierra Club Exhibit 500 was marked and
2 received into evidence.)

3 MR. THOMPSON: And with that, I can
4 tender the witness for cross-examination.

5 JUDGE SEYER: All right. For Ameren?

6 MR. LOWERY: No questions, Your Honor.

7 JUDGE SEYER: All right. Ms. Plescia,
8 any questions?

9 MS. PLESCIA: No questions, Your Honor.

10 JUDGE SEYER: Any questions from the
11 other parties? All right. Hearing none, I'll turn to
12 the Commissioners. Chairman, do you have any
13 questions?

14 CHAIR RUPP: No, I don't. Thank you
15 much.

16 JUDGE SEYER: Do any of the other
17 Commissioners have questions for this witness? Okay.
18 I don't have any questions myself. So
19 Ms. Shenstone-Harris, we appreciate your testimony.

20 THE WITNESS: Pardon me?

21 JUDGE SEYER: I said there are no further
22 questions, so we do appreciate your testimony and
23 you're excused from the hearing. Thank you.

24 THE WITNESS: Thank you.

25 JUDGE SEYER: All right. Mr. Thompson,

1 that is your sole witness, correct?

2 MR. THOMPSON: Yes, Your Honor.

3 JUDGE SEYER: All right. Then that
4 brings us to witnesses for Renew Missouri. So
5 Ms. Greenwald, call your first witness.

6 MS. GREENWALD: Renew Missouri calls
7 Mr. James Owen.

8 JUDGE SEYER: Good morning, Mr. Owen.

9 THE WITNESS: Good morning.

10 JUDGE SEYER: Would you raise your right
11 hand please.

12 (Witness sworn.)

13 JUDGE SEYER: All right. Thank you. Go
14 ahead.

15 JAMES OWEN, being first duly sworn, testified as
16 follows:

17 DIRECT EXAMINATION BY MS. GREENWALD:

18 Q. Mr. Owen, will you please state your full
19 name for the record.

20 A. Yeah. My name is James Matthew Owen,
21 O-w-e-n.

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

24 A. I am the executive director and officer
25 of Renew Missouri Advocates, Incorporated.

1 Q. Did you prepare and cause to be pre-filed
2 surrebuttal testimony that has been marked as Exhibit
3 600?

4 A. I did.

5 Q. Do you have any changes to make to your
6 testimony at this time?

7 A. I do not.

8 Q. And if I were to ask you those same
9 questions today, would your answers be substantially
10 the same?

11 A. They would.

12 Q. And are all of those answers true and
13 correct, to the best of your information, knowledge
14 and belief?

15 A. They are.

16 MS. GREENWALD: At this time I offer
17 Exhibit 600 into evidence.

18 JUDGE SEYER: Okay. Is there any
19 objection to the admission of Exhibit 600?

20 All right. Hearing none, Exhibit 600 is
21 admitted.

22 (Renew Missouri Exhibit 600 was marked
23 and received into evidence.)

24 MS. GREENWALD: And I tender the witness
25 for cross.

1 JUDGE SEYER: Any cross on behalf of
2 Ameren?
3 MR. LOWERY: No, thank you, Your Honor.
4 JUDGE SEYER: All right. Any cross on
5 behalf of the Missouri Industrial Energy Consumers?
6 MS. PLESCIA: No, thank you, Your Honor.
7 JUDGE SEYER: All right. From Wal-Mart?
8 MR. OPITZ: No, thank you, Your Honor.
9 JUDGE SEYER: From the Sierra Club?.
10 MR. THOMPSON: No questions, Your Honor.
11 JUDGE SEYER: From Public Counsel?
12 MR. WILLIAMS: Not at this time. Thank
13 you.
14 JUDGE SEYER: And from Staff of the
15 Commission?
16 MR. GRAHAM: No, thank you.
17 JUDGE SEYER: All right. Do any of the
18 Commissioners have any questions for this witness?
19 CHAIR RUPP: Not today, but thank you.
20 JUDGE SEYER: All right. Then I don't
21 have any questions myself, so Mr. Owen, you may step
22 down.
23 THE WITNESS: Off the hook. Thank you.
24 JUDGE SEYER: All right. Does anyone
25 need to take a break at this point? Okay. All right.

1 Then we are at the point where we will take testimony
2 from the Office of Public Counsel's witnesses. So
3 Mr. Williams, your first witness.

4 MR. WILLIAMS: Public Counsel calls
5 Dr. Geoff Marke to the stand.

6 JUDGE SEYER: All right. Dr. Marke,
7 would you raise your right hand, please.

8 (Witness sworn.)

9 JUDGE SEYER: Thank you.

10 GEOFF MARKE, Ph.D., being first duly sworn, testified
11 as follows:

12 DIRECT EXAMINATION BY MR. WILLIAMS:

13 Q. What is your name?

14 A. Geoff Marke, G-e-o-f-f M-a-r-k-e.

15 Q. And by whom are you employed and in what
16 capacity?

17 A. I'm employed by the Missouri Office of
18 Public Counsel as the chief economist.

19 Q. And did you prepare what's been
20 designated as rebuttal testimony and surrebuttal
21 testimony that were pre-filed in this case on
22 December 21st of last year and January 18th of this
23 year respectively?

24 A. Yes.

25 Q. And does that surrebuttal testimony

1 include some highly confidential information?

2 A. Yes.

3 Q. For that -- for the rebuttal testimony,
4 would it be your testimony here today -- and by the
5 way, that's been marked as Exhibit 200 for purposes of
6 this hearing. Would you have any changes to it?

7 A. No changes to my rebuttal testimony.

8 Q. And with regard to your surrebuttal
9 testimony, would you have any changes to it for it to
10 be your testimony here today?

11 A. I do.

12 Q. Would you go through and identify the
13 page and line number and otherwise describe
14 sufficiently so someone can follow where your changes
15 are?

16 A. Sure. So going off of the highly
17 confidential version of my testimony -- surrebuttal
18 testimony, page six, footnote number two, it reads,
19 "MISO 2022: Managing reliability risk in the MISO
20 footprint June 16th, 20022." That should read "2022."

21 On page ten, line six the answer says,
22 "Not for zones four through seven as seen in figure
23 three." It should read "Not for zones four through
24 six as seen in figure three."

25 Q. And for purposes of the record, that

1 testimony has been -- your surrebuttal testimony has
2 been assigned an Exhibit Number 201-HC. With those
3 changes, are Exhibits 200 and 201 your testimony here
4 today?

5 A. I've actually got two more changes.

6 Q. Okay. Well, okay. Go -- go forward with
7 your other changes then.

8 A. Okay. Page 12, line three says,
9 "Question: Why does figure three show zones four
10 through seven as having deficiencies?" It should say,
11 "Why does figure three show zones four through six as
12 having deficiencies."

13 And then on page 15, the answer -- on
14 line five it says, "Only in the most general sense.
15 The first immediate issue is that 200 megawatt -- is
16 that the 200 megawatt nameplate." And that should
17 read "150 megawatt nameplate."

18 Line six, it says "Capacity would only
19 initially be accredited at 70 megawatts" and that
20 should now read "52.5 megawatts."

21 Q. Do you have any other changes?

22 A. I don't believe so.

23 Q. And with those changes, are Exhibits 200
24 and 201 your testimony here today?

25 A. They are.

1 MR. WILLIAMS: I offer Exhibits 200 and
2 201.

3 JUDGE SEYER: All right. Excuse me. Are
4 there any objections to the admission of 200 and 201?

5 All right. Hearing none, Exhibits 200
6 and 201, both the public and conf- -- or highly
7 confidential versions of 201 are admitted into
8 evidence.

9 (OPC Exhibits 200 and 201-HC were marked
10 and received into evidence.)

11 MR. WILLIAMS: I offer the witness for
12 cross-examination and querying by the Commission.

13 JUDGE SEYER: All right. Mr. Graham, do
14 you have questions on behalf of the Staff?

15 MR. GRAHAM: Yes, Your Honor.

16 CROSS-EXAMINATION BY MR. GRAHAM:

17 Q. Morning, Mr. Marke.

18 A. Good morning.

19 Q. Considering only the construction
20 activities of building Boomtown located in eastern
21 Illinois, there won't be Missouri economic benefits,
22 including local taxes, property taxes, job [sic] and
23 that sort of thing. Is that a correct statement?

24 A. Yes, it is.

25 Q. Do you think that the Ameren IRP,

1 including the planning assumptions, are objective?

2 A. That's a difficult question to answer.

3 Q. Let me try again then. I'll withdraw
4 that question.

5 A. Okay.

6 Q. Do you think that those planning
7 assumptions are devoid of bias?

8 A. No.

9 Q. Can you explain?

10 A. So Ameren Missouri had -- I'll give you
11 an example. Ameren Missouri had contracted out with
12 two separate third-party vendors; one to look at
13 bringing on an aggressive amount of renewables, and
14 another to look at the reliability considerations.

15 If you were to go into the IRP -- the
16 triennial IRP, you would see a copy of the renewable
17 third-party study. There is no copy of the -- of the
18 reliability study within that IRP. It's a modeling
19 exercise and any modeling exercise is going to be
20 dependent on the inputs that go into it.

21 One of the -- and I'll give you an
22 example I think of bias that's inherent within the IRP
23 modeling right now that -- we prefer the term
24 "levelized cost of energy," LCOE. This is a term that
25 we compare like resources across the board. So wind,

1 solar, gas, nuclear, the all-in cost assumptions,
2 including tax credits, that are associated with that.

3 The problem with that is it doesn't take
4 into account the value of the energy. And what I mean
5 by that is -- provide an analogy. If I said there was
6 a metric out there called a levelized cost of shelter
7 and it was only trying to capture how dry you would be
8 from having shelter and it looked at various different
9 shelter costs; so a mansion, a house, an apartment, a
10 shack, a tent, an umbrella.

11 If we were to look at all of those, the
12 levelized cost of shelter across all of those, one
13 would surmise that, well, umbrellas would be the
14 cheapest way to go and we'd fit it out with umbrellas
15 for everybody. The levelized cost of energy functions
16 in a very similar manner. It looks at the energy
17 within an isolated silo.

18 And what we've seen from presentations
19 from MISO, from the press, concerns about reliability
20 issues, is that accredited capacity matters.
21 Having -- being able to call on that energy and ramp
22 it up has an intrinsic value that's not captured in
23 the levelized cost of energy.

24 I'm familiar with -- with a term called
25 "LACE" or levelized avoided cost of energy recently as

1 a potential metric moving forward that could provide a
2 little bit more nuance into the IRP. But absent that,
3 that's where we're at right now with Ameren's IRP.
4 Absent that, it distorts the outcome that you get.

5 Q. Step further with that. Would you agree
6 that when we're speaking of bias in this context, we
7 are -- from -- or the company -- from a range of
8 assumptions that can be made, when we speak of bias,
9 we are choosing the assumptions that direct the model
10 in the direction we want it to reach, a conclusion we
11 want it to reach, and specifically a shareholder or
12 company-favored result? Is that what you mean by
13 "bias"?

14 MR. LOWERY: Your Honor, if I could
15 pose -- interpose an objection at this point. And the
16 objection is that this is improper cross-examination.
17 And I'd ask to be heard on the basis for that
18 objection.

19 JUDGE SEYER: Go ahead.

20 MR. LOWERY: So Ameren Missouri, of
21 course, bears the burden of going forward and the
22 burden of persuasion in this case, as everything --
23 everybody would agree.

24 And I think everybody else would --
25 everybody would also agree and the record would

1 reflect that Staff and OPC are opposed to the project
2 and the program, in many cases on similar grounds.

3 Now, certainly folks have a right to
4 cross-examine witnesses. But what they don't have a
5 right to do is to examine each other's witness in a
6 way that's not adverse to their positions to bolster
7 their case.

8 In fact, Missouri law, the State ex rel.
9 Consumers Council case that involved a Commission
10 decision itself indicates that the purpose of
11 cross-examination is to elicit information favorable
12 to the view of the examiner and unfavorable to the
13 position of the party of the witness being examined.

14 Staff's questions are clearly designed to
15 elicit information that's favorable to Staff's and
16 OPC's position, as opposed to amounting to actual
17 cross-examination.

18 And the -- the -- the construct here is
19 that we can cross-examine each other's witnesses. The
20 construct is not that we can bolster our cases by
21 using each other to put things in the record that
22 weren't put in the record initially. I think it
23 violates the company's due process rights. I think it
24 violates the purpose of cross-examination. And I
25 think it violates the Commission rules that require

1 that their testimony -- their rebuttal testimony in a
2 case like this include all reasons that they oppose
3 the proposal before you -- or alternatives to the
4 proposal.

5 The reason we get to file surrebuttal
6 last is because we have the burden of proof. And
7 that's the way it works.

8 But I think this is improper
9 cross-examination. I can see that Mr. Graham has a
10 whole line of questions here that I'm confident are
11 designed to bolster Staff and OPC's opposition.
12 I think it's improper cross-examination.

13 JUDGE SEYER: Mr. Graham?

14 MR. GRAHAM: Seems to me that Ameren has
15 crossed all of the other witnesses favorable to its
16 position here with a view towards developing its own
17 case. None of those questions appear to this counsel
18 at least to be creating or exploring a -- an adverse
19 situation between Ameren on the one hand and the
20 witness being cross-examined.

21 I would add I heard counsel bring up a
22 due process argument. To deny the Staff the
23 opportunity to cross this witness in any way deemed to
24 help the position of the Staff and to help
25 specifically the understanding of the Commission would

1 be to deny Staff due process, a right to confront the
2 witness, and deny the Commission the opportunity to
3 look at all of the facts.

4 Adding, the answers that I anticipate
5 coming from this witness to this question have not
6 been provided, to my recollection, by any other
7 witness or any other testimony filed in the case. In
8 that respect, it advances the cause of making a
9 decision by the Commission in this case.

10 MR. LOWERY: Two quick points, if I
11 could, Your Honor.

12 JUDGE SEYER: Uh-huh.

13 MR. LOWERY: I think Mr. Graham just made
14 my point. These -- this information they expect to
15 elicit has not been provided by either of them in
16 response to the application. And they're also
17 admitting that they're seeking to elicit testimony
18 that is not unfavorable to the witness that's being
19 examined, but that's actually favorable to the witness
20 that's being examined, which is not cross-examination.

21 There's no denial of the right to
22 cross-examine. If they want to cross-examine, they
23 can. But what they can't do is essentially conduct a
24 direct examination under the guise of
25 cross-examination.

1 JUDGE SEYER: All right. I agree with
2 that and will sustain that objection.

3 MR. GRAHAM: Could I ask the court
4 reporter, Your Honor, in connection with making an
5 offer of proof, to read my question back?

6 JUDGE SEYER: Sure.

7 THE COURT REPORTER: "Question: Would
8 you agree that when we're speaking of bias in this
9 context, we are -- from -- or the company -- from a
10 range of assumptions that can be made, when we speak
11 of bias, we are choosing the assumptions that direct
12 the model in the direction we want it to reach, a
13 conclusion we want it to reach, and specifically a
14 shareholder or company-favored result? Is that what
15 you mean by "bias"?"

16 MR. GRAHAM: Now, Your Honor, I
17 anticipate the witness's answer will be yes. And
18 furthermore, I would direct the Commission's attention
19 to the fact that I was asking for a general definition
20 of bias. And as a general definition of bias, the
21 question was itself not biased in the direction of any
22 party, including Staff.

23 MR. LOWERY: Your Honor, I completely
24 disagree with that characterization. He basically
25 asked a question that says wouldn't the company mo- --

1 bias their modeling in favor of the result that the
2 company wants and in a way that would favor
3 shareholder interest, which is exactly one of the
4 arguments that Staff has made in this case.

5 They're trying to elicit testimony to
6 bolster their own case from this witness and they say
7 they expect him to do that. That's not
8 cross-examination.

9 MR. GRAHAM: Your Honor, Staff -- or
10 Ameren has restated a new question, which I did not
11 ask. The Court, the Judge, the Commission has heard
12 from the court reporter exactly the question that I
13 asked. I did not ask the question that Mr. Lowery
14 says I asked. And I won't.

15 JUDGE SEYER: All right.

16 MR. GRAHAM: I'd ask the Judge to
17 reconsider his ruling.

18 JUDGE SEYER: My ruling stands,
19 Mr. Graham. Move on with your questioning.

20 MR. GRAHAM: Thank you, Your Honor.

21 BY MR. GRAHAM:

22 **Q. In connection with IRPs and as a matter**
23 **of procedure with respect to IRPs, to your**
24 **understanding, do other parties have meaningful**
25 **opportunities to materially alter the planning**

1 **assumptions that go into an IRP?**

2 MR. LOWERY: Same objection, Your Honor.
3 One of Staff's positions in this case is that they
4 don't. And they are asking this witness to agree with
5 the position that they have taken in this case, which
6 is not adverse to the Staff's or the witness's
7 interests.

8 JUDGE SEYER: I'll sustain the objection.

9 MR. GRAHAM: Your Honor, I would ask you
10 simply -- or the Commission simply to note the prior
11 offer of proof that I made and take it as an offer of
12 proof with respect to this question. And I will
13 advise the Commission that I anticipate that the
14 answer to this question will be no.

15 JUDGE SEYER: All right. So noted.

16 BY MR. GRAHAM:

17 **Q. All right. Mr. Marke, is it correct that**
18 **this is a facility that has a nameplate capacity of**
19 **150 megawatts?**

20 A. Yes.

21 **Q. And the subscriber's fixed charge is**
22 **based upon a percentage of those megawatts?**

23 A. That's correct.

24 **Q. Now, Ameren stated that they had binding**
25 **commitments for 269 megawatts and a wait list; is that**

1 right?

2 A. That's correct.

3 Q. You are chief economist for the Office of
4 Public Counsel; is that right?

5 A. That's correct.

6 Q. If an entity is putting out a product for
7 market and more people wanted to purchase the product
8 at the price you established, doesn't that create a
9 shortage?

10 A. Yes, it does.

11 Q. And shouldn't the price be increased to
12 meet the demand?

13 MR. LOWERY: Objection, Your Honor.

14 That -- objection, Your Honor. Again, what the Staff
15 is doing here is the Staff opposes the program and
16 they are drawing the inference, or attempting to
17 through this witness, that the price is too low and,
18 therefore, the program is unfair and should be denied
19 for that reason.

20 It's exactly the same angle of trying to
21 bolster their own case and not asking a question
22 that's adverse to this witness. It's not
23 cross-examination.

24 JUDGE SEYER: You know, I -- I feel like
25 that is information that would be useful to the

1 Commissioners, so I'm going to overrule your
2 objection.

3 You can answer the question.

4 BY MR. GRAHAM:

5 Q. Do you need the question restated?

6 A. I do, please.

7 Q. If an entity is putting out a product for
8 market and more people wanted to purchase the product
9 at the price you establish, doesn't that create a
10 shortage that -- shouldn't the price be incr- --
11 doesn't that create a shortage?

12 A. Yes.

13 Q. And shouldn't the price be increased to
14 meet demand?

15 A. Yes.

16 Q. Doesn't the excess demand for the RSP
17 indicate that there may have been a higher price point
18 that participants were willing to pay for the
19 opportunity to lock in RECs and receive the public
20 perception benefit of appearing to move towards
21 renewable energy?

22 MR. LOWERY: Same objection, Your Honor.

23 JUDGE SEYER: I'll overrule that
24 objection.

25 You can answer the question.

1 THE WITNESS: I believe it presents two
2 insights. First of all, yes, having the price lower
3 and having the demand greater suggests that you could
4 bring the price up to -- to meet that demand. But it
5 also suggests that the threshold of participation is
6 too low.

7 And if you have ten participants, there
8 is no reason why we couldn't extend that further with
9 further participants, which would ultimately benefit
10 both shareholders and non-participants and
11 participants themselves.

12 BY MR. GRAHAM:

13 Q. Mr. Marke, were you a witness in Docket
14 Number EO-2022-0061?

15 A. Yes.

16 Q. Can you provide a brief explanation of
17 what the subject of that docket was?

18 A. Mr. Graham, could you tell me what
19 utility -- actually, I should be able to pull it up.
20 If you have it readily available, that would be
21 appreciated.

22 Q. Evergy Missouri West.

23 A. And?

24 Q. Velvet Tech.

25 A. Yes.

1 **Q. All right. Can you provide a brief**
2 **explanation of what the subject of that docket was?**

3 A. Velvet Tech was a -- is a data processing
4 center that wanted to locate in the Greater Kansas
5 City area. And they were looking for a -- a special
6 high-voltage rate for its services. And that was tied
7 to -- in a renewable attribute Power Purchase
8 Agreement with the company Evergy West.

9 So the docket revolved around setting up
10 a tariff to conform to that -- that respective client,
11 customer.

12 **Q. Are you aware of any Missouri customers**
13 **that are, quote/unquote, served by or expect to be**
14 **served by a dedicated PPA?**

15 A. Yes.

16 MR. GRAHAM: That concludes Staff's
17 questions.

18 JUDGE SEYER: All right. If it's
19 acceptable to everyone, let's take a break at this
20 point and reconvene at 10 after 10:00. So let's go
21 off the record.

22 (A recess was taken.)

23 JUDGE SEYER: Mr. Opitz, do you have
24 questions for the witness?

25 MR. OPITZ: No, thank you, Your Honor.

1 JUDGE SEYER: Mr. Thompson?
2 MR. THOMPSON: No questions, Your Honor.
3 JUDGE SEYER: All right. Ms. Greenwald?
4 MS. GREENWALD: No questions, Your Honor.
5 JUDGE SEYER: Ms. Plescia?
6 MS. PLESCIA: No questions, Your Honor.
7 JUDGE SEYER: Mr. Lowery?
8 MR. LOWERY: No questions, Your Honor.
9 JUDGE SEYER: Chairman, do you have any
10 questions for this witness?
11 CHAIR RUPP: I don't believe so, but
12 thank you.
13 JUDGE SEYER: Okay. Do any of the other
14 Commissioners have questions?
15 COMMISSIONER HOLSMAN: No questions,
16 Judge. Holsman.
17 JUDGE SEYER: Thank you, Commissioner.
18 All right. I've got some questions
19 myself.
20 QUESTIONS BY JUDGE SEYER:
21 Q. If you know, how many annual Renewable
22 Energy Credits will the Boomtown project have?
23 A. I don't know.
24 Q. Okay. I think you --
25 A. It --

1 Q. I'm sorry. Go ahead.

2 A. I would just say, in part, it's going to
3 be dependent on how productive it is.

4 Q. Uh-huh. You were in here earlier when
5 Mr. Brubaker testified that -- something to the effect
6 that the current market rate for -- for RECs was two
7 to three dollars per megawatt hour?

8 A. Yes.

9 Q. Would you agree with that?

10 A. I would.

11 Q. How do you -- do you have any opinion --
12 any opinion as to how -- what that market value might
13 be in the future?

14 A. It will be diminished. Mr. Wills talked
15 about this at length yesterday too. There's just more
16 of a supply that's going to be placed.

17 Q. Okay. Besides the entire supply and
18 demand in the entire marketplace, is there -- is there
19 any connection between the value of the RECs and
20 the -- the life of the solar panels, the project
21 itself?

22 A. I guess the connection would be the
23 assurance for the participants that they would be
24 locked into a particular rate for the life and -- and
25 know that there's an expected life of that asset.

1 Q. If the Commission were to approve only
2 the CCN and not the renewable -- I'm sorry, I'm going
3 to have to look -- look it up to make sure I get it
4 right -- the Renewable Solutions Program, the
5 subscription-based program, would those RECs be owned
6 by Ameren Missouri?

7 A. Yes.

8 Q. Okay. And would you agree with testimony
9 we heard yesterday that those could be monetized?

10 A. They could be.

11 Q. Yeah. Would it be the normal practice
12 to -- to sell those RECs every year?

13 A. That's a great question. We've -- that
14 is the position for our -- our office, and my
15 understanding is both for the PSC Staff as well. That
16 hasn't always been the case in practice with some of
17 our utilities, but to my knowledge, Ameren Missouri
18 has sold their excess RECs when they've had them.

19 Q. Okay. When you -- when you look at
20 Ameren's current situation for capacity and their
21 needs in the future, when do you believe that Ameren
22 Missouri will need additional capacity to meet its
23 customers' needs?

24 A. That's a very good question. Right now I
25 have a lot of concern about that moving forward.

1 Based off of the most recent Integrated Resource
2 Plan -- and my testimony goes in -- at length about
3 the additional renewables coming in at an accredited
4 capacity being much smaller than nameplate capacity,
5 suggests that there's going to be a deficit in
6 resource adequacy.

7 There was last year, in 2022. There's
8 every reason to believe there's going to be a resource
9 deficiency in 2023 and moving forward. Because my
10 understanding is as of right now, there are no --
11 there's nothing in the intergeneration --
12 interconnection queue right now outside of solar and
13 wind within zone four.

14 So all of those present a potential
15 challenge, especially if Rush Island goes down as --
16 when we plan it -- for it to go down. This also
17 brings up frequency in voltage issues as well,
18 secondary concerns.

19 2020 -- 2031 is when the company has put
20 forward tentatively in their plan that they're going
21 to produce a combined combustion cycle gas plant, a
22 very large one.

23 **Q. Uh-huh.**

24 **A.** I've got concerns about that, I mean,
25 quite frankly. The Commission had the opportunity to

1 listen to representatives from MISO back in August,
2 about six months ago, that articulated the concerns
3 surrounding resource adequacy.

4 That MISO representative also spoke about
5 the reality that there are -- is going to be more
6 solar and wind and how resources moving forward need
7 to be more adaptive, more complimentary to -- to the
8 grid itself.

9 The -- the big problem, as I see it, Your
10 Honor, is historically we've looked at IRPs largely
11 with -- in a vacuum. This is what's taking place with
12 Ameren, this is how much load they need to meet, what
13 we need to plan for in the future. And now it's so
14 dependent on what's taking place in the market itself.

15 So the actions of Illinois absolutely
16 have an impact on what's taking place in Missouri.
17 The actions -- the deficits in other regions -- so the
18 big concern is not just where Ameren's at, but if you
19 have a continued retirement of fossil fuel generation
20 and base load generation, then all of a sudden relying
21 on the market to meet our resource adequacy needs
22 becomes a real problem.

23 **Q. And -- and at the beginning of your**
24 **answer to my question you referred to zone four. So**
25 **zone four is roughly Illinois, correct?**

1 A. Zone five.

2 Q. Okay. So you meant --

3 A. Zone five.

4 Q. You meant zone five?

5 A. Right.

6 Q. Okay. In your rebuttal testimony you
7 state that Ameren Missouri will be short of capacity
8 of approximately 2,200 megawatts by 2030 using MISO's
9 accredited capacity percentages, correct?

10 A. That's correct.

11 Q. Okay. Using MISO's accredited capacity
12 percentages, will the company still be in -- in a
13 capacity shortfall in 2045, which is the latest year
14 of Ameren Missouri's preferred resource plan?

15 A. So my answer to that is I don't know. I
16 would put forward that it's so far into the future,
17 that the accreditation numbers are going to change,
18 the technology's going to change. It's -- our level
19 of assurance beyond five, definitely beyond ten years
20 is -- is -- it -- a best educated guess.

21 You know, I -- I -- my testimony spoke at
22 length about a phenomenon of devaluation of
23 renewables. So as more, you know, solar/wind comes
24 on, it tends to cancel each other out. And that's a
25 very real concern. Typically it's about 30 percent is

1 the number I've -- I've been quoted of renewables
2 where you start to see diminishing returns off of each
3 incremental renewable that's placed on.

4 At a high level, that just means that
5 that accredited capacity will probably be even lower.

6 **Q. Are you saying 30 percent of the**
7 **entire --**

8 A. Right.

9 **Q. -- capacity of -- of all utilities?**

10 A. Within that -- within that grid. So two
11 examples that I would give -- like real world examples
12 where you can see this. One is in CASIO [sic], the
13 state of California. Just Google the "duck curve."
14 You can see, you know, the impact that has had on
15 their prices.

16 The other one is in SPP right now. Where
17 you've had such an increase in the amount of wind that
18 my understanding is SPP is moving towards a
19 performance-based accreditation. So they're going to
20 base the -- the accredited capacity of their units
21 based off of its actual performance.

22 **Q. And when you say "SPP," you mean --**

23 A. South --

24 **Q. -- Southwest Power Pool?**

25 A. Yes, I do.

1 Q. In your rebuttal testimony, you recommend
2 that the Commission deny Ameren Missouri's request for
3 a CCN; is that right?

4 A. Yes.

5 Q. But would you agree, though, that if the
6 Commission were to approve this CCN, that it would
7 somewhat address the capacity shortfall issue?

8 A. So in -- I address this in my -- my
9 surrebuttal. So Mr. Wills isn't wrong when he says --
10 and I think he posits the situation as: I can't
11 imagine the situation where customers wouldn't be
12 better off with this. That presupposes that the only
13 option is a bilateral option. It's either do it or
14 don't do it.

15 And what I would suggest is no, you can
16 do the solar in Missouri, you could at least get the
17 resource capacity there.

18 There's a number of other options. You
19 could have the solar conform to the green tariff
20 option that we had walked through in past rate cases
21 where there's clearly a demand for this product. You
22 have a number of commercial and industrial --
23 oversubscribed is, you know, the phrase, right?

24 Why not have all of those oversubscribed
25 customers participate in this? And all of a sudden

1 the cost of this overall project and the risk borne by
2 participants is diminished considerably.

3 Q. And you were here yesterday for all the
4 testimony, correct?

5 A. I was.

6 Q. Okay. And so there was -- there was
7 testimony about how the project costs have increased
8 from Ameren's initial estimates. How do you think
9 those project costs affect the tax mechanism, the tax
10 credit mechanism that might be used?

11 A. Your Honor, it might be appropriate for
12 me to go off camera for this, if I'm going to speak to
13 the numbers a little bit.

14 JUDGE SEYER: All right. All right.
15 Give me a second on that.

16 IT ASSISTANT: In-camera? Is that what
17 you want to do?

18 JUDGE SEYER: Yes. Yeah, I believe --
19 in-camera I believe is the word.

20 THE WITNESS: In-camera. Sorry.

21 (Wherein, this portion of the hearing was
22 conducted in-camera.)

23 (At Judge Seyer's direction, this
24 in-camera portion was later taken out of in-camera and
25 added to the public portion of the transcript, with

1 certain portions marked "****CONFIDENTIAL****".)

2 IT ASSISTANT: We're in-camera. The
3 WebEx can hear you, the public cannot.

4 THE WITNESS: Okay.

5 MR. LOWERY: Judge, can I just ask a
6 question? I think I know the answer, but are all the
7 folks here Staff or OPC folks? Okay. Thank you.

8 JUDGE SEYER: And the only people on
9 WebEx are ones that specifically were invited, not the
10 general public.

11 MR. LOWERY: Thank you, Your Honor.

12 JUDGE SEYER: Okay. We are in-camera
13 then.

14 (Testimony of Geoff Marke, Ph.D.
15 continues as follows.)

16 THE WITNESS: So my understanding -- at
17 least tentatively right now, we're at
18 ****CONFIDENTIAL**** for this project. Now, if you look
19 at that energy in terms of accredited capacity,
20 ratepayers are roughly paying ****CONFIDENTIAL**** for
21 10 megawatts. This -- that's obviously going to be
22 different than if you said -- if we base it off of
23 nameplate capacity of 150 megawatts.

24 That's going to distort the LCOE. If you
25 were to put that number versus the accredited versus

1 the nameplate. That's -- to me, that becomes a fairly
2 expensive resource to move forward with.

3 Now, again, I've put out ways that you
4 could go ahead and minimize those costs. Expand the
5 number of participants that -- that want to do this,
6 seems like the most obvious option.

7 And then the other big concern being the
8 idea of just opportunity costs, you know. I try to
9 explain this to -- you know, when people ask me. We
10 can solve just about any problem. We can't solve
11 every problem.

12 We just got through with a double-digit
13 increase a year ago. We're at a double-digit rate
14 increase, you know, request today. There's concerns
15 about resource adequacy over the next couple of years
16 so big that MISO felt the need to come out here and
17 publicly state that.

18 So my concern is meeting those resources
19 adequacies and minimizing the risk exposure we have to
20 the market in the next couple of years. Any
21 additional renewables on top of it should absolutely
22 take advantage of tax credits, whether that's
23 Production Tax Credits or Investment Tax Credits, the
24 latter which it sounds like that might be the option.

25 But that's a luxury item. I mean

1 that's -- that's an item that I would argue we should
2 be pursuing only after we've secured the resource
3 adequacy moving forward. So it's a timing issue. And
4 I can appreciate where Ameren's coming from in terms
5 of how time-consuming this process can be. I think
6 I've answered the question.

7 BY JUDGE SEYER:

8 **Q. Okay. Do you -- given all that, do you**
9 **consider this project economically feasible?**

10 MR. WILLIAMS: Judge, we're still
11 in-camera. I don't --

12 JUDGE SEYER: Oh, I'm sorry.

13 MR. WILLIAMS: -- know if we need to be.
14 And I'm not sure if anything beyond the
15 ***CONFIDENTIAL*** is subject to not being publicly
16 available.

17 MR. LOWERY: Yeah, I agree.

18 JUDGE SEYER: Okay.

19 IT ASSISTANT: So come out?

20 JUDGE SEYER: Yeah.

21 (Wherein, this in-camera portion of the
22 hearing was concluded.)

23

24

25

1 THE WITNESS: Your Honor, if you could
2 repeat the question?

3 BY JUDGE SEYER:

4 Q. Given -- given what you just testified to
5 in-camera, do -- do you consider the project
6 economically feasible?

7 A. I don't.

8 Q. All right. Would you like to elaborate
9 on that?

10 A. So my concern is we -- we don't know the
11 cost of the project right now. So we have every
12 reason to believe that it's -- it's going to be --
13 it's going to increase in cost.

14 Additionally, my concern is the -- the
15 value of the project moving forward in terms of the
16 revenue that we can get from it, as well as its
17 valuation as more renewables come online.

18 Admittedly, I have not gone down the path
19 of looking at the new numbers within the context of
20 available resources that could be procured. For
21 example, the Ameren RFP that took place, I know
22 solicited a number of different options. So all of
23 that would need to be considered.

24 Q. If -- I want to -- I want to kind of take
25 a step back. Do you have any opinion on the two tax

1 **credit programs, the PTC versus the ITC?**

2 A. I do not believe I could speak well on
3 those -- on either of those topics.

4 Q. Okay. I believe it was in your pre-filed
5 testimony that you testified that a 50/50 cost risk
6 sharing mechanism would be appropriate for the
7 Commission to consider. Could you talk about that for
8 a minute?

9 A. Yeah. The 50/50 risk-sharing mechanism
10 is a tariff -- the impetus behind a green tariff
11 agreement with stakeholders in Ameren Missouri, Evergy
12 Missouri West, Evergy Missouri Metro, and I believe
13 Empire District Electric as well for their commercial
14 customer programs.

15 The 50/50 sharing mechanism provides a
16 resource need for customers that want to pay for it.
17 So we clearly know that there are customers out there
18 that want to take advantage of renewables, the RECs,
19 additionality, emissionality, all those factors in --
20 in choosing their location. This allows that to
21 function.

22 But it also allows an assurance to
23 non-participants that if that program becomes
24 undersubscribed, that those costs are borne equally
25 between ratepayers and shareholders in terms of risk

1 exposure. The reality of it is, is companies go
2 bankrupt, municipalities go bankrupt. Heaven forbid
3 that doesn't happen, but if it does and there is that
4 opening there, it's a recognition of -- of both shared
5 costs and shared benefits.

6 In this case, I know it's been put
7 forward in a number of ways that non-participants get
8 all the benefits from this. I would take issue with
9 that. I mean clearly this gets put in rate base,
10 they're able to earn a return off of this asset too.

11 So having a 50/50 sharing mechanism is a
12 sanity check to make sure that we're just not -- you
13 don't have just a -- an absurd situation where you
14 might have one customer sign up for a lot of
15 renewables and then back out the next day after it's
16 been built.

17 **Q. And -- and to your knowledge, has the**
18 **Commission considered a similar mechanism?**

19 A. They have. The Commission has approved a
20 50/50 sharing mechanism across our electric utilities.
21 And this is what I found in my rebuttal testimony --
22 misunderstood this to a greater extent and addressed
23 it in my surrebuttal testimony.

24 But that's what was disconcerting about
25 the Renewable Choice Program is that Ameren has

1 effectively said we're not going to do that anymore.
2 We're just going to go ahead and have ten customers go
3 ahead and chip in a few bucks and bring the overall
4 cost of this down a little bit.

5 **Q. Okay. I want to shift gears a little bit**
6 **and do -- ask you this question: Do you have an**
7 **opinion on the effect of this project from a -- an**
8 **economic development perspective?**

9 A. Sure. For Missouri specific, I don't
10 believe there is one. I mean this is taking place in
11 Illinois. And any sort of tax credits or tax --
12 typically when you cite a renewable project or really
13 any generation resource, there's negotiation that
14 takes place at the local level, sometimes that extends
15 to the state level. But that's all taking place in
16 Illinois. And I can't remember the county's name off
17 the top of my head.

18 **Q. I believe it's White County.**

19 A. White County.

20 **Q. Uh-huh.**

21 A. In terms of, you know, attracting
22 customers that may be interested in this, again, I
23 would say right now Ameren has a green tariff
24 available. It exists, it's on their books today.

25 There is no reason, you know, that any of

1 the customers, Wal-Mart or -- or Bayer or anybody else
2 can't move forward with the tariff option that exists
3 if the company has it -- has the tariff approved.

4 **Q. But -- but with this RSP, as long as you**
5 **as a company, are a customer of Ameren Missouri in**
6 **Missouri, would there not be benefits to that company**
7 **to participate in the program?**

8 A. I don't -- I'm not disagreeing that
9 customers want this and perceive that there's a
10 benefit in participating in a renewable choice
11 program. And I want to be clear. Like, our office
12 supports the idea of a renewable choice program for
13 commercial customers. This is, again, why we
14 supported the green tariff program.

15 So there -- there is a benefit. I --
16 where we take issue is just the design. We -- we just
17 feel like the design is -- has now been heavily
18 weighted towards risk exposure to non-participants.
19 That -- that's the biggest difference.

20 **Q. I take it you -- you reviewed the**
21 **proposed tariff?**

22 A. Yes.

23 **Q. Does Ameren's existing renewable tariff**
24 **program retire RECs on the customer's behalf so that**
25 **they meet their ESG goals?**

1 A. That's my understanding.

2 Q. Okay. Okay. That's all the questions I
3 have.

4 JUDGE SEYER: All right. Mr. Graham, any
5 recross on behalf of the Staff?

6 MR. GRAHAM: Is this on? Yes, Your
7 Honor.

8 RECROSS-EXAMINATION BY MR. GRAHAM:

9 Q. In response to questions from the Bench,
10 you discussed resource adequacy. To your knowledge,
11 has Ameren Missouri demonstrated in this case how
12 Boomtown helps them meet their load in all hours?

13 MR. LOWERY: Objection, it's not adverse
14 to the interests of the witness. It's -- it's
15 improper cross-examination.

16 JUDGE SEYER: I'm going to overrule the
17 objection and allow the question.

18 THE WITNESS: No, they have not.

19 MR. GRAHAM: Thanks, Your Honor. That's
20 all that Staff has.

21 JUDGE SEYER: All right. Any other
22 recross?

23 MR. LOWERY: Yes, Your Honor.

24 RECROSS-EXAMINATION BY MR. LOWERY:

25 Q Dr. Marke, the Bench asked you some

1 questions about the effect on economic development --
2 from an economic development perspective of the
3 proposed project and program, did he not?

4 A. Yes.

5 Q. A company with Missouri operations can
6 subscribe and get the renewable attributes of the
7 resource; is that right, as proposed?

8 A. Yes.

9 Q. And then use those renewable attributes
10 as credit toward meeting its renewable goals, correct?

11 A. That's correct.

12 Q. And it doesn't matter whether Ameren
13 Missouri owns the facility in Illinois or whether the
14 facility's in Missouri or in Iowa or any other MISO
15 state. They can still get the RECs and count those
16 toward their renewable goals; isn't that right?

17 A. That's correct.

18 Q. You discussed the green tariff program.
19 The existing Renewable Choice program I think you were
20 referring to; is that right?

21 A. That's correct.

22 Q. Ameren Missouri didn't justify adopting
23 that tariff on the grounds that it needed to add
24 renewables to meet its customers -- its general body
25 of customers' energy or capacity needs, did it?

1 A. No.

2 Q. And the -- and the 50/50 sharing that is
3 in place was the result of a stipulation that the
4 company voluntarily agreed to on those facts, correct?

5 A. That's correct.

6 Q. You gave the opinion here today that you
7 don't believe that this project is economically
8 feasible under the Tartan factors, right?

9 A. Yes.

10 Q. But you have provided no evidence that
11 the costs of the project will be above market for a
12 similarly situated project in the market today, have
13 you?

14 A. I have not.

15 Q. You haven't presented an alternative
16 project that would be more cost effective, cheaper for
17 a comparable project capacity factor, et cetera, have
18 you?

19 A. I have not presented one.

20 Q. You don't know, for example, whether
21 Ameren Missouri could locate a comparable project or
22 when it could do that, if it could; is that right?

23 A. I have not.

24 Q. You don't know how long it would take to
25 do that and to then come back to the Commission and

1 get through the CCN process, do you?

2 A. I do not.

3 Q. You don't know whether or not another
4 project would -- a comparable project could be located
5 in an energy community and get a 40 percent ITC
6 instead of a 30 percent; isn't that right?

7 A. That's correct.

8 Q. Just to clear up the record, which zone
9 is Illinois in MISO and which one's Missouri?

10 A. So zone four is Illinois. Zone five is
11 Missouri.

12 Q. And you may have said that, but I thought
13 it was backwards when you talked about it before.

14 A. I may have.

15 Q. Ameren Missouri has significant
16 generation resources in Illinois today, right?

17 A. Today, yes.

18 Q. And has for quite some time; isn't that
19 right?

20 A. That's correct.

21 Q. You're not aware of there being any
22 transfer capability prob- -- transfer capacity
23 problems between Illinois and Missouri, are you?

24 A. I am not.

25 Q. The Judge asked you some questions about

1 if the Commission only approved the CCN and not the
2 program, would the RECs be owned by Ameren Missouri.
3 And you said yes, right?

4 A. Yes.

5 Q. You also agreed, however, that prices, as
6 Mr. Brubaker testified, are lower today than the
7 implied REC price that the subscribers are going to
8 pay under the program, under the contracts they've
9 entered into, right?

10 A. That's correct.

11 Q. And you also agreed with Mr. Wills'
12 position -- opinion that REC prices are going to go
13 down in the future would be your opinion as well,
14 right?

15 A. That's correct.

16 Q. So if the RECs are owned by Ameren
17 Missouri and produced year-by-year in a declining
18 market that's less than the costs the subscribers are
19 going to pay, the revenues from the RECs are going to
20 be less than the -- than effectively they're going to
21 be through the program; isn't that right?

22 A. That's correct.

23 Q. I think some questions were asked
24 about -- or maybe you gave an answer at least, that
25 was talking about the level of renewable penetration

1 in MISO today, right?

2 A. Yes.

3 Q. And you, I think -- the threshold point
4 where you -- where the study says one might expect to
5 hit diminishing returns for renewables is about
6 30 percent penetration; is that right?

7 A. That's correct.

8 Q. The addition of 150 megawatt solar
9 facility, the Boomtown project, is not going to
10 increase the penetration of renewables in MISO to
11 anywhere near 30 percent, is it?

12 A. No, it will not.

13 Q. Ameren Missouri is not basing the need
14 for the Boomtown project on economic speculation, is
15 it?

16 A. No.

17 Q. You would agree that as part of the
18 integrated -- well, let me back up.

19 The Integrated Resource Planning process,
20 would you agree it's an ongoing process?

21 A. Yes.

22 Q. And at a minimum, the company has to file
23 a full IRP every three years, right?

24 A. Correct.

25 Q. And then annual updates every year,

1 right?

2 A. Yes.

3 Q. And special contemporary issues get
4 suggested every year and the company has to address
5 those, right?

6 A. Yes.

7 Q. Utilizing the IRP process, the company
8 can check and adjust on the addition of renewable
9 generation resources if MISO were to begin to reach
10 higher penetration, couldn't it?

11 A. Yes.

12 MR. LOWERY: Give me just 30 seconds,
13 Your Honor.

14 That's all the questions I have, Judge.
15 Thank you.

16 JUDGE SEYER: All right. Mr. Williams,
17 any redirect on behalf of the Public Counsel?

18 MR. WILLIAMS: I'm afraid so.

19 REDIRECT EXAMINATION BY MR. WILLIAMS:

20 Q. Dr. Marke, whenever you testified that --
21 your opinion that the project is not economically
22 feasible, was that just based on comparable projects
23 or was it based on something else?

24 A. It was based off of comparable projects
25 and looking at it through the lens of accredited

1 capacity for the LCOE as compared to nameplate
2 capacity for the LCOE.

3 Q. And when you say comparable projects,
4 you're talking about 150 megawatt solar projects?

5 A. Sure. Solar projects or demand response,
6 for example.

7 Q. So comparables is broader than just solar
8 projects?

9 A. Sure.

10 Q. You used the word -- I think it's
11 "levelized cost of energy, LCOE." What is that
12 exactly?

13 A. That's a -- the levelized cost of energy
14 is a metric put forward to determine the valuation
15 of -- of energy across different resources. So solar
16 resources, wind resources, natural gas, nuclear, it
17 looks at the all-in costs associated with those
18 generation resources and provides a -- an overall
19 number for comparison. Lazard is the go-to.

20 Q. Well, you -- you've hit the cost aspect
21 of it. It's also related to energy, is it not?

22 A. Right. Levelized cost of energy.

23 Q. So you're -- if I understand you
24 correctly, you're taking all of the costs that you
25 assume this particular resource is going to have over

1 its life and you divide it by the energy you
2 anticipate it's going to produce?

3 A. That's correct.

4 Q. You testified and I heard you say KCO.
5 Did you mean the California ISO, which is CAISO,
6 C-A-I-S-O?

7 A. Yes.

8 Q. Do -- is a REC of indefinite length or is
9 there a life to a REC?

10 A. It has a defined length. So RECs can
11 expire if they're not used or were sold or retired.

12 Q. Do you know what that life is?

13 A. Oh, I don't know off the top of my head.
14 I think it's roughly about a year.

15 Q. And are there different flavors of RECs?

16 A. There are. So you can have solar RECs or
17 just renewable energy RECs.

18 Q. And you mentioned for -- resource
19 planning, the Integrated Resource Plan, and the market
20 impacts. Would you explain more about the interplay
21 there?

22 A. So the -- the -- the big concern, we know
23 from 2022 where Ameren Missouri's zone was under its
24 resource adequacy levels, the -- the cost of new entry
25 for bringing in that generation came in I think at

1 like \$236 a megawatt. And that's dependent on being
2 able to get generation resources from other zones into
3 Missouri.

4 So the concern moving forward from a
5 Integrated Resource Planning perspective is that it's
6 all interdependent. I mean that's one thing that I
7 think we -- we have appreciated much more over the
8 last couple of years, is in planning our generation
9 mix moving forward from an IRP perspective, to be
10 cognizant of what's taking place everywhere else.

11 Illinois, for example, has moved forward
12 with legislation not to have fossil fuel generation in
13 its state. That's going to have a direct impact on
14 Missouri. Potentially positive, potentially negative,
15 you know, not being able to supply resources into that
16 zone.

17 So what it does mean is that we won't
18 necessarily be able to be -- to rely on Illinois. And
19 we know that there's a number of peaker plants in --
20 that Ameren has that will have to be retired or, if
21 possible, moved. I don't -- I'm not sure that that
22 is -- is a -- is a possibility, but that's going to
23 hit the overall resource adequacy moving forward.

24 **Q. And whenever you're -- whenever you're**
25 **speaking of economic feasibility, is that from a**

1 particular perspective; say, from a utility's
2 perspective, from the Commission's perspective, from a
3 customer's perspective?

4 A. I mean I would say all -- all of the
5 above. All -- we need a healthy utility. We need to
6 be -- we need to make sure that, you know, rates are
7 just and reasonable and affordable. I think it's
8 incumbent upon the Commission to make sure that
9 resource adequacy needs are met in this state. So all
10 three of those are interdependent.

11 Q. Are they the same or is economic
12 feasibility different from the perspective of the
13 utility than it is from the utility's customer
14 perhaps?

15 A. It can be. But there's a perverse
16 incentive for utilities to -- to function as glorified
17 construction companies, for lack of a better term, to
18 build as much as they can.

19 The benefit in building out a resource
20 that has a very small level of accredited capacity
21 means that we'll just have to build more. We'll have
22 to build more with something else.

23 And because of that, there's a feedback
24 loop of being able to earn more of a profit off of
25 what you're building. And if I'm approaching -- you

1 know, the analogy I would give is, you know,
2 somebody working out. In resources that you're
3 putting in there, you might want to focus on, you
4 know, your entire body to be healthy. But if you're
5 only bringing on, you know, resources that are very
6 small in capacity, that's the equivalent of maybe just
7 doing ankle exercises, for example. It's at the
8 expense of everything else and the time that's
9 available or allotted for that.

10 So yes, I mean from -- from a
11 shareholder's standpoint, the ability -- where
12 Ameren's at right now, you can see that there's a need
13 to build out more generation. How you build that out,
14 whether that's from, you know, firm load capacity or
15 intermittent generation, that's -- that's not reliable
16 will have -- will go a long way in determining what
17 their profit margin is.

18 **Q. Well, let's -- let's get more specific.**
19 **For the Boomtown project is it -- is the economic**
20 **feasibility from the utility's perspective the same as**
21 **from its customers' perspective?**

22 A. No.

23 **Q. Why not?**

24 A. And again, from the utility's
25 perspective, it is a generation resource that provides

1 some amount of energy into the system, but very little
2 accredited capacity to -- to meet resource needs.

3 So the utility will benefit.

4 Participants and non-participants will benefit from
5 this insofar as if there was nothing else, it's better
6 than nothing, but it's not necessarily the best option
7 in meeting both accreditation and -- capacity and
8 energy.

9 **Q. And you testified that you found the**
10 **design of the Renewable Solutions Program problematic.**
11 **Do you recall that?**

12 A. I do.

13 **Q. When did you first see the Renewable**
14 **Solutions Program?**

15 A. I -- my -- my initial reading of the
16 testimony misunderstood the amount of participants
17 that were involved in the renewable program that's
18 being offered up. It was only after reading Staff's
19 rebuttal testimony that I became conscious of the fact
20 that this was a very small overall percentage of
21 customers that would be effectively footing part of
22 the bill.

23 **Q. Did you see the program before Ameren**
24 **Missouri filed its application?**

25 A. I did not.

1 Q. Did you provide any input to the design
2 of that program?

3 A. I did not.

4 Q. Before -- let me put it this way: Did
5 you provide any input to the design of that program
6 before Ameren Missouri presented it in this case?

7 A. No.

8 Q. Thank you.

9 JUDGE SEYER: All right. Thank you --
10 thank you for your testimony.

11 THE WITNESS: Thank you.

12 JUDGE SEYER: And Mr. Williams, that's
13 your only witness?

14 MR. WILLIAMS: That is correct. Yes.

15 JUDGE SEYER: All right. Let's go ahead
16 and break until 11:05. So let's go off the record.

17 (A recess was taken.)

18 JUDGE SEYER: Let's go back on the
19 record.

20 MR. WILLIAMS: Judge, if I may, as a
21 preliminary matter. Dr. Marke gave testimony
22 in-camera. I believe the bulk of that is actually --
23 did not need to be done in-camera. So I'd ask that
24 with the -- at least the exception of the specific
25 number for the current estimate of the cost of the

1 project, that the remainder be made public to the
2 extent the Commission can do so.

3 JUDGE SEYER: I can -- I can see,
4 Mr. Lowery, that you've got your finger over your --

5 MR. LOWERY: I -- I --

6 JUDGE SEYER: -- microphone button.

7 MR. LOWERY: Yes. I'm sorry to speak
8 over you. I don't really have any objection. I think
9 probably the only thing that's confidential is that
10 number. But I guess the only way to do this is -- is
11 to see -- I guess I'd ask Mr. Williams maybe to renew
12 his objection after the in-camera transcript, as it's
13 been transcribed, is produced.

14 And then I think we can probably agree to
15 declassify some of it. But without reading back, I
16 just -- my memory is not completely clear that that
17 was the only thing that was confidential.

18 MR. WILLIAMS: Judge, I'm not objecting.
19 I'm just making a motion. But certainly to the extent
20 that the company designates anything else that it
21 views to be -- should not be made public -- we can
22 have some discussions in that eventuality, but to the
23 extent that it can be made public, I'm asking that it
24 be made public.

25 JUDGE SEYER: Well, I don't know if this

1 is possible, but would it help to distribute that
2 portion to the parties -- that portion of the
3 transcript to the parties prior to making it public on
4 EFIS?

5 MR. LOWERY: Absolutely. That would
6 solve my problem completely, Judge.

7 JUDGE SEYER: All right. I'll see about
8 doing that.

9 MR. WILLIAMS: And I'm fine with that as
10 well.

11 JUDGE SEYER: Okay.

12 MR. GRAHAM: Your Honor, I have another
13 preliminary matter.

14 JUDGE SEYER: Uh-huh.

15 MR. GRAHAM: Staff intends -- I don't
16 know that there's any disagreement. I've conferred
17 with Ameren, there's no disagreement that we will take
18 Jane Dhority's testimony first as Staff's witness. So
19 I just wanted to give the Commission a head's up on
20 that if there's any -- I'd ask you if there's any
21 issue with that?

22 JUDGE SEYER: No. I think -- I think you
23 brought that up -- I think it was you that brought
24 that up first thing yesterday, so.

25 MR. GRAHAM: I think I left it as to when

1 we were going to do it, though, and I wanted to flag
2 you we're going to start with her, if that's okay.

3 JUDGE SEYER: Okay. All right. Then
4 let's go ahead and start with her. So --

5 MR. GRAHAM: Staff will call as its first
6 witness Jane Dhority.

7 JUDGE SEYER: All right. Good morning
8 Ms. Dhority.

9 THE WITNESS: Good morning.

10 JUDGE SEYER: Would you raise your right
11 hand, please.

12 (Witness sworn.)

13 JUDGE SEYER: Thank you.

14 JANE DHORITY, being first duly sworn, testified as
15 follows:

16 DIRECT EXAMINATION BY MR. GRAHAM:

17 Q. Good morning. Ms. Dhority, will you
18 state your full name and spell it -- spell your last
19 name for the record?

20 A. Sure. My name is Jane C. Dhority.
21 That's D-h-o-r-i-t-y.

22 Q. And by whom are you employed and in what
23 capacity?

24 A. I am a senior regulatory auditor for the
25 Missouri Public Service Commission.

1 Q. Are you the same Jane Dhority who
2 prepared or caused to be prepared portions of Staff's
3 Exhibit Number 101, which I understand to be your
4 rebuttal testimony in this case?

5 A. Yes.

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

8 A. No, I do not.

9 Q. Is that testimony that's set out in that
10 exhibit true and correct, to the best of your
11 knowledge and belief?

12 A. It is.

13 Q. If I were to ask you those same
14 questions, the questions that were posed to you in
15 that exhibit, would your answers be substantially the
16 same today?

17 A. They would.

18 MR. GRAHAM: Your Honor, I'm going to
19 offer Exhibit Number 1 into the evidence and I'm going
20 to tender this witness for cross-examination.

21 JUDGE SEYER: Mr. Graham, I believe
22 you're referring to Exhibit 101.

23 MR. GRAHAM: What did I say? I meant --

24 JUDGE SEYER: One.

25 MR. GRAHAM: -- Exhibit 101.

1 JUDGE SEYER: It happens to us all.

2 Is there any objection to the admission
3 of Exhibit 101?

4 Hearing none, 101 is admitted.

5 (Staff Exhibit 101 was marked and
6 received into evidence.)

7 MR. GRAHAM: And I -- and I tender the
8 witness.

9 JUDGE SEYER: All right. Mr. Williams,
10 do you have any cross-examination for the witness?

11 MR. WILLIAMS: Not at this time. Thank
12 you.

13 JUDGE SEYER: Do any of the other parties
14 have cross-examination?

15 MS. GRUBBS: The Company does, Your
16 Honor.

17 JUDGE SEYER: All right. And I hear -- I
18 see no indication that any of the other parties do, so
19 go ahead, Ms. Grubbs.

20 MS. GRUBBS: Thank you.

21 CROSS-EXAMINATION BY MS. GRUBBS:

22 Q. Ms. Dhority, if the Commission approves
23 the CCN and the Renewable Solution Program, Staff is
24 not opposed to the company implementing the revenue
25 tracking mechanism that was proposed by the company,

1 correct?

2 A. Correct.

3 Q. Okay. And if the Commission would
4 approve the CCN finding need for the project, but
5 finds that the 50/50 risk sharing for the program is
6 unnecessary, your recommended reporting requirements
7 then wouldn't be necessary, right?

8 A. Can you repeat the question?

9 Q. Yes, ma'am. If the Commission approves
10 the CCN, but finds that the 50/50 risk sharing
11 unnecessary for the program, your recommended
12 reporting requirements then would not be necessary?

13 A. That's not correct.

14 Q. Well, there would then be no 50/50 risk
15 sharing.

16 A. The risk sharing was not addressed in my
17 testimony. I'll refer you to other Staff witnesses on
18 that.

19 Q. But the reporting requirements would be
20 tracking then the 50/50 risk sharing, wouldn't it?

21 A. No. That's -- it's not tracking the risk
22 sharing. It's tracking the expenses, revenues and
23 investment.

24 JUDGE SEYER: Excuse me. Ms. Dhority, if
25 could I have you just --

1 THE WITNESS: Sit closer?

2 JUDGE SEYER: Yeah. I believe your
3 microphone is on. Just -- yeah. Thank you.

4 BY MS. GRUBBS:

5 Q. But if then there was no 50/50 risk
6 sharing presented, then tracking the expenses,
7 revenues and investments would be more of an academic
8 exercise, would it not?

9 MR. GRAHAM: Objection, simply repeats
10 the previous questions that have been answered.

11 MS. GRUBBS: I believe that I asked if it
12 would then be more of an academic exercise.

13 MR. GRAHAM: Withdraw the objection.

14 JUDGE SEYER: All right. You can answer
15 the question.

16 THE WITNESS: No, it would not. Staff
17 would like to track these items in order to assess the
18 success of subscriber and non-subscriber programs.

19 MS. GRUBBS: No further questions. Thank
20 you.

21 JUDGE SEYER: All right. Do any of the
22 Commissioners have any questions for this witness?

23 CHAIR RUPP: No. Thank you very much.

24 COMMISSIONER HOLSMAN: No questions,
25 Judge. Thank you.

1 JUDGE SEYER: All right. I don't have
2 any questions myself. So Ms. Dhority, thank you for
3 your testimony. Well, you know what? I need to -- I
4 need to give Mr. Graham the opportunity to redirect.

5 MR. GRAHAM: I wondered about that, but I
6 don't have any redirect. Thank you.

7 JUDGE SEYER: It all evens out.

8 MR. GRAHAM: It all evens out.

9 JUDGE SEYER: All right. Mr. Graham,
10 call your next witness.

11 MR. GRAHAM: I'm trying to get to my
12 outline to see who that is. I think it's Mr. Lange.
13 Shawn Lange.

14 JUDGE SEYER: Would you raise your right
15 hand, please.

16 (Witness sworn.)

17 JUDGE SEYER: Thank you. Go ahead,
18 Mr. Graham.

19 MR. GRAHAM: Thank you.

20 SHAWN LANGE, being first duly sworn, testified as
21 follows:

22 DIRECT EXAMINATION BY MR. GRAHAM:

23 Q. Mr. Lange, am I stating your last name
24 correctly?

25 A. Yes, sir.

1 **Q. Are -- will you please state your full**
2 **name then and spell the last name for the record.**

3 **A. It is Shawn E. Lange, L-a-n-g-e.**

4 **Q. By whom are you employed and in what**
5 **capacity?**

6 **A. I am employed by the Missouri Public**
7 **Service Commission Staff as a senior professional**
8 **engineer.**

9 **Q. And are you the Shawn Lange who prepared**
10 **what is I believe Exhibit Number 104, rebuttal**
11 **testimony?**

12 **A. Yes.**

13 **Q. Did you prepare any other testimony?**
14 **That's the only testimony? Exhibit 104, is your**
15 **testimony; is that right?**

16 **A. That is correct.**

17 **Q. Mr. Lange, do you have changes or**
18 **corrections to that testimony?**

19 **A. I have one change and --**

20 **Q. And is that something that you prepared a**
21 **document for?**

22 **A. Yes.**

23 **Q. Go ahead and explain to the Commission**
24 **what the change is and then we'll proceed from there.**

25 **A. On page seven, footnote nine I refer to a**

1 MISO document. That document in that -- and that
2 link, the link in particular, is no longer in service,
3 if you will. They purge the data every three years.
4 And so I have a new link that has the same information
5 as the previous link had.

6 Q. And so would you like to substitute
7 the -- the correct link or the new link for the old
8 link in your testimony?

9 A. I would.

10 Q. And is that a very, very long URL
11 address?

12 A. It is long.

13 MR. GRAHAM: May I approach the witness?

14 JUDGE SEYER: Yes. Yes.

15 MR. GRAHAM: Your Honor, I know it's off
16 the record because I'm up here, but is -- I think my
17 next -- Staff's next exhibit is going to be 111.

18 JUDGE SEYER: Yes. Yes. I show 111 is
19 the next Staff exhibit -- Staff -- Staff Exhibit
20 number.

21 (Staff Exhibit 111 was marked for
22 identification.)

23 JUDGE SEYER: And Mr. Graham, do you have
24 copies for us up here?

25 MR. GRAHAM: There you go.

1 BY MR. GRAHAM:

2 Q. I have handed you what's been marked for
3 identification purposes as Staff's Exhibit 111, I
4 believe; is that correct?

5 A. Yes.

6 Q. And can you describe what that is without
7 reading it all out?

8 A. It's -- it is basically what I have -- I
9 have just described.

10 Q. Does it state the old URL number that is
11 no longer in service?

12 A. Yes, sir.

13 Q. Does it state the proposed amendment with
14 the URL number that's going to go into -- what is it,
15 number footnote six?

16 A. Footnote nine.

17 Q. I beg your pardon. Footnote nine. And
18 that document contains the new URL number?

19 A. Yes, sir.

20 Q. And are you proposing to -- are you
21 asking leave to amend your testimony to reflect this
22 change to -- from one URL number to another in
23 footnote nine of your testimony, which is I believe
24 Exhibit Number -- whatever I said it was earlier --
25 Exhibit Number 104?

1 A. Yes, sir.

2 Q. Okay. And is that the only correction to
3 your testimony that you need to make?

4 A. Yes.

5 Q. Okay. With these changes is your
6 testimony true and correct, to the best of your
7 knowledge and belief?

8 A. Yes.

9 Q. If I were to ask you all the questions
10 that are contained within your testimony today, would
11 your answers be substantially the same?

12 A. Yes.

13 MR. GRAHAM: At this time I'm going to
14 offer Exhibit Number 104 and Exhibit 111, and I'm
15 going to tender the witness for cross-examination.

16 JUDGE SEYER: All right. Are there any
17 objections to Exhibit 104 and 111?

18 All right. Hearing none, 104 and 111 are
19 admitted into evidence.

20 (Staff Exhibit 104 was marked and
21 received into evidence; Exhibit 111 was received.)

22 JUDGE SEYER: All right. Mr. Williams?

23 MR. WILLIAMS: No, thank you, Judge.

24 JUDGE SEYER: Mr. Opitz?

25 MR. OPITZ: No, thank you, Your Honor.

1 JUDGE SEYER: Mr. Thompson, do you have
2 any cross?

3 MR. THOMPSON: No questions, Your Honor.

4 JUDGE SEYER: Ms. Greenwald?

5 MS. GREENWALD: No questions, Your Honor.

6 JUDGE SEYER: All right. Ms. Plescia?

7 MS. PLESCIA: No questions, thank you.

8 JUDGE SEYER: And Mr. Lowery?

9 MR. LOWERY: I do, Your Honor. Thank
10 you.

11 CROSS-EXAMINATION BY MR. LOWERY:

12 Q. Good morning, Mr. Lange.

13 A. Good morning.

14 Q. Schedule SEL-2 to your rebuttal testimony
15 is MISO's November 2022 Regional Resource Assessment
16 Report, correct?

17 A. Yes.

18 Q. You point to it, in part, for the
19 proposition that once renewable penetrations reach
20 30 to 40 percent of the energy being produced in MISO,
21 that planning and operating the grid would become
22 significantly more complex and challenging, right?

23 A. Correct.

24 Q. And you bold a paraphrase of one aspect
25 of the report indicating that to get to renewable

1 penetration level of 50 percent, MISO indicates that
2 there needs to be close coordination; is that right?

3 A. Yes, sir.

4 Q. And on that -- on the basis of the RRA
5 report and your observations about it, you indicate --
6 you give an opinion that Staff has some concerns about
7 whether Ameren Missouri is closely coordinating
8 enough; is that right?

9 A. Yes, sir.

10 Q. Could you -- do you have -- do you have a
11 copy of your testimony with you?

12 A. Yes, sir.

13 Q. Including SEL-2?

14 A. I believe I have all of it.

15 Q. Okay. You do?

16 A. I believe so.

17 Q. Okay. Well, we'll find out, I guess.
18 Could you turn to, please, page 22 of SEL-2 and
19 specifically focus on figure 14.

20 A. Page 22, figure 14?

21 Q. Yes. Let me know when you're there.

22 A. Okay. I am there.

23 Q. What does this report project the
24 combined percentage of energy production in MISO to be
25 from wind and solar in 2026?

1 A. 2026. I believe it shows 28 percent.

2 Q. So even MISO projects that it's not going
3 to get to the bottom end of that 30 to 60 -- or 30 to
4 40 percent inflection point by the end of 2026, right?

5 A. I believe that could be inferred.

6 Q. And MISO projects that penetration will
7 not reach that 50 percent number you mentioned until
8 close to 2036; isn't that right?

9 A. Using that same figure on that same page,
10 that would be what that would show.

11 Q. In 2036, MISO's projecting 51 percent,
12 right?

13 A. Correct.

14 MR. LOWERY: May I approach, Your Honor?

15 JUDGE SEYER: Yes.

16 BY MR. LOWERY:

17 Q Mr. Lange, your -- you read Mr. Michels'
18 direct testimony in this case, did you not?

19 A. Yes, sir.

20 Q. And you have some familiarity with his
21 schedules. Would that be fair?

22 A. Yes, sir.

23 Q. Would you agree that he included as one
24 of his schedules the Company's 2022 change in
25 preferred resource plan, that new preferred resource

1 plan filed last June?

2 A. Yes, sir.

3 Q. And I've handed you a copy of the
4 schedule which is Schedule MM-D2 to Mr. Michels'
5 direct testimony which reflects that 2022 preferred
6 resource plan, have I not?

7 A. That is what you have provided, yes.

8 Q. Can you turn to page two, figure two of
9 the document, MM -- Schedule MM-D2.

10 A. Okay. I am there.

11 Q. Figure two on page two of Schedule MM-D2
12 shows the expected mix by fuel, or in the case of
13 renewables I guess by the source of the energy, wind,
14 water, solar that produce electricity under the
15 preferred resource plan as of three future dates; is
16 that correct? Is that what it shows?

17 A. That is what that shows.

18 Q. Those dates are 2030, 2040 and 2050,
19 right?

20 A. That is what that shows, yes.

21 Q. So by 2030, the preferred resource plan
22 calls for renewables to make up less than a fourth of
23 Ameren Missouri's generation mix; is that right?

24 A. It's hard to decipher exactly how much.
25 It's a pie chart without, you know, percentages. It

1 is -- exactly how much I -- I --

2 JUDGE SEYER: Excuse me. Mr. Lange, I'm
3 going to ask you to move your microphone a little
4 closer.

5 THE WITNESS: I'm sorry, sir.

6 JUDGE SEYER: Thank you.

7 BY MR. LOWERY:

8 Q. Would you agree that it's approximately
9 25 percent or less, just looking at the size of the
10 various pie charts -- pies in the pie chart -- pie
11 slices, I should say, in the pie chart?

12 A. Approximately.

13 Q. How does that compare to MISO's
14 projection across its footprint in 2031 from your
15 Schedule SEL-2, figure 14 that we were just talking
16 about?

17 A. Figure 14 shows wind at 22 percent and
18 solar at 17 percent.

19 Q. Which is 39 percent, right?

20 A. Correct.

21 Q. As compared to that approximately
22 25 percent in 2030 under Ameren Missouri's preferred
23 resource plan, right?

24 A. I believe that's how the math would work
25 out, yes.

1 Q. Would you agree then that Ameren Missouri
2 is not projecting to shift toward renewables as fast
3 as MISO itself is expecting to shift toward renewables
4 throughout its footprint?

5 A. Citing those sources, yes.

6 Q. Well, you're not questioning the validity
7 of the sources in some respect, are you? That is
8 MISO's projection that you --

9 A. That --

10 Q. -- include as a schedule, right?

11 A. Correct.

12 Q. And the Company did file that just last
13 June as its own projection; is that right?

14 A. Correct.

15 Q. How about 2040? Would you agree that
16 Ameren -- under Ameren Missouri's preferred resource
17 plan, the renewables generation mix would still
18 comprise less than 50 percent as of 2040, assuming it
19 follows its preferred resource plan?

20 A. Assuming it files its preferred resource
21 plan, yes.

22 Q. How does that compare to MISO's
23 projection for renewables in 2041, just a year later?

24 A. Total renewables, if we're only looking
25 for wind and solar, it is 55 percent. If we include a

1 hybrid, then that goes to 60 percent.

2 MR. LOWERY: Judge, I need to offer --
3 get an exhibit marked, please. I believe it's Number
4 16.

5 JUDGE SEYER: Excuse me. It isn't 16,
6 it's 15.

7 MR. LOWERY: Isn't that the work papers
8 we're going to submit?

9 JUDGE SEYER: Okay.

10 (Ameren Exhibit 16 was marked for
11 identification.)

12 BY MR. LOWERY:

13 Q Mr. Lange, I've handed you what's been
14 marked for identification as Exhibit 16. Could you
15 please identify it?

16 A. What it states on the first page is the
17 2022/2023 Planning Resource Auction Results.

18 Q. I mean this is the slide deck con- --
19 containing -- I apologize. I'm backwards. We'll --
20 we'll do this one first and we'll come back to the
21 other one. I'm sorry about that.

22 This is the slide deck that you cited in
23 footnote eight of your rebuttal testimony, is it not?

24 A. The one that I have just --

25 Q. No.

1 A. -- edited or the one prior?

2 Q. The one you just edited was footnote
3 nine, was it not?

4 A. Yes.

5 Q. This slide deck you provided in -- you
6 cited to it and you provided an active link that
7 actually does work in footnote nine of your rebuttal
8 testimony. And this is that -- this is what it's
9 linked to, is it not?

10 A. I believe so.

11 Q. And it reflects the results of MISO's
12 2022/2023 Planning Reserve Auction, correct?

13 A. Yes.

14 Q. You refer in your testimony to the --
15 what's called the Planning Reserve Auction as the MISO
16 Capacity Auction, correct?

17 A. Yes.

18 Q. Would it be fair to say that the takeaway
19 from Exhibit 16, which is this Planning Reserve
20 Auction Results from MISO, is that MISO North was
21 short capacity and that this led to the Capacity
22 Auction Price clearing at CONE, cost of new entry?

23 A. Yes.

24 Q. You didn't include this in your rebuttal
25 testimony directly, although you linked to it. But

1 slide five of Exhibit 16 indicates that MISO North was
2 short, despite it importing 3,225 megawatts; isn't
3 that right?

4 A. Yes.

5 Q. And on slide nine, MISO essentially says
6 that unless more generation is added, shortfalls like
7 this will continue, do they not?

8 A. On slide nine?

9 Q. Yes. The heading at the top, doesn't
10 it -- isn't that what it, in substance, says?

11 A. Yes.

12 Q. Am I correct that slide 13 of Exhibit 16
13 as it's been marked in this case, provides granularity
14 about the extent of the shortfall; that is, the
15 capacity needed to meet projected loads and the
16 planning reserve margin requirement was 135.326
17 terawatts, but the auction cleared with only 134.08
18 terawatts being offered?

19 A. Yes.

20 Q. But it was -- but -- but -- but it was
21 just MISO's short -- excuse me.

22 But it was only MISO North that was
23 short. So the total shortfall I just pointed to was
24 actually greater in MISO North; isn't that right?

25 A. Yes.

1 Q. Could you turn to slide 20, please. Are
2 you there?

3 A. Yes, sir.

4 Q. As of last April when this report was
5 issued, solar/wind penetration in MISO was only
6 5 percent; isn't that right?

7 A. Yes.

8 MR. LOWERY: Your Honor with that, I
9 would offer Exhibit 16 -- or excuse me, yes, 16, I
10 believe it is, for the record.

11 MR. GRAHAM: Staff has no objection.

12 JUDGE SEYER: All right. Any other
13 parties object?

14 All right. Hearing none, Exhibit 16 is
15 admitted into evidence.

16 (Ameren Exhibit 16 was received into
17 evidence.)

18 MR. LOWERY: I need to get another
19 exhibit marked, Your Honor. It will be 17, I believe

20 (Ameren Exhibit 17 was marked for
21 identification.)

22 BY MR. LOWERY:

23 Q Mr. Lange I've -- or the court reporter
24 has handed you what's been marked for identification
25 as Exhibit 17. Can you please identify it?

1 A. This is the 2022 OMS MISO survey results.

2 Q. And this was cited to you in footnote --
3 by you in footnote five of your rebuttal testimony and
4 you provided an active link to it as well; is that
5 right?

6 A. Yes, sir.

7 Q. You reproduced slide ten from Exhibit 17
8 on page five of your rebuttal testimony, did you not?

9 A. I mean the slide five and what I provided
10 on page five are slightly different. It is not an
11 exact --

12 Q. Well, this is the document that you
13 linked to in your testimony, is it not?

14 A. Yes, sir.

15 Q. Are they materially different?

16 JUDGE SEYER: Mr. Lowery, where in his
17 testimony is that located?

18 MR. LOWERY: Exhibit 17 is a document
19 cited to and linked to in footnote five of his
20 rebuttal.

21 JUDGE SEYER: Do you have a page number
22 for that?

23 MR. LOWERY: I will sure get you one.

24 THE WITNESS: Footnote five, I am pulling
25 the map. I am not pulling --

1 BY MR. LOWERY:

2 Q. I may have a mis-reference.

3 A. I'm not pulling the information that --
4 that is on slide five.

5 JUDGE SEYER: All right. Now I'm even
6 more confused. Slide five or slide ten?

7 MR. LOWERY: I may have -- I may have
8 confused myself, Judge. If you bear with me just a
9 second, I'll try to clear it up.

10 BY MR. LOWERY:

11 Q. Let me just ask a question, maybe you can
12 help us clear it up, Mr. Lange. You did cite to the
13 document that's been marked as Exhibit 17 in your
14 testimony, did you not?

15 A. Yes, sir.

16 Q. And you did link to it in your testimony,
17 did you not?

18 A. Yes, sir.

19 Q. Can you tell us where you -- where you
20 linked to it?

21 A. So on page four, footnote five, I say: A
22 map showing the different zones are shown below.

23 And then I -- I go into "Below is the
24 results of the MISO OMS survey for the" --

25 Q. Okay. You've -- I think you've

1 **straightened me out.**

2 MR. LOWERY: Judge, I hope he's
3 straightened you out as well.

4 BY MR. LOWERY:

5 **Q Then is -- is the -- is the graph or**
6 **chart, whatever you want to call it, on page five of**
7 **your rebuttal testimony, that's the same chart that's**
8 **on slide ten of Exhibit 17, right?**

9 A. Yes, sir.

10 **Q. Okay.**

11 A. I'm sorry. For --

12 **Q. And then the map -- and then the map on**
13 **page four of your rebuttal testimony is the same map**
14 **as is on slides three of Exhibit 17, right?**

15 A. Yes, sir.

16 **Q. And in Exhibit 17, MISO provides**
17 **additional information and context that pertains to**
18 **the portion of the slide deck you produced, doesn't**
19 **it? Such as slide two.**

20 A. Yes, sir.

21 **Q. Slide four explains what the terms shown**
22 **on the charts mean, does it not?**

23 A. Yes, sir.

24 MR. LOWERY: Your Honor with that, I
25 would offer to admit Exhibit 17 into evidence.

1 JUDGE SEYER: Is there any objection to
2 the admission of Exhibit 17?

3 MR. GRAHAM: If I may just examine this a
4 minute more, Your Honor.

5 JUDGE SEYER: Sure.

6 MR. GRAHAM: No objection.

7 MR. LOWERY: Those are all my questions,
8 Your Honor.

9 JUDGE SEYER: And I hear no other
10 objection so admit -- I will admit Exhibit 17.

11 (Ameren Exhibit 17 was received into
12 evidence.)

13 JUDGE SEYER: Do any of the -- excuse me.
14 Do any of the Commissioners have any questions for
15 this witness?

16 CHAIR RUPP: No, thank you.

17 QUESTIONS BY JUDGE SEYER:

18 **Q. All right. Hearing none, I do have some**
19 **questions for you, Mr. Lange. Based on Staff's**
20 **assessment, when will Ameren Missouri need additional**
21 **capacity to meet its customers' needs?**

22 A. So based on information provided in this
23 case, 2027 it does show that there is a winter
24 capacity need.

25 **Q. And is that -- is that something that's**

1 **in your rebuttal testimony?**

2 A. It -- I believe it is in -- I believe it
3 is in Matt Michels' testimony.

4 **Q. Give me a second, please.**

5 A. So Mr. Michels' surrebuttal testimony,
6 page 29, figure nine.

7 **Q. Okay. If the Commission were to deny**
8 **the -- the CCN request, when would you expect -- or**
9 **what -- what would you expect Ameren Missouri to do to**
10 **make up the shortfall in capacity?**

11 A. Well, I believe that they have identified
12 other solutions to help with shortfall capacity -- the
13 shortfall of capacity in wintertime. I believe I have
14 outlined that in my rebuttal testimony. And I believe
15 Chairman Rupp -- I believe you -- you mentioned it
16 yesterday.

17 They -- they are evaluating options to
18 allow certain CTs at Peno Creek and at Audrain to have
19 the capability of running on fuel oil.

20 **Q. But they're -- they are currently in the**
21 **process of -- of evaluating that. So that's not a**
22 **certainty, correct?**

23 A. That is true.

24 **Q. What is your understanding of, ball park**
25 **figure, how long does it take to -- to construct a**

1 **solar facility start to finish?**

2 A. Probably around four or five years on
3 average, I would -- I would guess.

4 Q. Would -- if there were testimony in the
5 **record that it takes more on -- more in the**
6 **neighborhood of five to eight years, would you take**
7 **issue with that?**

8 A. Not necessarily. I mean there could be
9 things that pop up that -- that could influence that.

10 Q. Okay. Regardless of whether it's three
11 **to four, five to eight, whatever it might be, wouldn't**
12 **you agree that -- that a utility such as Ameren**
13 **Missouri can't wait until they are within a year or**
14 **two of needing that capacity to start on such a solar**
15 **project?**

16 A. I would agree that it -- it takes time
17 for planning, for zoning, for getting all the
18 appropriate permissions, to construct any kind of
19 facility.

20 Q. But -- but it's Staff's position, is it
21 **not, that the need is not there right now?**

22 A. Staff's position is they have not
23 demonstrated the need.

24 Q. Okay. In your opinion, is -- is the
25 **project as it stands, as it's currently been presented**

1 to the Commission, is it economically feasible?

2 A. I don't think I can answer the economics
3 of the project. I -- I think that would be a better
4 question for Mr. Luebbert or Mr. Stahlman.

5 Q. There was testimony yesterday from Ameren
6 Missouri's witness Lindsey Forsberg where she was
7 discussing the use of Investment Tax Credits versus
8 Production Tax Credits. And there were some schedules
9 where -- where she's showing some modeling of those
10 and she spoke to work papers and such that support
11 those models. Have you seen those work papers?

12 A. I have seen those work papers, but I am
13 not well versed in those work papers.

14 Q. Okay. Okay. All right. Those -- that's
15 all the questions I have.

16 JUDGE SEYER: Is there any recross?

17 MR. WILLIAMS: I believe I have one
18 question.

19 JUDGE SEYER: All right. Go ahead,
20 Mr. Williams.

21 RECROSS-EXAMINATION BY MR. WILLIAMS:

22 Q. Judge Seyer asked you about how long it
23 takes to build a solar plant from start to finish, and
24 you responded four to five years. How were you
25 identifying start and finish for purposes of answering

1 **that question?**

2 A. That is generally what I would see, so as
3 far as --

4 **Q. What are you identifying as the starting**
5 **point for coming up with your estimation of four to**
6 **five years?**

7 A. For my estimation, the starting point
8 would be, on average, kind of when we're aware of --
9 of the project. So either that is -- I'm sorry. Am
10 I --

11 **Q. I'm not looking for a time period. I'm**
12 **looking for what point in time that you are**
13 **identifying as being the starting point for coming up**
14 **with your estimation and the finishing point.**

15 A. So the finishing point would be -- I
16 don't know, an average in-service date. Commercially
17 operational, something along those lines.

18 As far as the start date, I was looking
19 at kind of going -- trying to recall other projects
20 that I have worked on as far as when Staff has become
21 aware of those projects versus the end point of, you
22 know, having them commercially operational.

23 JUDGE SEYER: All right. May I
24 interrupt, Mr. Williams?

25 MR. WILLIAMS: Sure.

1 FURTHER QUESTIONS BY JUDGE SEYER:

2 Q. So really it's more of what you consider
3 the start of the project. Do you consider that when a
4 utility like Ameren Missouri makes a decision that
5 they'd like to look into the possibility of building a
6 solar project? Or is it more when construction starts
7 or something in between?

8 A. Well, as far as other projects that I'm
9 aware of or that I have at least partially worked on,
10 it -- it depends. There have been projects where we
11 have gotten information about the RFP when it was let,
12 kind of what was -- you know, what was being sought
13 and that type of information.

14 Other projects we have not gotten
15 information until, you know, the utility company comes
16 in and lets us know either through meetings or through
17 other filings or -- or that.

18 JUDGE SEYER: Okay. Go ahead,
19 Mr. Williams.

20 RECROSS-EXAMINATION (CONT'D) BY MR. WILLIAMS:

21 Q. RFP, you mean Request for Proposals?

22 A. Yes, sir.

23 Q. And because a utility issues a Request
24 for Proposals does not necessarily mean that it's
25 actually going to go forward with a project, does it?

1 A. That is correct, it does not.

2 Q. No further questions. Thank you.

3 JUDGE SEYER: All right. Is there any
4 other recross?

5 MR. LOWERY: We have recross, Your Honor.

6 JUDGE SEYER: All right. Mr. Lowery, go
7 ahead.

8 RE-CROSS-EXAMINATION BY MR. LOWERY:

9 Q. Mr. Lange, continuing on that same
10 subject, what's -- what is the capacity of solar
11 projects that you have worked on as a member of the
12 Commission Staff? What's the biggest one?

13 A. I'm trying to recall. I -- I don't think
14 I can answer that question sitting right here.

15 Q. And I -- and just to clarify, I was
16 asking about nameplate capacity. Did you understand
17 that when I asked the question?

18 A. That was my understanding from --

19 Q. You would agree that no other Missouri
20 IOU regulated by the Commission has a solar facility
21 that's anywhere close to the size of the Boomtown
22 facility, wouldn't you?

23 A. I believe that is correct.

24 Q. Wouldn't you agree that any facility
25 you've actually worked on that the utility's brought

1 to the Commission for approval, for example, is
2 significantly smaller than the Boomtown facility, in
3 your personal experience?

4 A. I can't recall every case, but I would
5 say that some of the projects that I have worked on
6 have been substantially smaller.

7 Q. I mean how big is Ameren Missouri's
8 O'Fallon Energy Center, do you know?

9 A. I'm sorry. I have a lot of numbers
10 running in my head. I don't think I can answer that
11 right now.

12 Q. Do you have any personal experience with
13 identifying, locating, et cetera, solar projects to
14 potentially be built?

15 A. I'm sorry. Could you repeat the
16 question?

17 Q. Have you personally been involved in an
18 effort to go out and find and evaluate solar projects
19 that a utility might build?

20 A. Have I performed the evaluation?

21 Q. You can answer that question. And I'm
22 talking about the evaluation from a utility's
23 perspective, not an evaluation after the utility might
24 bring it to the Commission as to whether you agree
25 with the utility's evaluation.

1 A. I have not made that evaluation from --
2 from the utility's side of things, no.

3 **Q. You don't have any personal experience in**
4 **all the steps necessary, from issuing an RFP, to**
5 **evaluating the RFP results, to identifying a project,**
6 **to negotiating the contracts, et cetera. You --**
7 **you've never done that yourself, have you?**

8 A. From the utility's perspective, I have
9 not done that.

10 **Q. Well, I mean you haven't done it as a**
11 **Staff member either, have you?**

12 A. I have provided Staff position on certain
13 aspects of -- of the company's plan or -- or perhaps
14 RFP or along those lines. But as far as myself
15 putting out an RFP, I -- I have not done that.

16 **Q. You've never negotiated an agreement with**
17 **a developer to build any renewable facility, have you?**

18 MR. GRAHAM: Your Honor, I'm going to
19 now -- I let this go, but I'm going to interpose an
20 objection here that this far exceeds the scope of the
21 questions that were asked from the Bench.

22 MR. LOWERY: Well, I think the Bench
23 asked how long it takes to build or construct or
24 develop a renewable project. And all of the questions
25 I'm asking go to that timeline.

1 JUDGE SEYER: Right. But I think you've
2 made your point.

3 MR. LOWERY: Okay. Fair enough.

4 JUDGE SEYER: I'll sustain that
5 objection.

6 BY MR. LOWERY:

7 Q. You indicated you have reviewed the work
8 papers that the Judge asked you about, correct? But
9 you weren't -- I don't want to words in your mouth,
10 but you can disagree if I mischaracterize it. You --
11 you weren't a master of them or you weren't intimately
12 familiar with her operation. Was that a fair
13 characterization?

14 A. Yes.

15 Q. The company, I think on more than one
16 occasion, did make itself available -- I think
17 Ms. Forsberg specifically and perhaps Mr. Wills or
18 others -- to meet with and walk through and ask --
19 answer questions about those work papers; is that
20 fair?

21 A. I believe so.

22 Q. Well, I -- I think you participated in
23 those discussions, did you not?

24 A. I just don't know how many there may have
25 been that have not -- that I was not a part of.

1 **Q. Did you participate in at least two such**
2 **discussions?**

3 A. I believe so.

4 **Q. Okay. Thank you.**

5 MR. LOWERY: Those are all the questions
6 I have, Judge.

7 JUDGE SEYER: All right. Thank you.

8 Mr. Graham, do you have redirect?

9 MR. GRAHAM: Some. Am I on? I turned it
10 off. Now I'm on. Thank you, Your Honor. Yes, I have
11 some questions.

12 REDIRECT EXAMINATION BY MR. GRAHAM:

13 **Q. First of all, would Boomtown on its own**
14 **fulfill the winter capacity need that's been**
15 **identified?**

16 A. No.

17 **Q. Now, Mr. Lowery directed you to page nine**
18 **of the PPA. Can you read the title of that slide?**
19 **PRA, I beg your pardon.**

20 A. I'm sorry --

21 JUDGE SEYER: And that's Exhibit --
22 excuse me, Exhibit 16, correct?

23 MR. GRAHAM: I believe that's right.
24 Yes, that's 16.

25 THE WITNESS: Could you repeat the page

1 number, slide number?

2 BY MR. GRAHAM:

3 Q. Page nine. And I don't know that I have
4 the slide number. What is that, eight?

5 MR. LOWERY: Judge I -- it's actually 17
6 I -- just so the record's clear. I believe.

7 BY MR. GRAHAM:

8 Q. Looks like it's nine. page nine.

9 JUDGE SEYER: Well, let's get that
10 straight first. Because I thought the reference was
11 to the PRA, which I believe is Exhibit 16.

12 MR. GRAHAM: That's right. I'm referring
13 to page 16.

14 MR. LOWERY: You're right. I apologize,
15 Your Honor. I had them backwards.

16 MR. GRAHAM: It's page nine.

17 JUDGE SEYER: And Mr. Graham, I believe
18 if we want to call --

19 MR. GRAHAM: It's slide nine. I
20 understand.

21 JUDGE SEYER: -- slide and page are the
22 same numbers.

23 MR. GRAHAM: Yeah. But we probably
24 better decide which one we're going to call them for
25 the record. And I think everybody's been using the

1 expression "slide."

2 BY MR. GRAHAM:

3 Q. So do you understand the question --

4 JUDGE SEYER: That's fine.

5 BY MR. GRAHAM:

6 Q. -- as slide, Mr. Lange?

7 A. Sorry. Slide nine?

8 Q. Well, I'm going to -- I'm going to start
9 the question again.

10 Mr. Lowery directed you to either page
11 nine or slide nine, however you wish to understand it,
12 of the PRA. Can you read the title of the slide?

13 A. Slide nine, the title states Unless More
14 Capacity is Built that Can Supply Renewable -- or
15 sorry, Reliable Generation, Shortfalls Such as Those
16 Highlighted in this Year's Auction Will Continue.

17 Q. And can you define "reliable generation"
18 in your view?

19 A. Reliable generation, that can mean -- at
20 least in my mind, goes to dispatchability, less
21 variables that are -- you know, wind and solar are
22 dependent upon when the wind blows and when the --
23 when the sun is shining. Dispatchability tends to be
24 more reliable in that a unit, if given a signal, more
25 often than not, can generate and can generate up to

1 the level that is dispatched to.

2 JUDGE SEYER: Excuse me, Mr. Graham.
3 Could I ask you this: Do you believe that's what MISO
4 understands the term "reliable generation" to -- to
5 mean?

6 MR. GRAHAM: Your Honor, I think you mean
7 to direct the tens- -- the question to Mr. Lange and
8 not Mr. Graham.

9 JUDGE SEYER: Oh, I'm sorry. Did I say
10 Mr. Graham? Mr. Lange.

11 FURTHER QUESTIONS BY JUDGE SEYER:

12 **Q. So that's your understanding. That's**
13 **what you would understand reliable generation to mean.**
14 **But do you believe that's what MISO intended it to**
15 **mean for the sake of this document?**

16 A. I would say that I think in August when
17 MISO has -- has been here before the Commission
18 talking about these very same issues, that they have
19 taken a position that at some point, some time there
20 will need to be additional dispatchable resources that
21 is -- is installed in -- in the grid. And --

22 **Q. Okay. And by "dispatchable" you mean**
23 **when we need that generation, when we need that**
24 **energy, it can be brought online?**

25 A. Yes. That's how I would mean that in

1 that context, yes.

2 Q. Which would not be the case if it were
3 nighttime in the case of solar or the wind not blowing
4 in the case of windmills?

5 A. Correct.

6 JUDGE SEYER: Okay. Go ahead,
7 Mr. Graham. I'm sorry to -- to highjack your
8 questioning.

9 MR. GRAHAM: Thank you, Your Honor.

10 REDIRECT EXAMINATION (CONT'D) BY MR. GRAHAM:

11 Q. Had you completed your discussion, your
12 understanding of the -- of the term "reliable
13 generation" I think the Judge interposed a question.
14 I wasn't sure whether you were done with your answer.

15 A. I believe I -- I am done.

16 Q. Okay. Thank you. Judge asked the
17 question about need and you stated that the Staff's
18 position is that the company has not demonstrated
19 need. Can you elaborate on that and state what, in
20 your mind, speaking as the Staff's witness, is missing
21 from Ameren's case that causes you to conclude that it
22 has not sustained its burden?

23 A. Sure. Yesterday, every Ameren witness
24 demonstrated -- well, at least talked about this
25 energy need.

1 What I have gathered from the work papers
2 and information from Matt Michels and -- and Ameren
3 witnesses and work papers and information that has
4 been provided in this case, I would refer to that more
5 as a net purchaser situation; that we currently have
6 utilities in the state that are in a net purchasing
7 situation.

8 That in and of itself does not mean that
9 the grid is going to collapse because it's in a net
10 energy situation and they are a net purchaser. It
11 just means that, you know -- and what they have
12 provided is an annual net purchase amount.

13 So a lot of this is dependent upon, you
14 know, the hours in which there is need, what the load
15 is doing in those hours, what the assumed losses are
16 for the load, what the assumed growth is for the load,
17 what -- what all of that information is doing in -- in
18 those hours, as well as what assumptions for fuel,
19 what assumptions for fuel price, what assumptions for
20 planned outages, what all of that is doing at the same
21 time.

22 And so the company has not provided
23 information to show where the shortfall is on an
24 hourly basis or over the year. They show there is a
25 net purchase situation at the end of the year. I --

1 I -- I -- I don't know how I can equate a net purchase
2 situation to an energy need.

3 Q. All right. Do you recall Mr. Lowery's
4 questions challenging whether or not you had ever
5 worked on a project -- a solar-powered project of the
6 magnitude of Boomtown? You remember those line of
7 questions?

8 A. Yes, sir.

9 Q. Do you remember his line of questions
10 referencing you by way of comparison to much -- as he
11 may have described it, much smaller projects?

12 A. Yes, sir.

13 Q. Okay. Did you, in fact, work on the Huck
14 Finn case?

15 A. Yes, sir.

16 Q. Is that a comparable case to the Boomtown
17 case that we have before us today in --

18 A. Comparable --

19 Q. -- in magnitude, in size, in complexity?

20 A. Largely, yes.

21 Q. Okay. I believe that concludes my
22 questions.

23 FURTHER QUESTIONS BY JUDGE SEYER:

24 Q. All right. Just -- Mr. Lange, one short
25 question. If I were to tell you that in that Huck

1 Finn solar project, that the application was
2 requesting 200 megawatts, would that -- would you
3 agree with that or --

4 A. Yes, sir.

5 Q. -- does that sound familiar?

6 A. That -- that does sound familiar, sir.

7 Q. And that is -- that is compared with the
8 150 megawatts --

9 A. That is correct, yes.

10 Q. -- in this current case?

11 A. Yes, sir.

12 Q. All right. Thank you. All right.

13 And -- and the Commission appreciates your testimony
14 and you may step down.

15 A. Thank you.

16 JUDGE SEYER: All right. It is about
17 12:07. Let's break for lunch until 1:15. Is that
18 acceptable? Okay. Let's go off the record.

19 (A recess was taken.)

20 JUDGE SEYER: All right. Let's go back
21 on the record. All right. We are back on the record.
22 Mr. Graham, call your next witness.

23 MR. GRAHAM: Yes. Dr. Seoung Joun Won.

24 JUDGE SEYER: Good afternoon.

25 THE WITNESS: Good afternoon.

1 JUDGE SEYER: Would you raise your right
2 hand, please.

3 (Witness sworn.)

4 JUDGE SEYER: Thank you. Mr. Graham, you
5 may proceed.

6 SEOUNG JOUN WON, Ph.D., being first duly sworn,
7 testified as follows:

8 DIRECT EXAMINATION BY MR. GRAHAM:

9 Q. Dr. Won, would you state your full name
10 and please spell your last name for the record.

11 A. My name is Seung Joun Won Last name
12 W-o-n.

13 Q. Thank you. Dr. Won, who -- who employs
14 you and in what capacity?

15 A. I work for Missouri Public Service
16 Commission as the manager, Financial Analysis
17 Department.

18 Q. And are you the same Dr. Won who prepared
19 or caused to be prepared portions of Staff's Exhibit
20 Number 107?

21 A. Yes.

22 Q. I believe that's rebuttal testimony; is
23 that right?

24 A. Yes.

25 Q. Do you have any changes or corrections to

1 **your testimony?**

2 A. No, I don't.

3 **Q. So is your testimony crew -- true and**
4 **correct, to the best of your knowledge and belief?**

5 A. Yes.

6 **Q. If I were to ask you the same questions**
7 **that were posed to you in that earlier testimony,**
8 **would your answers be substantially the same?**

9 A. Yes.

10 MR. GRAHAM: I'm going to offer into
11 evidence Staff's Exhibit Number 107 and tender the
12 witness for cross-examination.

13 JUDGE SEYER: Is there any objection to
14 the admission of Exhibit 107?

15 All right. Hearing none, 107 is
16 admitted.

17 (Staff Exhibit 107 was marked and
18 received into evidence.)

19 MR. GRAHAM: And if it wasn't clear, I've
20 tendered Dr. Won for cross-examination.

21 JUDGE SEYER: All right. Mr. Williams,
22 do you have cross-examination for the witness?

23 MR. WILLIAMS: No, thank you.

24 JUDGE SEYER: All right. Do any of the
25 other parties have cross-examination?

1 MS. GRUBBS: The company does not.

2 JUDGE SEYER: All right. Do any of the
3 Commissioners have questions for this witness?

4 CHAIR RUPP: Not today. Thanks.

5 JUDGE SEYER: Dr. Won, I do have
6 questions, so Mr. Lowery, your instincts were correct.

7 QUESTIONS BY JUDGE SEYER:

8 Q. Did you have an opportunity to hear
9 testimony from yesterday?

10 A. Not all.

11 Q. Okay. Did you hear any of Ameren --
12 Ameren Missouri witness Lindsey Forsberg's testimony?

13 A. Some of that.

14 Q. Are you familiar with -- just a second
15 here -- the schedules that were made a part of her
16 surrebuttal testimony? There is a model -- there --
17 there's a project scenario modeling.

18 A. I know, but I not detailed investigation
19 about that.

20 Q. Okay. It -- it -- if I were to show you
21 that or -- or have you pull up that schedule, would
22 you be in a position to answer questions about it?

23 A. I may not.

24 Q. Okay. I'm going to go ahead and ask the
25 question anyway. There -- she models different

1 scenarios and -- and introduces a discount rate. Are
2 you -- do you have any familiarity with that?

3 A. Yes, I know the -- what is the discount
4 rate.

5 Q. And in her -- in her modeling
6 assumptions, she has that listed under revenue
7 requirement parameters. So what -- what -- what is
8 that discount rate? Not the number, but --

9 A. So discount rate is used for the net
10 present value of the project. So that is related to
11 economy feasibility to compare to the project to
12 project. So my expertise, financial ability. That
13 means Ameren Missouri can fund to the project for it
14 now.

15 Q. Uh-huh.

16 A. It's a little different topic.

17 Q. Okay. So you -- you wouldn't feel
18 comfortable testifying as to whether you thought their
19 discount rate was reasonable or not?

20 A. That also depends on the market situation
21 and depends on the project proposed. So I didn't
22 investigate that topic in this proceeding.

23 Q. Okay. And that modeling had to do with
24 whether investment tax credits would be part of this
25 project or whether production tax credits would be

1 part of the project. And there were -- Ms. Forsberg
2 testified yesterday that there were work papers that
3 supported her numbers. Did you have any -- did you
4 have occasion to review those work papers?

5 A. No.

6 Q. Okay. When it comes to the project, the
7 solar farm, would it be a part of Ameren's rate base
8 for its useful life of 30 years?

9 A. So would you rephrase your question?

10 Q. The -- the estimated life cycle of the
11 solar farm is 30 years -- its useful life. Would you
12 assume that that solar farm would be made a part of
13 the rate base for those entire 30 years?

14 A. So that topic also, I'm not an expert for
15 that.

16 Q. Okay.

17 A. Sorry about that.

18 Q. No, that's all right. Correct me if I'm
19 wrong, but did your testimony touch on those two tax
20 credit programs?

21 A. So what I did is I introduced what --
22 their plan, and then they cancelled the original plan.
23 And then -- what they have planned. But then my
24 decision is not based on their -- regarding the tax
25 credit related matter is not my main cause of this

1 decision to Ameren Missouri has a financial ability to
2 the project.

3 **Q. Okay. But in your testimony you stated,**
4 **did you not, that you support the Production Tax**
5 **Credit versus the Investment Tax Credit?**

6 A. So that is the -- I described what they
7 report to us. And then as we know, the detail, the
8 project plan, is not set up yet. And then that is a
9 subject to that if they have some real plan, they
10 needed to come back to the -- another request for the
11 Commission.

12 **Q. So are you saying at -- at a particular**
13 **point in time when it appeared that Ameren Missouri**
14 **would use the Production Tax Credits, are you saying**
15 **at that time that you supported that?**

16 A. If they -- if they provide enough
17 information, then we can review and then we can decide
18 if that is proper or not.

19 **Q. Do you have any -- do you have any**
20 **opinion over -- or any opinion about the benefits of**
21 **one tax program over the other?**

22 A. No.

23 **Q. The Investment Tax Credit program**
24 **typically involves a tax equity partner. Does Staff**
25 **have an opinion on -- on whether that is more**

1 **advantageous to ratepayers versus use of the**
2 **Production Tax Credit?**

3 A. Not right now.

4 **Q. I'm sorry?**

5 A. Not right now. I have no --

6 **Q. Not right now?**

7 A. Yeah.

8 **Q. Okay. All right. That's all the**
9 **questions I have.**

10 JUDGE SEYER: Is there any recross? All
11 right. Any redirect, Mr. Graham?

12 MR. GRAHAM: No, Your Honor.

13 JUDGE SEYER: All right. Thank you,
14 Dr. Won.

15 THE WITNESS: Thank you.

16 JUDGE SEYER: Mr. Graham, call your next
17 witness.

18 MR. GRAHAM: Brad Fortson.

19 JUDGE SEYER: All right. Good afternoon,
20 Mr. Fortson. Would you raise your right hand, please?

21 (Witness sworn.)

22 JUDGE SEYER: All right. Thank you.
23 Mr. Graham, you may go ahead.

24 MR. GRAHAM: Thank you, Your Honor.

25 BRAD J. FORTSON, being first duly sworn, testified as

1 follows:

2 DIRECT EXAMINATION BY MR. GRAHAM:

3 Q. Mr. Fortson, would you state your full
4 name, please, and spell your last name for the record.

5 A. Brad J. Fortson, F-o-r-t-s-o-n.

6 Q. Mr. Fortson, who employs you and in what
7 capacity?

8 A. I'm employed by the Missouri Public
9 Service Commission as a regulatory compliance manager.

10 Q. And Mr. Fortson, are you the same
11 Mr. Fortson who prepared or caused to be prepared
12 Staff's Exhibit Number 102?

13 A. I am.

14 Q. Do you have any changes or corrections to
15 your testimony?

16 A. I do not.

17 Q. Is your testimony true and correct, to
18 the best of your knowledge and belief?

19 A. It is.

20 Q. If I were to ask you the same questions
21 that are posed to you in that testimony, would your
22 answers today be substantially the same?

23 A. They would.

24 MR. GRAHAM: At this time, Your Honor,
25 I'm going to offer into evidence Exhibit Number 102.

1 JUDGE SEYER: All right. Is there any --
2 is there any objection to the admission of 102?

3 All right. Hearing none, Exhibit 102 is
4 admitted into evidence.

5 (Staff Exhibit 102 was marked and
6 received into evidence.)

7 MR. GRAHAM: Staff tenders the witness
8 for cross-examination.

9 JUDGE SEYER: Mr. Williams, do you have
10 any questions for the witness?

11 MR. WILLIAMS: Not at this time, thank
12 you.

13 JUDGE SEYER: All right. Mr. Opitz?

14 MR. OPITZ: No, thank you, Your Honor.

15 JUDGE SEYER: Mr. Thompson?

16 MR. THOMPSON: No questions, Your Honor.

17 JUDGE SEYER: Ms. Greenwald?

18 MS. GREENWALD: No questions, Your Honor.

19 JUDGE SEYER: Ms. Plescia?

20 MS. PLESCIA: No questions, Your Honor.

21 JUDGE SEYER: All right. Mr. Lowery?

22 MR. LOWERY: Just a couple, Your Honor, I
23 think.

24 CROSS-EXAMINATION BY MR. LOWERY:

25 Q. Good afternoon, Mr. Fortson.

1 A. Good afternoon.

2 Q. In the past few preferred resource plans
3 for Ameren Missouri prior to the 20 -- the change in
4 the preferred resource plan filed last June, Ameren
5 Missouri's preferred resource plan didn't really call
6 for any major generation additions during the
7 implementation period, right?

8 A. That's correct.

9 Q. And -- and the reason it didn't call
10 for -- if it did call for any major generation
11 additions, it called for them beyond the three-year
12 implementation period; in fact, well beyond generally
13 speaking. Isn't that right?

14 A. Depending what you consider "well
15 beyond," but beyond the implementation period, yes.

16 Q. Well, like the combined-cycle plants that
17 were out in the 2030s and any of those any other IRPs;
18 isn't that right?

19 A. Yes.

20 Q. Would you agree that's well beyond the
21 implementation period?

22 A. Sure.

23 Q. And in your experience, your experience
24 with Ameren preferred resource plans, again, prior to
25 the June 22 of '22 filing was that as part of the

1 annual update process, Staff and maybe other
2 stakeholders had meetings with Ameren and Ameren would
3 essentially express as part of those annual updates
4 that it was business as usual, nothing major had
5 changed; is that right?

6 A. That was a -- yeah, that's typically
7 generally how those meetings went.

8 Q. You would agree that under the
9 Commission's IRP rules, the implementation period is
10 three years after the triennial IRP is filed?

11 A. I believe that's how it's defined.

12 Q. And you would agree that the -- the
13 Commission's IRP rules call for a preferred resource
14 plan, and as a part of that -- or as at least part of
15 the rules, there's also supposed to be an
16 implementation plan; is that right?

17 A. Yes.

18 Q. The application in this case was filed
19 last July and that was within the three-year
20 implementation period for the 2020 tri-annual --
21 triennial IRP, correct?

22 A. Within the implementation period, yes.

23 Q. Thank you, Mr. Fortson.

24 JUDGE SEYER: Are there any questions
25 from the Commissioners for this witness

1 CHAIR RUPP: Yeah.

2 JUDGE SEYER: Go ahead, Chairman.

3 CHAIR RUPP: Thank you, Judge.

4 QUESTIONS BY CHAIR RUPP:

5 Q. Good afternoon.

6 A. Good afternoon.

7 Q. I think yesterday somebody brought up
8 Missouri -- Ameren Missouri's solar partnership
9 program. Did the Commission put a hold-harmless
10 provision or a 50/50 sharing mechanism in that case?

11 A. I apologize. I can't -- I don't know.

12 Q. Okay. Can you remember any CCN cases in
13 the last ten years where the Commission has done
14 something similar to that?

15 A. So in the last ten years, I haven't
16 been -- I haven't participated in many really CCN
17 cases until recently. So Mr. Luebbert might be able
18 to answer that better.

19 Q. All right. Cool. Thanks.

20 JUDGE SEYER: All right. Any other
21 questions from the Commissioners?

22 COMMISSIONER HOLSMAN: No questions,
23 Judge. Thank you. Holsman.

24 QUESTIONS BY JUDGE SEYER:

25 Q. All right. Mr. Fortson, I do have a few

1 **questions. How are the sale of solar Renewable Energy**
2 **Credits currently treated?**

3 A. So if Ameren is to -- was to sell the
4 Renewable Energy Credits?

5 **Q. Right.**

6 A. So if I recall right -- I could be
7 getting out of my wheelhouse a little bit, but the
8 sales of Renewable Energy Credits -- well, the
9 revenues from the sales of RECs will typically flow
10 through the FAC.

11 **Q. And in this case, if the CCN and the --**
12 **and the RSP is approved, will that -- will the**
13 **treatment of the sale of those solar RECs continue in**
14 **the same fashion?**

15 A. I believe so. I -- I didn't focus on my
16 testimony wasn't focused much at all on the program,
17 but that is my understanding.

18 **Q. Okay. Based on Staff's assessment, when**
19 **will Ameren Missouri need additional capacity to meet**
20 **its customers' needs?**

21 A. So I believe I would agree with
22 Mr. Lange's testimony that as presented in
23 Mr. Michels' testimony, there would be a shortfall of
24 winter capacity in 2027.

25 **Q. '27. And you've been in here and heard**

1 other witnesses' testimony. The same -- I've got the
2 same question or questions for you about
3 Ms. Forsberg's testimony and her modeling of one --
4 excuse me, one tax credit program versus the other tax
5 credit program. Did you review that modeling?

6 A. For purposes of my testimony, I did not.
7 I apologize you have to keep asking these questions.
8 But -- but no, I don't have a specific answer to -- to
9 those questions.

10 Q. So you didn't -- you said for the purpose
11 of your testimony. But have you -- have you seen
12 that -- those schedules and have you seen the work
13 papers?

14 A. I can't say for certain.

15 Q. Okay.

16 A. Through my review I -- there's a hot --
17 there's a likelihood that I would have seen them, but
18 to recall them off -- offhand right now, I can't.

19 Q. Right. You weren't tasked with
20 reviewing --

21 A. Correct.

22 Q. -- and -- and judging the reasonableness
23 or -- or anything like that?

24 A. Correct.

25 JUDGE SEYER: Okay. All right. Is there

1 any -- is there any recross?

2 MR. LOWERY: I guess a couple questions,
3 Your Honor.

4 JUDGE SEYER: All right. Go ahead,
5 Mr. Lowery.

6 RECROSS-EXAMINATION BY MR. LOWERY:

7 Q Mr. Fortson, you indicated that you think
8 that when solar RECs are sold, that the revenues from
9 those would flow through the company's Fuel Adjustment
10 Clause, right?

11 A. Yes. I believe that's how that would
12 work.

13 Q. But how sure are you of that?

14 A. So it's been a little while since I've
15 dealt directly with the RECs and how -- directly with
16 RECs and Ameren Missouri in particular, so I may be
17 confusing utilities and -- and functionality of that.

18 Q. If you know -- first of all, the only
19 RECs -- and if you know, the only RECs that Ameren
20 Missouri has produced thus far from any renewable
21 generation facilities that would flow through any
22 mechanism have been for RES compliance; isn't that
23 right?

24 A. I believe that's correct.

25 Q. And the RECs that would be generated by

1 this facility would not be generated for RES
2 compliance, right?

3 A. That's my understanding.

4 Q. So if -- and I'm just really trying to
5 clear up the record. I'm not really trying to prove
6 you were right or wrong about anything.

7 A. That's fair.

8 Q. But I just want to make sure the
9 Commission has the accurate information.

10 You don't recall, for example, that
11 RECs -- REC revenues for RECs retired for renewable
12 energy center compliance actually flow through the
13 RESRAM. Does that sound right?

14 A. That does sound right.

15 Q. You're aware, are you not, that Ameren
16 Missouri has proposed a tracker in this case that is
17 designed to make sure all of the revenues from the
18 program will be -- because there's not a rider
19 mechanism authorized by statute, but will be deferred
20 on its books and then they can be included in revenue
21 requirement in each rate review, right?

22 A. I'm not greatly familiar with it, but
23 that sounds accurate.

24 Q. And if the Commission adopted that
25 tracker, allowed Ameren Missouri to defer them and

1 then presumably the Commission would certainly allow
2 an offset, a reduction to revenue requirement in base
3 rates, then all those revenues that the program was
4 accruing would come back to customers; isn't that
5 right?

6 A. Can you say that one more time? I
7 apologize.

8 Q. Let's say the -- let's say the facility
9 generates, you know 100,000 RECs -- this is just an
10 illustration --

11 A. Uh-huh.

12 Q. -- at five bucks a REC in between rate
13 cases. So that would be \$500,000 of revenue, right?

14 A. Sure.

15 Q. If there's a tracker that says Ameren
16 Missouri you track and defer that 500,000, when Ameren
17 Missouri comes in for a rate review, Ameren Missouri
18 would reduce its revenue requirement by either 500,000
19 if it was a one-year amortization period or maybe if
20 it was five years, it would be 100,000. But in -- in
21 either case, that \$500,000 through base rates would
22 come back to customers, right?

23 A. So I don't think I would argue that it
24 comes back to customers, but it's never -- it's a
25 benefit that's not offsetting costs, so I guess I

1 wouldn't call it a benefit. But revenues are flowing
2 back to customers based off what you just said, if I
3 understood it right.

4 Q. I mean if it was the FAC or the RESRAM,
5 the revenues would flow back more in real time, it
6 would be quicker, because you've got this ongoing
7 periodic adjustment through a rider, right?

8 A. Sure. But there's still the cost of the
9 project or the program in base rates.

10 Q. Aren't there still the cost of renewable
11 energy standard resources in base rates too, right?

12 A. Sure.

13 Q. But the REC revenue comes back through a
14 rider, right?

15 A. It does.

16 Q. And here in -- in the -- in the case of
17 the Company's tracker proposal, the REC revenue is
18 going to come back. It's just going to come back in a
19 different manner; isn't that fair?

20 A. I believe it is fair, but there's
21 probably others that can --

22 Q. Well, you've answered --

23 A. -- answer that --

24 Q. -- my question.

25 A. -- more fully.

1 MR. LOWERY: That's all I have, Judge.

2 JUDGE SEYER: Mr. Lowery, can I ask you
3 this just for the sake of clarity on the record. You
4 referred to RESRAM, R-E-S-R-A-M. Can you tell us what
5 that stands for?

6 MR. LOWERY: Renewable Energy Standard
7 Rate Adjustment Mechanism.

8 JUDGE SEYER: All right. Thank you.

9 MR. GRAHAM: Sorry. Did you --

10 JUDGE SEYER: No, I did not. But I will
11 ask you now. Do you have redirect for the witness?

12 MR. GRAHAM: Thank you, Your Honor. Just
13 a couple, almost procedural type questions.

14 REDIRECT EXAMINATION BY MR. GRAHAM:

15 Q. Would Staff Witnesses Cunigan and
16 Stahlman be able to address specifics about the RSP?

17 A. Yes. Why I sort of caveated that I might
18 have been getting out of my wheelhouse a little bit.

19 Q. And those specific to RECs could be
20 addressed to Mr. Cunigan?

21 A. Yes.

22 Q. And questions regarding Ms. Forsberg's
23 work papers could be addressed to Witnesses Stahlman
24 or Luebbert?

25 A. Yes.

1 MR. GRAHAM: That's all the questions
2 Staff has.

3 JUDGE SEYER: All right. Thank you for
4 your testimony, Mr. Fortson.

5 THE WITNESS: Thank you.

6 JUDGE SEYER: And Mr. Graham, you can
7 call your next witness.

8 MR. GRAHAM: Mr. -- Mr. Stahlman.

9 JUDGE SEYER: Mr. Stahlman, you have your
10 right hand raised. Thank you.

11 (Witness sworn.)

12 JUDGE SEYER: All right. Thank you.

13 MR. GRAHAM: May I proceed, Your Honor?

14 JUDGE SEYER: You may.

15 MICHAEL STAHLMAN, being first duly sworn, testified as
16 follows:

17 DIRECT EXAMINATION BY MR. GRAHAM:

18 Q. Mr. Stahlman, would you please state your
19 full name and spell your last name for the record?

20 A. Michael L. Stahlman, S-t-a-h-l-m-a-n.

21 Q. And Mr. Stahlman, who employs you and in
22 what capacity?

23 A. The Missouri Public Service Commission as
24 a regulatory economist.

25 Q. And are you the same Michael Stahlman who

1 prepared or caused to be prepared Staff's Exhibit
2 Number 106, which is rebuttal testimony?

3 A. Yes. And also I have surrebuttal
4 testimony.

5 Q. And is your surrebuttal 109?

6 A. Yes.

7 Q. Thank you for your help on that. Do you
8 have any changes or corrections to the testimony in
9 either of those exhibits?

10 A. With what is noted in my surrebuttal
11 testimony, no.

12 Q. And I believe that -- well, would you --
13 would you explain what that -- what you mean by
14 that -- that change or correction or whatever to the
15 surrebuttal, which is Exhibit Number 109?

16 A. In my surrebuttal on page one, starting
17 at line 17, I make a correction to my rebuttal
18 testimony to correct some of the highly confidential
19 numbers.

20 Q. Okay. And have you written that into
21 some document, those changes?

22 A. That's -- that's in my surrebuttal
23 testimony.

24 Q. And that is -- that has been filed with
25 the Commission?

1 A. Yes. Exhibit 109, I think.

2 Q. So that the corrections that you've made,
3 you have already made in the document that has been
4 filed in EFIS as your Exhibit Number -- what -- that
5 is Exhibit Number 109?

6 A. Correct.

7 Q. Okay. I think the nature of my questions
8 is that beyond those kinds of corrections that have
9 been filed in EFIS, do you have, as you sit here
10 today, any other updates?

11 A. No.

12 Q. Okay. So with the changes to Exhibit
13 Number -- well, with the changes that apparently are
14 now present in Exhibit 109, is your testimony true and
15 correct, to the best of your knowledge?

16 A. Yes.

17 Q. And if I were asked -- if I were to ask
18 you the same questions that were posed to you in those
19 two exhibits, would your answers today be
20 substantially the same?

21 A. Yes.

22 MR. GRAHAM: At this time, Your Honor, I
23 would tender into evidence Staff's Exhibits 106 and
24 109 as explained by the witness.

25 JUDGE SEYER: Is there any -- is there

1 any objection to the admission of Exhibit 106 and 109?

2 All right. Exhibits 106 and 109 are
3 admitted into evidence.

4 (Staff Exhibit 106 and Exhibit 109 were
5 marked and received into evidence.)

6 MR. GRAHAM: Thank you, Your Honor. At
7 this time Staff tenders the witness for
8 cross-examination.

9 JUDGE SEYER: All right. Mr. Williams,
10 do you have questions?

11 MR. WILLIAMS: Not at this time. Thank
12 you.

13 JUDGE SEYER: All right. Do any of the
14 other parties have questions on cross-examination for
15 this witness?

16 MR. LOWERY: Not at this time.

17 JUDGE SEYER: All right. Mr. -- do the
18 Commissioners have any questions?

19 CHAIR RUPP: I do not.

20 JUDGE SEYER: Okay.

21 COMMISSIONER HOLSMAN: No questions,
22 Judge. Thank you.

23 JUDGE SEYER: All right.

24 QUESTIONS BY JUDGE SEYER:

25 Q. All right. Mr. Stahlman, I do have some

1 questions. Can I refer your -- refer you to your
2 rebuttal testimony, page eight?

3 A. I am there.

4 Q. All right. And without -- without citing
5 any of the numbers, because it is highly confidential
6 document, there is quite a change in the annual
7 revenue requirement in the year 2020 -- or excuse me,
8 2035. What -- what has occurred there or what is the
9 significance of that change in the annual revenue
10 requirement?

11 A. I think recalling from the work paper,
12 that was when the Production Tax Credits expired
13 pot- -- or it was either that or when the pro- -- the
14 RSP program ceased to put dollars into the -- into
15 this revenue requirement.

16 Q. Okay. And how far into the project would
17 the RSP not be?

18 A. It was anticipated to be 15 years out of
19 the 30 --

20 Q. Okay. And this --

21 A. -- projected, so.

22 Q. This Figure 4 starts in 2020 --

23 A. 2035 so --

24 Q. Yeah.

25 A. -- I would anticipate this is dealing

1 with the expiration of the Production Tax Credits.

2 Q. Okay. Now I'd like to direct you to your
3 surrebuttal testimony. On the second page, at the
4 bottom of that page you -- you -- let's see. You
5 state, "The economics of the Boomtown project are
6 dependent on the type of tax credit utilized, actual
7 energy production and associated revenues."

8 Given that Ameren Missouri has not
9 selected which tax credit they will use, how could
10 that impact the projected costs and economics?

11 A. So when we're looking at the revenue
12 requirement on -- of the project, the reason why we're
13 just -- just addressing revenue requirement for this
14 case was mainly because the -- Ameren's -- in their
15 direct testimony made a claim that this would be
16 essentially re- -- projected to be revenue neutral
17 throughout those 15 years; that the subscribers would
18 be largely paying for this project.

19 And it was our understanding at the time
20 that the -- the -- the RSP program was driving a lot
21 of the need for this project in particular. And it
22 seems that they've changed that too in their
23 surrebuttal positions.

24 But -- so here when we're looking, again,
25 just at the revenue requirement portion -- parts of

1 it, the increase of costs and the -- of the projected
2 project and the potential switching to different tax
3 credits is going to have a large change.

4 Ms. Forsberg's surrebuttal assumed the --
5 that -- that another company would essentially provide
6 them that loan. And that was not -- that's not
7 actually what the current case is. That is projecting
8 that from a case they have not filed yet in this case.
9 We don't have to -- with us right now an -- an ITC
10 modeled for what they're currently projecting.

11 Staff did look at the Production Tax
12 Credit. And as filed in the original case, we put in
13 two changes to that original filing, which was to
14 increase the cost to the HC number of the now
15 projected cost, and we also added an adder to the
16 Production Tax Credit based on their testimony.

17 And when we ran those numbers, we act- --
18 we found that the cases are much worse now than what
19 they were when they had direct filed. So that there
20 was no scenario that did not have a net present value
21 of revenue requirement that was less than zero.

22 **Q. When you -- when you mentioned another**
23 **company, would that be the -- would that be a tax**
24 **equity --**

25 **A.** That's that tax equity partner. The name

1 escaped me at the --

2 Q. Okay. So at various times during this
3 hearing I feel like I've been playing a little bit of
4 a Whac-A-Mole game trying to find the correct witness
5 to ask about Ms. Forsberg's modeling. Can you speak
6 to that?

7 A. I can.

8 Q. Okay. So did you have access to or
9 review her modeling that was used to develop the
10 scenarios that she presented in her -- her schedules
11 to her direct testimony, as well as her supplemental
12 direct testimony and surrebuttal?

13 A. I reviewed a lot of the -- I -- I can't
14 say that I specifically challenged each and every
15 number, but I did review a -- a good portion of her
16 work, yes.

17 Q. Okay. And did you actually see her work
18 papers?

19 A. Yes.

20 Q. And reviewed those closely?

21 A. Yes.

22 Q. Okay. And you had discussions with
23 Ameren about those work papers?

24 A. I don't know that I've actually discussed
25 with Ameren those work papers. I know I've had

1 internal discussions with other Staff members.

2 Q. Did those -- did those work papers
3 essentially speak for themselves?

4 A. Yes.

5 Q. Okay. Did you find those work papers and
6 that modeling to be reliable?

7 A. We -- we relied on -- we took their
8 assumptions that yes, the -- the assumptions that were
9 modeled in those we took to be reliable, yes. With
10 the exception with the surrebuttal includes the tax
11 equity partner. And that is not something that is
12 currently subject to this case. We did not address
13 the presence of a tax equity partner at all.

14 Q. And is that because at the time that --
15 that those work papers were -- were given to you by
16 Ameren, the assumption was that they were going to --
17 that they were going to use the Production Tax
18 Credits?

19 A. Correct. In the surrebuttal, the dir- --
20 or the direct -- the revised direct, they came and
21 said they were not going to use that tax equity
22 partner. And so we took that as face value that they
23 would not use that. And then when they filed
24 surrebuttal, they threw in the potential for the tax
25 equity partner.

1 **Q.** **When -- when I refer to Ms. Forsberg's**
2 **Schedule S1 or -- LJF-S1, do you know what I'm**
3 **referring to?**

4 A. You're -- I think you're referring to
5 her -- is that one of her graphs or are you referring
6 to the work paper?

7 **Q.** **It is one of her -- I will call it one of**
8 **her tables as opposed to a graph.**

9 A. I don't have that in front of me, but
10 I'll look to my counsel to provide that.

11 **Q.** **Yeah. That -- that -- that would be my**
12 **preference.**

13 MR. GRAHAM: Can we work on that a
14 minute?

15 JUDGE SEYER: Sure.

16 BY JUDGE SEYER:

17 **Q.** **And again, this is a highly confidential**
18 **document and so I -- I don't want you to refer to**
19 **specific figures, but I do have some questions about**
20 **that schedule and -- well, mostly about that Schedule**
21 **S1.**

22 MR. GRAHAM: Do you want me to give the
23 witness this?

24 JUDGE SEYER: Yes. If you don't mind,
25 yes, Mr. Graham.

1 THE WITNESS: Thank you.

2 MR. LOWERY: Could I ask for
3 clarification which document -- or exactly which table
4 or schedule you're asking about?

5 JUDGE SEYER: What I'm -- what I am
6 referring to -- I believe it's part of her surrebuttal
7 testimony, but I can double check on that. Lindsey
8 Forsberg's surrebuttal testimony, Schedule LJF-S1.
9 And the -- at the top of that document it says,
10 Boomtown Solar Project Modeling Assumptions.

11 MR. LUEBBERT: Yeah, that's it.

12 MR. GRAHAM: Where does it say that?
13 Okay.

14 MR. LOWERY: Thank you, Your Honor. I'm
15 tracking with you now.

16 MR. GRAHAM: I'm not in the microphone
17 here, but is it you that wants this or do you want me
18 to hand this to him? Where are we at? Where am I
19 going? You've got it.

20 JUDGE SEYER: I've got a copy.

21 MR. GRAHAM: Okay.

22 THE WITNESS: I think I have it now.

23 BY JUDGE SEYER:

24 Q. Okay. Go ahead and take a minute to look
25 at that Schedule S1. And you've seen this -- this

1 **schedule before, correct?**

2 A. Yes. I -- I've glanced at it in
3 testimony, but mainly reviewed this in her actual work
4 papers.

5 Q. Right. And so like I said, the -- the
6 heading of that document says Boomtown Solar Project
7 Modeling Assumptions. And so it -- it essentially is
8 laying out the assumptions, the parameters that led
9 her to her, oh, revenues, RSP benefit figures and so
10 forth. So -- but my questions are about the
11 assumptions themselves.

12 Do you -- and again, they're in many
13 different categories; basic project parameters,
14 revenue requirement parameters, energy generation,
15 et cetera. Do you find those -- the actual numbers,
16 do you find them to be reliable?

17 A. I would say with the -- we did not
18 challenge these specific numbers, so we did rely upon
19 these numbers when I was developing rebuttal.

20 Q. Well, that's a little different than the
21 question that I asked because you said you relied on
22 them. But did you find those reliable? Did you find
23 those reasonable?

24 A. I think that with my general
25 understanding, these are fairly reasonable, yes.

1 **Q.** **Okay. All right. Those are all the**
2 **questions I have.**

3 JUDGE SEYER: Is there any recross?

4 MR. LOWERY: Just -- I think just a
5 couple questions or a few questions, Your Honor.

6 JUDGE SEYER: Okay. Go ahead,
7 Mr. Lowery.

8 RE-CROSS-EXAMINATION BY MR. LOWERY:

9 **Q** **Mr. Stahlman, I may have misheard you, so**
10 **if I did, just tell me that I did. But I thought you**
11 **said something along the lines, in response to one of**
12 **the Judge's questions, that we didn't have the ITC**
13 **model or we didn't have ITC model results. Did I**
14 **mishear you?**

15 A. For the surrebuttal, I do not know that
16 we have the -- the ITC modeled without a tax equity
17 partner.

18 **Q.** **Okay. You were saying you don't know**
19 **that you have the ITC model results if we would assume**
20 **we don't need to use a tax equity partner?**

21 A. Correct.

22 **Q.** **But you do have -- and you were just**
23 **discussing them with the Judge. You do have the**
24 **modeling results assuming that ITC is used and the**
25 **normalization rules essentially necessitate the**

1 company uses a tax equity partner. You do have those
2 results, right?

3 A. With a tax equity partner, yes, we do.

4 Q. And then I thought you testified that in
5 no case -- and I think you were referring to
6 Ms. Forsberg's results based upon the modeling
7 parameters that the Judge just asked you about in
8 LJF-S1, I thought you said that in no case with the
9 ITC would the project or program lower revenue
10 requirement -- was projected to lower revenue
11 requirement. Did you say that?

12 A. We were -- I -- we rev- -- we looked
13 at -- with the Production Tax Credit in that scenario
14 is what I was referring to, not the ITC.

15 FURTHER QUESTIONS BY JUDGE SEYER:

16 Q. Are you saying that you misspoke?

17 A. I think I said Production Tax Credit with
18 the produc- -- so we reviewed the tax credit because
19 we do not have the -- the tax credit without the --
20 the tax equity partner. We reviewed the Production
21 Tax Credit and the -- that was given to us in the
22 original case and we put an adder on that. And -- so
23 with the Production Tax Credit.

24 Q. So these schedules -- and it's LJF-S1 and
25 S2 -- those do not envision use of the Investment Tax

1 **Credit or tax equity partner?**

2 A. It -- S1 and S2 assume an inves- -- an
3 ITC, Investment Tax Credit, and a tax equity partner.

4 **Q. So the opposite of what I just said?**

5 A. Correct.

6 **Q. Okay.**

7 MR. LOWERY: Well, Judge, if you give me
8 just a second.

9 JUDGE SEYER: Uh-huh.

10 MR. LOWERY: I didn't anticipate we were
11 going to talk about Ms. Forsberg's testimony with
12 Mr. Stahlman so I need to find something here.

13 BY JUDGE SEYER:

14 **Q. So Mr. Stahlman, just so I'm -- I don't**
15 **know that I'll be perfectly clear about this, but**
16 **hopefully I'll understand it.**

17 **So S1 and S2, strictly an evaluation**
18 **based on the assumption that Production Tax Credits**
19 **would be used?**

20 A. That's -- that's incorrect. My
21 understanding of S1 and S2 -- with the assumptions
22 listed here in the S1, it talks about tax equity
23 financing and so it's -- and it has the -- in that
24 second table, part of the -- it has an ITC listed.

25 What Staff did was we took the -- we went

1 back to the original model in the supplemental direct
2 and looked at the Production Tax Credit and reran a
3 model with that Production Tax Credit in mind
4 because -- for two reasons.

5 One, we do not have an ITC without the
6 tax equity model. I'm not familiar with how that
7 would be modeled appropriately. And that was not
8 something given to us.

9 And it was also because the tax equity
10 partner is assumed, for the purposes of this case, to
11 not be an issue. In supplemental direct they said
12 there was -- they were not going to go with the tax
13 equity partner. Does that make it clearer?

14 **Q. Yes, that helps.**

15 **A. Okay.**

16 **MR. LOWERY: May I inquire, Your Honor?**

17 **JUDGE SEYER: Go ahead, Mr. Lowery.**

18 **RE-CROSS-EXAMINATION (CONT'D) BY MR. LOWERY:**

19 **Q So just to clear up the record a little**
20 **bit, I think -- and now I've got the wrong one.**

21 **So Mr. Stahlman, did you testify in**
22 **answer to the questions from the Judge, that is before**
23 **I started asking you questions again, did you testify**
24 **that Ms. Forsberg's surrebuttal, which models use of**
25 **the ITC with a tax equity partner, that in none of**

1 **those cases did the results indicate a reduction in**
2 **net present value revenue requirement?**

3 A. I did not testify to that.

4 Q. You did not. You recognize that in one
5 **of the cases without the program, it does show a**
6 **reduction to net present revenue requirement. Do you**
7 **recall that?**

8 A. I think that is accurate with -- with
9 assumptions that are not in this current case.

10 Q. And in two of the cases, if you layer the
11 **program on, it shows a reduction in net present value**
12 **of revenue requirement, right?**

13 A. I would have to re-look the work papers,
14 but I think that is correct.

15 Q. Well, the record will show whether it is
16 **or not. But you do recall that -- that not all the**
17 **cases showed an increase in net present value revenue**
18 **requirement in Ms. Forsberg's surrebuttal, right?**

19 A. For assuming tax ex- -- equity partner
20 assumption, yes.

21 Q. Assuming there's an ITC --

22 A. And --

23 Q. -- with a tax equity partner, right?

24 A. Yes.

25 Q. And if the company doesn't need to use an

1 ITC, would you expect that to lower the cost of
2 essentially using the ITC? In other words, those
3 results would get a little bit better if -- if you
4 want to call better lowering revenue requirement,
5 right?

6 A. If you're -- are you saying without the
7 tax equity partner?

8 Q. Well, let me try it this way: Ta- --
9 using tax equity has a cost associated with it, right?
10 Would you agree with that?

11 A. I think so. I would actually reserve
12 that more to J Luebbert.

13 Q. Okay. Is your answer you don't know?

14 A. I -- I will say I don't know.

15 MR. LOWERY: Those are all the questions
16 I have, Judge.

17 JUDGE SEYER: All right. Mr. Graham, do
18 you have redirect?

19 MR. GRAHAM: Yes, Your Honor.

20 REDIRECT EXAMINATION BY MR. GRAHAM:

21 Q. Okay. In the -- in the discussion with
22 the Judge, you were just asked about the economics of
23 the Boomtown project. You mentioned Staff's analysis
24 of the NPVRR of the project assuming PTCs and based
25 upon cost increases.

1 MR. GRAHAM: May I approach the witness?

2 JUDGE SEYER: Yes. Yes, you may.

3 MR. GRAHAM: This is going to be 112. I
4 believe that's the right order.

5 (Staff Exhibit 112-HC was marked for
6 identification.)

7 JUDGE SEYER: Just for the sake of the
8 record, Mr. Graham is circulating a potential
9 exhibit --

10 MR. GRAHAM: Highly confidential.

11 JUDGE SEYER: -- Exhibit 112. And that's
12 what I wanted to mention, it's highly confidential.
13 It does have numbers that are protected by the high --
14 highly confidential rules.

15 Go ahead, Mr. Graham.

16 BY MR. GRAHAM:

17 **Q. And have I actually handed you the 112?**
18 **I gave it to so many people I'm not sure if I left one**
19 **in your hands.**

20 A. Yes, you did.

21 **Q. Now, you've heard the cautionary about**
22 **its being highly confidential. Can you identify what**
23 **this exhibit is?**

24 A. This was an exhibit I prepared based off
25 of Ms. Forsberg's supplemental direct testimony. And

1 this was based on the Production Tax Credits, not
2 the -- not the Investment Tax Credits. Production Tax
3 Credit. And it has the updated cost of the project
4 and it also added an adjustment to the Production Tax
5 Credit and some of those scenarios where it says "with
6 PTC adder."

7 And that was based on Staff's
8 understanding of their surrebuttal testimony with
9 regard to the Inflation Reduction Act.

10 **Q. So that's what that exhibit is. Have you**
11 **also, with your answer, basically outlined what this**
12 **exhibit shows? Or do you want to -- I'm going to ask**
13 **you that question. What does the exhibit show?**

14 MR. LOWERY: Your Honor, I'm going to
15 interpose an objection and perhaps ask to voir dire
16 the witness.

17 The information that I believe this was
18 based on was provided to Staff on Ju- -- on -- on
19 January the 9th, including the work papers that
20 demonstrated the change -- the expected change from
21 going from PTC to use the ITC with the energy boost,
22 et cetera.

23 And it's true that we didn't put it in
24 testimony until surrebuttal, because surrebuttal
25 wasn't due until whatever day it was due a couple

1 weeks later. But we specifically communicated with
2 Staff and provided this information.

3 And now Staff's coming in here on
4 redirect when we don't have a chance to respond and
5 wanting to put a document based on analysis in the
6 record with different net present value revenue
7 requirement figures that it could have provided in its
8 surrebuttal.

9 We don't have any work papers, we don't
10 have any -- I have no way to cross-examine this
11 witness about these results whatsoever. They've
12 essentially sandbagged and -- and to get it in at a
13 point in time when we don't have any ability to
14 respond.

15 And it deals with the PTC anyway. And
16 we've testified, as you heard yesterday, that it -- it
17 certainly appears we will use the ITC and if we have
18 to -- if we use the PTC -- or if we have to come back,
19 we will come back. So I don't -- I don't think this
20 is proper for -- I don't think it's proper for the
21 Staff to be allowed to do this.

22 JUDGE SEYER: I -- I definitely see your
23 point. But I also believe that -- that the -- the
24 Commissioners and myself will take that into
25 consideration, that you have not had that opportunity

1 to respond. So I'll overrule your objection.

2 And Mr. Graham, you can -- you may
3 continue.

4 MR. LOWERY: I appreciate that, Judge.
5 I -- I hope if we perhaps -- and I don't know if we
6 want to do this or not -- seek leave to respond in
7 some fashion in the record at -- post the hearing,
8 that that motion will be entertained.

9 JUDGE SEYER: Okay.

10 BY MR. GRAHAM:

11 **Q. The question that I had -- you've just**
12 **summarized or you've stated what the exhibit is. Can**
13 **you tell us what this exhibit shows?**

14 A. This exhibit shows that based on the
15 information Staff had at -- based on the understanding
16 of what Ameren Missouri's case is, that there was no
17 pr- -- tax equity partner, we ran through scenarios
18 based on the Production Tax Credit, which is
19 information -- the -- the only way we have to model a
20 tax credit, which was given to us at supplemental
21 direct.

22 And it goes through the various scenarios
23 that Ms. Forsberg did in her supplemental direct. So
24 this is comparing an apple-to-apples basis with the
25 updated project cost with a higher Production Tax

1 Credit adder through various scenarios. And it shows
2 that under no scenario does the revenue requirement go
3 below zero.

4 **Q. And you just got to my next question. So**
5 **did Staff have an opportunity to respond to the**
6 **surrebuttal testimony position of Ms. Forsberg?**

7 MR. LOWERY: Objection, that calls for a
8 legal conclusion as to whether the Staff had an
9 opportunity or not.

10 MR. GRAHAM: I do not understand why that
11 calls for a legal conclusion.

12 MR. LOWERY: Well, Staff had the work
13 papers and the information on the 9th of January. The
14 question is whether they could have addressed it in
15 their surrebuttal testimony or not.

16 MR. GRAHAM: That's entirely a factual
17 argument. I didn't hear any part of it that was a
18 legal argument.

19 MR. LOWERY: I think it's a question of
20 whether the Commission's rules and rulings would allow
21 that to happen or not.

22 JUDGE SEYER: I'll overrule the
23 objection. Do you need -- do you need him to repeat
24 the question?

25 BY MR. GRAHAM:

1 **Q. I'll restate the question. Did Staff**
2 **have the opportunity to respond to the surrebuttal**
3 **testimony position of Ms. Forsberg?**

4 A. No. I don't recall getting specific work
5 papers with something on January 9th offhand.

6 **Q. And the assumptions in the LEJ-S1 do not**
7 **consider the hourly generation of the asset in hourly**
8 **loads; is that correct?**

9 A. Correct.

10 **Q. You were asked some questions about ITC**
11 **and tax equity. Is it possible that Staff may have**
12 **additional concerns that were not addressed in this**
13 **case if a tax equity partnership is introduced?**

14 A. Yes. Mr. J Luebbert would have some -- I
15 know he has identified concerns prior to the
16 withdrawal of the tax equity partner as they did in
17 supplemental direct.

18 MR. GRAHAM: Your Honor, at this time
19 Staff would offer what's been I believe I -- marked,
20 identified and testified concerning as Exhibit 112.
21 We would offer it into evidence subject, of course, to
22 all of the confidentiality protections.

23 MR. LOWERY: Judge, I'd just like my
24 objection noted for the record.

25 JUDGE SEYER: So noted. And so --

1 technically, Mr. Graham, this would be 112-HC,
2 correct?

3 MR. GRAHAM: Yes. Yes, it would. Thank
4 you for the correction.

5 JUDGE SEYER: All right. I will overrule
6 that objection and admit Exhibit 112-HC.

7 (Staff Exhibit 112-HC was received into
8 evidence.)

9 MR. GRAHAM: That's all the questions
10 Staff has for this witness.

11 JUDGE SEYER: Okay. All right.
12 Mr. Stahlman, thank you for your testimony.

13 THE WITNESS: Thank you.

14 JUDGE SEYER: Mr. Graham, who do you
15 anticipate your next witness to be?

16 MR. GRAHAM: Cedric -- Cedric Cunigan.

17 JUDGE SEYER: How -- do you have kind of
18 a rough time estimate?

19 MR. LOWERY: I think we have very little
20 for Mr. Cunigan.

21 JUDGE SEYER: I should probably ask
22 myself that question. Do I have a time estimate?

23 MR. LOWERY: Judge, insight's a really
24 good thing to have, so.

25 MR. GRAHAM: Yeah, Judge, you may have an

1 inside track. But I think the parties here -- what
2 are we -- he wants to know if --

3 JUDGE SEYER: What I'm really getting at
4 is whether anyone -- whether it's necessary to take a
5 break right now.

6 MR. LOWERY: I'd like to take a break
7 before we get done with all the witnesses, but right
8 now I'm okay personally.

9 JUDGE SEYER: All right.

10 MR. GRAHAM: Shall we go on?

11 JUDGE SEYER: Yes, let's go.

12 MR. GRAHAM: Cedric, do you want to come
13 up?

14 JUDGE SEYER: All right. You've got your
15 hand -- your right hand raised. Thank you.

16 (Witness sworn.)

17 JUDGE SEYER: Thank you. Mr. Graham, you
18 may proceed.

19 CEDRIC CUNIGAN, being first duly sworn, testified as
20 follows:

21 DIRECT EXAMINATION BY MR. GRAHAM:

22 Q. Mr. Cunigan, would you state your full
23 name and spell your last name for the record.

24 A. Cedric Cunigan, C-u-n-i-g-a-n.

25 Q. And Mr. Cunigan, who employs you and in

1 **what capacity?**

2 A. The Missouri Public Service Commission,
3 and I'm a senior professional engineer.

4 **Q. And are you the same Cedric Cunigan that**
5 **prepared or caused to be prepared portions of Staff's**
6 **Exhibit Number 108?**

7 A. I don't have exhibit numbers, but I did
8 file rebuttal and surrebuttal testimony.

9 **Q. All right. Well, if I represent to you**
10 **that your testimony is 108, can we use that name?**

11 A. Yes.

12 **Q. Okay. Do you have any changes or**
13 **corrections to your testimony?**

14 A. No.

15 **Q. So is your testimony true and correct, to**
16 **the best of your knowledge and belief?**

17 A. Yes.

18 **Q. If I asked you all of the same questions**
19 **that were posed in that pre-filed testimony, would**
20 **your answers today be substantially the same?**

21 A. Yes.

22 MR. GRAHAM: Your Honor, I will offer
23 into evidence Staff's Exhibit Number 108.

24 JUDGE SEYER: Is there any objection?

25 MR. WILLIAMS: Judge, understanding there

1 are two exhibits, 100 and 108, and that 108 is the
2 surrebuttal testimony.

3 MR. GRAHAM: Yeah, I --

4 MR. WILLIAMS: Public Counsel does not
5 have an objection to the surrebuttal testimony nor, if
6 it's offered, the rebuttal.

7 MR. GRAHAM: Thank you very much. And
8 with that, Your Honor, I probably better go back and
9 regroup.

10 BY MR. GRAHAM:

11 Q. Mr. Cunigan, all of my questions were
12 reference to Exhibit Number 108. If I asked you all
13 of the same questions now that I asked you of
14 Exhibit 108 concerning your rebuttal testimony, which
15 is Exhibit 100, would your answers be the same?

16 A. Yes.

17 MR. GRAHAM: Your Honor, at this time I'd
18 tender into evidence Exhibit 100 and Exhibit 108.

19 JUDGE SEYER: All right. So the question
20 now is it -- is there any objections to the admission
21 of Exhibit 100 and 108?

22 All right. Hearing none, 100 and 108 are
23 admitted into evidence.

24 (Staff Exhibit 100 and Exhibit 108 were
25 marked and received into evidence.)

1 MR. GRAHAM: Thank you, Your Honor.

2 Staff tenders the witness for cross-examination.

3 JUDGE SEYER: All right. Mr. Williams,
4 do you have any questions on cross-examination?

5 MR. WILLIAMS: Thank you. No at this
6 time.

7 JUDGE SEYER: Do any of the non-Ameren
8 parties have questions on cross-examination? I'm
9 seeing a lot of shaking heads so I'll take that as a
10 no.

11 Mr. Lowery, any cross-examination?

12 MS. GRUBBS: Actually --

13 JUDGE SEYER: I'm sorry, Ms. Grubbs.

14 MS. GRUBBS: Just briefly, please.

15 JUDGE SEYER: Uh-huh.

16 CROSS-EXAMINATION BY MS. GRUBBS:

17 Q. Mr. Cunigan, you recall in your rebuttal
18 testimony providing a recommendation that if the
19 Commission were to approve the Boomtown CCN, that a
20 condition for as-built drawings for the project be
21 provided. And I believe you have the time frame as no
22 later than 60 days after commercial operation; is that
23 correct? Page four.

24 A. Yes.

25 Q. Okay.

1 A. Yeah.

2 **Q. Thank you. So have you reviewed the**
3 **surrebuttal testimony of Ajay Arora, Company witness,**
4 **that has been marked as Hearing Exhibit 2?**

5 A. I reviewed it. I don't have it in front
6 of me right now.

7 **Q. Well, were you present or aware of an**
8 **Exhibit Number 14 being entered yesterday that was a**
9 **slight revision to that term -- or the response to**
10 **that recommended term?**

11 A. You're going to have to refresh my memory
12 on what that was.

13 MS. GRUBBS: May I -- sorry, may I
14 approach, Your Honor?

15 JUDGE SEYER: Yes, you may.

16 THE WITNESS: Thank you.

17 MS. GRUBBS: Thank you

18 MR. GRAHAM: Do you have a copy of that
19 for me to look at?

20 MS. GRUBBS: It's 1 -- or 14, but I do
21 have another copy?

22 MR. GRAHAM: Was that the 14 that came in
23 this morning?

24 MR. LOWERY: No. Came in yesterday.

25 MS. GRUBBS: Here you go.

1 MR. GRAHAM: Thank you. Thank you.

2 MS. GRUBBS: Sure.

3 BY MS. GRUBBS:

4 Q. And Mr. Cunigan, have you reviewed then
5 what's been marked as Exhibit 14?

6 A. Yes.

7 Q. And so within this there's a proposal to
8 shift basically from that 60-day time frame to
9 100 days after final completion; is that accurate?

10 A. Yes.

11 Q. Do you have any concerns with that
12 revision as proposed by Mr. Arora?

13 A. Me personally, I do not.

14 Q. Okay. Thank you very much for your time.

15 JUDGE SEYER: All right. Do the
16 Commissioners have any questions?

17 CHAIR RUPP: Not for this witness. Thank
18 you.

19 JUDGE SEYER: Okay. It appears that
20 there are no questions from the Commissioners. All
21 right. I do have a few questions.

22 QUESTIONS BY JUDGE SEYER:

23 Q. Are you familiar with Dr. Marke's
24 testimony?

25 A. Yes.

1 **Q.** **Okay. In his surrebuttal testimony on**
2 **page 19, the Office of Public Counsel suggested, and**
3 **I'll quote here, "At a minimum, the Renewable**
4 **Solutions Program should be modeled around a 50/50**
5 **sharing mechanism that accounts for under-subscribed**
6 **accounts."**

7 **What is Staff's opinion about the 50/50**
8 **sharing mechanism?**

9 **A.** We've used the 50/50 sharing mechanism in
10 the past for -- let me get the rider out. The
11 Community Solar Program. So we used it for that
12 program for Ameren and we've used a similar mechanism
13 for other utilities in Missouri. But this was on the
14 basis of the program being purely voluntary. And all
15 of those programs were pilots at the time of a much
16 smaller size.

17 **Q.** **Much -- excuse me. Much smaller in terms**
18 **of megawatts?**

19 **A.** Yes. I think five to ten megawatts,
20 maybe even smaller --

21 **Q.** **Versus --**

22 **A.** -- for the first one.

23 **Q.** **-- 150 in this case?**

24 **A.** Correct.

25 **Q.** **Do you know how many annual RECs the**

1 **Boomtown solar project will have?**

2 A. Taking this from -- can I say numbers
3 that were in Forsberg's work papers just referring to
4 megawatts?

5 MS. GRUBBS: Just for megawatts? I'm
6 sorry, just to clarify.

7 THE WITNESS: Yes. Just megawatts
8 generated.

9 MS. GRUBBS: That's not confidential.

10 THE WITNESS: Okay.

11 MS. GRUBBS: That's good. Thank you.

12 THE WITNESS: So they estimate the
13 beginning of the project around 338,000 RECs. And
14 then it drops off as degradation over time. That will
15 be the .5 percent.

16 BY JUDGE SEYER:

17 **Q. So that -- so that degradation also**
18 **affects the RECs?**

19 A. Yes. RECs are directly tied to megawatts
20 generated.

21 **Q. Okay. Do you -- do you know what the**
22 **current market value of RECs are in Missouri, the --**
23 **the cost -- or the value per megawatt? I'm sorry, the**
24 **value per REC.**

25 A. That is a very hard question to come by.

1 There is not a lot of data outside of the resource --
2 or I'm sorry, Renewable Energy Standard Reports. I
3 can tell you what Ameren paid in 2021, but that
4 doesn't speak to voluntary REC prices. And those are
5 slightly different.

6 **Q. Would you agree that the value of those**
7 **RECs will change over the life of that renewable**
8 **generation asset?**

9 A. Yes. The value of RECs have fluctuated a
10 lot just based off of demand, supply, but then also
11 certain regulatory requirements and it varies by
12 state. Some states don't have renewable portfolio
13 standards. RECs would be cheaper there, I would
14 assume, than states that have higher renewable
15 portfolio standards. And I'm not entirely familiar
16 with where Illinois is at.

17 **Q. Okay. And I'm not sure how much of the**
18 **other testimony you've heard so far, but if the**
19 **Commission were -- and I've asked this question of**
20 **other witnesses. But if the Commission were to**
21 **approve only the CCN for the project without the RSP**
22 **subscription side of it, would the RECs be owned by**
23 **Ameren?**

24 A. Yes.

25 **Q. And could they monetize those RECs?**

1 A. Yes. We haven't seen Ameren do that in
2 the past because they've purchased RECs mainly, but we
3 do have -- Empire has sold RECs previously. We do see
4 that.

5 **Q. Could you envision Ameren selling them**
6 **every year?**

7 A. If they had excess, yes.

8 **Q. Okay. What is your opinion particularly**
9 **as to whether this project is economically feasible**
10 **given that the project costs have increased since the**
11 **application was first filed and -- but also given**
12 **the -- the potential change in the use of tax credits**
13 **from -- from when the application was first filed?**

14 A. So I don't testify to economic
15 feasibility and I focus mainly on the program. But my
16 stance on that wouldn't necessarily -- my stance on
17 the program wouldn't necessarily change due to the tax
18 credits.

19 **Q. I see. And would you say the same thing**
20 **about the project costs?**

21 A. Yeah. I don't testify on project costs.
22 I'm specifically on the program -- or the tariff.

23 **Q. Okay. All right. That is all the**
24 **questions I have.**

25 JUDGE SEYER: Yes, Commissioner -- I am

1 sorry, Chairman.

2 CHAIR RUPP: No, you're fine.

3 JUDGE SEYER: Chairman Rupp.

4 CHAIR RUPP: Thank you. Thank you,
5 Judge. He mentioned something that I was trying to
6 get at earlier.

7 QUESTIONS BY CHAIR RUPP:

8 **Q. So you mentioned the Community Solar**
9 **Program pilot that Ameren had that we did the 50/50**
10 **on. Is that the same as Ameren's Missouri's Solar**
11 **Partnership Program from 2016 or am I -- is that the**
12 **same thing or are they different?**

13 A. So Ameren has the Community Solar Pilot
14 Program, which is on sheet Number 158 of their tariff.
15 And then they have the Community Solar Program, which
16 is no longer a pilot, on sheet 89 of their tariff.
17 And then there was a separate program -- you'll have
18 to excuse all my shuffling. Okay. Here we go. And
19 then the Renewable Choice Program, and that's on sheet
20 94.

21 So I'm not sure the time -- or the date
22 of the program you were referencing, but these were
23 the three similar programs I was able to find in their
24 tariff.

25 **Q. Okay. Yeah, it was EA-2016-0208 was the**

1 case number. But I'm sure it's one of those. I
2 probably just --

3 A. If I was guessing, I would say it would
4 be the Renewable Choice Program.

5 Q. Okay. All right. I had it as Solar
6 Partnership Program.

7 MS. GRUBBS: If I may. I believe if we
8 could take judicial notice of that docket number, it
9 would show that there was a partnership program.

10 THE WITNESS: That was before I started
11 working here. Sorry.

12 BY CHAIR RUPP:

13 Q. I understand that. So of those three you
14 mentioned and the one we're taking notice of, the
15 number that had any type of a 50/50 or -- or
16 hold-harmless provision, is it just the Community
17 Solar Program you mentioned, for -- for Ameren? Or
18 did the others have anything similar?

19 A. I believe it was just the Community Solar
20 Program and the pilot.

21 Q. Okay. Then you also -- you mentioned
22 that there were other utilities that had something
23 similar. And I was looking at the KCP&L/GMO Solar CCN
24 from 2015. Do you remember -- probably before you
25 were here. Did that have a 50/50 or a hold-harmless?

1 Or how about the ones you said of the utilities, which
2 ones were you referencing?

3 A. Evergy and Liberty both -- well, Liberty
4 has a case pending, but both have a sharing mechanism;
5 pending in Liberty right now.

6 Q. Okay. Then the Judge was talking to you
7 about Ameren's possibility of monetizing their RECs.
8 Is there value in not monetizing those and keeping
9 them, even allowing them to expire so that they can
10 say that their customers -- percentage of their
11 customers' energy comes from renewable sources?

12 A. I don't know that I would say there's
13 value in allowing them to expire. But there is value
14 in the RECs, whether they sell them -- I mean they can
15 hold them for three years, if they ever needed more
16 RECs for their own compliance, things like that.

17 Q. So is Ameren, in this case, making any
18 argument that was similar to the Evergy case where OPC
19 had filed a case against Evergy because they allowed
20 so many of their RECs to expire? Is Ameren making any
21 type of an argument that -- along those lines similar
22 to that case?

23 A. I don't believe so in this case.

24 Q. Okay. Do you believe that there -- I
25 guess you already kind of said that you didn't believe

1 **that there was -- there was value in allowing them to**
2 **expire.**

3 CHAIR RUPP: Okay. Thank you, Judge.
4 That's all I have. Thank you.

5 JUDGE SEYER: All right. Okay. And
6 correct me if I'm wrong, Mr. Graham. You haven't had
7 the opportunity yet to redirect him, have you?

8 MS. GRUBBS: Are we going to have an
9 opportunity to recross?

10 JUDGE SEYER: I see.

11 MS. GRUBBS: Sorry.

12 JUDGE SEYER: I -- my gut feeling was
13 that I missed somebody along the line. So yes. So
14 besides Ameren Missouri, do any of the other parties
15 want the opportunity to recross this witness?

16 MR. WILLIAMS: I have a couple of
17 clarification questions.

18 JUDGE SEYER: All right. Mr. Williams,
19 for Public Counsel, go ahead.

20 RE-CROSS-EXAMINATION BY MR. WILLIAMS:

21 **Q. Mr. Cunigan, do you recall talking about**
22 **RECs, and I believe you used the word "megawatts**
23 **generated;" is that correct?**

24 A. Yes.

25 **Q. What is your understanding of megawatts?**

1 A. Megawatts is capacity. It would be
2 megawatt hours. One megawatt hour is what it takes to
3 create a REC.

4 **Q. Thank you for that clarification. I**
5 **believe you did not answer Judge Seyer's question**
6 **about Staff's opinion about Public Counsel's 50/50**
7 **sharing mech- -- proposal. Does Staff have an opinion**
8 **about that proposal?**

9 A. Staff's recommendation in this case was
10 to have the full cost of the program be on the
11 subscribers during the program phase. And that was
12 made under the -- I don't know the right word --
13 assumption or standing that the project wasn't needed.
14 And so sharing it, if it was -- it wouldn't have been
15 Staff's go-to for this particular case.

16 **Q. Would it be better, in Staff's opinion**
17 **then, shareholder -- or customers bearing the full**
18 **cost?**

19 A. Yes.

20 **Q. Thank you. No further questions.**

21 JUDGE SEYER: All right. Ms. Grubbs, go
22 ahead.

23 MS. GRUBBS: Thank you, Your Honor.

24 RE-CROSS-EXAMINATION BY MS. GRUBBS:

25 **Q. Mr. Cunigan, I just wanted to clarify.**

1 When you were being questioned by the Judge, you
2 described the Community Solar pilot and -- we'll call
3 it full program, right? Do you recall that?

4 A. Yes.

5 Q. And the Community Solar pilot, as well as
6 the full program, are optional programs, right?

7 A. Yes.

8 Q. And you are familiar with the Montgomery
9 Solar Energy Center that was the second phase of the
10 Community Solar pilot?

11 A. Yes.

12 Q. And for that facility, the company did
13 apply for and obtain CCN approval before it commenced
14 construction of that facility, correct?

15 A. Yes.

16 Q. And in doing so, it did not suggest that
17 without the program, that the Community Solar Energy
18 Center would be built, correct?

19 A. Can you say that again?

20 Q. So it was not proposed that the Community
21 Solar Energy Center would have been built without that
22 solar -- Community Solar program, correct?

23 A. To my knowledge, yes.

24 Q. So the need for that facility was
25 directly linked to the Community Solar program?

1 A. I would say yes, but it's also kind of in
2 the tariff that the Community Solar Program was to
3 provide an opportunity for those customers.

4 MS. GRUBBS: Thank you very much, Your
5 Honor. And thank you for your time, Mr. Cunigan.

6 JUDGE SEYER: All right. Mr. Graham, do
7 you have redirect?

8 MR. GRAHAM: Yes, Your Honor. Getting
9 there.

10 REDIRECT EXAMINATION BY MR. GRAHAM:

11 **Q. Chairman Rupp asked about expiring**
12 **RSCs -- RECs. Would there be -- would there be**
13 **environmental attributes for those if they were**
14 **retired?**

15 A. What do you mean by "environmental
16 attributes"?

17 **Q. If retired as opposed to expiring --**
18 **Chairman Rupp asked about expiring RECs. Would there**
19 **be -- would there be environmental attributes if the**
20 **RECs were simply retired?**

21 A. The RECs, in general, represent the
22 environmental attributes. So whether they are retired
23 or expired, they still represent that generation -- or
24 the attributes tied to that one megawatt hour. The
25 retiring of RECs goes toward compliance. And so

1 someone can lay claim to it. So if they expire, no
2 one lays claim to it.

3 **Q. Are you familiar with a Montgomery solar**
4 **facility?**

5 A. Yes.

6 **Q. How does the size of that facility**
7 **compare with the Boomtown project?**

8 A. It's much smaller. I can't remember if
9 it was five megawatts or ten. I -- I believe closer
10 to five. It's not 150.

11 **Q. It's not 150?**

12 A. Correct.

13 **Q. What was the cost range from Ameren's**
14 **purchased RECs in 2021, if you know?**

15 A. You're referring to the purchase price of
16 RECs that Ameren paid in 2021?

17 **Q. Yes.**

18 A. It was anywhere from \$3 to \$6.25 per REC
19 for that compliance year.

20 **Q. Can you comment on how that fact relates**
21 **to the implied costs per REC in this case?**

22 A. So the implied cost per REC in this case
23 is lower than that average from 2021.

24 MR. GRAHAM: That's all the questions
25 that I have, Your Honor.

1 JUDGE SEYER: All right. Thank you for
2 your testimony, Mr. Cunigan.

3 THE WITNESS: All right.

4 MR. LOWERY: Judge, if it pleases the
5 Bench, would this be time -- a good time for a short
6 break?

7 JUDGE SEYER: Let's make it -- actually
8 let's make it -- I'm going to suggest a 15-minute
9 break and proceed on the expectation that we will
10 finish the hearing today. Does that seem reasonable?

11 MR. GRAHAM: Yes.

12 MR. LOWERY: Yes.

13 JUDGE SEYER: Okay. So we'll -- I guess
14 it's up to me again, huh? So we will reconvene at
15 three o'clock and we are off the record.

16 (A recess was taken.)

17 JUDGE SEYER: All right. We are back on
18 the record. Before we get to Mr. Graham's next
19 witness, Mr. Lowery, when it comes to the --
20 Exhibit 15, the work papers that support
21 Ms. Forsberg's, I'll -- for lack of a better word,
22 I'll call it analysis, I think I suggested that you
23 just e-mail those to -- to our e-mail address for
24 exhibits, but you're perfectly welcome to submit those
25 through EFIS and --

1 MR. LOWERY: Just as highly confidential?

2 JUDGE SEYER: -- we'll take it from
3 there. Sure. Yeah.

4 MR. LOWERY: And I will tell you, Judge,
5 they may be so large that we are going to have to send
6 them to the data center or to you, whichever you
7 prefer, on a CD because they're -- they're pretty
8 involved files, as I recall.

9 JUDGE SEYER: Okay. All right.
10 Mr. Graham, are you ready to call your next witness?

11 MR. GRAHAM: Yes. Jordan Hull.

12 JUDGE SEYER: All right. Mr. Hull, would
13 you raise your right hand, please. Thank you.

14 (Witness sworn.)

15 JUDGE SEYER: Thank you. Go ahead,
16 Mr. Graham.

17 JORDAN HULL, being first duly sworn, testified as
18 follows:

19 DIRECT EXAMINATION BY MR. GRAHAM:

20 Q. Mr. Hull, would you state your name and
21 spell your last name for the record.

22 A. My name is Jordan T. Hull. Last name
23 Hull, H-u-l-l.

24 Q. And Mr. Hull, by whom are you employed
25 and in what capacity?

1 A. I work for the Missouri Public Service
2 Commission as an associate engineer in the Energy
3 Resources Department in the Industry Analysis
4 Division.

5 Q. And are you the same Jordan Hull that
6 prepared Exhibit Number -- Staff Exhibit Number 103 in
7 this case?

8 A. Yes.

9 Q. Do you have any changes or corrections to
10 your testimony?

11 A. No.

12 Q. Is your testimony true and correct, to
13 the best of your knowledge and belief?

14 A. Yes.

15 Q. And if I asked you all the same questions
16 today that were posed to you in that exhibit in your
17 prior testimony, would you be -- would your answers be
18 substantially the same?

19 A. Yes.

20 MR. GRAHAM: Your Honor, at this time I'm
21 going to tender into evidence Exhibit Number 103.

22 JUDGE SEYER: All right. Is there any
23 objection to the admission of 103?

24 All right. Hearing none, Exhibit 103 is
25 admitted.

1 (Staff Exhibit 103 was marked and
2 received into evidence.)

3 MR. GRAHAM: Staff will tender this
4 witness for cross-examination.

5 JUDGE SEYER: All right. Mr. Williams,
6 do you have questions?

7 MR. WILLIAMS: Not at this time, thank
8 you.

9 JUDGE SEYER: All right. Do the other
10 parties, besides Ameren, have any questions for this
11 witness? Okay. Indication is no. Mr. -- or
12 Ms. Grubbs, do you have questions?

13 MS. GRUBBS: I do not, thank you.

14 JUDGE SEYER: All right. All right. Do
15 any of the Commissioners have questions for this
16 witness?

17 COMMISSIONER HOLSMAN: No questions,
18 Judge. Thank you.

19 QUESTIONS BY JUDGE SEYER:

20 Q. All right, Mr. Hull. I just have a few
21 questions. And first -- and I've asked this of other
22 witnesses, but given that -- from the time of
23 application to -- I don't know that it's -- I'm not
24 sure when the numbers were updated, but the project --
25 estimated project costs have increased. Given that,

1 do you -- would it be your opinion this project is
2 still economically feasible?

3 A. I didn't have anything in my testimony --
4 that was outside of the scope of what I was looking
5 at.

6 Q. Okay. Fair enough. And did you,
7 yourself, have opportunity to review those work papers
8 that supported Ms. Forsberg's analysis -- I'm trying
9 to find the schedule number -- the Schedules LJF-S1
10 and S2, the -- the project scenario modeling?

11 A. I did not. I was assigned to look at if
12 the company was qualified to own, operate, maintain
13 and otherwise control and manage for this project.

14 Q. Okay. So you didn't have any discussions
15 with anyone from Ameren about those work papers?

16 A. No.

17 Q. All right. Those are the only questions
18 I have.

19 JUDGE SEYER: All right. Is there any
20 recross?

21 All right. Hearing none, Mr. Graham, any
22 redirect?

23 MR. GRAHAM: No, Your Honor.

24 JUDGE SEYER: All right. Mr. Hull,
25 you're free to go.

1 THE WITNESS: Thank you.

2 JUDGE SEYER: All right, Mr. Graham.

3 Call your next witness.

4 MR. GRAHAM: Next witness -- next witness
5 is J Luebbert.

6 JUDGE SEYER: All right. Mr. Luebbert --
7 you've got -- oops. Sorry. Mr. Luebbert, you have
8 your right hand raised.

9 (Witness sworn.)

10 JUDGE SEYER: Thank you. Mr. Graham},
11 being first duly sworn, testified as follows:

12 DIRECT EXAMINATION BY MR. GRAHAM:

13 Q. Mr. Luebbert -- Mr. Luebbert, will you
14 state your name and spell your last name for the
15 record.

16 A. Sure. My name is J Luebbert. Spelled
17 just the letter J and Luebbert is spelled
18 L-u-e-b-b-e-r-t.

19 Q. By whom are you employed and in what
20 capacity?

21 A. I am employed by the Missouri Public
22 Service Commission Staff, and I am the manager of the
23 Tariff and Rate Design Department.

24 Q. And are you the J Luebbert who prepared
25 Staff's Exhibit Number 105, rebuttal testimony in this

1 case?

2 A. I am.

3 Q. And do you have any changes or
4 corrections to that testimony?

5 A. I don't believe so.

6 Q. Is the testimony reflected there true and
7 correct, to the best of your knowledge and belief?

8 A. I believe it is.

9 Q. If I were to ask you all the same
10 questions that are posed to you in that pre-filed
11 testimony, would your answers be substantially the
12 same?

13 A. They would.

14 MR. GRAHAM: Your Honor, I would tender
15 into evidence or move for the admission of
16 Exhibit Number 105 into evidence.

17 JUDGE SEYER: All right. Is there any
18 objection?

19 All right. Hearing none, Exhibit 105 is
20 admitted.

21 (Staff Exhibit 105 was marked and
22 received into evidence.)

23 MR. GRAHAM: And Staff tenders the
24 witness for cross-examination.

25 JUDGE SEYER: All right. Mr. Williams?

1 MR. WILLIAMS: No questions. Thank you.

2 JUDGE SEYER: All right. Any questions
3 on behalf of the parties that are not Ameren Missouri?
4 All right. The answer is no. Mr. Lowery?

5 MR. LOWERY: Just a couple, I think, Your
6 Honor.

7 CROSS-EXAMINATION BY MR. LOWERY:

8 Q Mr. Luebbert, you were here I believe for
9 Mr. Stahlman's testimony earlier this afternoon?

10 A. I was.

11 Q. Do you have any reason to believe that
12 Ameren Missouri would use the Production Tax Credit
13 tax strategy as opposed to the Investment Tax Credit
14 tax strategy -- that's not a very good question.

15 Do you have any reason to believe that
16 Ameren Missouri would not choose the tax strategy that
17 is most advantageous to its customers?

18 A. I don't know that I would be comfortable
19 stating what Ameren will or will not do in the future,
20 right?

21 Q. Well, I asked -- I didn't ask that. I --
22 do you have any reason to believe that Ameren would
23 pick a tax strategy -- the tax strategy that is less
24 advantageous to its customers versus the one that's
25 more advantageous? Do you have any reason to believe

1 **that?**

2 A. I don't know that I do, but I -- I will
3 say that the introduction of a tax equity partner is
4 something that we did not address in testimony and
5 likely would have if we thought it was on the table.

6 **Q. I understand that. But you -- but you**
7 **don't have any reason to believe that Ameren Missouri**
8 **would intentionally choose the PTC if the ITC was**
9 **better for customers or vice-versa, do you?**

10 A. I don't know that I have any evidence
11 that says that Ameren would do that, no.

12 **Q. And if --**

13 MR. GRAHAM: Your Honor, I'm going to
14 object to this line of questioning. It substitutes
15 these speculative questions for what Staff did not
16 actually have an opportunity to do here, as the
17 witness is repeatedly trying to say.

18 And the -- counsel is endeavoring to get
19 this witness to validate those numbers in that
20 testimony without a proper opportunity to do things
21 per the procedures of this Commission, which would
22 have given this witness and this Staff the opportunity
23 properly to respond to these changes. I'm objecting
24 to this line of questioning.

25 MR. LOWERY: I don't believe I've asked

1 any questions that asked this question to validate any
2 numbers. The -- the -- the inference that's been
3 drawn by some of the testimony that Staff gave earlier
4 today when they come in and they remodel with the PTC,
5 et cetera, when the company has testified under oath
6 that it's going to use the tax strategy that's most
7 advantageous and, in fact, intends in all likelihood
8 to use the ITC.

9 I'm just exploring whether this witness,
10 who I think is Staff's main witness in this case, has
11 some evidence that would suggest the company's going
12 to make a decision that's harmful to its customers.

13 MR. GRAHAM: Absolutely the same
14 objection.

15 JUDGE SEYER: And I do agree with
16 Mr. Graham on this point, so I will sustain that
17 objection and -- as to that line of questioning.

18 MR. LOWERY: Very well. I don't have any
19 other questions.

20 JUDGE SEYER: All right. Are there any
21 questions for this witness from the Commissioners?

22 COMMISSIONER HOLSMAN: No questions,
23 Judge.

24 JUDGE SEYER: Thank you. And that was
25 Commissioner Holsman?

1 COMMISSIONER HOLSMAN: That is correct,
2 Judge.

3 QUESTIONS BY JUDGE SEYER:

4 Q. All right. All right. I do have a few
5 questions. Let's see. Do you -- do you have your
6 testimony -- your rebuttal testimony?

7 A. I sure do.

8 Q. Okay. If we go to pages four and five.

9 A. Okay. I'm there.

10 Q. Is it Staff's recommendation to reject
11 the renewable subscription program?

12 A. We are recommending that the Renewable
13 Solutions Program -- well, let me -- if you'll give me
14 just a moment. I just want to make sure --

15 Q. Sure.

16 A. -- that I'm not misstating anything.

17 Q. I'm sorry. If I called it the renewable
18 subscription program, I meant to say the Renewable
19 Solutions Program, which --

20 A. Okay.

21 Q. -- is a subscription program, but --

22 A. Okay. So I -- I wanted to clarify
23 because pages three, four and five actually include a
24 summary of our recommendations and we kind -- we gave
25 a few different options for the Commission, right?

1 Our -- our primary recommendation was that the
2 Commission reject the application for the CCN as well
3 as the tariff sheets associated with the Renewable
4 Solutions Program. And that -- I think that's on page
5 three.

6 Q. Okay.

7 A. So it may have been where --

8 Q. So it begins on page three?

9 A. Yeah.

10 Q. And -- so basically -- and correct me if
11 I'm wrong. Basically it's Staff's position that they
12 would not recommend the Commission approve the
13 subscription program, the RSP, but if the Commission
14 chooses to approve the program, you would recommend
15 these conditions; and there are nine of them, correct?
16 Or no, I'm sorry, there are nine conditions -- there
17 are nine conditions that you would attach to the CCN
18 approval; is that correct? Starting on page three.

19 A. Yeah. So page three and into page four
20 discusses what Staff's recommendation would be if the
21 Commission determines approval of a CCN is
22 appropriate. On page five there are some additional
23 conditions that we would recommend if the Commission
24 approves the project -- so approves the CCN as well as
25 the Renewable Solutions Program.

1 **Q. Okay.**

2 A. And so these -- the conditions on
3 page five, numbers one through four, would be
4 conditions in that scenario.

5 **Q. Right. Are there any specific**
6 **modifications that Staff would recommend to the rider**
7 **language?**

8 A. If you give me a few moments, I can go
9 through -- I realize that I'm kind of the last witness
10 for Staff up for the day.

11 **Q. I think we're ahead of schedule actually.**

12 A. Okay.

13 **Q. Again, it's really kind of up to me is**
14 **what it kind of feels like.**

15 A. No. Understood. Let me see -- I've got
16 some other Staff witness's testimony and they would
17 probably address the specific language within their
18 testimony. But I can kind of thumb through and see if
19 I can give you a synopsis, if that would be helpful.

20 **Q. Okay.**

21 A. Can I ask for a clarification really
22 quick? Is your -- is your question if the Commission
23 were to approve the RSP, are there recommended changes
24 to the tariff language?

25 **Q. Yes.**

1 A. Or do we just -- okay.

2 Q. Yes.

3 A. And so I think that may alter the
4 question a bit and so as I'm reading through, I just
5 want to make sure I've got the -- the question clear.

6 Q. And I will say when you asked for a
7 highlighter, I checked the drawer here at the Bench
8 and did not see a highlighter, but did see a note that
9 said there were additional supplies in the drawer
10 behind me. And there is a variety of colors of
11 highlighters and -- and a bottle of Tums, so.

12 A. I don't think I need the Tums yet, but if
13 you could loan me a highlighter, I'd greatly
14 appreciate it.

15 Q. I can't guarantee that any of these will
16 work.

17 A. That's okay.

18 Q. One of them should work.

19 A. Thank you.

20 Q. And I don't -- I don't know if anyone
21 else in the hearing room needs one of those Tums, but
22 the expiration date is 1998.

23 THE WITNESS: At least --

24 MR. WILLIAMS: I'll pass on those. Thank
25 you.

1 THE WITNESS: At least you cautioned
2 before they were handed out, right?

3 Okay. I -- I appreciate the patience.
4 Unfortunately, I don't have Mr. Cunigan's surrebuttal
5 testimony, which I think may have included some
6 potential conditions.

7 And with that said, our recommendation in
8 rebuttal testimony hinged on the assumptions of the
9 costs that were included at supplemental -- the time
10 of supplemental direct.

11 So our rebuttal testimony doesn't reflect
12 the increased costs that we're now kind of -- as I --
13 or we're reviewing this case within that context,
14 right, as of surrebuttal. But I do think that there
15 are some conditions that we recommended and generally
16 with a case such as this, at -- at the end of the
17 case, there would be a Commission order. And the --
18 the tariff would need to be updated to reflect those
19 conditions that would be included in that order.

20 And so I think a lot of -- a lot of what
21 we've recommended obviously would be consistent with
22 our written testimony and if that were so ordered, we
23 could address that at the time of compliance tariff
24 filing.

25 But at the -- I think it's pa- -- oh,

1 actually -- I'm sorry, I do have his surrebuttal. I
2 may not have his rebuttal testimony. Okay. So Cedric
3 Cunigan's surrebuttal testimony includes some -- some
4 recommendations with regards to the Renewable
5 Solutions Program.

6 One of those is that Staff is
7 recommending that all of the costs of the renewable
8 generation facilities in the program be borne by the
9 subscribers and/or shareholders while the RSP phase is
10 in effect. Any recalculation of the RRC -- and let me
11 get -- I believe that's the Renewable Resource
12 Charge -- should ensure that the program and
13 facilities costs are fully covered during the program
14 phase.

15 He then goes on to state that if the --
16 the Commission chose to approve the RSP, Staff would
17 support adding language to the tariff outlining the
18 retirement of RECs on the customers' behalf, in
19 addition to the following conditions Staff proposed in
20 rebuttal.

21 So all costs of the renewable generation
22 facilities in the program shall be borne by
23 subscribers and/or shareholders while the RSP phase is
24 in effect.

25 In addition to an in-service evaluation

1 at the time of the facility is initially placed into
2 rates, Ameren Missouri shall demonstrate the facility
3 is fully operational at the time the RSP program ends.

4 And then third, the costs of the
5 generation facilities to be placed on ratepayers will
6 be determined at the time the RSP program ends. The
7 valuation of the facility will take into account the
8 current book costs, the state of the facilities,
9 depreciation, degradation over time, and current
10 market prices for similar-sized asset. The least cost
11 option will be chosen.

12 **Q. And that was in his surrebuttal testimony**
13 **on pages two and three, correct?**

14 A. That was in his surrebuttal. And if
15 you'll give me a minute, I may have had a couple more
16 that -- that weren't brought up there, so.

17 MR. LOWERY: Judge, it's obviously up to
18 you, but if Mr. Luebbert identifies other Staff
19 witness testimony that says XY and Z, it's in
20 evidence. I -- we would -- we probably could save
21 some time if -- not reading it all into the record.

22 JUDGE SEYER: Yeah. I agree with that.
23 So let's move on.

24 BY JUDGE SEYER:

25 **Q. And these are -- these are similar**

1 questions that I've asked other witnesses and I
2 believe you've been here throughout the hearing. But
3 do you believe -- or -- or well, will the actual solar
4 farm be part of the rate base for the -- for its
5 useful life of 30 years?

6 A. I believe that is Ameren's intention with
7 this program -- or with this project is to include the
8 cost of the assets in rate base.

9 Q. And -- and if Ameren used the same
10 discount rate it has used for other NPVRR gui- --
11 calculations, what would be the net present value of
12 having that project in rate base for 30 years?

13 A. So I can't speak to the specific discount
14 rate that Ameren's assumed in their work papers. What
15 I -- I -- I can speak to some of the -- the analysis
16 that Ms. Forsberg provided.

17 And I guess if -- if that is the kind of
18 the line of questioning that you have, I will say that
19 the analysis that she provided for the net present
20 value of revenue requirement assumes -- it relies on
21 various assumptions that are not certain at this time.
22 Revenues being one that is -- and I think my testimony
23 talks about this, but the revenues from the asset is
24 uncertain and won't be known until sometime later,
25 likely at the end of this asset's life.

1 I do talk about in my testimony that the
2 costs are relatively certain. And I used that term
3 "relatively" in rebuttal prior to knowing that the --
4 the costs would be increasing, kind of the -- to the
5 level that they would be in surrebuttal.

6 And so obviously that -- that -- I still
7 think that the costs are relatively certain and they
8 will be certain by the time that the co- -- or the
9 project is placed into rate base with the exception of
10 a few ongoing costs. But the vast majority of the
11 cost of this asset will be relatively certain in the
12 near term, while the overall economic outcome will not
13 be for some time.

14 **Q. Would the -- excuse me. Would the net**
15 **present value be different in the first 15 years that**
16 **it -- the project's in the rate base?**

17 A. Is that assuming that the Renewable
18 Solutions Program was -- was not approved?

19 **Q. Well, I was going to say assuming it is**
20 **approved.**

21 A. Okay. So again, there's -- you have to
22 make some assumptions, right? And so if you assume
23 that the Renewable Solutions Program is approved as
24 envisioned by the tariff filing at the beginning of
25 this case, I think the expectation, if you're

1 comparing to an option of not having the program, but
2 also not selling the RECs, then the answer is the
3 program would reduce revenue requirement compared to
4 that case.

5 However, I think that Staff would argue,
6 and I think certainly OPC has argued in the past, that
7 if there are RECs that are in excess of Missouri RES
8 requirements and a utility is allowing them to expire
9 without trying to gain the value that ratepayers have
10 paid for, that it may not be prudent to do that.

11 And so if you're comparing to a scenario
12 in which the utility has the asset but not the
13 Renewable Solutions Program and sells those RECs, the
14 answer is -- is that it depends on what the market
15 value of the RECs that they can sell is.

16 We don't know with certainty what the
17 market value of those RECs will be over the 15 years,
18 but what this program -- in my eyes, what this program
19 does provide is for the 10 participants, they have
20 a -- a relatively fixed idea of what those RECs will
21 cost them. But that is not something that I think
22 Ameren has been willing to -- I don't know that they
23 have been willing to project or guarantee what they
24 expect that price to be.

25 And I'm sorry that my answer doesn't give

1 you a -- a straightforward A versus B, but I think
2 that this is -- the program itself lends itself to
3 some complication.

4 Q. Understand that I am a lawyer and so I do
5 understand everything is not in black and white.
6 There is that gray area.

7 I want to shift gears a little bit. And
8 I think -- I think most witnesses would agree that
9 Ameren is going to face additional capacity needs.
10 When do you -- when do you think that Ameren will need
11 additional capacity to meet its customers' needs?

12 A. So I am going to give you another
13 multi--answer. And the reason behind that is the
14 capacity need that you may have is dependent on the
15 time period. And I think Mr. Lange talks about MISO
16 moving toward a seasonal capacity construct, which
17 it -- it differs from years past as far as the MISO
18 Planning Resource Auction in that it's not just one
19 time a year that you're looking at what the -- the
20 peak is for the -- the footprint or the zone. You're
21 looking at multi-seasons.

22 And so I think there's some figures
23 within Mr. Michels' testimony. And if you give me
24 some time, I can point you to the specific ones that
25 I'm looking at. But I think in 2027, they're

1 projecting that their accredited capacity from a MISO
2 standpoint would be less than what their projected
3 peak is in that year for winter.

4 And sometime -- I believe it's in 2030,
5 it may be in 2031 after the retirement of Sioux, that
6 they're projecting that same -- or they're projecting
7 a capacity deficit in the summer in that time frame.

8 And I think what we've heard from the
9 utility's witnesses yesterday is that the expectation
10 is that due to that retirement of Sioux, that
11 capacity's going to be replaced by the combined-cycle,
12 which they plan out in that same time frame.

13 **Q. And -- and for the sake of the court**
14 **reporter, we have a different court reporter today**
15 **than yesterday, so Sioux is S-i -- S-i-o-u-x?**

16 A. Yes.

17 **Q. And that refers to?**

18 A. The Sioux generating facility.

19 **Q. Okay.**

20 A. It is -- I guess -- should I clarify?
21 That is a -- an existing coal plant in Ameren
22 Missouri's fleet. Is that helpful?

23 **Q. It is to me, yeah. I would assume it's**
24 **helpful to the court reporter as well.**

25 **Public Counsel has suggested the**

1 possibility of a 50/50 sharing mechanism. Do you have
2 any opinion on that?

3 A. Yeah. So I -- I think the way that I
4 understood Dr. Marke's testimony as I read it in
5 rebuttal, is he may not have had a full grasp of what
6 their Renewable Solutions Program was actually doing.
7 And he talked a bit about having a 50/50 sharing
8 mechanism for the unsubscribed portions of the RSP.

9 Now, as it stands, I think the way that
10 the Company's witnesses have described it and possibly
11 some other parties as well, is that this -- it is
12 currently oversubscribed, meaning that they have
13 customers that are willing to take on additional
14 capacity if it becomes available.

15 And I think the current tariff sheets
16 allow -- or at least it envisions that Ameren may come
17 back in for an additional CCN and that would be kind
18 of rolled into their Renewable Solutions Program.

19 While I understand his concern, I think
20 that because of the -- kind of the current
21 subscription level, the concern that there may have
22 been with some of the other renewable programs, as I
23 understand them, was that, you know, an asset may be
24 built prior to kind of having a full subscription and
25 then that the remaining amounts may cause some risk.

1 So I guess I would -- I would say that I
2 don't think that Dr. Marke's proposed 50/50 sharing
3 goes far enough. And that is reflected by what our
4 recommendation is, is that if this program is designed
5 to meet a -- a quote/unquote need from these larger
6 industrial customers to be able to show these
7 renewable attributes, right, that if that is the need
8 that you're trying to meet, then the subscribers
9 should bear the costs of the entirety of the project.

10 Now, I think the way that some of the
11 testimony is written -- and this is especially true I
12 think in the direct testimony -- is that there's this
13 allusion -- and I guess allusion with an "a" not an
14 "i." I think that's an important distinction.

15 But there's an allusion that -- to this
16 concept that the subscribers are going to be paying
17 the vast majority of the overall costs of the asset.
18 And so part of that -- that tariff is that you have a
19 fixed charge that's based off of the -- the megawatts
20 or the -- the kilowatts of the asset itself, but then
21 you also have a credit to the bill that those
22 customer -- or those participating customers would get
23 on their bill that would offset that charge.

24 And so I think with Mr. -- Mr. Stahlman's
25 testimony speaks to this and I allude to it in my

1 testimony as well. The result is that a vast majority
2 of these costs are not actually borne by the
3 participants, they're borne by ratepayers as a whole
4 and there's a small offset based on the participants.

5 Now, I have a -- a percentage in -- in my
6 testimony. And again, that's based off of the -- the
7 cost that was provided to us as of supplemental
8 direct, but I -- so I think th- -- the effect of the
9 increased cost without changing any of the parameters
10 for the Renewable Solutions Program is that the
11 participant contribution is actually decreased on a
12 percentage basis compared to the overall cost of the
13 project.

14 And so I think an important aspect of
15 this case is understanding that if -- if a project is
16 being, kind of, pursued because of a small handful of
17 participant wants or needs, then the risk that the
18 project is ultimately uneconomic should be borne by
19 those -- those same entities, right? And if -- if not
20 those entities, then shareholders, as opposed to
21 ratepayers as a whole.

22 **Q. Somewhat in the same vein, with the**
23 **increased estimated project costs, do you still feel**
24 **that the project is economically feasible?**

25 **A.** So I will say that the increased cost,

1 along with some of Staff's concerns about the economic
2 efficiency of the decision to go forward with
3 Boomtown, I think the concern is heightened from
4 Staff's perspective.

5 The feasibility of the project I think
6 from -- and I think Mr. Stahlman's testimony talks
7 about this, but from the utility's perspective, it
8 is -- as long as they have the -- they have a
9 reasonable expectation that they'll be able to recover
10 the costs through their rates, I think the utility
11 would assume that it is feasible for them to put the
12 money up front as long as they could get recovery
13 later, right?

14 Now, I -- I don't know that Staff came
15 out and said that this project is not economically
16 feasible. We raised concerns with the economic
17 efficiency of moving forward with it and that probably
18 falls more under the public interest.

19 And I -- my testimony talks a lot about
20 why -- avoiding adding assets that may not be
21 necessary at this point or adding them well in advance
22 of a need can place some additional risk on
23 ratepayers. And so that's -- that's part of this.
24 Did I answer your question?

25 Q. Yes.

1 A. I'm sorry.

2 Q. Yes. But -- but how would you respond to
3 **Ameren's position that if they wait until the need is**
4 **absolute, that the -- then it may be too late as far**
5 **as a solar project goes because of the years that it**
6 **takes from conception to -- to bringing it online.**

7 A. Yeah, no. I'm glad you asked about that.
8 So some of the testimony from other parties in this
9 case appears to paint the picture that Staff has this
10 position that we should be waiting -- and I say -- I
11 shouldn't have said we. That Ameren should be waiting
12 until a point that a deficit's already occurred and
13 then building an asset to -- to make up for that
14 deficit. And that is not our position.

15 What our position is, is that in a case
16 where a utility's asking for a certificate, they have
17 the burden of proof of demonstrating what the need is
18 and why -- or -- or what the need is so that we, and
19 the Commission, can evaluate what the alternatives
20 might be for fulfilling that need.

21 So obviously we talked in our rebuttal
22 testimony a lot about how inefficient it is to build a
23 solar asset for a winter capacity need. And all of
24 that is absolutely true. But that is why it's
25 important to identify what the need is so that we can

1 kind of make that comparison of what the alternative
2 or the -- I'm sorry, I'm drawing a blank. What the
3 alternative economics may look like.

4 And I -- there was the last part of your
5 question I feel like I've not answered that, if you
6 could ask.

7 **Q. It's pretty late in the day so I don't**
8 **know that I can come up with that question. But it**
9 **was -- it was essentially keeping in mind that -- it**
10 **takes years to build a solar project.**

11 **A.** Yes. I'm sorry. And that's -- that's
12 where I wanted to get to. And I apologize for -- for
13 not getting there faster.

14 So I think it's an important -- some
15 important context to keep here is that in the last
16 few -- I don't want to say anything that's
17 confidential, but I don't think that I'm going to get
18 there.

19 In the last few CCN cases that Ameren has
20 had for renewables, they have done so through a
21 contract structure. Can I talk about just generally?

22 **MR. LOWERY:** Yeah. The -- the -- the
23 contract structure is not confidential. The fact of
24 the contract structure, no.

25 **THE WITNESS:** Just the -- the details

1 within there, right?

2 MR. LOWERY: The commercial terms --

3 THE WITNESS: Sure.

4 MR. LOWERY: -- processing, those kinds
5 of things, yes.

6 THE WITNESS: Okay. So Ameren has gone
7 through several CCNs in recent history, in the last
8 few years, and Staff's been a signatory for several of
9 them for renewable assets.

10 And the way that -- at least the ones
11 that I am most familiar with in recent history, the
12 way that Ameren has gone about that is through what's
13 called a BTA, or Build Transfer Agreement.

14 And essentially what that -- that process
15 looks like is Ameren might issue a Request for
16 Proposals, get responses back from developers and
17 those responses may be in various stages of
18 development. And so there may be some projects that,
19 you know, haven't gotten a single permit done, haven't
20 done an -- any field work, and there may be some
21 others that are much more farther along or advanced.

22 And so kind of the -- the concept that it
23 might take -- if you turn down this project, that it
24 may take eight years before you -- you see another
25 solar project in from Ameren isn't really -- I

1 wouldn't say it's a very good assumption, because of
2 the fact that in the MISO interconnection queue there
3 are thousands of -- thousands and thousands of
4 megawatts of not only solar, but there are also some
5 wind as- -- or some wind projects that have inter --
6 they've requested study from MISO to interconnect at a
7 specific point.

8 And so kind of the timeline that you're
9 looking at, it really depends on how far along in the
10 development of a specific project may be. And through
11 this request for proposals, Ameren has the ability to
12 say we would like a closing date or a operational date
13 by year X. And presumably that is the responses that
14 they would get from that request.

15 And I -- I don't think that the --
16 it's -- it's not like the -- the request for -- the
17 RFPs that I'm familiar with have not been, you know,
18 there's only three responses. There have been a
19 multitude of -- of responses. And obviously you
20 narrow from there based off of what your preferences
21 are.

22 **Q. Okay. There's -- there is one last area**
23 **I'd like to get into, and I believe Mr. Graham**
24 **indicated earlier that -- that you may be able to**
25 **speak to Staff's review of Ms. Forsberg's modeling and**

1 the work papers involved with that. So did you have
2 access to the work papers that supported
3 Ms. Forsberg's -- I believe it's Schedule LJF-D3, SD2
4 and S2, so connected with direct -- supplemental
5 direct and surrebuttal testimony.

6 A. So I did have access to those work papers
7 and I did review them. I don't know that I have -- I
8 know that I have the -- the supplemental -- I think it
9 was S1 and 2. I have those printed off for certain.
10 I may or may not have the direct. And so if you've
11 got specific questions, I think I can pull it up on
12 EFIS if needed.

13 Q. Really they're more general questions.

14 A. Okay.

15 Q. So you -- you did have a chance to review
16 those work papers in detail?

17 A. I did.

18 Q. And did you have discussions with people
19 at Ameren about the work papers and the modeling?

20 A. I did.

21 Q. Okay. Did you find the modeling in the
22 work papers to be reliable?

23 A. So I -- I want to break my answer into
24 two separate answers. And the reason being is that in
25 the initial direct filing there was an assumption of

1 the tax equity --

2 Q. Uh-huh.

3 A. -- partnership. In surrebuttal, the
4 analysis that Ms. Forsberg does reintroduces the --
5 the concept of a tax equity partnership. But the
6 supplemental direct assumes a Production Tax Credit
7 only, without a tax equity partnership. And there are
8 several reasons why that's important and I'm glad you
9 brought it up because I would like to explain this to
10 you.

11 So first of all, had Staff been -- been
12 aware that the tax equity partnership was on the
13 table, we would have had additional witnesses likely
14 address that concept. And, in fact, we sent data
15 requests to Ameren prior to our rebuttal being filed
16 around a myriad of things, but a few of them that
17 are -- are, you know, personal to questions that I
18 asked are for copies of if not the exact contracts,
19 kinds of examples of the contract for differences.

20 And I think Ms. Forsberg's Schedule S1
21 discusses that at least in -- in some detail. It may
22 be kind of vague, but there is some reference to that.
23 CFD I think it's -- it's called in her --

24 Q. Excuse me. Actually I think that's in
25 S2.

1 A. Okay. Yep. That -- that sounds correct.
2 So that being said, I -- we -- we had some other Staff
3 witnesses that would have started looking into some of
4 the issues that we may have surrounding the
5 introduction of this tax equity partner. And
6 obviously they didn't file testimony in rebuttal
7 because that was kind of -- I may put this wrong and
8 my -- my counsel may yell at me, but I did think it
9 was kind of considered off the table at that point,
10 especially considering that they asked whether or not
11 they could be relieved of actually answering the
12 questions that we had.

13 But we have -- and I can speak to just
14 generally some of the concerns that we have with
15 introduction of this tax equity partner. First and
16 foremost, you're introducing yet another --

17 MR. LOWERY: Your Honor -- Your Honor, if
18 I can interject, I don't think his -- his answer's
19 responsive to your question.

20 And the other thing that I would
21 indicate, it's irrelevant at this point. We swore in
22 testimony yesterday that if we use a tax equity
23 partner, we will come back to the Commission for
24 permission related to that, in which case the Staff
25 will get a full opportunity to address the issues.

1 I think we're just going into an area
2 that's hypothetical and irrelevant because we may not
3 ever use a tax equity partner.

4 JUDGE SEYER: I see that. I --

5 MR. GRAHAM: Your Honor, if I may
6 respond. I heard a lot of argument there, but it did
7 not go to the relevance of the question. The only
8 thing that Staff did was argue its case and how -- how
9 Staff or Ameren was going to avoid the problems that
10 this witness is addressing. That is not a proper
11 objection as to relevance.

12 MR. LOWERY: I -- or my -- my objection
13 was that his answer is non-responsive and -- in
14 that -- because it is irrelevant, Judge. And I do --
15 and I believe that is a valid objection and I don't
16 think he should -- he didn't -- he's not answering
17 your question. He's making a speech about a
18 hypothetical situation where we might or might not
19 ever come back to the Commission and ask for tax
20 equity.

21 THE WITNESS: It --

22 JUDGE SEYER: I do see your point,
23 Mr. Lowery.

24 THE WITNESS: If -- if you'll give me
25 just one moment.

1 MR. GRAHAM: I'm sorry, Your Honor --

2 MR. LOWERY: I'd like the Judge to rule
3 first before you -- you --

4 MR. GRAHAM: -- what was the ruling?
5 Before you rule on the relevancy objection, I'd like
6 to observe that the -- that the subject of this answer
7 and what the witness is discussing is in their work
8 papers, the assumptions that they made. He's
9 addressing the assumptions. And you can't necessarily
10 do that with a yes or no or a five-word answer.

11 My point is that his testimony is
12 relevant. That's a response to the relevance
13 objection.

14 MR. LOWERY: His answer's non-responsive
15 to the question you asked, however.

16 JUDGE SEYER: Fair enough. I -- let me
17 try to rephrase my question.

18 BY JUDGE SEYER:

19 Q. So you would agree, would you not,
20 that -- that what was -- that what these Schedules S1
21 and S2 present is modeling without a tax equity
22 partner. Or am I --

23 A. No. The -- the schedules that are in
24 support of Lindsey Forsberg's sup- -- or surrebuttal
25 testimony assume a tax equity partnership in

1 conjunction with Investment Tax Credits, as well as an
2 adder on top of that, which is fundamentally different
3 from the analysis that was provided in support of her
4 supplemental direct.

5 **Q. Okay. All right. Then I'm -- you**
6 **provided me with -- with I think sufficient**
7 **information. I think previous witnesses have also**
8 **provided me with sufficient information on that topic.**

9 JUDGE SEYER: So I don't have any further
10 questions. Is there any recross, Mr. Williams?

11 MR. WILLIAMS: Thank you, no.

12 JUDGE SEYER: How about the other
13 parties?

14 MS. PLESCIA: MIEC has a couple of
15 questions.

16 JUDGE SEYER: All right. Ms. Plescia.

17 MS. PLESCIA: Sure.

18 RECROSS-EXAMINATION BY MS. PLESCIA:

19 **Q. Mr. Luebbert, what do you -- what do you**
20 **think the costs are of creating the RECs that are part**
21 **of the RSP?**

22 A. So can we go in-camera really quick for
23 my response?

24 JUDGE SEYER: Yeah. Just a second. All
25 right. We are in-camera.

1 (At the time, this was requested to be
2 in-camera. On page 510, it was ordered by Judge Seyer
3 that this portion could remain in the public session.)

4 THE WITNESS: So the answer to this is
5 actually further complicated by the potential
6 introduction of a tax equity partner, because there's
7 a very real possibility -- and there's testimony
8 within this docket that hasn't been provided in this
9 case or hasn't been offered yet because of the fact
10 that the tax equity partnership was, quote/unquote,
11 off the table.

12 But there's a very real chance that
13 Ameren ratepayers are going to have to pay for every
14 single REC that's produced from this asset while
15 there's a tax equity partner. And so there will be a
16 cost of RECs, there will be a cost of capacity for all
17 of the capacity that's accredited for MISO and they'll
18 have to pay for energy.

19 And I believe that cost of energy is
20 going to be in excess of what the revenues assumed in
21 the early years are.

22 BY MS. PLESCIA:

23 Q. Okay. So let me make the question a
24 little more -- let's assume for a second that the tax
25 equity partner issue goes away, that there is no tax

1 equity partner. Or let's say that it's determined at
2 some point or you change your mind and the tax equity
3 partner issue does -- goes away and you're just
4 looking at, you know, there is no tax equity partner
5 or it turns out that it -- the tax equity partner
6 doesn't become an issue in terms of cost.

7 A. Okay.

8 Q. In that event, would you agree that
9 the -- that the RECs do not have any incremental cost?

10 MR. WILLIAMS: Before you answer that, do
11 we still need to be in-camera?

12 THE WITNESS: Probably not, no.

13 BY MS. PLESCIA:

14 Q. Or -- or I can ask it another way. Did
15 you hear Mr. Wills' testimony on behalf of Ameren?

16 JUDGE SEYER: Let's -- let's first --

17 MS. PLESCIA: Okay.

18 JUDGE SEYER: -- address that,
19 Mr. Williams' point of whether we still need to be
20 in-camera.

21 MS. PLESCIA: Okay.

22 MR. WILLIAMS: I believe the question
23 doesn't need to be --

24 JUDGE SEYER: Could you turn -- turn on
25 your microphone?

1 MR. WILLIAMS: I believe the question is
2 not confidential either. If she'd restate it
3 publicly, I'd appreciate it.

4 IT ASSISTANT: So go out of camera?

5 JUDGE SEYER: If everyone's in agreement,
6 yes.

7 MS. PLESCIA: Sure.

8 JUDGE SEYER: Yes, let's go -- all right.

9 MR. LOWERY: Your Honor, just -- just to
10 clear up the record, I don't think his answer was
11 confidential either. He's just talking conceptually
12 about tax equity partners. He didn't talk about facts
13 and figures and terms and so on. So I appreciate him
14 being careful, but I don't -- I think we could just --
15 the whole thing in the transcript could be public.

16 JUDGE SEYER: Okay. Yes?

17 MR. WILLIAMS: I move that it be made
18 public.

19 JUDGE SEYER: Okay.

20 THE WITNESS: I apologize to --

21 JUDGE SEYER: If there's no objection to
22 that --

23 MS. PLESCIA: Okay. So -- so --

24 JUDGE SEYER: I'm sorry. I didn't
25 mean -- I'm sorry. I didn't mean to talk over you and

1 I didn't mean to talk over you, Ms. Plescia.

2 MS. PLESCIA: I'm sorry. I was talking
3 over you. I'm sorry.

4 JUDGE SEYER: But -- so if there's no
5 objection, then -- then we will -- in the transcript
6 that will not be in an in-camera portion of the
7 transcript. Okay. All right, Ms. Plescia.

8 BY MS. PLESCIA:

9 Q. And then my final question is, did you
10 hear Mr. Wills' testimony on behalf of Ameren
11 yesterday in -- stating to the effect that there are
12 no incremental costs associated with the RECs under
13 the RSP?

14 A. I did hear his testimony yesterday.

15 Q. Okay. No other questions. Thank you.

16 JUDGE SEYER: All right. Mr. Lowery, do
17 you have recross?

18 RE-CROSS-EXAMINATION BY MR. LOWERY:

19 Q Mr. Luebbert, I believe you talked about,
20 in response to some of the questions from the Judge --
21 and I don't remember whether you said hundreds or
22 thousands. I think you said thousands or tens of
23 thousands of megawatts of wind and solar in the MISO
24 generation queue is more or less what you said, right?

25 A. Correct.

1 **Q. What percentage of projects that apply**
2 **and get in the queue actually get built, do you know?**

3 A. I don't. I can't give you an exact
4 percentage, but I will concede that it is a small
5 percentage that kind of come to completion, so to
6 speak.

7 **Q. Less than 10 percent?**

8 A. I can't give you a percentage. I'm
9 sorry.

10 **Q. But it's -- it's -- it's way lower than**
11 **100 percent, isn't it?**

12 A. Oh, absolutely.

13 **Q. So the number of megawatts in the queue**
14 **at a given time is not a particularly good indicator**
15 **of what projects are going to get built; isn't that**
16 **fair?**

17 A. It doesn't provide a good indication of
18 which projects would be completed. I'm sorry. I'm
19 not sure if I answered your question.

20 **Q. No, I think you did.**

21 A. Okay.

22 **Q. I think there were some questions and --**
23 **and I think in your answer you talked about if Ameren**
24 **let RECs expire or you made some mention of expired**
25 **RECs. Do you recall that?**

1 A. I do.

2 Q. Ameren Missouri is not proposing as part
3 of the Renewable Solutions Program to let the RECs
4 just expire, is it?

5 A. No.

6 Q. And I also think you mentioned a case
7 that OPC had brought against Evergy where OPC -- and
8 I'm summarizing the basic point, but I think OPC's
9 point was that Evergy had RECs that it didn't need for
10 RES compliance and it didn't sell them and that that
11 was imprudent. That was the allegation, right?

12 A. That was the allegation in that case, I
13 believe.

14 Q. And the Commission disagreed with that
15 and did not sustain OPC's complaint, did it?

16 A. That is my understanding of the result of
17 the first time that that was brought to the
18 Commission.

19 MR. LOWERY: I don't think I have
20 anything else, Judge.

21 JUDGE SEYER: All right. Mr. Graham, any
22 redirect?

23 MR. GRAHAM: Yes. Thank you, Your Honor.

24 REDIRECT EXAMINATION BY MR. GRAHAM:

25 Q. Did Ameren consider selling RECs as part

1 of their modeling presented in Ms. Forsberg's work
2 papers?

3 A. No. The -- the analysis in
4 Ms. Forsberg's work papers assumes that the -- well, I
5 don't believe that they had a value for sold RECs in
6 the scenario where the Renewable Solutions Program was
7 not approved.

8 Obviously -- and I think Mr. Lowery
9 alluded to this in the question for me, but in -- in a
10 scenario that the Renewable Solutions Program exists,
11 those RECs aren't for Ameren to do anything with,
12 because they're either going to be retired on behalf
13 of the participants or transferred to their name.

14 Q. You may have touched on this in your
15 response, but my next question is, would a forecast of
16 the REC prices be helpful in showing the viability or
17 prudence of the RSP?

18 A. So it would certainly help. I -- I think
19 it would help with the -- determining whether or not
20 the pricing was appropriate if a forecast existed.
21 I'm not aware of one, but there may be others that are
22 aware of something. But I think Mr. Cunigan mentioned
23 that kind of information is scarce at this point.

24 Q. If there is a known capacity need in the
25 future, could -- could Ameren advance the construction

1 **to meet an energy need?**

2 A. So I want to restate the question.

3 MR. LOWERY: I'm going to object to the
4 extent it calls for speculation. There's been no
5 foundation laid that this witness has any idea what
6 Ameren could or could not do. The question is also
7 vague. Advance construction of what?

8 JUDGE SEYER: Mr. Graham, how would you
9 reply to that?

10 MR. GRAHAM: I'm going to withdraw that
11 question.

12 JUDGE SEYER: All right.

13 BY MR. GRAHAM:

14 **Q. Under the proposed tariff, who gets the**
15 **benefit of the energy produced?**

16 A. Under the Renewable Solutions Program,
17 the participants will receive the benefit of whichever
18 RECs are produced. That being said, the revenues from
19 the asset itself would flow through the FAC just as
20 any other generating resource.

21 Now, I would add that from Ameren's
22 analysis, those revenues aren't going to be enough to
23 offset the costs of the actual asset, and that's very
24 important. But nevertheless, the -- the revenues that
25 are produced will flow back to ratepayers as a whole.

1 Q. You discussed capacity needs and how
2 there is a seasonal aspect to capacity needs. Is
3 there also a seasonal aspect to the purported energy
4 needs?

5 A. Yeah. So that's -- that's actually a
6 very important -- important point for the Commission
7 to consider in this case. So Mr. Michels' testimony
8 provides kind of a glimpse of what the annual energy
9 shortfall might be going out in the future.

10 He gives a few different scenarios; one
11 of which assumes that no additional generation beyond
12 Huck Finn is added; and then another scenario where
13 the -- a potential combined cycle gets added at some
14 point in the future.

15 What they -- what an annual energy
16 shortfall doesn't tell you is something that's very
17 important for the economics of the decision of whether
18 or not to move forward or not. And that is that the
19 timing and location of generation and load is
20 extremely important.

21 So a utility might be producing much more
22 generation than its load in a given year and lose
23 money on a large portion of that generation,
24 especially if that generation is being bid in at a
25 negative price.

1 So you might be being dispatched and
2 paying \$5 per megawatt hour for every megawatt hour
3 you generate. Presumably for renewables, you might do
4 that because of a tax benefit, but for other assets
5 you might do that because there's some reliability or
6 maintenance issue that could arise from starting and
7 stopping.

8 And so especially with kind of large
9 units that -- that aren't flexible in the amount of
10 output, you may operate at a loss for a period of time
11 in order to hopefully, in the long run, make revenues
12 that would exceed those costs.

13 But looking at an energy shortfall on an
14 annual basis really doesn't tell you much about the
15 economics of whether or not you -- you add a resource.
16 Adding a resource is a, you know, locked-in win
17 because the timing matters.

18 So kind of contrary to the example that I
19 provided where you might be producing a lot of energy
20 at a loss, there's a chance that you produce a smaller
21 amount of energy than what your load consumes in a
22 year, but the energy that you produce had very high
23 market prices and the revenues were high from that.

24 And so just looking at the total
25 generation compared to the total load in megawatt

1 hours on an annual basis really isn't -- isn't kind of
2 the best metric, especially given kind of the
3 construct that Ameren is operating in because of MISO.
4 And what I mean by that is that every megawatt hour
5 that Ameren's generating units produce are sold into
6 MISO at a given value in a given time period. And
7 Ameren is going to purchase enough energy to meet its
8 load in every single hour of every single year, unless
9 something changes.

10 The fact that you add -- the fact that
11 you add Boomtown as an asset will not change the
12 amount of market energy purchases to serve Ameren's
13 load.

14 **Q. Mr. Luebbert, can -- can building a**
15 **facility like this, both for purposes of capacity and**
16 **for purposes of energy, be redundant?**

17 **A.** So that's -- that's a great question and
18 it goes to kind of the economic efficiency that I
19 alluded to earlier. Ameren has a plan to add this
20 combined cycle somewhere around the time that it
21 expects to retire Sioux.

22 And I think what we heard yesterday from
23 their witnesses is that they're going to be replacing
24 the capacity from Sioux with that combined cycle. And
25 largely that that capacity need hits a summer need --

1 and this is out in kind of the 2031 time frame.

2 So if you're building resources now that
3 can only provide -- or -- or their best kind of
4 attributes is to provide energy with the expectation
5 that you're going to build another asset in the future
6 to build -- to add capacity that's required to meet
7 MISO needs, the combined cycle's also going to provide
8 the potential to sell energy into the MISO market.

9 And I think looking at Ameren's -- at
10 Matt Michels' figures within his testimony where he
11 discusses no new RES -- no new resources -- sorry.
12 The -- the next addition being a combined cycle
13 without the additional renewable resources results in
14 Ameren having a short energy deficit, which I -- I
15 just talked about not being a great metric, but it
16 does have a short -- short duration energy deficit for
17 let's say three or four years. And then you add this
18 combined cycle unit in and it's -- it is back to a
19 surplus of energy on an annual basis.

20 Well, the assets that you're -- you're
21 requesting approval for have a 30-year life. And so
22 if you're only getting three years of kind of adding
23 to that energy deficit before you have to add another
24 asset, that's not a very efficient way to -- to kind
25 of spend money that ratepayers will end up realizing

1 through their rates.

2 Q. Is the word you're looking for
3 "redundancy"?

4 A. It could be redundant, yes.

5 MR. GRAHAM: I believe that's all the
6 questions Staff has.

7 JUDGE SEYER: All right. Thank you,
8 Mr. Luebbert, for your testimony.

9 All right. Mr. Graham, are there any
10 further witnesses that you wish to call?

11 MR. GRAHAM: I'm having trouble -- well,
12 no. Thank you.

13 JUDGE SEYER: All right. Let's discuss a
14 briefing schedule, if that's all right.

15 MR. LOWERY: I was going to bring that up
16 myself, Your Honor.

17 JUDGE SEYER: I can tell you this. We
18 have asked for the transcripts to be expedited. And
19 they should be filed in EFIS -- and for the sake of
20 the court reporter, that's E-F-I-S, the Commission's
21 Electronic Filing Information System. They should be
22 in EFIS by next -- or by February 15th.

23 MR. LOWERY: Judge, if I could make a
24 suggestion, the -- under the procedural schedule we
25 agreed to in this case, we had agreed that all

1 briefing we -- would be done by March 3rd. And
2 there's a timeline in terms of the Company on notice
3 to proceed in the contract and that's what's driving
4 that.

5 So I -- my recommendation would be that
6 we have one round of briefs due -- unless the
7 Commission wants reply briefs, and I may elaborate on
8 that, but one round of briefs due March 3rd and
9 that -- but parties -- I mean I guess parties could
10 always file any motion they want, but that the
11 Commission at least contemplate that the parties
12 could, say, by March 10th ask for leave to file a
13 reply brief by March 17th if the -- if the -- if a
14 party believed that it was helpful or necessary to do
15 so.

16 And of course, the Bench can rule on --
17 on whether or not we would have reply briefs or not.

18 MR. WILLIAMS: Jim, I'd offer something
19 in addition to that. And that would be a request that
20 the Commission indicate if it wants reply briefs by
21 March 10th.

22 MR. LOWERY: Well, I wasn't even saying
23 reply briefs by March 10th. We would -- we would ask
24 for leave to file one.

25 MR. WILLIAMS: I -- I understand, but the

1 Commission may decide it would desire to have them
2 and --

3 MR. LOWERY: Well, that -- that's true.

4 MR. WILLIAMS: -- as spoken earlier that
5 it --

6 MR. LOWERY: That's true.

7 MR. WILLIAMS: -- the request that it
8 would do so by March 10th.

9 JUDGE SEYER: Mr. Williams, are you
10 saying at the point that by March 3rd when the initial
11 briefs come in, if the -- if the Commission wishes to
12 have reply briefs, that they could make that decision
13 at that time?

14 MR. WILLIAMS: Yeah. Well, by
15 March 10th, at the same time the parties might ask for
16 an opportunity to provide reply briefs. If the
17 Commission's made a decision already that it desires
18 them, that it do so by that date.

19 JUDGE SEYER: Okay. Let me -- let me ask
20 you this though: Have the parties discussed this
21 timeline?

22 MR. GRAHAM: Yes.

23 MR. LOWERY: We haven't discussed --
24 we've -- I think everybody was -- well, I think
25 Mr. Williams would like to have more time, but I don't

1 think he was going to oppose initial briefs being due
2 March 3rd. I don't think we had ever reached any
3 consensus on what to do or not to do about reply
4 briefs.

5 Certainly the Company is willing to have
6 reply briefs in the case and have them due March 10th,
7 perhaps a little bit later than that. And -- and
8 obviously if the Commission thinks it would be useful,
9 we -- we -- we will, of course, abide by whatever the
10 Commission asks us to do, but --

11 JUDGE SEYER: And of course, we are
12 completing the hearing half a day, a day ahead of
13 time. How do you feel about briefs doing -- initial
14 briefs being due sooner and reply briefs being due by
15 March 3rd?

16 MR. LOWERY: If we had the transcripts a
17 little sooner, I would feel better about that. I --
18 what I had originally talked to the parties about was
19 asking that the transcripts be available by this
20 Friday and that we have initial briefs due by the 24th
21 of February. And I know that gave some of the other
22 parties some heartburn. It's a little hard to write
23 the brief without the transcript.

24 JUDGE SEYER: I understand.

25 MR. LOWERY: I don't want to speak for

1 the court reporter, but two days of hearing, three
2 days to get the transcript done, I -- I think it can
3 be done. You just have to pay for it.

4 MR. GRAHAM: Your Honor, I -- I know
5 we're never supposed to use the expression "press of
6 business," but that starts to create a press of
7 business with respect to the other files that Staff
8 has that it's burdened with other rate cases, MAWC,
9 the water cases and so forth.

10 JUDGE SEYER: Okay. So what --

11 MR. GRAHAM: So Staff really would be
12 hard pressed to move the deadline for the principal
13 brief up from March 3rd.

14 JUDGE SEYER: Okay.

15 MR. GRAHAM: So if you'd take that into
16 consideration so I don't have to mention in a
17 subsequent motion something about press of business.

18 JUDGE SEYER: Hey, I'm not opposed to the
19 term "press of business." It --

20 MR. GRAHAM: Well, I don't like to file
21 it on top of a deadline. I like to bring it up before
22 the deadline is set.

23 JUDGE SEYER: Fair enough. So -- so I'm
24 perfectly fine with one round of briefs due March 3rd
25 and we will leave it open to motions for reply briefs.

1 MR. LOWERY: And -- and then I guess we
2 would leave it open in terms of the date those would
3 be due, depending on what the motion is and what the
4 considerations are?

5 JUDGE SEYER: Right. Right. Right.

6 MR. LOWERY: That seems -- that seems
7 fair, Judge. Thank you.

8 JUDGE SEYER: Okay. All right. Then if
9 there's nothing further, I'll adjourn the hearing.
10 We'll go off the record.

11 (WHEREUPON, the proceedings were
12 concluded at 4:26 p.m.)

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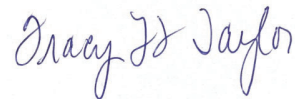
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CERTIFICATE OF REPORTER

I, Tracy Thorpe Taylor, CCR No. 939, within the State of Missouri, do hereby certify that the testimony appearing in the foregoing matter was duly sworn by me; that the testimony of said witnesses was taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this matter was taken, and further, that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.



Tracy Thorpe Taylor, CCR

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