

In the Matter of:
The Application of The Empire Electric Company

EA-2019-0010 VOL. IV

April 09, 2019



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BEFORE THE PUBLIC SERVICE COMMISSION

STATE OF MISSOURI

TRANSCRIPT OF PROCEEDINGS

Evidentiary Hearing

April 9, 2019

Jefferson City, Missouri

Volume 4

In The Matter Of The Application) File No.
Of The Empire District Electric) EA-2019-0010
Company for a Certificate Of)
Convenience And Necessity Related)
To Its Customer Savings Plan)

NANCY DIPPELL, Presiding
SENIOR REGULATORY LAW JUDGE

RYAN A. SILVEY, Chairman,
WILLIAM P. KENNEY,
DANIEL Y. HALL,
SCOTT T. RUPP,
COMMISSIONERS

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(RENEW MISSOURI EXHIBIT 300 AND DIVISION OF ENERGY EXHIBIT 400 WERE MARKED FOR IDENTIFICATION BY THE COURT REPORTER.)

JUDGE DIPPELL: We can go ahead and go on the record. Good morning. It is April 9, 2019, and we are resuming with a hearing in EA-2019-0010. And when we left yesterday afternoon, Mr. McMahon was on the stand and I asked him to return today in case there were any additional Commissioner questions. There were not any additional Commissioner questions for him. So I apologize for making him stay over if that wasn't necessary, but he is now excused.

(Witness excused.)

JUDGE DIPPELL: And we can go ahead and begin with Empire's next witness.

MR. COOPER: Judge, we would call Timothy Wilson.

JUDGE DIPPELL: And I guess I should say we have a few witness hitches today. I'm informed that Mr. Hyman is ill and so will not be appearing today. We will take him tomorrow and make accommodations for him as necessary. And we may also have some Renew witness stuff but we'll deal with that when we get there. Would you please raise your right hand?

1 (Witness sworn.)

2 JUDGE DIPPELL: Thank you. You can go ahead.

3 TIMOTHY WILSON, being sworn, testified as follows:

4 DIRECT EXAMINATION BY MR. COOPER:

5 Q. Please state your name.

6 A. Timothy N. Wilson.

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

8 A. I'm employed by Liberty Utility Service Corp.

9 as the Central Region Director of Electric Operation
10 Services.

11 Q. Have you caused to be prepared for this
12 testimony -- or for this case certain direct and
13 surrebuttal testimony in question and answer form?

14 A. Yes.

15 Q. And does that include both your corrected
16 direct testimony in the EA-2019-0010 case, your direct
17 testimony in the EA-2019-0118 case and then just your
18 surrebuttal in the 0010 case?

19 A. Yes.

20 Q. And is it your understanding that that direct
21 testimony, corrected direct testimony from 0010 has been
22 marked as Exhibit 9 in HC, confidential and public
23 versions; that your direct testimony from 0118 has been
24 marked as Exhibit 10 in highly confidential,
25 confidential and public versions; and that your

1 surrebuttal testimony has been marked as Exhibit 11 in
2 highly confidential and public versions?

3 A. Yes.

4 Q. Do you have any changes you would like to make
5 to that testimony at this time?

6 A. I do not.

7 Q. If I were to ask you the questions which are
8 contained in Exhibits 9, 10 and 11 today, would your
9 answers be the same?

10 A. Yes, they would.

11 Q. Are those answers true and correct to the best
12 of your information, knowledge and belief?

13 A. Yes.

14 MR. COOPER: Your Honor, I would offer
15 Exhibits 9, 10 and 11 in all forms and tender the
16 witness for cross-examination.

17 JUDGE DIPPELL: All right. Would there be any
18 objection to Exhibits 9 which is highly confidential and
19 public, 10 which is highly confidential, confidential
20 and public and 11 which is highly confidential and
21 public? Did I say that correct? Is there also a
22 confidential 9?

23 MR. COOPER: There is, yes, Judge.

24 JUDGE DIPPELL: And also 9 in the confidential
25 version. Any objections? Seeing none, I will admit

1 Exhibits 9, 10 and 11 in those formats.

2 (COMPANY EXHIBITS 9, 10 AND 11 WERE RECEIVED
3 INTO EVIDENCE AND MADE A PART OF THIS RECORD.)

4 JUDGE DIPPELL: Is there cross-examination
5 from Renew Missouri?

6 MR. OPITZ: No, thank you, Judge.

7 JUDGE DIPPELL: Division of Energy?

8 MS. REEVES: No, Your Honor.

9 JUDGE DIPPELL: MEGC?

10 MR. WOODSMALL: No questions.

11 JUDGE DIPPELL: Staff?

12 MS. ASLIN: No questions.

13 JUDGE DIPPELL: Public counsel?

14 MR. WILLIAMS: Thank you, Judge. Good
15 morning, Mr. Wilson.

16 THE WITNESS: Good morning.

17 CROSS-EXAMINATION BY MR. WILLIAMS:

18 Q. I think you were here when Mr. Mertens was
19 testifying. You recall I asked him some questions about
20 the Meridian Way and Elk River purchase power
21 agreements?

22 A. Yes.

23 Q. Were you familiar with when those agreements
24 were entered into by Empire?

25 A. I am generally familiar with that. I was in a

1 different role at the time, but I'm generally familiar
2 with at least the dates at which we entered into them
3 and their expiration dates.

4 Q. Do you know why Empire entered into the
5 Meridian Way and Elk River agreement?

6 A. I'm more familiar with why we entered into the
7 Meridian Way agreement, as I wrote a memo that outlined
8 the responses and the evaluation that we performed and
9 why we chose Meridian Way at that time.

10 Q. And why was Meridian Way chosen at that point
11 in time?

12 A. At that time we did not have a capacity need
13 and it was made based upon economics known at that time.

14 Q. When you say "economics known at that time,"
15 were there projections considered in determining the
16 economics of entering into that agreement?

17 A. Yes, there were.

18 Q. It is a 20-year agreement, is it not?

19 A. It is a 20-year agreement. It expires in
20 2028.

21 Q. Were those projections on the economics
22 accurate?

23 A. I think the projections on the economics made
24 at that time were the best projections that were
25 available at that time.

1 Q. But that's not my question. I'm just asking
2 did they turn out to be accurate?

3 A. If you look at a vacuum, maybe one year, no,
4 but I know certainly in the early years it was very much
5 so a hedge against high natural gas prices.

6 Q. Have they become -- Let's see. Have the
7 projections that were made, say, for ten years out
8 turned out to be accurate?

9 A. I don't have an analysis in front of me that
10 would say one way or the other, but I know it has been
11 quote, unquote, good in certain years and certain years
12 not as good.

13 Q. Do you know if the revenues from the SPP
14 markets, say, for the year of 2018 have exceeded the
15 costs of the purchase power agreements from Meridian
16 Way?

17 A. I don't have that number in front of me.

18 Q. Are you saying you don't know? I'm not asking
19 for a number. I'm just saying has it exceeded or not?

20 A. To be honest, I would expect that the SPP
21 revenues associated with Meridian Way probably do not
22 match up with the costs associated with the purchase
23 power agreement in 2018 for that contract.

24 Q. And the same for Elk River, do you have any
25 sense about whether or not the revenues from SPP exceed

1 the costs of the PPA?

2 A. Again, I don't have those exact numbers in
3 front of me. That one would be closer to what you would
4 consider a break even than probably Meridian Way for
5 2018 especially.

6 Q. And why is that?

7 A. It's cheaper.

8 Q. Substantially?

9 A. Depending on what your version of, you know,
10 your meaning of substantially is. I don't recall
11 exactly the dollar per megawatt hour we're paying for
12 both, but it's probably 20 percent lower.

13 Q. Yeah, and I don't want to get into anything
14 confidential or highly confidential.

15 A. That's what I'm trying to stay out of.

16 Q. You've given me what I was looking for. Thank
17 you.

18 A. Absolutely.

19 Q. Do you know if anyone else is developing any
20 utility scale wind projects in Missouri within or near
21 Empire's territory?

22 A. Yes.

23 Q. And is anyone else looking at developing wind
24 projects in or about Empire's territory that would be
25 utility scale aside from Empire?

1 A. I believe so.

2 Q. And how big is the project and who's doing
3 that?

4 A. I think in response to OPC 2035.1, we
5 identified applications in the SPP generation
6 interconnect queue that are in our service territory.

7 Q. In Missouri?

8 A. In Missouri.

9 Q. And what is your response there?

10 A. Could you repeat the question?

11 Q. What is your response -- You referred to a
12 data request response. What's the response?

13 A. Well, the question was are any of the units
14 listed above in the SPP generating queue submitted by
15 Empire and the answer was no.

16 Q. Are you familiar with AVANGRID?

17 A. I am.

18 Q. Formerly known as Iberdrola, correct?

19 A. Correct.

20 Q. Do you know if Iberdrola looked at the
21 potential for developing wind farms at or near the sites
22 of Kings Point and North Fork?

23 A. Through previous Empire employees, I am aware
24 of the fact that Iberdrola at that time in the 2011 time
25 frame did look at potentially construction of wind farms

1 in and around the areas of North Fork Ridge and Kings
2 Point.

3 Q. In fact, Empire has acquired some wind data
4 from AVANGRID, has it not?

5 A. We have.

6 Q. But Iberdrola did not go forward with building
7 those wind farms, did it?

8 A. No, it did not.

9 MR. WILLIAMS: Thank you. No further
10 questions at this time.

11 JUDGE DIPPELL: Thank you. Are there
12 Commission questions for Mr. Wilson? Mr. Chairman?

13 CHAIRMAN SILVEY: Yes, thank you. Good
14 morning, Mr. Wilson.

15 THE WITNESS: Good morning.

16 QUESTIONS BY CHAIRMAN SILVEY:

17 Q. Do you have a copy of the non-unanimous stip?

18 A. Which one?

19 JUDGE DIPPELL: He's talking -- not the
20 Wildlife one.

21 THE WITNESS: Okay. Sorry. I worked on the
22 Wildlife one.

23 BY CHAIRMAN SILVEY:

24 Q. If you could turn to page number 5, please?

25 A. Yes.

1 Q. The last sentence of the top paragraph there
2 says in its subsequent quarterly report, Empire shall
3 address any results of the study that are material
4 changes and assumptions or costs related to the wind
5 projects. I had asked one of the witnesses yesterday
6 what the definition of material was in this sense, and
7 they suggested you would be the witness to clarify that.

8 A. Okay. Generally whenever we do -- with any
9 project we've done, we've always worked with Commission
10 staff and the parties to provide cost reports. So we
11 would be generally consistent with what we've done in
12 the past with respect to reporting on this project as
13 well.

14 Q. So is there a threshold either percentage of
15 cost or total dollar figure that you think would be
16 material?

17 A. I agree there's no definition of material.
18 What I would say is this is with respect to the GIA
19 Interconnect Queue, the DISIS Study results, and that
20 will actually go into the market protection provision
21 calculation. So in my opinion regardless if it's
22 material or not or even lower we would still provide
23 that information as it is a direct input to the MPP
24 calculation.

25 CHAIRMAN SILVEY: Okay. Thank you.

1 JUDGE DIPPELL: Commissioner Kenney,
2 questions?

3 COMMISSIONER KENNEY: No questions.

4 JUDGE DIPPELL: All right. I just have a
5 couple about the transmission lines.

6 THE WITNESS: Okay.

7 QUESTIONS BY JUDGE DIPPELL:

8 Q. So as part of this application, these
9 applications, Empire is asking to construct
10 approximately 20 miles of the tie line?

11 A. The gen-tie line, correct.

12 Q. Yes. It was unclear to me have those
13 landowners or easements been obtained for that already
14 or?

15 A. Yes. So we have -- We had two separate kind
16 of land rushes so to speak. The first was with respect
17 to the footprint where we were going to develop and
18 build the turbines on, which is about 50,000 acres in
19 total of the two sites. The second land rush was to
20 actually get the easements as you are asking about for
21 the gen-tie lines and yes, we have obtained all of the
22 easements for all 20 miles.

23 JUDGE DIPPELL: Okay. Is there further
24 cross-examination based on bench questions? From Renew?

25 MR. OPITZ: No, thank you, Judge.

1 JUDGE DIPPELL: Division of Energy?

2 MS. REEVES: No, Your Honor.

3 JUDGE DIPPELL: MEGC?

4 MR. WOODSMALL: No, Your Honor.

5 JUDGE DIPPELL: Staff?

6 MS. ASLIN: No, thank you.

7 JUDGE DIPPELL: Public counsel?

8 MR. WILLIAMS: No.

9 JUDGE DIPPELL: Is there any redirect?

10 MR. COOPER: No redirect.

11 JUDGE DIPPELL: Mr. Wilson, there could still
12 be another Commission question for you. So I'd ask if
13 you're not in need of rushing off if you could remain
14 for another hour or so until I make sure.

15 THE WITNESS: Absolutely.

16 JUDGE DIPPELL: Thank you.

17 THE WITNESS: Thank you.

18 JUDGE DIPPELL: You can step down for now.

19 Are there any other Empire witnesses? Is that the last?

20 MR. COOPER: That's our last witness, yes,
21 Your Honor.

22 JUDGE DIPPELL: Then we are ready to go to
23 Renew Missouri, and I believe you all have an agreement
24 about his testimony.

25 MR. OPITZ: Yes. Good morning, Judge. I

1 inquired of the parties who are participating, and they
2 all agreed to waive cross on Mr. Owen. If the
3 Commissioners are willing to waive cross as well, I
4 would move the admission of Exhibit 300, the surrebuttal
5 testimony of Mr. Owen. And if they do have questions, I
6 can make him available this afternoon.

7 JUDGE DIPPELL: All right. Any Commission
8 questions? I don't believe there's any Commission
9 questions. So we can go ahead with admission of his
10 testimony.

11 MS. OPITZ: Yes. So I would move for the
12 admission of Exhibit 300, the surrebuttal testimony of
13 Mr. James Owen.

14 JUDGE DIPPELL: Would there be any objection
15 to Exhibit No. 300, the surrebuttal testimony of James
16 Owen? Seeing none, then I will admit that.

17 (RENEW MISSOURI EXHIBIT 300 WAS RECEIVED INTO
18 EVIDENCE AND MADE A PART OF THIS RECORD.)

19 MR. OPITZ: Thank you, Judge.

20 JUDGE DIPPELL: Thank you. All right. So
21 that then brings us to Division of Energy, but Mr. Hyman
22 is ill this morning. We hope that he will be available
23 tomorrow. So we're going to skip over him and go to
24 staff.

25 MR. WILLIAMS: Judge, to the extent it would

1 help move the process along, public counsel has no cross
2 for Mr. Hyman if no other party does and the Commission
3 does not.

4 JUDGE DIPPELL: Okay. Does anyone know of any
5 other cross for Mr. Hyman?

6 MS. MERS: There's been several questions
7 about a provision related to Asbury and employment, and
8 Mr. Hyman in staff's view would be the most appropriate
9 witness to answer those questions. And I know that that
10 has been something that's come up several times.

11 JUDGE DIPPELL: Okay.

12 MS. MERS: I hate to make him do it.

13 JUDGE DIPPELL: No, that's fine. We'll keep
14 him on the list until we see how things go tomorrow. So
15 that brings us to staff's witnesses.

16 MS. MERS: Staff would call Natelle Dietrich
17 to the stand.

18 (Witness sworn.)

19 JUDGE DIPPELL: Thank you. Go ahead, Ms.
20 Mers.

21 NATELLE DIETRICH, being sworn, testified as follows:

22 DIRECT EXAMINATION BY MS. MERS:

23 Q. Will you please state and spell your name for
24 the record?

25 A. Natelle, N-a-t-e-l-l-e, Dietrich,

1 D-i-e-t-r-i-c-h.

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

3 A. I'm employed by the Missouri Public Service
4 Commission as the Commission Staff Director.

5 Q. Are you the same Natelle Dietrich who
6 contributed to rebuttal testimony of Natelle Dietrich
7 which has been marked as Exhibit 100, the staff rebuttal
8 report which has been marked as Exhibit 101 in highly
9 confidential and public form and the staff appendix
10 which has been marked as Exhibit 102?

11 A. Yes.

12 Q. Do you have any changes or corrections to your
13 testimony?

14 A. I do not.

15 Q. If I asked you those questions today, would
16 you give us substantially similar response?

17 A. Yes.

18 Q. Are those responses true and accurate to the
19 best of your knowledge and belief?

20 A. Yes, they are.

21 MS. MERS: At this time I would offer Exhibit
22 100.

23 JUDGE DIPPELL: Would there be any objection
24 to Exhibit No. 100? Seeing none, I will admit Exhibit
25 100.

1 (STAFF'S EXHIBIT 100 WAS RECEIVED INTO
2 EVIDENCE AND MADE A PART OF THIS RECORD.)

3 MS. MERS: I tender the witness for cross.

4 JUDGE DIPPELL: Is there cross-examination
5 from MECG?

6 MR. WOODSMALL: No, Your Honor.

7 JUDGE DIPPELL: Division of Energy?

8 MS. REEVES: No, Judge.

9 JUDGE DIPPELL: Renew Missouri?

10 MR. OPITZ: No, thank you, Judge.

11 JUDGE DIPPELL: Empire?

12 MR. COOPER: No questions.

13 JUDGE DIPPELL: Public counsel?

14 MR. WILLIAMS: Thank you.

15 CROSS-EXAMINATION BY MR. WILLIAMS:

16 Q. Ms. Dietrich, do you have a copy of the second
17 stipulation and agreement, the one that's more global in
18 nature?

19 A. I do.

20 Q. Turning to page 4 on number 12, subpart a,
21 would you take a look at that provision?

22 A. Okay.

23 Q. And what is staff's understanding of the
24 language at the end of that sentence or clause, I guess,
25 and in a manner that is not detrimental to EDE's

1 customers?

2 A. Well, to start I would say you have to read
3 the entire sentence together where it says the wind
4 project shall be operated in accordance with applicable
5 SPP integrated marketplace rules and in a manner that is
6 not detrimental to EDE's customers. So the way I read
7 that provision is that the projects will be operated
8 according to SPP rules and as such they would not be
9 detrimental to EDE's customers and then just that Empire
10 would not do anything to harm its customers through the
11 operation of the wind projects.

12 Q. I'm not trying to put words in your mouth, but
13 are you saying that the operation would be within the
14 scope of the Southwest Power Pool Integrated Marketplace
15 rules and then operation within those rules it has to be
16 in a manner that's not detrimental to Empire's
17 customers?

18 A. And then also just in general the operation
19 would not be detrimental to Empire's customers.

20 Q. Chairman Silvey was asking Mr. Wilson about
21 material changes and assumptions or costs which is on
22 page 5 in 12 d toward the end of that. In fact, it's
23 the last clause in that provision. What does staff
24 consider to be material changes and assumptions or
25 costs?

1 A. This particular section is talking about plans
2 and specifications and specifically construction level
3 plans and specifications. So in staff's opinion, if
4 there were material changes to what was filed in the
5 application what the Commission has considered as part
6 of granting the CCN, they would be subject to analysis
7 perhaps in the future. In other words, in these
8 quarterly reports Empire would be reporting any changes,
9 any party would have the opportunity to review what
10 Empire is reporting and ask them to explain it or
11 potentially bring something before the Commission if
12 they felt it was in conflict with or substantially
13 different than what the Commission approved.

14 Q. Is materiality here like beauty, it's in the
15 eye of the beholder or there's some more specific
16 criteria staff has in mind?

17 A. I would say there's no specific threshold. To
18 use your words, it would be in the eye of the beholder.
19 For instance, if for some reason a location of a wind
20 farm had to be changed and it wasn't something that was
21 considered in the various FAA documents or analyses and
22 things like that, that might be something if the turbine
23 had to be taller for some reason, just some things like
24 that that it would just have to be on a case-by-case
25 basis.

1 Q. And then in the next subsection e there's also
2 a reference to materiality, material changes in
3 assumptions or costs related to the wind project. Who
4 determines whether or not a change in assumption or cost
5 is material?

6 A. Well, in this particular provision, it says
7 Empire shall address any results that are material in
8 its assumptions. So initially Empire would, but I would
9 say the same thing that it would be subject to the other
10 parties being able to address it also or raise concerns
11 with Empire asking them questions and potentially filing
12 something with the Commission if they meaning the
13 parties determined that it was something that should be
14 brought to the Commission's attention.

15 Q. Does staff consider paragraph 13 to have
16 ratemaking implications?

17 A. I'm not sure what you specifically mean by
18 ratemaking implications, but it does say subject to
19 audit in EDE's next general rate case. So it would be
20 something that the Commission staff and any other party
21 could audit.

22 Q. Well, does being authorized to record its
23 capital investment to acquire the wind projects as
24 utility plant in service in staff's view have ratemaking
25 implications?

1 A. The Commission could look at the prudence of
2 those costs or the information in that account, but I
3 think it does imply some level of comfort for the
4 company that it could recover that amount. I would say
5 Mr. Oligschlaeger may be a better person to ask the
6 specifics on plant in service accounting.

7 Q. With regard to the market price protection
8 mechanism, which is referred to on I guess it's
9 paragraph 21 on page 9, the mechanism that's referred
10 there can be -- it will be at least ten years in length,
11 will it not?

12 A. Ten years from the date of the last project
13 going into rates is my understanding.

14 Q. So it could be longer than ten years
15 potentially?

16 A. Correct.

17 Q. And then on page 10 this is in regard to
18 paragraph 22 that talks about future battery/energy
19 storage technology. There's a reference about making a
20 presentation to the parties. What's your understanding
21 of who the parties are in that reference or staff's
22 understanding?

23 A. Most of the references in the stipulation
24 refer to signatories. Since this provision refers to
25 parties, I would view that as any party to the case, not

1 just those that were signatories to the stipulation. So
2 for instance, OPC and the couple that did not sign on to
3 the stipulation but indicated that they had no
4 objection.

5 Q. Do you believe party means the parties to this
6 case?

7 A. Yes.

8 MR. WILLIAMS: No further questions at this
9 time. Thank you.

10 JUDGE DIPPELL: Thank you. Are there
11 Commission questions? Not seeing any, is there any
12 redirect?

13 MS. MERS: Briefly.

14 REDIRECT EXAMINATION BY MS. MERS:

15 Q. You were asked about the material change in
16 assumption that is in various places, two sections. If
17 you turn to page 2 of the stipulation and look at
18 provision 5.

19 A. Okay.

20 Q. Do you understand that provision to also allow
21 parties to have the ability to bring issues in front of
22 the Commission if there is differences between what was
23 represented in this case by Empire and what the final
24 reports would show?

25 A. I think paragraph 4 and 5 have that

1 connotation. Paragraph 4 says the stipulation is based
2 on the circumstances EDE presented and then at the end
3 of that it says it shall not have precedential impact on
4 any other Commission proceeding and then 5 also says
5 that the stipulation is based on the information
6 provided by Empire.

7 Q. And you were also asked about provision 13 on
8 page 7 about rate basing wind projects. I know you're
9 not an accountant, but to your knowledge would this
10 treatment be any different from any other CCN case?

11 A. No.

12 MS. MERS: I have no further questions. Thank
13 you.

14 JUDGE DIPPELL: Thank you. I believe that
15 concludes your testimony and you may step down, Ms.
16 Dietrich.

17 (Witness excused.)

18 JUDGE DIPPELL: Would staff like to go ahead
19 and call its next witness?

20 MS. MERS: Staff calls J Luebbert to the
21 stand.

22 (Witness sworn.)

23 JUDGE DIPPELL: Thank you. Go ahead.
24 J LUEBBERT, being sworn, testified as follows:

25 DIRECT EXAMINATION BY MS. MERS:

1 Q. Will you please state and spell your name for
2 the record?

3 A. Letter J Luebbert, L-u-e-b-b-e-r-t.

4 Q. And by whom are you employed and in what
5 capacity?

6 A. I work for the Missouri Public Service
7 Commission as a Case Manager.

8 Q. Are you the same J Luebbert who contributed to
9 staff's rebuttal report which has been marked as Exhibit
10 101 in highly confidential and public form?

11 A. Yes, I am.

12 Q. And the appendix which has been marked as
13 Exhibit 102?

14 A. Yes.

15 Q. Do you have any changes or corrections to your
16 testimony?

17 A. No, I don't.

18 Q. Is that testimony true and accurate to the
19 best of your knowledge and belief?

20 A. Yes, it is.

21 Q. If I asked you those same questions today,
22 would you give the same responses?

23 A. Yes.

24 MS. MERS: All right. I will tender this
25 witness for cross then.

1 JUDGE DIPPELL: Is there any cross-examination
2 by MECG?

3 MR. WOODSMALL: Very briefly. Good morning,
4 sir.

5 THE WITNESS: Good morning.

6 CROSS-EXAMINATION BY MR. WOODSMALL:

7 Q. You're familiar with the market protection
8 provision; is that correct?

9 A. I am.

10 Q. And the market protection provision in the
11 non-unanimous stipulation differs from the MPP that you
12 recommended in the staff report; is that correct?

13 A. Yes, it does.

14 Q. Do you find that the market protection
15 provision in the stipulation is in the public interest
16 and why?

17 A. I do. I believe that the agreement that we
18 made for the market protection provision provides a
19 similar sharing of risk on the down side with the
20 potential for benefits to customers to go at --
21 basically all of the up side potential goes to customers
22 and it also allows EDE the opportunity to potentially
23 return -- get a return on their investment of those wind
24 farms.

25 MR. WOODSMALL: No further questions. Thank

1 you.

2 JUDGE DIPPELL: Is there cross-examination by
3 Division of Energy?

4 MS. REEVES: No, Judge.

5 JUDGE DIPPELL: Renew Missouri?

6 MR. OPITZ: No, thank you, Judge.

7 JUDGE DIPPELL: Empire?

8 MR. COOPER: No questions.

9 JUDGE DIPPELL: Public counsel?

10 MR. WILLIAMS: Thank you. Good morning, Mr.
11 Luebbert.

12 THE WITNESS: Good morning.

13 CROSS-EXAMINATION BY MR. WILLIAMS:

14 Q. Did staff perform any independent analysis of
15 the economics of Empire's wind projects?

16 A. Staff reviewed the evidence that Empire
17 provided both in this case and in the EO-2018-0092 case.
18 There was some additional analysis of the information
19 that they provided, but I don't think that staff did any
20 modeling of its own.

21 Q. It didn't rely on any sources other than those
22 which Empire provided, correct, for data?

23 A. I think that's correct.

24 MR. WILLIAMS: Thank you. No further
25 questions.

1 JUDGE DIPPELL: All right. Are there
2 Commission questions for Mr. Luebbert? Mr. Chairman?

3 CHAIRMAN SILVEY: No.

4 COMMISSIONER HALL: No questions. Thank you.

5 JUDGE DIPPELL: Is there any redirect?

6 MS. MERS: Briefly.

7 REDIRECT EXAMINATION BY MS. MERS:

8 Q. Counsel for MECG asked you about public
9 interest. Are you aware of any other process or
10 regulation that would support that finding?

11 A. Yes. The primary policy objective of Chapter
12 22 is the reduction of net present value of the revenue
13 requirement, and within this case and the modeling
14 analysis that was provided in the last case Empire has
15 substantially demonstrated that the addition of these
16 wind projects would reduce in that present value of
17 revenue requirement over a 20-year and a 30-year period.
18 I think the language in the Chapter 22 rule, Chapter 4
19 CSR 240-22.010, the first paragraph says the
20 Commission's policy and goal goes on to say that the
21 planning objectives are to ensure that the public
22 interest is adequately served. The second paragraph
23 then goes on to state that the fundamental objective,
24 among other things, is to provide the public with energy
25 services that are safe, reliable, and efficient, at just

1 and reasonable rates, in a manner that serves the public
2 interest and then paragraph (2)(B) of that same
3 paragraph says use minimization of the present worth of
4 long-run utility costs as the primary selection
5 criterion in choosing the preferred resource plan,
6 subject to the constraints thereon. So as I said, I
7 think Empire has done modeling analysis that
8 demonstrates their attempt to comply with that rule.

9 Q. And counsel for OPC asked you about relying on
10 information provided by the utility. Is that different
11 from any other case that we participate in?

12 A. No, it's not.

13 MS. MERS: No further questions. Thank you.

14 JUDGE DIPPELL: Thank you, Mr. Luebbert. That
15 concludes your testimony and you may step down.

16 THE WITNESS: Thank you.

17 (Witness excused.)

18 JUDGE DIPPELL: Staff may call its next
19 witness.

20 MS. MERS: Staff calls Mark Oligschlaeger to
21 the stand.

22 (Witness sworn.)

23 JUDGE DIPPELL: Thank you.

24 MARK OLIGSCHLAEGER, being sworn, testified as follows:

25 DIRECT EXAMINATION BY MS. MERS:

1 Q. Will you please state and spell your name for
2 the record?

3 A. Yes. Mark L. Oligschlaeger, M-a-r-k, middle
4 initial L, O-l-i-g-s-c-h-l-a-e-g-e-r.

5 Q. And by whom are you employed and in what
6 capacity?

7 A. I'm employed by the Missouri Public Service
8 Commission as the Manager of the Auditing Department.

9 Q. Are you the same Mark Oligschlaeger who
10 contributed to staff's rebuttal report which has been
11 marked as Exhibit 101 in highly confidential and public
12 form and the appendix which has been marked as Exhibit
13 102?

14 A. Yes.

15 Q. Do you have any changes or corrections to that
16 report?

17 A. No.

18 Q. And are your answers in that report true and
19 correct to the best of your knowledge and belief?

20 A. Yes.

21 Q. If I asked you those same questions today,
22 would you give similar responses?

23 A. Yes.

24 MS. MERS: All right. I would tender the
25 witness for cross.

1 JUDGE DIPPELL: Is there cross-examination by
2 MECG?

3 MR. WOODSMALL: No questions.

4 JUDGE DIPPELL: Division of Energy?

5 MS. REEVES: No, Judge.

6 JUDGE DIPPELL: Renew Missouri?

7 MR. OPITZ: No, thank you, Judge.

8 JUDGE DIPPELL: Empire?

9 MR. COOPER: No questions.

10 JUDGE DIPPELL: Public counsel?

11 MR. WILLIAMS: Thank you.

12 CROSS-EXAMINATION BY MR. WILLIAMS:

13 Q. Ms. Dietrich said you're the person to answer
14 this.

15 A. I'll try.

16 Q. On the non-unanimous stipulation and agreement
17 that was filed Friday, paragraph 13 on page 7, does
18 staff view that to have ratemaking implications?

19 A. Strictly speaking, no. It may be in a broad
20 sense have ratemaking implications, because booking
21 these costs to plant in service is the normal procedure
22 for making them eligible for recovery in a future rate
23 case.

24 Q. So something like an accounting authority
25 order impact?

1 A. Well, actually, yes, this specifies accounting
2 treatment for the plant investment at issue here.

3 Q. Are you familiar with that there are excused
4 events in some of the purchase and sale agreements?

5 A. Can you define excused events?

6 Q. My understanding of the excused events are
7 that if certain events transpire the added cost is
8 something that Empire would bear?

9 A. Yes, I believe so.

10 Q. And under this non-unanimous stipulation and
11 agreement, who would bear the costs of those ultimately
12 if they were to occur? For example, if an excused event
13 occurs so that Empire's costs go up, ultimately who
14 would bear that increased cost?

15 A. Under the terms of the stipulation and
16 agreement, I don't believe it really specifies. So I
17 think the answer to that question would be Empire could
18 conceivably seek recovery of such costs in future rate
19 proceedings and other parties could oppose.

20 Q. So that it might be a prudency issue that
21 would be litigated potentially?

22 A. Yes.

23 MR. WILLIAMS: Thank you. No further
24 questions at this time.

25 JUDGE DIPPELL: Are there questions for

1 Mr. Oligschlaeger from the Commission? Mr. Chairman?

2 CHAIRMAN SILVEY: Thank you. Good morning.

3 THE WITNESS: Good morning.

4 QUESTIONS BY CHAIRMAN SILVEY:

5 Q. Do you think that the market protection
6 mechanism in this non-unanimous stip is more reasonable
7 and offers better conditions than what staff recommended
8 in its original position statement and if so, why?

9 A. In some respects I think it is superior. For
10 example, I don't think staff explicitly recommended
11 elimination of the debt band in its initial position. I
12 may be wrong about that. But in general I think it's --
13 it certainly was something we found reasonable and I
14 think what was in our original position perhaps was more
15 of an ideal situation from ours and in the give and take
16 of the negotiating process we did end up with something
17 reasonable.

18 CHAIRMAN SILVEY: Okay. Thank you.

19 JUDGE DIPPELL: Any other Commission
20 questions?

21 COMMISSIONER HALL: Yeah.

22 JUDGE DIPPELL: Commissioner Hall?

23 QUESTIONS BY COMMISSIONER HALL:

24 Q. I'm not sure you answered that question,
25 because I had that exact same question. I mean, do you

1 think it protects ratepayers as well or better or not as
2 well as staff's original position on that provision?

3 A. I would say probably our original position can
4 be thought of as marginally more protective of customer
5 interests simply because, primarily because there was no
6 cap on the sharing. It would be 50/50 for all of it.
7 In this negotiated stipulation, there is a cap which
8 limits for the first ten years the exposure to
9 shareholders that is a soft cap, not hard.

10 Q. But in your view it is still a reasonable
11 compromise and balances the interests appropriately?

12 A. Yes, I do.

13 Q. Are you familiar with paragraph 17 of the
14 non-unanimous stip regarding Asbury?

15 A. Yes.

16 Q. Do you have that provision in front of you?

17 A. Yes, I do.

18 Q. Can you explain to me first of all what the
19 overall purpose of that provision is?

20 A. Okay. And to clarify, the section a of
21 paragraph 17 I really am not that familiar with that,
22 but to go to sections b and c what these provisions do
23 is it calls for the creation of certain regulatory
24 assets and liabilities if the Asbury plant is sold or
25 retired between general rate cases and it does not

1 specify any ratemaking treatment regarding Asbury and
2 its retirement status but instead kind of tees up
3 potential issues for litigation or resolution in future
4 rate cases.

5 Q. So is the purpose of it to delineate all of
6 the costs and all of the revenues that are related to
7 that facility and allowing the Commission at the next
8 rate case to determine what to do with them?

9 A. Yes, I would agree with that.

10 Q. Were you involved in the actual drafting of
11 this provision?

12 A. Not directly, no.

13 Q. Okay. So then to the extent you can answer,
14 the difference in the language between b and c where b
15 the Commission should authorize a regulatory asset and c
16 Empire will create a regulatory liability, is there a
17 reason for that drafting?

18 A. Yes. I would strongly suspect it has to do
19 with this. A regulatory asset means a company believes
20 that dollars will flow to it in the future from
21 customers. Okay. But nonetheless that's dependent on
22 ratemaking actions ultimately of the Commission and
23 until the rate case is taking place you can't be totally
24 certain that any such flow of dollars from customers to
25 the company will take place. So there have been issues

1 in the past where particularly I think the external
2 auditors of a utility may question a company's booking
3 of a regulatory asset because there's not sufficient
4 evidence to support a finding that there will be a
5 likelihood that such costs will flow in the future. I
6 think this language is generally intended to provide
7 greater comfort to the company in regard to that.

8 Q. If and when the facility is sold or retired,
9 it will be known what the undepreciated balance is,
10 correct?

11 A. It should be, yes.

12 Q. So why is there any question about that?

13 A. Actually that goes back to I think an issue in
14 the 2018-0092 case where I think the company at that
15 time asserted that to avoid writing off the
16 undepreciated value at the time of retirement they would
17 need this kind of accounting support. At that time, the
18 staff I believe was not sure that that was strictly
19 required under normal retirement accounting. So I would
20 say that this provision is here in order to give the
21 company comfort that kind of in a worst-case scenario
22 they will not have to immediately write off that
23 undepreciated balance.

24 Q. And is it your understanding that with regards
25 to provision c that the regulatory liability would

1 include the return on equity related to that facility?

2 A. I would interpret it as including return on
3 equity because there is a reference to capital costs
4 being deferred.

5 Q. Do you believe that it is appropriate in a
6 certificate case such as this to be making decisions
7 such as those set forth in paragraph 17?

8 A. I would say in most CCN cases these issues
9 should not arise or this type of issue should not arise.
10 This is in some respects a fairly unusual application
11 and that's why that's here. I'm not sure that answered
12 your question.

13 Q. So it's unusual but it's not necessarily
14 inappropriate?

15 A. Yes.

16 COMMISSIONER HALL: I have no further
17 questions. Thank you.

18 JUDGE DIPPELL: Is there any further
19 cross-examination based on questions from the bench from
20 MECG?

21 MR. WOODSMALL: Very briefly.

22 CROSS-EXAMINATION BY MR. WOODSMALL:

23 Q. You were asked a question on provision 17 b
24 and you talked about I think the word was likelihood of
25 recovery. Do you recall that?

1 A. Yes.

2 Q. Likelihood does not imply a guarantee of
3 recovery; is that correct?

4 A. No. It's more like probable of recovery.

5 Q. Okay. And it's something just to provide some
6 level of comfort regarding the booking for the external
7 auditors; is that your understanding?

8 A. Yes.

9 MR. WOODSMALL: No further questions. Thank
10 you.

11 JUDGE DIPPELL: Anything from Division of
12 Energy?

13 MS. REEVES: No, Judge.

14 JUDGE DIPPELL: Renew Missouri?

15 MR. OPITZ: No, thank you.

16 JUDGE DIPPELL: Empire?

17 MR. COOPER: No, thank you.

18 JUDGE DIPPELL: Public counsel?

19 MR. WILLIAMS: Thank you.

20 FURTHER CROSS-EXAMINATION BY MR. WILLIAMS:

21 Q. You recall the Chairman and Commissioner Hall
22 asking you some questions regarding staff's original
23 position and then the position in the non-unanimous
24 stipulation and agreement?

25 A. Yes.

1 Q. And you testified that you viewed the
2 non-unanimous stipulation and agreement to be an
3 appropriate balancing of the interests of the parties in
4 the case?

5 A. Yes.

6 Q. Was staff's original position an appropriate
7 balancing of the positions of the parties in the case?

8 A. I certainly would characterize it that way,
9 yes.

10 Q. But the two are different, are they not?

11 A. Well, I don't know that there's one right
12 answer in these types of situations.

13 Q. Have you ever seen any other certificate case
14 before the Commission where the Commission addressed
15 future ratemaking in that case?

16 A. I don't recall any. I'm not sure that the
17 Commission is being asked to address future ratemaking
18 directly within the stipulation.

19 Q. Well, are you familiar with any other case
20 where the Commission's engaged in the kind of let's call
21 it direction toward ratemaking in a certificate case
22 that's being proposed in this one?

23 A. No directly analagous case comes to mind.

24 MR. WILLIAMS: Thank you. No further
25 questions.

1 JUDGE DIPPELL: Is there any redirect by
2 staff?

3 REDIRECT EXAMINATION BY MS. MERS:

4 Q. You were asked by counsel for OPC about
5 excused events. In your view, would excused events that
6 increase the wind project cost, not only would those be
7 subject to a prudency review but would they be covered
8 by the market protection provision?

9 A. They would be subject to a prudency review;
10 and if they passed that test, then those costs would
11 flow into the market protection provision.

12 Q. Your understanding of the market protection
13 provision is just what the wind project costs are?

14 A. Costs and revenues, yes.

15 Q. You were asked by the Commissioners the
16 differences between our position and the stipulation.
17 Is it your understanding that the stipulation cap was
18 developed to cover the worst case?

19 A. Yes. Kind of the ballpark like the worst case
20 would likely be and actually I believe from our
21 perspective that perhaps the cap is even excessive of
22 that.

23 Q. What happens to costs that in the highly,
24 highly unlikely event that the cap was reached, what
25 happens to those costs at the end of ten years?

1 A. You mean the fifty-two and a half million
2 dollar cap is reached but the total financial loss
3 associated with the projects exceeds actually \$105
4 million? In that case, any excess it is my
5 understanding could be addressed in the next general
6 rate case and parties could make arguments about further
7 sharing perhaps 100 percent assignment to customers,
8 perhaps 100 percent assignment to shareholders for those
9 costs.

10 Q. You also had some Commission questions about
11 Asbury. In your view, does those provisions, do they
12 have the benefit of addressing all the pieces of the
13 Asbury pie at one time?

14 A. I think it's fairly comprehensive in terms of
15 Asbury costs and specifying future accounting treatment.

16 MS. MERS: I have no further questions. Thank
17 you.

18 JUDGE DIPPELL: Thank you. That concludes
19 your testimony of Mr. Oligschlaeger and you may step
20 down.

21 (Witness excused.)

22 JUDGE DIPPELL: Staff may call its next
23 witness.

24 MS. MERS: Staff calls Jeffrey Smith to the
25 stand.

1 (Witness sworn.)

2 JUDGE DIPPELL: Thank you.

3 JEFFREY SMITH, being sworn, testified as follows:

4 DIRECT EXAMINATION BY MS. MERS:

5 Q. Will you please state and spell your name for
6 the record?

7 A. My name is Jeffrey Smith spelled J-e-f-f-r-e-y
8 S-m-i-t-h.

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

10 A. I'm employed by the Missouri Public Service
11 Commission. I work as a Utility Regulatory Auditor in
12 the Financial Analysis Department.

13 Q. Are you the same Jeffrey Smith who contributed
14 to staff's rebuttal report which has been marked as
15 Exhibit 101 in highly confidential and public forms and
16 Exhibit 102, the appendix?

17 A. Yes.

18 Q. And do you have any changes or corrections to
19 that testimony?

20 A. I do not.

21 Q. And is that testimony true and accurate to the
22 best of your knowledge and belief?

23 A. Yes.

24 Q. And if I asked you those same questions today,
25 would you give the same answers?

1 A. I would.

2 MS. MERS: I would tender the witness for
3 cross.

4 JUDGE DIPPELL: Is there cross-examination by
5 Missouri Energy Consumers Group?

6 MR. WOODSMALL: No questions.

7 JUDGE DIPPELL: Division of Energy?

8 MS. REEVES: No, Judge.

9 JUDGE DIPPELL: Renew Missouri?

10 MR. OPITZ: No, thank you, Judge.

11 JUDGE DIPPELL: Empire?

12 MR. COOPER: No questions.

13 JUDGE DIPPELL: Public counsel?

14 MR. WILLIAMS: No, thank you.

15 JUDGE DIPPELL: Are there questions from the
16 Commissioners? Mr. Chairman?

17 CHAIRMAN SILVEY: No.

18 JUDGE DIPPELL: Let me check really quick.
19 Okay. I don't believe there are any questions. In that
20 case, you may step down.

21 (Witness excused.)

22 JUDGE DIPPELL: You get the air-conditioning
23 fixed and things just move right along. Staff can call
24 its next witness.

25 MS. MERS: Staff would call Cedric Cunigan to

1 the stand.

2 (Witness sworn.)

3 CEDRIC CUNIGAN, being sworn, testified as follows:

4 DIRECT EXAMINATION BY MS. ASLIN:

5 Q. Will you please state and spell your name for
6 the record?

7 A. Cedric, C-e-d-r-i-c, Cunigan, C-u-n-i-g-a-n.

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

9 A. The Missouri Public Service Commission, and
10 I'm a Utility Engineering Specialist III.

11 Q. Are you the same Cedric Cunigan who
12 contributed to staff's rebuttal report that's been
13 marked as Exhibit 101 HC and P and Exhibit 102, staff
14 appendix?

15 A. Yes.

16 Q. Do you have any changes or corrections to that
17 rebuttal report?

18 A. No.

19 Q. Is your contribution to the rebuttal report
20 true and correct to the best of your knowledge and
21 belief?

22 A. Yes.

23 Q. If I asked you about those same topics today,
24 would you give substantially similar responses?

25 A. Yes.

1 MS. ASLIN: I tender the witness for cross.

2 JUDGE DIPPELL: Is there cross-examination by
3 MECG?

4 MR. WOODSMALL: No questions.

5 JUDGE DIPPELL: Division of Energy?

6 MS. REEVES: No, Judge.

7 JUDGE DIPPELL: Renew Missouri?

8 MR. OPITZ: No, thank you, Judge.

9 JUDGE DIPPELL: Empire?

10 MR. COOPER: No questions.

11 JUDGE DIPPELL: Public counsel?

12 MR. WILLIAMS: No, thank you.

13 JUDGE DIPPELL: Are there any Commission
14 questions?

15 COMMISSIONER HALL: No questions.

16 JUDGE DIPPELL: I'm not seeing any questions
17 for you either. So you may step down.

18 (Witness excused.)

19 JUDGE DIPPELL: Staff can call its next
20 witness.

21 MS. ASLIN: Staff calls David Buttig.

22 (Witness sworn.)

23 DAVID BUTTIG, being sworn, testified as follows:

24 DIRECT EXAMINATION BY MS. ASLIN:

25 Q. Will you please state and spell your last name

1 for the record?

2 A. My name is David Buttig, last name is
3 B-u-t-t-i-g.

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

5 A. I work for the Missouri Public Service
6 Commission as a Utility Regulatory Engineer.

7 Q. Are you the same David Buttig who contributed
8 to staff's rebuttal report marked as Exhibit 101 highly
9 confidential and public and Exhibit 102, staff appendix?

10 A. I am.

11 Q. Do you have any changes or corrections to the
12 rebuttal report?

13 A. I do not.

14 Q. Is your contribution to the report true and
15 correct to the best of your knowledge and belief?

16 A. It is.

17 Q. If I asked you about those same topics today,
18 would you give substantially similar responses?

19 A. I would.

20 MS. ASLIN: I tender the witness for cross.

21 JUDGE DIPPELL: Let me just ask if there's
22 going to be any cross-examination for this witness. I'm
23 not seeing any. Are there Commission questions for this
24 witness?

25 COMMISSIONER HALL: No, thank you.

1 JUDGE DIPPELL: All right. Then I guess you
2 may be excused.

3 (Witness excused.)

4 MS. ASLIN: Staff calls Shawn Lange to the
5 stand.

6 (Witness sworn.)

7 JUDGE DIPPELL: Thank you.

8 SHAWN LANGE, being sworn, testified as follows:

9 DIRECT EXAMINATION BY MS. ASLIN:

10 Q. Will you please state and spell your name for
11 the record?

12 A. My name is Shawn, S-h-a-w-n, E. Lange,
13 L-a-n-g-e.

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

15 A. I am employed by the Missouri Public Service
16 Commission as a Utility Regulatory Engineer I.

17 Q. Are you the same Shawn Lange who contributed
18 to the staff rebuttal report marked as Exhibit 101
19 highly confidential and public and Exhibit 102, staff
20 appendix?

21 A. I am.

22 Q. Do you have any changes or corrections to the
23 rebuttal report?

24 A. I do not.

25 Q. Is your contribution to the rebuttal report

1 true and correct to the best of your knowledge and
2 belief?

3 A. Yes.

4 Q. If I asked you about the same topics today,
5 would you give substantially similar responses?

6 A. Yes.

7 MS. ASLIN: I tender the witness for cross.

8 JUDGE DIPPELL: Are there cross-examination
9 questions for Mr. Lange? Is there any Commission
10 questions?

11 COMMISSIONER HALL: No.

12 JUDGE DIPPELL: Just one second. I don't
13 believe there are any questions for you either,
14 Mr. Lange. You may be excused.

15 COMMISSIONER HALL: I do have one.

16 JUDGE DIPPELL: Oh, I'm sorry. Commissioner
17 Hall?

18 QUESTIONS BY COMMISSIONER HALL:

19 Q. Can you tell me what additional transmission
20 would be required related to the Kansas facility? I'm
21 blanking on the name of that one.

22 A. Neosho Ridge?

23 Q. Yeah.

24 A. When you're asking additional transmission,
25 currently the study is not complete. So as to what it

1 would cost to interconnect and/or upgrades or any of
2 that, it is not kind of set in stone if you will.

3 Q. You would anticipate that there be some
4 additional transmission needed or would it just be a
5 line to an existing -- Do you assume that there will be
6 some additional transmission needed?

7 A. I assume that there will be additional costs
8 associated with network upgrades.

9 Q. Okay. Do you believe that any of those
10 network upgrades could have benefits along that -- along
11 the MISO-SPP seam in general?

12 A. They could.

13 Q. Could you elaborate on that?

14 A. The Neosho to Riverton area has tended to have
15 a lot of congestion issues. Over the last year or so
16 they have gotten better. But as of right now the seam
17 there tends to be -- it tends to have implications in
18 the MISO market, as well as the SPP market, and there is
19 some payments from MISO to SPP and SPP to MISO because
20 of congestion in that area.

21 Q. And are those payments made by all of the
22 utilities in each of those two RTOs or is it just the
23 ones along the seam?

24 A. I believe it is market wide.

25 Q. Is SPP looking at any additional upgrades

1 separate and apart from this project on that Neosho to
2 Riverton line?

3 JUDGE DIPPELL: I just want to interrupt just
4 in case just noting that a lot of Mr. Lange's testimony
5 is marked as highly confidential. So don't answer
6 anything that is supposed to remain confidential.

7 THE WITNESS: Thank you. I'm sorry. Would
8 you mind repeating that?

9 BY COMMISSIONER HALL:

10 Q. As far as you know, is SPP looking at doing
11 some additional upgrades on that Neosho to Riverton line
12 separate and apart from this project?

13 A. I know that there have been projects that have
14 been proposed. I do not know where they may be as far
15 as in the queue or not in the queue or been voted on. I
16 am not aware of that.

17 Q. There was some discussion of this yesterday,
18 but do you have an understanding as to the timeline for
19 those interconnection studies?

20 A. My understanding would be consistent with the
21 company. In fact, they responded to a data request by
22 staff that in that response they say the study is
23 expected now to begin in June of 2019 with the results
24 of the first round of modeling to be delivered in
25 October 2019.

1 Q. Can you tell me why this testimony regarding
2 the transmission interconnection is confidential? And
3 if you want to look to your lawyer for that, that's
4 obviously fine.

5 MS. ASLIN: That information was marked
6 confidential by the company.

7 COMMISSIONER HALL: Hot potato gets passed.

8 MR. COOPER: I apologize. I'm getting back to
9 Mr. Lange's portion here. So I think in fundamental
10 part it includes the estimates of those transmission
11 costs that the company has. Those are important to its
12 overall project costs. It's ultimately important to the
13 prices of the projects and what they may be reflected
14 into the SPP market. It's all a part of that bigger
15 picture is why the company has marked it highly
16 confidential and the various sort of concerns and
17 possibilities and those sort of things all have some
18 impact for the ultimate cost of that transmission
19 interconnection. So I believe that's the company's
20 reasoning.

21 COMMISSIONER HALL: Okay. Thank you.

22 JUDGE DIPPELL: I just have one question for
23 you too.

24 QUESTIONS BY JUDGE DIPPELL:

25 Q. And on page 33 of the staff report and again

1 on page 34, the non-confidential parts of your
2 testimony, it says that the interconnection cost issues
3 staff is raising will be alleviated with the proper
4 inclusion of network interconnection costs and the
5 updated MPP as proposed by staff and then later it again
6 says all of these concerns would be alleviated and
7 properly taken into account in the updated MPP as
8 proposed by staff and again subject to staff's proposed
9 conditions. So my question for you is, are those
10 concerns all still alleviated under the MPP in the
11 proposed non-unanimous stipulation and agreement as well
12 as that proposed by staff?

13 A. Yes.

14 JUDGE DIPPELL: All right. Is there
15 cross-examination based on questions from the bench?
16 From MEEG?

17 MR. WOODSMALL: No questions.

18 JUDGE DIPPELL: Division of Energy?

19 MS. REEVES: No, Judge.

20 JUDGE DIPPELL: Renew Missouri?

21 MR. OPITZ: No, thank you, Judge.

22 JUDGE DIPPELL: Empire?

23 MR. COOPER: No questions.

24 JUDGE DIPPELL: Public counsel?

25 MR. WILLIAMS: Yes, thank you.

1 CROSS-EXAMINATION BY MR. WILLIAMS:

2 Q. Do you recall Commissioner Hall asking you
3 about generation interconnection agreement study
4 timelines?

5 A. Yes.

6 Q. And then if I recall correctly, you said that
7 -- well, your response was based on information you
8 obtained from Empire, correct?

9 A. Correct.

10 Q. And if I recall correctly, you said that there
11 would be a first round result anticipated in October of
12 2019; is that correct?

13 A. Yes.

14 Q. That implies that there will be subsequent
15 rounds. Would you expect the study to be, and I'll use
16 the word final, the final costs and what will actually
17 definitively be accomplished before a generation
18 interconnection agreement is signed to be completed by
19 October of 2019, or do you anticipate there will be more
20 studies or more work on a study?

21 A. I would suspect there would be more work
22 potentially.

23 Q. And do you have any time frame for how long
24 that will take?

25 A. I do not.

1 MR. WILLIAMS: No further questions. Thank
2 you.

3 JUDGE DIPPELL: Thank you. Is there redirect?

4 MS. ASLIN: No redirect.

5 JUDGE DIPPELL: All right. Then I believe
6 that concludes your testimony, Mr. Lange, and you may
7 step down.

8 (Witness excused.)

9 JUDGE DIPPELL: Staff may call its next
10 witness.

11 MS. ASLIN: Staff calls Claire Eubanks.

12 (Witness sworn.)

13 JUDGE DIPPELL: Thank you.

14 CLAIRE EUBANKS, being sworn, testified as follows:

15 DIRECT EXAMINATION BY MS. ASLIN:

16 Q. Would you please state and spell your name for
17 the record?

18 A. Claire Eubanks, C-l-a-i-r-e E-u-b-a-n-k-s.

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

20 A. I'm employed with the Missouri Public Service
21 Commission as a Utility Regulatory Engineer II.

22 Q. Are you the same Claire Eubanks who
23 contributed to staff's rebuttal report marked as Exhibit
24 101 highly confidential and public and Exhibit 102, the
25 staff appendix to that report?

1 A. I am.

2 Q. Do you have any changes or corrections to the
3 rebuttal report?

4 A. I do.

5 Q. Could you please point those out to me?

6 A. I have a revised Figure 1.

7 Q. So is that found on page 17 of the staff
8 report?

9 A. It is. Thank you.

10 Q. And with that change in mind, is your
11 contribution to the rebuttal report true and correct to
12 the best of your belief and knowledge?

13 A. It is.

14 Q. If I asked you about those same topics today,
15 would you give substantially similar responses?

16 A. I would.

17 MS. ASLIN: Staff circulated this updated
18 figure to the parties last week. With that change, we
19 would like to offer Exhibit 101 HC, 101 P and 102.

20 JUDGE DIPPELL: Okay. So the correction is
21 the updated chart Figure 1 on page 17 in the staff
22 report?

23 MS. ASLIN: That's correct.

24 JUDGE DIPPELL: With that correction, is there
25 any objection to Exhibit -- well, this is the last

1 witness so you offered this; is that correct?

2 MS. ASLIN: Yes.

3 JUDGE DIPPELL: I was getting ahead of myself.
4 Is there any objection to the staff rebuttal report with
5 that correction being entered as Exhibit 101 and that is
6 both highly confidential and a public version?

7 MR. WILLIAMS: No, and public counsel doesn't
8 oppose the staff appendix either.

9 JUDGE DIPPELL: Thank you. I'll just ask for
10 objections then to Exhibit 102 at the same time. Seeing
11 no objection, I will enter those into the record.

12 (STAFF EXHIBITS 101 AND 102 WERE RECEIVED INTO
13 EVIDENCE AND MADE A PART OF THIS RECORD.)

14 MS. ASLIN: I tender the witness for cross.

15 JUDGE DIPPELL: Is there any cross-examination
16 by MECG?

17 MR. WOODSMALL: Very briefly, Your Honor.
18 Good morning.

19 THE WITNESS: Good morning.

20 CROSS-EXAMINATION BY MR. WOODSMALL:

21 Q. Rather than spend a bunch of time looking at
22 this, can you tell me what is the nature of the change
23 between the original Figure 1 and the corrected version?

24 A. Sure. So there were two changes. One simply
25 the non-solar REC production was cut off in about the

1 2028 timeline. As we all know, there's two existing
2 wind farms that produce renewable energy credits for
3 Empire. There's also a hydro facility. That just shows
4 that continuing on. Then the other change was the green
5 shading, the non-solar REC production was the Missouri
6 jurisdictional allocation of RECs in the original figure
7 and is still on this figure but for the new wind farms I
8 went ahead and made the change so that it's showing just
9 the Missouri allocation of RECs for the three new wind
10 farms.

11 MR. WOODSMALL: Thank you. No further
12 questions.

13 JUDGE DIPPELL: Any cross-examination by the
14 Division of Energy?

15 MS. REEVES: No, Your Honor.

16 JUDGE DIPPELL: Renew Missouri?

17 MR. OPITZ: No, thank you, Judge.

18 JUDGE DIPPELL: Empire?

19 MR. COOPER: No.

20 JUDGE DIPPELL: Public counsel?

21 MR. WILLIAMS: Thank you.

22 CROSS-EXAMINATION BY MR. WILLIAMS:

23 Q. Are you familiar with the renewable energy
24 credit production associated with Meridian Way and Elk
25 River purchase power agreements?

1 A. Generally, yes.

2 Q. Are they more than sufficient to meet for
3 non-solar renewable energy credits the Missouri
4 renewable energy standard?

5 A. They are for currently.

6 Q. And is there any reason that you know of why
7 they would not be able to satisfy those requirements at
8 least until 2027?

9 A. There's no reason that I am aware of, no.

10 Q. And cannot a utility bank credits for three
11 years?

12 A. They can, and the 2027 date I was assuming
13 kind of banked in that. My understanding is one will
14 retire in 2025 and one will retire in 2028.

15 Q. And will the one that will retire in 2028 not
16 generate enough credits that Empire should be in a long
17 position on renewable energy credits until 2030?

18 A. You know, I didn't specifically look at the
19 banking of RECs when I put this together. So I would
20 imagine there is some level, but I don't know exactly.

21 Q. So your answer is I don't know?

22 A. I don't know.

23 Q. But it's a possibility?

24 A. It is.

25 Q. Then turning to your Schedule CME-r1 which I

1 believe is the same as Appendix A to the non-unanimous
2 stipulation and agreement, is it not?

3 A. It is.

4 Q. Would you turn to -- I don't care if you want
5 to look at your schedule or if you want to look at the
6 appendix to the stipulation and agreement.

7 A. I have the schedule in front of me.

8 Q. If you turn to page 1 of 2. First of all,
9 there are two number 5s on there, are there not?

10 A. Yes, there are.

11 Q. And there are references in the first
12 paragraph 5 to part 4. What is part 4 referring to
13 where it appears in paragraph 5? It shows up there at
14 least three instances.

15 JUDGE DIPPELL: Excuse me while I interrupt
16 again. So this schedule is again marked highly
17 confidential but I don't see any particular text in it
18 marked highly confidential.

19 MR. COOPER: Your Honor, I think that the
20 designation if you're looking at the header, that's the
21 header that continues all through the highly
22 confidential.

23 JUDGE DIPPELL: I'm actually looking at the
24 note at the bottom by the page number.

25 MR. COOPER: I'm looking on the stipulation

1 version. I apologize.

2 JUDGE DIPPELL: I'm sorry. I'm looking at the
3 schedule attached to the testimony. I guess my question
4 is just is there any confidential information in this
5 schedule page 1 and 2 as attached to the staff report?

6 MS. ASLIN: I don't believe there's anything
7 highly confidential.

8 MR. COOPER: Company -- it's a public --

9 MR. WILLIAMS: It's public knowledge.

10 MR. COOPER: It's public in the stipulation.
11 That was the intent of the stipulation. I think there
12 were other reasons probably at the time it was
13 identified as HC in that staff report.

14 JUDGE DIPPELL: Okay. I just want to clarify
15 then that that schedule attached to staff report is not
16 highly confidential. I'm sorry. Go ahead.

17 THE WITNESS: Okay. So I believe your
18 question was related to the numbering of the items in
19 part 5 which references part 4. Those should be part 5.

20 BY MR. WILLIAMS:

21 Q. So where -- In that first paragraph 5,
22 numbered 5, the references to part 4 should be
23 references to part 5 on those three occasions?

24 A. That's correct, yes.

25 Q. And they're referring to that same paragraph

1 or a different paragraph?

2 A. In 5 a?

3 Q. Well, this part 4. Part 4 you've now said
4 should be part 5. Are those all references to paragraph
5 5?

6 A. Yes.

7 Q. And we're talking about the first paragraph 5,
8 correct?

9 A. Yes. The first paragraph 5 which should
10 remain 5. Anywhere it says part 4 it should actually
11 say part 5.

12 Q. Right. And part 5 is referring to that same
13 paragraph, though? When you have the reference to part
14 5, it's referring to that same paragraph?

15 A. Yes. It says outlined in this part 4, but it
16 should say in this part 5.

17 Q. I'm just after clarification. That's it.

18 A. Yes. The second number 5 should be number 6.
19 Yeah, there should be changes to this for numbering
20 purposes.

21 MR. WILLIAMS: I just was trying to get
22 clarification. I think I've obtained that. I have no
23 further questions. Thank you.

24 JUDGE DIPPELL: Are there Commission
25 questions? Mr. Chairman? Commissioner Hall?

1 COMMISSIONER HALL: Yes. Good morning.

2 THE WITNESS: Good morning.

3 QUESTIONS BY COMMISSIONER HALL:

4 Q. On page 16 of the rebuttal report and that is
5 a portion that you were responsible for, correct?

6 A. That's correct.

7 Q. On line 3 to 4, Empire anticipates the
8 accredited capacity will range from 15 to 25 percent of
9 nameplate rating; is that correct?

10 A. That's correct.

11 Q. I'm trying to reconcile that with some numbers
12 that are later in the report that are identified as HC.
13 So I will not provide the number. But we may need to go
14 in camera to do so. I don't know. On page 18, and
15 maybe there is a difference in terminology which
16 explains the different percentage, but there's a
17 different number on line 4 than the 15 to 25 percent on
18 page 16. Can you help me reconcile those numbers?

19 A. Yes. On page 18, line 4 is referring to net
20 capacity factor and on page 16 --

21 Q. Accredited capacity?

22 A. Yes, line 4 is accredited capacity.

23 Q. Can you explain the difference between those
24 two?

25 A. Sure. So the -- I think I included it, the

1 definition for -- yes, so I included the net capacity
2 factor definition that it's representing the P50 median
3 production. And then that doesn't really explain.

4 Sorry.

5 So the accredited capacity is what SPP will
6 provide Empire accreditation for as far as resource
7 planning. So it's a little bit lower or lower than the
8 actual capacity factor of the wind farms.

9 Q. And what justifies that lower number?

10 A. So they have a statistical analysis that is
11 done and it's laid out in the SPP tariff on how that is
12 calculated, something that Empire calculates I believe
13 every three years based on actual production of the wind
14 farms.

15 Q. So is it a difference between what can be
16 produced and then what is expected to be produced in
17 terms of the technology plus the anticipated amount of
18 wind equals a maximum amount that you could expect but
19 then it may only be called upon some portion of that?

20 A. Yeah. It's what they're accredited for
21 resource adequacy. So what can be relied upon by SPP.

22 Q. Turning to page 21, lines 11 through 13, you
23 are saying that the only way that staff can contend that
24 there's a need for these projects is if the MPP is
25 included?

1 A. That's correct.

2 Q. Could you explain that?

3 A. Sure. So Empire's justification for the
4 projects was primarily based on economics. So typically
5 when we're looking at CCN applications in the context of
6 need, there's usually some other benefit that's the
7 primary reason rather than economics being the primary
8 reason. So I think Mr. Oligschlaeger commented earlier
9 that this was a bit of an unusual CCN application. That
10 might not have been his exact words, but I would agree
11 with that.

12 Q. So only with the protections that are
13 contained in the MPP can staff take the position that
14 the benefits outweigh the costs?

15 A. Yes, for all three wind projects.

16 Q. And you're looking at the benefits to
17 ratepayers in that calculation?

18 A. Well, I would just comment it's not a
19 calculation necessarily. It's more of a reviewing of
20 the company's application.

21 Q. Well, it's a calculation in terms of taking
22 the protections that are provided in the MPP and seeing
23 if that insulates customers sufficiently so that they
24 are getting more benefits than the costs related to
25 these projects?

1 A. It's just not a numerical calculation. It's
2 more of a weighing of the information.

3 Q. So it's more art than a science?

4 A. Correct.

5 Q. Could you explain to me, and I'm not going to
6 articulate the actual numbers because they're identified
7 as confidential, but the levelized cost of energy
8 numbers that are set forth in Mr. Mooney's testimony
9 that you referred to here, I can't tell if you believe
10 them or not.

11 A. That's fair. So the first number on line 2, I
12 won't read the number, but that is -- came from the
13 customer savings plan. And as I understood the
14 company's testimony, they were asserting that that
15 number came from the CSP and they just needed to show
16 that these three wind projects on a portfolio basis had
17 a lower LCOE than that number. I could not find that
18 number in the affidavit of support of James McMahon in
19 that case though he did touch on the topic of levelized
20 cost of energy and the work papers staff had were based
21 on -- Well, I think that goes on to talk about it in
22 lines 2 and 3. I won't read that out. So on one side
23 tying it back to the CSP was difficult and then on the
24 other hand in what was present in this case showing that
25 it was lower, the, you know, annual energy production

1 estimates would change the LCOE and staff is simply
2 saying don't rely on this test of showing a lower LCOE
3 in the determination of need.

4 Q. What are the other specific conditions that
5 staff is recommending other than the MPP that is
6 relevant to the staff's decision to recommend the
7 Commission find that the projects are needed?

8 A. I can't think of another one that directly
9 relates to need.

10 COMMISSIONER HALL: Thank you.

11 THE WITNESS: You're welcome.

12 JUDGE DIPPELL: Any other Commission
13 questions? I just have a couple.

14 QUESTIONS BY JUDGE DIPPELL:

15 Q. So not to belabor the point, but back on the
16 schedule and where public counsel was asking you about
17 the part 4 and the part 5, also in number 2 on that it
18 mentions part -- the criteria in part 2, 3, 4, 5 and 6.
19 I just wanted to clarify what the numbers should be in
20 that.

21 A. There should also be a 7.

22 Q. So that should basically include all the
23 criteria and all the parts?

24 A. Yes.

25 Q. Okay. So both 5s and 7?

1 A. Yes.

2 Q. Thank you for that clarification.

3 A. You're welcome.

4 Q. Then in the staff report in the testimony, and
5 Commissioner Hall kind of touched on this, but you state
6 at page 21, line 12 you say as discussed in this report,
7 along with the MPP, only then can staff state that the
8 wind projects would provide benefits justifying their
9 costs, and thus satisfy the "need" criteria under
10 Tartan. Are you saying that the proposed stipulation
11 and agreement meets all of those qualifications?

12 A. Yeah. My understanding is the proposed MPP
13 and then the second non-unanimous stipulation and
14 agreement is very similar as far as protections go, yes.

15 Q. And on page 35 similarly you say at line 12
16 staff's assessment concludes that the three wind
17 projects, with staff's recommended conditions, are not
18 detrimental to the public interest. If the Commission
19 were to adopt the provisions of the stipulation and
20 agreement, is that -- do you still believe that it's not
21 detrimental to the public interest?

22 A. I do.

23 Q. And then on the next page, page 36, you
24 recommend that various definitions be included for the
25 in-service criteria. Were those included?

1 A. In the schedule, yes, and my schedule was what
2 was used in the non-unanimous stipulation and agreement.

3 JUDGE DIPPELL: I thought that was the case.
4 Then I had myself confused. That's all the questions I
5 have. Is there further cross-examination based on
6 questions from the bench? From MECG?

7 MR. WOODSMALL: No questions.

8 MR. COOPER: Judge, before we go forward with
9 that, could we take a ten-minute break for the company
10 to have a short discussion here?

11 JUDGE DIPPELL: Sure. We're about due for a
12 break anyway. Let's go off the record and return in 15
13 minutes. Come back at 25 after.

14 MR. COOPER: Thank you.

15 (Off the record.)

16 (SUBSTITUTED OPC EXHIBIT 204 WAS MARKED FOR
17 IDENTIFICATION BY THE COURT REPORTER.)

18 JUDGE DIPPELL: Let's go ahead then and go
19 back on the record. We're back after our intermission.
20 Mr. Cooper, did you all get taken care of what you
21 needed to get taken care of?

22 MR. COOPER: We did. Thank you, Your Honor.

23 JUDGE DIPPELL: So we can resume with further
24 cross-examination of Ms. Eubanks. All right. Let me --
25 I think I asked this, but is there any further

1 cross-examination from MECG?

2 MR. WOODSMALL: No questions.

3 JUDGE DIPPELL: Anything from Division of
4 Energy?

5 MS. REEVES: No, Judge.

6 JUDGE DIPPELL: From Renew Missouri?

7 MR. OPITZ: No, thank you, Judge.

8 JUDGE DIPPELL: Empire?

9 MR. COOPER: Yes, Your Honor, just briefly.

10 CROSS-EXAMINATION BY MR. COOPER:

11 Q. And I think maybe this is something that you
12 answered from the law judge as well. On page 21 of the
13 staff report in your section there where we talk about
14 essentially you're okay with things as long as the
15 staff's MPP is adopted. You see that testimony?

16 A. I do.

17 Q. Now, this, of course, was written before the
18 stipulation, the non-unanimous stipulation was filed,
19 correct?

20 A. It was.

21 Q. At this point in time now that you have the
22 benefit of the non-unanimous stipulation, would your
23 statement be true as well for -- as long as the
24 Commission adopted the non-unanimous stipulation version
25 of the MPP?

1 A. It would.

2 MR. COOPER: Thank you. That's all the
3 questions I have.

4 JUDGE DIPPELL: Anything from public counsel?

5 MR. WILLIAMS: Yes, because of a question you
6 asked.

7 FURTHER CROSS-EXAMINATION BY MR. WILLIAMS:

8 Q. I'm looking at the Appendix A to the
9 non-unanimous stipulation and agreement. Paragraph 2 as
10 written has a circular reference to part 2?

11 A. I don't have a copy of it. I'm sorry.

12 Q. It's the same as that schedule in your
13 testimony. You testified to that earlier?

14 A. Yes.

15 Q. Paragraph 2 has a circular reference to part
16 2, I believe. I don't see a reference to paragraph 1.
17 So I'm wondering if either paragraph 1 and 2 should be
18 relabeled or if the reference in paragraph 2 should be
19 to paragraph 1 or maybe it's written as intended. I
20 don't know.

21 A. It would probably make more sense if there was
22 no reference to part 2.

23 Q. Well, is all major construction work shall be
24 completed and in-service criteria?

25 A. It is an in-service criteria, yes. I think it

1 contemplates possibly the wind turbines coming in at
2 separate times and that might be the reason for the --

3 MR. WILLIAMS: Well, paragraph -- Okay. No
4 further questions. Thank you.

5 JUDGE DIPPELL: Thank you. Is there any
6 redirect from staff?

7 MS. ASLIN: Just a few questions.

8 THE WITNESS: Sure.

9 REDIRECT EXAMINATION BY MS. ASLIN:

10 Q. Are resource adequacy requirements calculated
11 based on load serving entity's peak load?

12 A. That's correct.

13 Q. Is a capacity factor used to estimate overall
14 energy production of a wind farm?

15 A. That's correct.

16 Q. And one last question. Does the MPP primarily
17 focus on risks associated with the projects as opposed
18 to customer benefits which were modeled in the previous
19 case?

20 A. I think what you're asking is does the MPP
21 mitigate risks associated with the projects?

22 Q. Yes.

23 A. I agree.

24 MS. ASLIN: Okay. Thank you. No further
25 questions.

1 JUDGE DIPPELL: I believe that concludes your
2 testimony, Ms. Eubanks, and you may step down.

3 THE WITNESS: Thank you.

4 (Witness excused.)

5 JUDGE DIPPELL: Now I think that was the end
6 of staff's witnesses; is that correct? Did I miss
7 anybody?

8 MS. ASLIN: That's correct.

9 JUDGE DIPPELL: And next on our original
10 schedule was Department of Conservation, but they have
11 already been excused. So that brings us to Public
12 Counsel.

13 MR. WILLIAMS: Public counsel calls Dr. Geoff
14 Marke.

15 (Witness sworn.)

16 JUDGE DIPPELL: Thank you. You can go ahead,
17 Mr. Williams.

18 GEOFF MARKE, being sworn, testified as follows:

19 DIRECT EXAMINATION BY MR. WILLIAMS:

20 Q. Would you please state your name and who
21 you're employed by?

22 A. It's Geoff Marke. I'm employed by the Office
23 of Public Counsel.

24 Q. Mr. Marke, did you prepare rebuttal testimony
25 and surrebuttal testimony that have been marked for

1 purposes of this evidentiary hearing Exhibit Nos. 200
2 and 201?

3 A. Yes.

4 Q. Do both contain highly confidential
5 information?

6 A. They both do, yes.

7 Q. Were those exhibits to be your testimony here
8 today, would you have any changes to them?

9 A. I do have one change.

10 Q. What change is that and to which exhibit?

11 A. It's rebuttal testimony of Geoff Marke and it
12 would be I guess the first exhibits that you had listed
13 off. The change is not confidential but would be a
14 change to both.

15 Q. What is the change?

16 A. On page 14, Figure 1, I've got an update to
17 that. It's as follows. There's a pie chart that's
18 listed. The update -- This is listed as of January 1,
19 2019. The update would be for February 5, 2019. Under
20 wind it's listed -- the new number should list as 54,625
21 megawatts, 24,753 megawatts of solar, 4,405 megawatts of
22 storage, 312 megawatts of gas, other remains the same.
23 The overall pending GI request originally stated 70,673
24 megawatts total. The new number is 84,099 megawatts
25 total.

1 Q. With those changes to Exhibit 200, are
2 Exhibits 200 and 201 your testimony here today?

3 A. Yes, they are.

4 MR. WILLIAMS: I offer Exhibits 200 and 201.

5 JUDGE DIPPELL: Before you do that, let me ask
6 Dr. Marke, would you please repeat the first two of your
7 updated numbers for wind and solar?

8 THE WITNESS: For wind, it's 54,625 megawatts.
9 For solar, it's 24,753.

10 JUDGE DIPPELL: And then you gave a total. Is
11 that total listed in here anywhere?

12 THE WITNESS: The total is listed -- In the
13 testimony, it's listed at the top left-hand corner. It
14 says pending GI request.

15 JUDGE DIPPELL: I'm sorry.

16 THE WITNESS: That new number is 84,099
17 megawatts.

18 JUDGE DIPPELL: Okay. With those updates,
19 would there be any objection to Exhibit 200 which is in
20 highly confidential and public version, the rebuttal
21 testimony of Geoff Marke, and Exhibit 201 highly
22 confidential and public, the surrebuttal testimony of
23 Geoff Marke? No objections, then I will admit those
24 exhibits.

25 (OPC EXHIBITS 200 AND 201 WERE RECEIVED INTO

1 EVIDENCE AND MADE A PART OF THIS RECORD.)

2 MR. WILLIAMS: I tender Dr. Marke for
3 cross-examination and questioning by Commissioners.

4 JUDGE DIPPELL: Is there any cross-examination
5 by staff?

6 MS. MERS: No questions.

7 JUDGE DIPPELL: MEGC?

8 MR. WOODSMALL: No questions.

9 JUDGE DIPPELL: Division of Energy?

10 MS. REEVES: No, Judge.

11 JUDGE DIPPELL: Renew Missouri?

12 MR. OPITZ: No, thank you, Judge.

13 JUDGE DIPPELL: Empire?

14 MR. COOPER: No questions.

15 JUDGE DIPPELL: Are there Commission questions
16 for Dr. Marke?

17 COMMISSIONER KENNEY: None for me.

18 JUDGE DIPPELL: Commissioner Hall?

19 COMMISSIONER HALL: Good morning.

20 THE WITNESS: Good morning.

21 QUESTIONS BY COMMISSIONER HALL:

22 Q. Do you believe that the levelized cost of
23 energy related to these three wind projects -- first let
24 me. Do you have an understanding as to what the
25 levelized cost of energy will be for those three wind

1 projects?

2 A. I have a general idea. I don't have an exact
3 number.

4 Q. Do you believe that that number is lower than
5 the anticipated market price for energy in SPP over the
6 next ten years?

7 A. My contention is that it will not be lower
8 over the next ten years.

9 Q. What is the basis for that understanding?

10 A. I'm bullish on renewables. I think there's a
11 lot of wind coming on line. The technology, really the
12 list of unknown variables that were put out there by
13 Mr. Williams in his opening statement. I think there's
14 a lot of reason to believe that the SPP market, just
15 really the U.S. as a whole, is undergoing a seismic
16 change. My concern with these renewable projects --

17 Q. I'm talking specifically about the LMP and the
18 SPP, the market price going forward. So I think there
19 was testimony yesterday and written testimony provided
20 before that that shows estimates for market prices over
21 the next ten years or so. You disagree with that? You
22 think it's going to be substantially lower?

23 A. Yes.

24 Q. You think it's going to be -- Is there any
25 scholarship you could point to that would identify --

1 that would support that assertion that the estimates
2 provided by the company and supported by staff are
3 inaccurate?

4 A. Both the estimates that were recorded by or
5 referenced by staff and the company are already several
6 years old as it stands. It really is reflecting a
7 different market. As far as scholarly evidence to
8 suggest that wholesale market prices are depressed as
9 more renewables are penetrating, both myself and Lena
10 Mantle reference an MIT study and a Lawrence Berkeley
11 National Lab study that speak to negative prices and the
12 overall dampening impact if at a certain level what
13 would happen with renewable penetration. I think this
14 is compounded by the FERC order and pending legislation
15 by U.S. Congress to go ahead and support storage. I
16 think all of those things make the proposition that
17 this --

18 Q. The FERC order to support storage is going to
19 result in lower market prices in SPP?

20 A. Right.

21 Q. Connect those dots for me, please.

22 A. Sure. FERC Order 841 storage to promote
23 storage penetration. Essentially depending on how you
24 deal with storage, you'll have more generation to go
25 ahead and bid into the market than you otherwise would.

1 That storage for wind at 3:00 in the morning can be
2 stored and be then --

3 Q. You're assuming that the incentives that are
4 in 841 are going to result in some substantial
5 technological innovation in the near future that's going
6 to result in storage being put in place in the SPP
7 footprint that's going to dramatically lower the price
8 of energy?

9 A. I would take more comfort if it was just one
10 thing that I was resting my hat on. It's many different
11 things that I think that will depress that.

12 Q. I do agree with you that there is going to be
13 a pretty significant increase in wind penetration in
14 SPP. I don't necessarily agree with you that that's
15 going to result in a substantial decrease in market
16 price. Let's just put that aside for a second. You
17 make the argument that it would be better for ratepayers
18 if Empire were to run the wind business below the line?

19 A. Yes.

20 Q. And let's say that the company is correct and
21 that staff is correct that the price of energy in SPP is
22 going to be substantially higher than the levelized cost
23 of energy for those three wind facilities. Do you still
24 take the position that it would be better for ratepayers
25 for this to be a below the line activity?

1 A. That's a good question. There are two
2 approaches I would say that our office really focused
3 on. One was just that market approach. From my vantage
4 point, even if we assume that this did make sense, well,
5 that would be the regulatory should you depart from
6 that.

7 Q. Let me do this.

8 A. Okay.

9 Q. I understand your philosophical argument that
10 if Empire ratepayers are not in need of this additional
11 energy then if Empire is going to provide it they should
12 do it as a below the line activity. I understand. I
13 don't necessarily agree with it, but I understand it.
14 Just from a dollars and cents perspective, would it not
15 be better for Empire's ratepayers for this to be a
16 regulated activity if there is that difference between
17 the levelized cost of energy and the market prices?

18 A. That presupposes that you couldn't take an
19 action here in two years, in three years, again in four
20 years. This window that we're talking about here just
21 doesn't go away. Empire can go ahead and make
22 investments again next year. They can go ahead --
23 There's other opportunities. From our point of view,
24 we've sunk in a substantial amount of money the last
25 couple of years to be put for Empire rate base.

1 Q. You're trying to answer a much bigger question
2 than the kind of simple Econ 101 or 201 question that
3 I'm asking and that is if there is a gap between the
4 levelized cost of energy and the market prices, would it
5 not be better for Empire's ratepayers for this to be a
6 regulated activity?

7 A. Assuming that they don't need it?

8 Q. Whether they need it or not, everything gets
9 sold into SPP and everything gets purchased back. In
10 terms of the economics of it, it really doesn't matter
11 if they're long or short.

12 A. To answer that question, how much of a risk
13 appetite do you have. How confident are you of
14 three-year old models 10, 15, 20 years in the future.

15 Q. I would think as an economist you'd be able to
16 do this. I'm asking you to hold certain things
17 constant. I'm asking you to make certain assumptions.
18 The assumption levelized cost of energy here, market
19 prices above it.

20 A. Right.

21 Q. Those are assumptions.

22 A. Uh-huh.

23 Q. If that is, in fact, true, would it not be
24 better for Empire's ratepayers for it to be a regulated
25 activity?

1 A. I mean, Commissioner, my pause here is with
2 all the other confounding variables that I'm wrestling
3 with.

4 Q. I'm not asking you to wrestle with those. I'm
5 asking you to just focus on the ones I provided unless
6 there's something -- No, you need to look at those
7 variables I provided.

8 A. So again to restate, is it better to be
9 regulated or non regulated if I can sell this wind at a
10 premium price well into the future even though I don't
11 need it?

12 Q. If you could sell it above what it cost to
13 produce it.

14 A. If I could have some guarantee that it would
15 be covered, it would be.

16 Q. It would be covered. What does that mean?

17 A. Like the tax equity partner. Really that
18 would be the example. If you're a tax equity partner,
19 what makes this attractive is that even if that doesn't
20 happen I'm still okay. I'm still getting a return. I'm
21 still being covered at this. My fundamental struggle
22 with this is a very really simple question. Just ask
23 yourself who loses if you're wrong. It's not
24 shareholders. It's not --

25 Q. That's not really a part of my hypothetical.

1 I understand those concerns and they are legitimate
2 concerns, but I'm just trying to understand from your
3 perspective as an economist if the levelized cost of
4 energy is below the market price, then it would be
5 better for Empire ratepayers if this was a regulated
6 activity?

7 A. Again for the life of the project?

8 Q. Yes.

9 A. If those are the only two assumptions you're
10 looking at, then yes.

11 COMMISSIONER HALL: Okay. Thank you.

12 JUDGE DIPPELL: Are there any other Commission
13 questions? All right. I just have a couple for you,
14 Dr. Marke.

15 QUESTIONS BY JUDGE DIPPELL:

16 Q. On page 2 of your rebuttal you say OPC
17 recommends that the Commission impose hold harmless
18 conditions to ratepayers upon the CCN that provide
19 meaningful customer protections. Just to clarify with
20 the current stipulation and agreement, non-unanimous
21 stipulation and agreement, does that opinion remain the
22 same as you sit here today?

23 A. I would couch that as in part and if you allow
24 me to explain.

25 Q. Go ahead.

1 A. Our position statement actually deviated from
2 what is in our testimony slightly. Yeah, I would
3 characterize it as we said to move forward with the
4 projects and essentially that ratepayers would be
5 willing to go ahead and put in \$25 million, I'd
6 characterize it as a go fund me essentially. As far as
7 a social good here, there's \$25 million that ratepayers
8 would be willing to put up, but the revenues based off
9 of those models and the assumptions all of those
10 benefits would, if they're right, would then go to
11 shareholders just like it would in any other merchant
12 generation investment.

13 Q. Okay. And then my next thing is maybe my own
14 personal pet peeve. At page 18 of your rebuttal you say
15 at line 5 OPC has taken many issues with Empire's
16 modeling. Rather than rewriting them, I have included
17 my rebuttal, surrebuttal and affidavit from Case No.
18 EO-2018-0092 which are found in attached Schedules GM3,
19 GM4 and GM5 respectively. Okay. So the parts of that
20 testimony attached to your testimony --

21 A. Yes.

22 Q. -- that you're really adopting here today have
23 to do with the modeling, correct?

24 A. That's correct.

25 Q. The parts of that testimony reviewing Empire's

1 proposal and other things, are those still relevant to
2 this case?

3 A. I believe so.

4 Q. Okay. It's hard for me to parse out from one
5 case to another. I mean, I understand you don't want to
6 reproduce everything, but it makes it difficult for the
7 Commission to evaluate the evidence when whole parts of
8 another case are dumped into the record.

9 A. Judge, if I may.

10 Q. Yes.

11 A. I absolutely -- I hear you. I will take it
12 under advisement for future writing. But we did
13 struggle with how to include that we objected to the
14 modeling knowing that the modeling actually wasn't in
15 the record. I think even sitting here today I wrestle
16 with that even when staff opens up with slides of the
17 modeling. So to the extent that we're relying on models
18 that are three years old to inform the assumptions that
19 are not going to go into effect for another two years
20 and then impact the next 30 years, that was the
21 rationale behind it, but the point is absolutely made.
22 It is voluminous. There's a lot of work there.

23 Q. I appreciate your explanation because that
24 makes a lot of sense and I appreciate that explanation.
25 So then the only other thing, and this is just really to

1 clarify the record, is in that attached -- I'm sorry.
2 In your surrebuttal testimony you have some attached
3 schedules, and I just want -- Like I say, I'm just
4 clarifying this for the record. Those schedules are not
5 -- are also labeled GM1, GM2 and not otherwise marked as
6 your surrebuttal schedules. I just wanted to clarify
7 for the record that those are, in fact --

8 A. In the surrebuttal, not the rebuttal, right.

9 JUDGE DIPPELL: That's just a clarification.

10 Okay. With that, is there any further cross-examination
11 based upon questions from the bench from staff?

12 MS. MERS: No, thank you, Your Honor.

13 JUDGE DIPPELL: MECG?

14 MR. WOODSMALL: No questions.

15 JUDGE DIPPELL: Division of Energy?

16 MS. REEVES: No, Judge.

17 JUDGE DIPPELL: Renew Missouri?

18 MR. OPITZ: No, thank you, Judge.

19 JUDGE DIPPELL: Empire?

20 MR. COOPER: No questions, Your Honor.

21 JUDGE DIPPELL: Is there redirect?

22 MR. WILLIAMS: Thank you. Briefly.

23 REDIRECT EXAMINATION BY MR. WILLIAMS:

24 Q. Do you recall Commissioner Hall asking you
25 some questions about I guess the contrast between

1 increasing market prices in the SPP and decreasing
2 market prices in the SPP?

3 A. Yes.

4 Q. What about the circumstance where prices don't
5 increase as quickly as Empire has modeled them or they
6 remain level?

7 A. Under such scenario, and there were many
8 different scenarios modeled, but the benefits decrease
9 and they can decrease to the point where there's a
10 liability cost that's then associated with moving
11 forward with this venture.

12 Q. Then Commissioner Hall struggled with you on
13 the benefits I guess to customers if you were given
14 certain assumptions about the levelized cost of energy
15 being below SPP market prices. Do you recall that?

16 A. I do.

17 Q. Was the assumptions that you were given in
18 that hypothetical appropriate for this case?

19 A. No.

20 Q. Why not?

21 A. This is a complex case. It's obviously taken
22 several years to go ahead to map through. There's still
23 a lot of uncertainties surrounding it. There are a lot
24 of interdependent variables that can influence price.
25 The production of these wind farms and essentially

1 whether or not they'll be in the money in the future.
2 The big concern, and there's many, is that we
3 effectively stopped looking at those concerns or those
4 models. We said we got some sort of clearance over a
5 year ago that everything is fine. I can't think of any
6 sort of situation where a billion plus dollar
7 investment, that you would put up a billion dollar plus
8 investment on something and not have more accurate data.
9 I struggle with it other than in the situation like this
10 if I'm an Empire investor where I know I can get the
11 backing of captive ratepayers.

12 MR. WILLIAMS: No further questions. Thank
13 you.

14 JUDGE DIPPELL: Thank you. I believe that
15 concludes your testimony, Dr. Marke.

16 THE WITNESS: Thank you.

17 (Witness excused.)

18 JUDGE DIPPELL: Would OPC like to go ahead and
19 call its next witness?

20 MR. WILLIAMS: We're going to have a changing
21 of the attorneys.

22 MR. HALL: Your Honor, OPC calls John
23 Robinett.

24 (Witness sworn.)

25 JUDGE DIPPELL: Thank you. Your first

1 question is how did the exam go?

2 THE WITNESS: Hopefully well. I'll find out
3 in about best case scenario four weeks, more likely six
4 to eight.

5 JUDGE DIPPELL: You can go ahead, Mr. Hall.

6 MR. HALL: Thank you.

7 JOHN ROBINETT, being sworn, testified as follows:

8 DIRECT EXAMINATION BY MR. HALL:

9 Q. Good morning. Please state your name for the
10 record and spell it for the court reporter?

11 A. John A. Robinett. Robinett is
12 R-o-b-i-n-e-t-t.

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

14 A. The Missouri Office of the Public Counsel as a
15 Utility Engineering Specialist.

16 Q. And on whose behalf are you speaking today?

17 A. As an employee of the OPC.

18 Q. Are you the same John Robinett who caused to
19 be filed rebuttal and surrebuttal testimony in this
20 docket?

21 A. I am.

22 Q. That testimony includes both highly
23 confidential and public versions?

24 A. Yes.

25 Q. If I asked you the same questions within your

1 rebuttal testimony, would your answers be the same or
2 substantially similar as the answers you gave in your
3 rebuttal testimony?

4 A. They would.

5 Q. If I gave you the same questions that are
6 asked in your surrebuttal testimony, would your answers
7 be the same or substantially similar as what you gave in
8 that surrebuttal testimony?

9 A. They would.

10 Q. Do you have any other changes or corrections
11 to make to either your rebuttal or surrebuttal
12 testimony?

13 A. I do not.

14 Q. Is it your understanding that these
15 testimonies have been marked as Exhibits 202 and 203 for
16 rebuttal and surrebuttal respectively?

17 A. Yes.

18 MR. HALL: Your Honor, at this time I offer
19 Exhibits 202 and 203 into evidence.

20 JUDGE DIPPELL: Would there be any objection
21 to Exhibit 202, the rebuttal testimony of John Robinett,
22 and Exhibit 203, the surrebuttal testimony of John
23 Robinett in both the highly confidential and public
24 versions?

25 MS. MERS: Staff has no objection to the

1 testimony. Maybe I missed it. Did the witness get
2 sworn in?

3 JUDGE DIPPELL: Yes. Any objection to the
4 testimony? Seeing none, then I will admit those
5 exhibits.

6 (OPC EXHIBITS 202 AND 203 WERE RECEIVED INTO
7 EVIDENCE AND MADE A PART OF THIS RECORD.)

8 MR. HALL: Your Honor, I tender the witness
9 for cross.

10 JUDGE DIPPELL: Is there any cross-examination
11 by staff?

12 MS. ASLIN: No questions.

13 JUDGE DIPPELL: MECG?

14 MR. WOODSMALL: No questions.

15 JUDGE DIPPELL: Division of Energy?

16 MS. REEVES: No, Judge.

17 JUDGE DIPPELL: Renew Missouri?

18 MR. OPITZ: No, thank you, Judge.

19 JUDGE DIPPELL: Empire?

20 MR. COOPER: No questions.

21 JUDGE DIPPELL: Are there any Commission
22 questions? Mr. Chairman?

23 COMMISSIONER HALL: No questions.

24 COMMISSIONER KENNEY: I have a question.

25 JUDGE DIPPELL: Mr. Kenney? Commissioner

1 Kenney?

2 COMMISSIONER KENNEY: Were you sworn in? I
3 didn't see you get sworn in. Were you sworn in to raise
4 your hand. I missed it too.

5 THE WITNESS: Yes.

6 JUDGE DIPPELL: I'm just that good.

7 MS. MERS: I'm glad I'm not the only one.

8 COMMISSIONER KENNEY: No other questions.

9 JUDGE DIPPELL: Any further cross-examination
10 based on Commissioner Kenney's question? Back to
11 serious business here. I see that there are no
12 questions for you, Mr. Robinett. So you may be excused.

13 THE WITNESS: Thank you, Judge.

14 (Witness excused.)

15 MR. HALL: At this time public counsel calls
16 OPC witness John Riley.

17 (Witness sworn.)

18 JOHN RILEY, being sworn, testified as follows:

19 DIRECT EXAMINATION BY MR. HALL:

20 Q. Please state your name for the record and
21 spell it for the court reporter.

22 A. John Riley, R-i-l-e-y.

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

24 A. I work for the Missouri Office of Public
25 Counsel as a Utility Accountant III.

1 Q. In whose capacity are you testifying for
2 today?

3 A. Testifying for the public counsel.

4 Q. Are you the same John Riley who caused to be
5 filed in this docket the rebuttal testimony on February
6 5, 2019?

7 A. Yes, sir.

8 Q. Are you the same John Riley who also caused to
9 further be filed corrected pages to that testimony filed
10 at some later time?

11 A. That's correct.

12 Q. If I asked you the same questions that I
13 included in that rebuttal testimony, would your answers
14 be the same or substantially similar as what is given in
15 that testimony?

16 A. Substantially similar but I do have some
17 corrections.

18 Q. Could you please walk us through those
19 corrections?

20 A. Yes, sir. I had one change. However, eagle
21 eye Mr. Holmes pointed out I had a typo. So that
22 unfortunately caused several things to be changed.
23 Starting on page 5, on line 16 the number 113 would be
24 112.

25 JUDGE DIPPELL: Okay. Let's back up. So

1 that's of the corrected testimony and are those numbers
2 still confidential?

3 THE WITNESS: They're just data points, and
4 I'm under the assumption that they are not.

5 MR. HALL: Pardon me, Your Honor. I should
6 have actually asked before you had gone through that.
7 Based on discussions we had with the company yesterday,
8 we believed that we were treating this information as
9 confidential based on our understanding of Empire's view
10 as to that data. We believe now it is not confidential.
11 Maybe before we go through any of the changes it would
12 be better for me to move at this time that the highly
13 confidential nature of John Riley's testimony be removed
14 and that be treated as now testimony as public at this
15 time barring any objections from Empire.

16 JUDGE DIPPELL: Would the company have any
17 objection?

18 MS. KNOWLTON: None, Your Honor.

19 JUDGE DIPPELL: Okay. Then we can remove the
20 highly confidential designation of Mr. Riley's rebuttal
21 testimony and the corrected pages. Okay. Now return to
22 your corrections.

23 THE WITNESS: The page 5 was 113 was changed
24 to 112. The page 8, line 25, the 41 should be changed
25 to 81. Line -- or page 9, line 24, the 14 should be

1 changed to 9.

2 JUDGE DIPPELL: I'm sorry. I got lost there.
3 Did you say page 8?

4 THE WITNESS: Okay. We were at page 8, line
5 25, last line. There was a 41. We changed that to 81.
6 And on page 9, line 24 there was a number 14. It was
7 changed to 9.

8 JUDGE DIPPELL: That's of the corrected page
9 9?

10 THE WITNESS: That's correct, page 9, yes,
11 ma'am.

12 JUDGE DIPPELL: 14 changes to --

13 THE WITNESS: 9. The typo error in corrected
14 schedule JSR-R-2, and I apologize that when I first said
15 page numbers when it went to pdf the line numbers
16 disappeared. But on column 25 of that schedule about
17 halfway down there is a .69.

18 As Mr. Holmes pointed out, that was a typo.
19 It should have been a negative .69.

20 JUDGE DIPPELL: So when you say column 25, you
21 mean 2025?

22 THE WITNESS: 2025, year 2025.

23 JUDGE DIPPELL: And which number?

24 THE WITNESS: .69 should have been a negative
25 .69.

1 BY MR. HALL:

2 Q. Mr. Riley, you're referring to the row that's
3 labeled Empire's PTCs, correct?

4 A. That's correct. Which, of course, a change in
5 that number will cause a change in revenue requirement
6 line below. Change from a 79.00 to 77.62. And below
7 that on net revenue requirement there's a change from
8 9.25 to 7.87. And continuing on net revenue requirement
9 over to the far right it would change the cumulative
10 total of 112.89 to 111.50. That's all the changes for
11 JSR-R-2.

12 However, the same changes need to be made on
13 JSR-R-4. On column 2025, Empire's PTCs instead of being
14 .69 should be a negative .69, which will change the
15 revenue requirement below that from 69.74 to 68.35. And
16 below that on the net revenue requirement line that
17 there is a negative .01. It would increase to a
18 negative 1.40. And that would change the total line to
19 the right from 10.12 to 9.49. That's all my changes.

20 JUDGE DIPPELL: Very well. Thank you.

21 BY MR. HALL:

22 Q. Mr. Riley, is it your understanding that all
23 of these changes up through today were incorporated into
24 a substitute exhibit labeled 204?

25 A. That's my understanding.

1 Q. Now, does the Substitute Exhibit 204 represent
2 a true and accurate representation of your testimony
3 today?

4 A. Yes, it does.

5 MR. HALL: Your Honor, at this time I move
6 that Substitute Exhibit 204 be admitted into evidence.

7 JUDGE DIPPELL: You are including the
8 corrected pages with the original filing?

9 MR. HALL: That is correct. The substitute
10 version has been given to the court reporter. It has a
11 title at the top to signify that it was corrected on
12 this date to make it clear that this is the latest
13 version.

14 JUDGE DIPPELL: Okay. With those corrections,
15 would there be any objection to corrected rebuttal
16 testimony of John S. Riley? Seeing none, then I will
17 admit that into evidence.

18 (OPC SUBSTITUTE EXHIBIT 204 WAS RECEIVED INTO
19 EVIDENCE AND MADE A PART OF THIS RECORD.)

20 MR. HALL: Your Honor, at this time I tender
21 the witness for cross.

22 JUDGE DIPPELL: Would there be any
23 cross-examination from staff?

24 MS. MERS: No, thank you.

25 JUDGE DIPPELL: MECG?

1 MR. WOODSMALL: No questions.

2 JUDGE DIPPELL: Division of Energy?

3 MS. REEVES: No, Judge.

4 JUDGE DIPPELL: Renew Missouri?

5 MR. OPITZ: No, thank you, Judge.

6 JUDGE DIPPELL: Empire?

7 MS. KNOWLTON: Just a few questions.

8 CROSS-EXAMINATION BY MS. KNOWLTON:

9 Q. Mr. Riley, are you aware that Mr. Holmes'
10 opinion is that you've used the wrong source of expected
11 revenues in JSR-R-2, the corrected version?

12 A. Yes, ma'am.

13 Q. Would you agree with me that if the numbers in
14 that expected revenue line were incorrect that it would
15 impact the math that flows through your JSR-R-2?

16 A. If they were incorrect, yes, ma'am.

17 MS. KNOWLTON: The company has no further
18 questions.

19 JUDGE DIPPELL: Are there questions by the
20 Commission? Mr. Chairman? Commissioner Hall?

21 COMMISSIONER HALL: Yeah. Good morning.

22 THE WITNESS: Good morning.

23 QUESTIONS BY COMMISSIONER HALL:

24 Q. Have you reviewed the testimony submitted by
25 Mr. Holmes in this case?

1 A. Yes, sir.

2 Q. And in particular the schedule attached to his
3 surrebuttal that sets forth the revenue requirement
4 related to the wind facilities at issue in this case?

5 A. Yes, sir, DH-S-1.

6 Q. Without going -- I hope we don't have to go
7 line for line through here, but could you tell me --
8 well, what does the net benefit from wind at the bottom,
9 and I'll look to the company, this is designated as
10 highly confidential, the numbers, any numbers on here?

11 MR. COOPER: We need to get to the schedule.

12 JUDGE DIPPELL: If you could, I apologize,
13 Commissioner, restate which schedule page.

14 COMMISSIONER HALL: No, actually he stated. I
15 have a hole punch.

16 THE WITNESS: DH-S-1.

17 MS. KNOWLTON: My understanding is that the
18 shaded confidential information on DH-S-1 relates to
19 pricing information that the company has received
20 whether it's from third parties potentially with regard
21 to these various categories of costs.

22 COMMISSIONER HALL: So none of the other
23 numbers are confidential in nature?

24 MS. KNOWLTON: In addition, the dollar per
25 megawatt hour line it says from ABB wind study 600

1 megawatts. The reason for that is that it's based on
2 information, the ABB market price information upon which
3 the company relied and nondisclosure requirements that
4 ABB has insisted that the company follow with regard to
5 use of those market price forecasts that were purchased.

6 COMMISSIONER HALL: Okay. So the bottom line
7 calculations on net benefit from wind, nothing
8 confidential there?

9 MS. KNOWLTON: Correct.

10 BY COMMISSIONER HALL:

11 Q. Okay. So according to this calculation, the
12 net benefit from these projects is what?

13 A. I believe the net benefit is the revenue
14 shortfall or as you go along the greater revenue, the
15 net income of the project as you look at revenue
16 requirement and expected revenues.

17 Q. It goes positive in 2024 and it goes up to
18 19.5 in 2031, according to this, right?

19 A. That's what I see, yes, sir.

20 Q. Okay. So what inputs or what calculations do
21 you disagree with on this schedule?

22 A. Well, when I took their work papers, and like
23 I said in testimony, I did not calculate the revenue
24 requirement. I did not calculate their net revenues. I
25 took it off of spreadsheets that were provided to OPC

1 and plugged those in. And what was in the revenue was a
2 percentage of hedging and the expected market price for
3 each I used an annualized one but I double checked it
4 against the monthly ones and added all those up and came
5 up with the revenue. Now, what I found --

6 Q. So you disagree with the anticipated market
7 price that is part of this calculation?

8 A. Yes, sir.

9 Q. Okay. So that's one. What else?

10 A. What's not on here and what I was trying to
11 get to is that I found that the revenues did not include
12 what is referred to as the PAYGO, whether it -- the tax
13 equity partner pays or gets paid from the Winco Company
14 and it also did not back out the hedging costs that are
15 built into the revenues.

16 Q. If the actual market price is as Empire
17 believes it to be, those other two scenarios don't
18 matter, correct?

19 A. I see where you're going with this. If there
20 -- Essentially if their numbers are correct we all go
21 home.

22 Q. The numbers meaning the market price?

23 A. Right. The hedge would not be --

24 Q. So if the anticipated market price is as is
25 assumed in this schedule, then you do not take issue

1 with the calculation at the bottom of the page?

2 A. Well, the calculations, yes, I do. Hedging is
3 not included in there.

4 Q. But if the market price is as is anticipated,
5 there won't be any cost from hedging?

6 A. But as we see there are some negative numbers
7 and then they turn positive.

8 Q. Don't those net out then?

9 A. I know that some of the hedging prices are --
10 Well, the hedging price is higher in the first two model
11 years. So after that it would -- hedging would not be a
12 factor in the calculations, you're correct.

13 COMMISSIONER HALL: Thank you.

14 JUDGE DIPPELL: Are there any other Commission
15 questions? All right. Is there any cross-examination
16 based on questions from the bench from staff?

17 MS. MERS: No, thank you.

18 JUDGE DIPPELL: MECG?

19 MR. WOODSMALL: No questions.

20 JUDGE DIPPELL: Division of Energy?

21 MS. REEVES: No, Judge.

22 JUDGE DIPPELL: Renew Missouri?

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

24 JUDGE DIPPELL: Empire?

25 MS. KNOWLTON: There are none.

1 JUDGE DIPPELL: Is there redirect?

2 MR. HALL: Thank you, Your Honor.

3 REDIRECT EXAMINATION BY MR. HALL:

4 Q. Mr. Riley, there's been some criticism as to
5 what revenues you used in your analysis. Where did you
6 get the expected revenues for your calculations?

7 A. After the company filed, they had forwarded
8 spreadsheets on each project, each separate project, and
9 then a levelized cost of energy spreadsheet and I went
10 to those for each project and took their -- if you
11 printed the spreadsheets out, it would be 275 pages. I
12 wasn't going to bring it here. But the spreadsheets are
13 broken into -- revenue is broken into expenses, broken
14 into various subsections of their study on this project,
15 and what I did is I went to the revenue section and took
16 the numbers that were generated there and put them into
17 my spreadsheet.

18 So for Neosho Ridge I pulled in the annual
19 expected revenues that were listed on there and for the
20 other two in Missouri I pulled those all down. I
21 combined them all together and that is how I came up
22 with the expected revenue numbers that I have on my
23 JSR-R-2. So if I'm using -- if I'm using the wrong
24 numbers, then those numbers were provided by -- the
25 numbers I used were provided by the company. So they --

1 Mr. Holmes says that he was using ABB projections. If
2 mine aren't ABB projections, then I can't tell you why I
3 got those spreadsheets from them and why they aren't
4 correct.

5 Q. Mr. Riley, to be clear, you were using numbers
6 you said after the company filed. You're referring to
7 this docket, the 2019 case?

8 A. This docket, yes, sir.

9 Q. And Holmes' schedules that he offered in
10 surrebuttal of your testimony, is that relying on the
11 data from the 2018 case?

12 A. I'm not really sure. I know it's very
13 similar. I'm not sure if the numbers are all the same.

14 Q. As to the 2018 or the 2019 case?

15 A. 2018. I'm not sure if the 2018 numbers --
16 this spreadsheet is very similar to the 2018. I can't
17 tell you that the numbers are the same.

18 Q. They're similar to the 2018 case. But the
19 company did not present an analysis of the expected
20 revenues in its direct testimony, did it?

21 A. I'm not real sure.

22 Q. Did Holmes re-present these expected revenues
23 in direct testimony at the filing of the 2019 case?

24 A. Mr. Holmes only filed surrebuttal.

25 Q. So he only waited to file this after you had

1 spoken?

2 A. Yes.

3 Q. At a time when no other witness could provide
4 testimony to rebut it?

5 A. I guess you're right, yes.

6 Q. A question from Commissioner Hall brought you
7 to a discussion on the hedge. Does Mr. Holmes' expected
8 revenue projections include the hedge?

9 A. I don't think they do, no.

10 Q. If that is the case, what would happen in the
11 scenario where there's a revenue shortfall?

12 A. Well, there had been a lot of talk about the
13 hedging and how it's not supposed to impact the
14 ratepayer. And if I can give you a simple scenario to
15 show you how hedging is going to affect the revenue
16 requirement, it might be a little clearer. If we look
17 at this, and one of the reasons why I filed this
18 testimony and put in these exhibits as revenue
19 requirement is because when this is all said and done
20 this is what we've got to look at. The next rate case
21 we're going to do a revenue requirement. So what I did
22 is I filed this and I looked over all their numbers on
23 their spreadsheets and saw that the revenue requirement
24 included hedging. So I had to back that hedge out
25 because that is a true cost to the ratepayer no matter

1 what these two witnesses will tell you. What happens is
2 let's look at it this way. Revenue requirement after
3 it's all said and done, the Commission has decided
4 what's going to be in cost and what's not, let's just
5 pick a number, 100, \$100 million revenue requirement.
6 That requires \$100 million in revenues to cover revenue
7 requirement. So what happens in the scenario -- What's
8 going to happen is we have this wind company selling
9 wind into the market. So let's just say that the wind
10 is going in as it expects but the price is low. We
11 don't want to muddy the waters with anything. Let's
12 just say that the price isn't what it's supposed to be.
13 So the hedge is going to kick in. Okay. So we need
14 \$100 million.

15 Let's say the Winco Company sells everything
16 into SPP and they get \$80 million. So we're short 20
17 million bucks. Who's got to pay that? Well, according
18 to what I understand is Empire is going to pony up \$20
19 million and give it to the wind company. Well, wind
20 company is going to give all that money back. So
21 they're going to give you back \$100 million. What we're
22 hearing from company is that's a wash. That is not a
23 wash. What happens is in revenue requirement is that
24 the \$20 million will be booked as a purchase power cost
25 and the \$80 million or 100 million, take your pick, is

1 going to be charged as off system sales. But when you
2 do the math, you're short 20 million because when it
3 comes down you've got 20 million over here, you've got
4 100 million over here and it nets out to 80. However,
5 we've got a revenue requirement of \$100 million. So
6 we've got a \$20 million shortfall. So that is going to
7 go into revenue requirement and the ratepayer is going
8 to be the one that has to do the back stop on that.

9 MR. HALL: Thank you. No further questions.

10 JUDGE DIPPELL: I believe that -- I'm sorry.
11 I believe that concludes your testimony, Mr. Riley, and
12 you may step down.

13 (Witness excused.)

14 JUDGE DIPPELL: I know it's a little early
15 still, but I think that we're going to take a break for
16 lunch before we go to OPC's last witness. And because
17 we're running a little earlier than I had anticipated,
18 we'll re-evaluate the remaining witnesses while we're on
19 break. And so with that we can go ahead and take an
20 early lunch break, return at 12:40. We can go off the
21 record.

22 (Off the record.)

23 JUDGE DIPPELL: Let's go ahead and go back on
24 the record. All right. We are back from our lunch
25 break. And Ms. Mantle has already come to the front. I

1 believe she is the next and last witness for public
2 counsel. If you'd please raise your right hand.

3 (Witness sworn.)

4 JUDGE DIPPELL: Thank you.

5 LENA MANTLE, being sworn, testified as follows:

6 DIRECT EXAMINATION BY MR. WILLIAMS:

7 Q. Would you please state and spell your name?

8 A. My name is Lena M. Mantle. My last name is
9 M-a-n-t-l-e.

10 Q. And by whom are you employed?

11 A. I'm employed by the Office of the Public
12 Counsel.

13 Q. In what capacity?

14 A. As Senior Analyst.

15 Q. For whom are you testifying here today?

16 A. I'm testifying on behalf of the Office of
17 Public Counsel.

18 Q. Did you prepare rebuttal testimony and
19 surrebuttal testimony both of which contain highly
20 confidential information that have been marked for
21 purposes of identification as Exhibit Nos. 205 and 206
22 in this case?

23 A. Yes, I did.

24 Q. For that to be your testimony here today,
25 would you have any changes to either of those exhibits

1 proposed?

2 A. I have one change in my rebuttal testimony.

3 Q. Where is that change and what is it?

4 A. On page 10, line 8, my testimony said the SPP
5 market has only been operating since March of 2015.
6 That is actually March 2014.

7 Q. So your correction is to change March of 2015
8 to March of 2014?

9 A. Yes.

10 Q. Do you have any other changes to either of the
11 exhibits?

12 A. No.

13 Q. With that change, are Exhibit Nos. 205 and 206
14 your testimony here today?

15 A. Yes.

16 MR. WILLIAMS: I offer Exhibits 205 and 206.
17 There are both highly confidential and public versions
18 of each.

19 JUDGE DIPPELL: And let me just clarify. Ms.
20 Mantle, your rebuttal testimony, the version I have
21 anyway, says confidential. Is it -- We have a special
22 protective order in this case. Is it confidential or
23 highly confidential?

24 THE WITNESS: Well, the outside says
25 confidential, but inside on different pages it says

1 highly confidential. As a lay person, I'm not for sure.

2 JUDGE DIPPELL: So are there any objections
3 then to Exhibits 205 and 206 which I am marking both as
4 highly confidential and I'll have to double check to see
5 how they were originally filed in EFIS, but would there
6 be any objection to 205 and 206 in all of its versions
7 coming into the record? Seeing none, I will admit those
8 exhibits.

9 (OPC EXHIBITS 205 AND 206 WERE RECEIVED INTO
10 EVIDENCE AND MADE A PART OF THIS RECORD.)

11 MR. WILLIAMS: I tender Ms. Mantle for
12 cross-examination by the parties and questioning by the
13 Commissioners.

14 JUDGE DIPPELL: Is there any cross-examination
15 from staff?

16 MS. ASLIN: No questions.

17 JUDGE DIPPELL: MECG?

18 MR. WOODSMALL: No questions.

19 JUDGE DIPPELL: Department of Energy?

20 MS. REEVES: No, Judge.

21 JUDGE DIPPELL: Renew Missouri?

22 MR. OPITZ: No, thank you, Judge.

23 JUDGE DIPPELL: Empire?

24 MS. KNOWLTON: Yes, Your Honor, I have one
25 question for Ms. Mantle.

1 CROSS-EXAMINATION BY MS. KNOWLTON:

2 Q. Ms. Mantle, in this case are your concerns
3 about Empire's use of market price forecasts based on
4 the source of those forecasts being from ABB?

5 A. No.

6 MS. KNOWLTON: Thank you. The company has no
7 further questions.

8 JUDGE DIPPELL: Are there questions from the
9 Commissioners? Commissioner Hall?

10 QUESTIONS BY COMMISSIONER HALL:

11 Q. I want to follow up on that question. So your
12 concern about the market price forecasts is not a
13 function of the source?

14 A. That is correct.

15 Q. Which means that -- means what about your view
16 of the source?

17 A. The market prices forecast, I don't believe
18 that I could believe anybody's market price forecast
19 with enough certainty to bet \$1.1 billion. ABB used
20 software that they've used for years. They used an
21 analysis type that's been used for years. But we're
22 entering into a whole new era where we have so much
23 wind. It's different than coal plant. It's different
24 than a combined cycle or CT. How it affects the market
25 is completely different. So when you have as much wind

1 as we have going into SPP to rely on a forecast
2 methodology based off history of a completely different
3 resource provides while it may be the best forecast out
4 there it's completely unknown.

5 Q. So would you agree it's the best forecast out
6 there?

7 A. I don't know if it's the best. I don't know
8 of a better way other than short of what I read through
9 that MIT has provided in the paper I attached to my
10 testimony and then Lawrence Berkeley Lab also had some
11 suggestions.

12 Q. So you've got some criticisms of the forecast
13 but you don't have a better forecast or you're not aware
14 of a better forecast?

15 A. If this was a project to meet customers'
16 needs, we were building and we had to have something out
17 there to model against, I was around when the original
18 resource planning rule was developed and I was on staff
19 when it was redone. The whole idea is to look at
20 different possible futures out there in resource
21 planning because the customers will need some technology
22 to provide their electricity usage. So you go with the
23 best that's out there. And now and with what Empire is
24 proposing this isn't to meet customers' needs, this
25 isn't we believe in the first three years. We're pretty

1 sure we're going to be below -- I mean, the market is
2 going to be higher than our price. There is no
3 certainty about this other than it's going to cost the
4 ratepayers the way Empire has proposed it. So it's a
5 different type of analysis and you put a different
6 weight on that market forecast.

7 Q. So on page 4 of your rebuttal testimony at
8 lines 7 and 8, you say consistent with what you just
9 testified to a moment ago that the benefits to the
10 customers from granting this certificate are entirely
11 reliant on SPP market prices and you could
12 parenthetically say high SPP market prices; is that
13 correct?

14 A. They are contingent upon market prices that
15 are constantly increasing. There was no analysis what
16 happens if market prices stay flat. There was no -- So
17 it's higher than they are now and it is going up.

18 Q. So you're not considering any potential
19 benefit from a no carbon source of generation if it were
20 to replace fossil fuel generation? That's not a benefit
21 that you're taking into account?

22 A. I know. What I'm thinking it's economic but
23 it's not just economic because it's economics for the
24 customer that's going to have to decide whether to pay
25 for their prescriptions or pay their increase so that --

1 Q. I'm just asking --

2 A. So I'm looking at some that aren't necessarily
3 economic.

4 Q. But you're not taking any benefit to the
5 environment into account? You didn't consider that?

6 A. I don't know that this is going to displace
7 any of the other -- of the coal.

8 Q. But it might?

9 A. Yes, it could.

10 Q. If it were to replace some coal production
11 either at a facility owned by Empire or by another
12 facility within the SPP footprint, there would be some
13 environmental benefit and you're not taking that into
14 account?

15 A. No.

16 Q. And you're also not taking into account the
17 possibility that the additional 600 megawatts from these
18 two facilities might put some downward pressure on
19 market prices which would inure to the benefit of
20 ratepayers; you're not taking that into account, are
21 you?

22 A. If it drives down the market price, this 600
23 megawatts is not going to be the driver. There's so
24 much -- if market prices go down because of wind, it's
25 not because of this 600 wind. It's because of the

1 additional 30 to 40 gigawatts of wind that's out there.
2 And that would be seen by the customers regardless of
3 whether Empire builds these three wind farms or not. So
4 those benefits will be seen by customers.

5 Q. That's fair enough that this 600 isn't going
6 to be a driver in a reduction of prices. If prices do
7 go down, that does benefit ratepayers, correct, in terms
8 of price they pay?

9 A. If they don't build -- if they aren't being
10 changed for these wind farms.

11 Q. Separate and apart. I'm not looking at the
12 cost. I'm just looking at possible benefit. Let's move
13 on.

14 Do you believe that there is some benefit to
15 ratepayers with a diversity of fuel source?

16 A. Yes, but this is not making Empire more
17 diverse.

18 Q. If it were to replace a coal facility, would
19 it make Empire more diverse?

20 A. No.

21 Q. I need some help with that one.

22 A. This addition of this 600 megawatts of wind
23 will make Empire heavily reliant upon wind. Diverse
24 means some coal, some CTs, some combined cycles, some
25 wind, some solar, and no one of those technologies being

1 a whole lot more than the others. If you want
2 diversity, you want different types that respond to
3 different fuel costs into the market prices.

4 Q. I guess I'm not sure I understand. Right now
5 there's about 255 megawatts of wind that they have the
6 purchase power contracts on; is that correct?

7 A. Yes.

8 Q. So this would replace that and possibly some
9 coal, correct?

10 A. In the future it would be there when the PPAs
11 that they have end. I don't know replace is -- but I
12 don't know whether -- it's only 90 megawatts of
13 accredited capacity for SPP is about what it would be
14 which would not replace a coal plant. It doesn't
15 replace the reliability you get with a coal plant. It
16 doesn't replace the certainty of being there that a coal
17 plant has.

18 Q. It seems like you're kind of talking out of
19 both sides of your mouth here though, because you're
20 saying that the addition of these three facilities is
21 going to make Empire overly wind reliant and therefore
22 there will not be diversity, but then you're also saying
23 that it's not -- if you compare it to the wind it
24 already has, it's not going to bring that much more wind
25 into the mix. So which is it?

1 A. It would be in addition to the current PPAs
2 that they have and those will end in 2025 and 2028. So
3 one way to look at it is replacement, that is a way to
4 look at it, but that's not until 2025 and 2028.

5 Q. Are you familiar with paragraph 17 of the
6 non-unanimous stip regarding Asbury? Did you review
7 that provision?

8 A. I have read it, yes.

9 Q. Would you agree that the intent of that
10 provision is to protect ratepayers from the possibility
11 that Asbury gets retired or sold sometime between and
12 the next rate base and ratepayers continue to have to
13 pay the depreciation, the return on equity and all the
14 operating related to that facility even though it's not
15 running, would you agree that the intent of this
16 provision is to protect ratepayers from that
17 contingency?

18 A. I would say that it's to have the information
19 necessary to make a determination on in the future to
20 hopefully protect the customers, yes.

21 Q. Okay. Is there language in there that you
22 believe could or should be tightened up to better
23 protect ratepayers or do you believe that it's drafted
24 sufficiently for that purpose?

25 A. I'm not an auditor. So I can't say.

1 Q. Yeah, but you've been around here awhile.
2 You've seen these provisions.

3 A. A few but --

4 Q. And if you -- I guess in the briefing, the
5 post-hearing briefing if public counsel believes that
6 that language should be modified to further protect MECG
7 for that matter --

8 A. You said I've been around for awhile. What I
9 have learned is you think you've got everything in and
10 then three years down the road you find out you missed
11 something.

12 Q. But sitting here today, there's not any
13 portion of that section that you think could be
14 tightened up or improved?

15 A. Not that I can tell.

16 COMMISSIONER HALL: All right. Thank you.

17 JUDGE DIPPELL: Would there be any further
18 cross-examination based on the Commissioner's questions?
19 From staff?

20 MS. ASLIN: No, thank you.

21 JUDGE DIPPELL: MECG?

22 MR. WOODSMALL: No questions.

23 JUDGE DIPPELL: Division of Energy?

24 MS. REEVES: No, Your Honor.

25 JUDGE DIPPELL: Renew Missouri?

1 MR. OPITZ: No, thank you, Judge.

2 JUDGE DIPPELL: Empire?

3 MS. KNOWLTON: None, Your Honor.

4 JUDGE DIPPELL: Is there redirect?

5 MR. WILLIAMS: Yes, thank you. Hopefully
6 briefly.

7 REDIRECT EXAMINATION BY MR. WILLIAMS:

8 Q. You talked about in response to a question by
9 Commissioner Hall that wind are different than coal and
10 CTs with regard to history and then using that history
11 for doing forecasts. Would you explain how wind and
12 coal -- how wind is different than coal and CTs?

13 A. Wind has no emissions. I will grant that.
14 But you don't know when the wind is going to be blowing.
15 It's an intermittent resource. It is -- Coal is
16 typically a base type of plant. It can follow load.
17 And again CTs can be brought up very quickly and they
18 are reliable. You know you can turn them on and it will
19 be there. You don't get that with wind. And the other
20 thing with wind because of the production tax credits
21 it's often run when it is not -- let to generate energy
22 when it's not necessarily a good idea with the market
23 price. So that's -- we have the negative market prices
24 that are happening in the SPP market and the purchase
25 power agreements that utilities currently have for wind,

1 those utilities have to generate with that wind
2 regardless of the market price. If not, they end up
3 paying for the production tax credit and the negative
4 price and the cost of the megawatt hour anyway. But of
5 course that's a product of a PPA versus ownership.

6 In this case, because there's a tax equity
7 partner, it would be run because the tax equity partner
8 wants that revenue to offset its investment.

9 There are tax incentives with coal, I'm not as
10 familiar, and CTs, but I'm not aware of any that
11 requires a plant to run when it's not economic to run.

12 Q. You seem to have indicated there's an
13 importance between the availability of a generating
14 resource and I think you used the word load. Is that
15 the same thing as demand for energy?

16 A. Yes. Your CTs, your coals, your combined
17 cycles can follow load. In other words, they match the
18 load that's out there. With wind it could, if it wasn't
19 trying to get the production tax credit, curtail if the
20 wind was blowing but you could not say I need a megawatt
21 hour. If the wind is not there, it doesn't make any
22 difference what your demand is. You're not going to get
23 anything out of that wind generation.

24 Q. And you talked some about using historical
25 information for making forecasts. Are you aware of any

1 examples where that's been done?

2 A. There was -- I'm aware of a lot of examples.
3 In particular, most of the wind PPAs that are out there
4 for our utilities have entered into some basis off
5 economics off of forecasted market prices and I'm not
6 aware of any PPA for any utility right now where it is
7 earning more revenue from the RTO, whether that's MISO
8 or SPP, than what the utility is paying for that PPA in
9 a given hour. And in particular for Empire, the two
10 PPAs that they do have and they entered into in 2005 and
11 2007, and I was on the Commission staff then, I remember
12 back. And I've gone back and looked at the forecast
13 used to enter into those contracts. At the time they
14 were entered into the prices were not superb but because
15 of the high natural gas prices these look like a pretty
16 good deal.

17 In the past two or three weeks I've been
18 looking at the FAC reports that are provided by Empire
19 every month and I have found that these PPAs have cost
20 the customer between 12 million a year and 18 million a
21 year and that's because the forecasts that were used
22 when these were entered into said that market prices
23 were going to go up. And what I've seen is the market
24 prices actually went down. And for that reason Empire's
25 customers, even though this is wind and the fuel cost is

1 zero, the PPA cost isn't and the revenues that they're
2 receiving from SPP don't -- are sometimes half as what
3 they're paying through the PPAs.

4 Q. And directionally what have -- how are ABB's
5 forecasts that Empire is relying on in this case in
6 terms of how they change over time? Are they
7 increasing, decreasing, level, variable?

8 A. They are going up. The forecast that was used
9 to enter into the PPA is they use -- ABB used the same
10 models that, it was Ventrex I think back in 2005, 2007,
11 but they used the exact same models, the exact same type
12 of analysis to do those forecasts back in 2005 and 2007
13 to enter into those contracts. That's the same modeling
14 that I see done now and those prices just as they did
15 then show even though they have a low, medium and a high
16 case, the low market prices still are just incrementally
17 climbing every year and I have yet to see a market where
18 they go up. Usually they're all over the place. The
19 forecast used both the low, medium and high for the
20 modeling that was done in the 2018 case because there
21 was no modeling done in this case was to continually
22 increase across time.

23 Q. Would you explain what point you were making
24 when you were responding to Commissioner Hall about the
25 impact of these projects -- or what impact these

1 projects would have on the SPP market prices?

2 A. There's two studies that are attached to my
3 surrebuttal testimony from very reputable research
4 centers, one from MIT and one from Lawrence Berkeley
5 National Lab that show that their analysis shows that
6 the more wind that comes on there's a dampening to the
7 market price. If in SPP this 600 megawatts was all that
8 was coming on, it would barely hit the market price.
9 But because of all the market or the wind that is being
10 proposed to be added to SPP, it's in Dr. Marke's
11 testimony and mine, I expect a real dampening of the
12 market prices which right now aren't even at where
13 Empire said they would be for 2018.

14 Q. Is another way of characterizing that that 600
15 megawatts is a drop in the bucket of anticipated
16 additional wind?

17 A. Yes, because we're talking about gigawatts
18 being added to SPP. One gigawatt is a thousand
19 megawatts. This 600 megawatts so we're talking a lot
20 more than just what Empire is looking at adding.

21 Q. Then there was some questions and answers
22 regarding diversity of Empire's supply side resources
23 with and without the addition of these 600 megawatts of
24 wind. What is Empire's current diversity in resources?

25 A. Empire currently has, I'm trying to think how

1 many coal plants. They've got part of Plum Point,
2 they've got Asbury up, they've got part of Iatan 1 and
3 2. And they've got some CTs, combustion turbines.
4 They've got a couple of combined cycle generation plants
5 that are doing well in the SPP market. And then they do
6 have their two wind PPAs which are generating more than
7 what's required for the Missouri RES and will be until
8 they end. So they've got a balanced portfolio now.
9 They're not heavily dependent on any one type,
10 generation type or resource.

11 Q. Can you break I guess the generating resources
12 down into megawatts of what you would characterize as
13 base load, intermediate, peaking and let's make another
14 category wind?

15 A. Are you asking for the numbers off the top of
16 my head?

17 Q. Or even the relative amounts. Currently
18 Empire has two wind PPAs that total 255 megawatts,
19 correct?

20 A. Yes, but the accredited SPP capacity, of
21 course, is much less than that. Yes, that's --

22 Q. If we do it on a nominal --

23 A. Approximate nameplate.

24 Q. -- yeah, approximate nameplate basis, can you
25 give an indication of the relative resource mix?

1 A. I'm thinking about 250 megawatts of coal,
2 maybe about 300 of the combined cycle which is an
3 intermediate plant and a lot of CTs that aren't run very
4 much but are there when are needed and then the wind.

5 Q. Well, Empire's total nominal megawatt capacity
6 between its PPAs and all of its supply side resources is
7 something around 1,700, 1,750 megawatts, correct?

8 A. Correct.

9 Q. Of that 255 megawatts would be wind?

10 A. Yes.

11 Q. So if you add the 600 megawatts of wind,
12 what's that going to do to the mix?

13 A. It's going to make them heavily weighted
14 towards wind.

15 Q. And when have -- Are you familiar with when
16 it's considered to start causing issues in terms of wind
17 penetration in the markets?

18 A. No.

19 Q. What's the relationship between SPP market
20 prices and these projects being net beneficial to
21 ratepayers?

22 A. For the projects to be beneficial to
23 ratepayers, the market price at the generation nodes for
24 these plants will have to be greater than what we've
25 been referring to as LCOE. There's been some talk about

1 zero fuel costs. So even \$1 is good. But to be
2 beneficial to the customers, you have to take into
3 account not just the fact that the fuel cost is zero but
4 that there's capital costs that those customers will be
5 paying for much like they're paying for the O&M costs
6 for Asbury or any other plant. So really it needs to be
7 above the LCOE for it to be beneficial at all for the
8 customers.

9 Q. You said what they're calling the LCOE. What
10 is your understanding of what LCOE is?

11 A. LCOE is a way to measure -- it was my
12 understanding it was initially developed so that you
13 could compare different types of generation, coal to CTs
14 to combined cycles. It has been used also for wind, but
15 the one thing that's different about wind or solar or
16 any type of renewable type resource like that is the
17 intermittency. Coal, CTs, combined cycles are there
18 unless they're on a forced outage or a planned outage.
19 There's the variability of wind is not counted in on
20 their LCOE price, but it's supposed to be a way to
21 measure both capital cost, O&M cost and fuel cost and in
22 the case of Empire in this case they also include some
23 revenue in that determination what they expect the
24 revenues to be to get the LCOE. In other words, if the
25 revenues are not as high as what Empire is projecting,

1 those LCOEs -- the actual LCOEs will be higher than what
2 we see because there's so many interdependencies between
3 costs and revenues in the calculation of LCOE.

4 Q. Turning back to doing market forecasts, do you
5 have some experience in seeing how market forecasts have
6 changed over time?

7 A. Looking at market forecasts for both Empire
8 and recently I've been looking at KCPL and GMOs also, it
9 seems to me what happens is they take the same market
10 forecast that was wrong three years earlier and just
11 move it over three years. So it's more or less the same
12 market forecast and it's always going up, the high,
13 medium, low. It never stays flat. It never drops.
14 Always going up. We just take that forecast and we plop
15 it over three years and it's basically the same
16 forecast.

17 Q. When you say it's the same forecast, you're
18 saying essentially the origin point would be the same
19 and you're shifting it on the timeline to the right?

20 A. Yes.

21 Q. So if you were going to rely on that kind of a
22 market forecast, you'd want to use the most currently
23 available?

24 A. I'd want to go back and look and see what was
25 wrong with that forecast three years ago and are we

1 solving the problem that happened three years ago. To
2 me there's a disconnect between -- obviously you need to
3 -- a forecast is good but you've got to look at it and
4 see if it makes any sense.

5 Q. Well, let's assume that there's nothing wrong
6 with how you're doing your forecasting. Would you want
7 to use the most currently available data for doing your
8 forecast?

9 A. Definitely. Especially when you've got a
10 changing market like we have with the SPP where things
11 are evolving day to day.

12 MR. WILLIAMS: I have no further questions.
13 Thank you.

14 JUDGE DIPPELL: Thank you. I think that
15 concludes your testimony. You may step down, Ms.
16 Mantle.

17 (Witness excused.)

18 JUDGE DIPPELL: I had earlier asked Mr. Wilson
19 to stick around in case there were additional Commission
20 questions. I don't believe there are any. So I'm
21 looking at Commissioner Hall just in case.

22 I'll let you look at that while we'll discuss
23 -- That was the end of the witnesses, right? I haven't
24 missed anybody besides Mr. Hyman? Nobody had any other
25 witnesses.

1 Okay. So when we were off the record, I had a
2 discussion with Division of Energy's attorney and
3 staff's attorney about the cross-examination of Mr.
4 Hyman. None of the Commissioners have questions for
5 him. And since we are finished, I hate to reconvene in
6 the morning to see if he's going to be able to even
7 testify. So one option that we might consider is
8 letting staff ask their questions in a written format
9 and letting Mr. Hyman answer that in a written format.
10 And correct me if I'm wrong, that I believe their
11 questions had to do with the Asbury part of the
12 stipulation and agreement; is that correct?

13 MS. MERS: Yes.

14 JUDGE DIPPELL: Would counsel have any
15 objection to that procedure?

16 MS. REEVES: You had asked several people to
17 explain that to you. The one witness that could explain
18 it to you would be Marty.

19 MR. WILLIAMS: If that's the scope of the
20 questions, I think we're okay with that.

21 JUDGE DIPPELL: Would Empire have any
22 objection to that approach?

23 MR. COOPER: Not generally.

24 JUDGE DIPPELL: I would allow objections or
25 rebuttal or cross I guess over that.

1 MR. COOPER: Recross questions. I mean, I
2 think it's, you know, it's kind of a limited chance that
3 that would result or be necessary, but I think I would
4 like the opportunity to review the question and answer
5 at some point.

6 MR. WILLIAMS: I have the same concerns. From
7 what I'm hearing about the scope, I don't anticipate it
8 will be a problem.

9 MR. COOPER: That's exactly what I'm saying as
10 well. I wouldn't anticipate a problem. I think I would
11 just want an opportunity to confirm that when I see the
12 question and answers.

13 JUDGE DIPPELL: I think we can do that. What
14 I will ask staff to do is to formulate their questions
15 in writing and go ahead and file those in EFIS at the
16 same time that you serve them to Mr. Hyman and that will
17 let everyone see them. If for some reason you have
18 objections to the questions themselves, I would ask you
19 to make that objection and then I'll have Mr. Hyman
20 respond by a sworn affidavit to his answers to those
21 questions and then again I will let you all have an
22 opportunity to respond to his answers.

23 MR. WILLIAMS: So you're anticipating getting
24 the answers even if there's an objection and then either
25 dealing with it by striking it or overruling the

1 objection?

2 JUDGE DIPPELL: Well, I'm anticipating if
3 there's an objection that I will rule on that --

4 MR. WILLIAMS: Before Mr. Hyman responds?

5 JUDGE DIPPELL: -- before the answers, yes.
6 If there's an objection to the question, I will rule on
7 that objection before answers.

8 MR. WILLIAMS: Thank you.

9 JUDGE DIPPELL: Okay.

10 COMMISSIONER HALL: I do have a couple of very
11 quick questions.

12 JUDGE DIPPELL: Okay. Commissioner Hall does
13 have a couple of questions for Mr. Wilson. Is he still
14 in the room?

15 MR. COOPER: He is, yes, Your Honor.

16 JUDGE DIPPELL: Can I ask you to come back to
17 the witness stand, Mr. Wilson. Mr. Wilson, I swore you
18 in yesterday -- or earlier today. It hasn't even been
19 that long a day. You are still under oath.

20 THE WITNESS: Okay. Thank you.

21 JUDGE DIPPELL: Thank you.

22 WITNESS TIMOTHY WILSON RESUMED THE STAND.

23 QUESTIONS BY COMMISSIONER HALL:

24 Q. This should be very brief. Do you have your
25 corrected direct testimony from December of 2018?

1 A. I believe that I do, yes.

2 Q. On page 2, lines 12 through 14 you indicate
3 that these wind projects will reduce the risk of
4 transmission upgrades and congestion pricing in the
5 Southwest Power Integrated Marketplace; is that correct?

6 A. Yes, with respect to how we evaluated the RFP
7 results.

8 Q. I was going to ask you to elaborate on this --
9 on that statement.

10 A. Yes. Generally speaking, due to the fact of
11 the nature that they are in or near our service
12 territory, that reduces the risk and likelihood of
13 additional transmission interconnection costs as they go
14 further away from our load.

15 Q. So is that related to this particular project
16 or existing risk of transmission upgrades and congestion
17 pricing?

18 A. With respect to these projects.

19 COMMISSIONER HALL: Okay. All right. Thank
20 you.

21 JUDGE DIPPELL: Would there be any additional
22 cross-examination based on the Commissioner's questions?
23 From Renew Missouri?

24 MR. OPITZ: No, thank you, Judge.

25 JUDGE DIPPELL: Division of Energy?

1 MS. REEVES: No, Your Honor.

2 JUDGE DIPPELL: MECG?

3 MR. WOODSMALL: No, Your Honor.

4 JUDGE DIPPELL: Staff?

5 MS. ASLIN: No questions.

6 JUDGE DIPPELL: Public counsel?

7 MR. WILLIAMS: No, thank you.

8 JUDGE DIPPELL: Any redirect?

9 MR. COOPER: No questions.

10 JUDGE DIPPELL: Thank you very much,
11 Mr. Wilson. You may be excused.

12 (Witness excused.)

13 JUDGE DIPPELL: Then I believe that concludes
14 all the testimony with the exception of that to come
15 later in written form.

16 MS. REEVES: Judge, if I may.

17 JUDGE DIPPELL: Yes.

18 MS. REEVES: Would we be able to move at this
19 time to get Mr. Hyman's written testimony submitted?

20 JUDGE DIPPELL: Yes, yes. Thank you.

21 MS. REEVES: We have labeled our exhibit of
22 his testimony that was submitted in this case of
23 February 5 as Exhibit 400.

24 JUDGE DIPPELL: Let me just ask as far as
25 you're aware, he didn't have any corrections to his

1 testimony?

2 MS. REEVES: I don't think he had any
3 substantive corrections, no.

4 JUDGE DIPPELL: Okay. And you labeled that
5 Exhibit 400?

6 MS. REEVES: Yes.

7 JUDGE DIPPELL: Would there be any objection
8 to Exhibit 400 which is the surrebuttal testimony of Mr.
9 Hyman? Seeing no objection, I will admit that.

10 (DIVISION OF ENERGY EXHIBIT 400 WAS RECEIVED
11 INTO EVIDENCE AND MADE A PART OF THIS RECORD.)

12 MS. REEVES: Judge, if I may, I have one other
13 question about his written testimony.

14 JUDGE DIPPELL: Yes.

15 MS. REEVES: Did you have a time frame within
16 which you would like the parties to conclude that
17 process?

18 JUDGE DIPPELL: Yes. I was going to kind of
19 get to that here in a minute. The transcripts are
20 supposed to be available I think the order said by the
21 15th, which is Monday. So would it be possible will
22 staff be able to formulate those questions? How much
23 time do you need to get something filed?

24 MS. MERS: Probably do it tomorrow.

25 JUDGE DIPPELL: I will ask staff to file their

1 questions by tomorrow and receive any objections on
2 those questions on Friday, and then would you think you
3 could have his answers by Monday?

4 MS. REEVES: I think so, Your Honor.

5 JUDGE DIPPELL: Obviously if for some reason
6 his health precludes him, I just expect you to make a
7 timely motion to extend the time.

8 MS. REEVES: We can do that.

9 JUDGE DIPPELL: Okay. And then you can make
10 objections to his answers or responses if you think
11 there's further questioning needed or whatever your
12 response might be. It might not be an objection I
13 guess.

14 MR. WILLIAMS: I guess I'm okay with that time
15 frame, but I really don't understand why staff wouldn't
16 be able to have questions before the end of today given
17 that it was going to pose those questions to Mr. Hyman
18 today I expect.

19 MS. MERS: That is fine. We can have them
20 today.

21 JUDGE DIPPELL: Ms. Mers says that they can
22 have them today. So I can bump that time up. I'm just
23 not sure about Mr. Hyman's answers given that I don't
24 know the nature of his health issues.

25 MR. WILLIAMS: I understand that. If the

1 answers are -- the questions are posed today, I expect
2 we could provide any objections we have tomorrow.

3 JUDGE DIPPELL: I'm seeing agreement to that.
4 I will ask staff then to file those questions today and
5 have objections tomorrow. I will rule on those
6 objections as quickly as I can and still look for
7 Mr. Hyman's answers on Monday.

8 Okay. So the order, the procedural order also
9 has your briefs due on the 24th and your reply briefs
10 due on May 6. Given this testimony issue, do you see
11 any problems with meeting those deadlines?

12 MR. COOPER: No, Your Honor.

13 JUDGE DIPPELL: I'm seeing no issues there.
14 There was a lot of discussion of the stipulation and
15 agreement and I think that that should go ahead and be
16 entered as an exhibit just to clarify the record.

17 MR. COOPER: Judge, do you want to do that for
18 both the non-unanimous stip and the Wildlife stip?

19 JUDGE DIPPELL: Yeah, let's go ahead. I will
20 mark those as company exhibits.

21 MR. COOPER: That would be fine. I think
22 we're up to 12.

23 JUDGE DIPPELL: Let's mark the wildlife
24 stipulation and agreement as 12 and the general
25 stipulation and agreement, non-unanimous stipulation and

1 agreement as 13.

2 MR. COOPER: And the non -- well, both of
3 those have a couple of versions. So you need to make
4 note of that as in confidential versus --

5 JUDGE DIPPELL: Oh, you're right. Both
6 agreements are also in highly confidential versions.
7 And I will provide the court reporter copies from EFIS
8 of those two documents to be stamped as exhibits and
9 attached to the transcript.

10 Okay. I have also instructed our IT personnel
11 to redact the video from yesterday. It turned out it
12 was just a few seconds of the video. I think it will
13 just be removed. So just to let you know that if you
14 should replay the video, there will be a few seconds
15 which redacts the two questions and answers that were
16 meant to be in camera.

17 MR. WILLIAMS: But there will be a transcript
18 that includes those?

19 JUDGE DIPPELL: Yes, the transcript will have
20 an in camera transcript that will include those
21 questions and answers.

22 MR. WILLIAMS: Thank you.

23 JUDGE DIPPELL: And we've had a lot of issues
24 about the highly confidential versus confidential versus
25 public nature of information and testimony. I would ask

1 you all to reread the new Commission rule on that about
2 explaining whether or not why something you designate is
3 confidential is confidential and ask you in the interest
4 of transparency to try to keep that limited as you can
5 in the future, and I will attempt to make note of what
6 we have declassified and see that it gets changed if it
7 can in the Commission's filing system.

8 MR. WILLIAMS: Judge, for public counsel I'm
9 confident that everything we designated as confidential
10 or highly confidential was because of how Empire had
11 designated it. We'd be happy to change whatever Empire
12 agrees can be disclosed to the public.

13 JUDGE DIPPELL: I'm sure. I'm just discussing
14 the stuff that we have already run across in the course
15 of the testimony. I just want to make sure that in your
16 briefs and in the Commission order that you're able to
17 make public as much as you can. If you discover in the
18 course of writing your briefs that there are entire
19 portions of testimony that can be made public that you
20 prior thought maybe should remain confidential, we
21 welcome you to let us know that and I'm looking at
22 Empire's counsel because I understand that staff and
23 public counsel have a duty to keep confidential what the
24 company has submitted as confidential.

25 Okay. Is there anything else that I haven't

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addressed? I'm not seeing anything. So I appreciate your participation.

MR. COOPER: Could you give us just a second, Judge?

(Off the record.)

MR. COOPER: We're good for the moment. Thank you, Judge.

JUDGE DIPPELL: Okay. In that case we are adjourned. We can go off the record.

(Off the record.)

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CERTIFICATE OF REPORTER

I, Beverly Jean Bentch, RPR, CCR No. 640, Certified Court Reporter with the firm of Tiger Court Reporting, LLC, within the State of Missouri, do hereby certify that I was personally present at the proceedings had in the above-entitled cause at the time and place set forth in the caption sheet thereof; that I then and there took down in Stenotype the proceedings had; and that the foregoing is a full, true and correct transcript of such Stenotype notes so made at such time and place.

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