```
Page 1
 1
             BEFORE THE PUBLIC SERVICE COMMISSION
 2
                       STATE OF MISSOURI
 3
                   TRANSCRIPT OF PROCEEDINGS
 4
                      EVIDENTIARY HEARING
 5
 6
    In the Matter of the Petition
    of Union Electric Company d/b/a )File No. EF-2024-0021
    Ameren Missouri for a Financing )
 7
    Order Authorizing the Issue of
    Securitized Utility Tariff Bonds)
 8
    for Energy Transition Costs
    related to Rush Island Energy
 9
    Center
10
11
                    TUESDAY, APRIL 16, 2024
                           9:00 a.m.
12
                    Governor Office Building
13
                       200 Madison Street
                    Jefferson City, MO 65101
                           and WebEx
14
15
                            VOLUME 4
16
                      JOHN T. CLARK, Presiding
                          SENIOR REGULATORY LAW JUDGE
17
                      KAYLA HAHN, Chair,
18
                      JASON R. HOLSMAN,
                      GLEN KOLKMEYER,
19
                          COMMISSIONERS
2.0
21
    REPORTED BY:
2.2
    Tracy Taylor, CCR No. 939
23
24
25
```



1			Page 2
1		APPEARANCES	
2	TAMES F	B. LOWERY	
3	OAMED L	JBL Law, LLC	
4		9020 S. Barry Road Columbia, Missouri 65203 573.476.0050	
5	FOR:	lowery@jbllawllc.com Union Electric Company	
6	NASH E.		
7	NASH E.	Hunton Andrews Kurth, LLP One South at the Plaza	
8		101 South Tryon Street, Suite 3500 Charlotte, NC 28280	
9		704-378-4700 nlong@HuntonAK.com	
10	FOR:	Union Electric Company	
11	JOHN CC		
12		871 Tuxedo Boulevard St. Louis, Missouri 63119 573.424.6779	
13	FOR:	AARP Consumers Council of Missouri	
14	NATHAN	WILLIAMS	
15	141111111	Department of Commerce & Insurance 200 Madison Street, Suite 650	
16		PO Box 2230 Jefferson City, Missouri 65102	
17	FOR:	opcservice@opc.mo.gov Office of the Public Counsel (OPC)	
18	NICOLE	MERS	
19		Department of Economic Development 200 Madison Street, Suite 800	
20		PO Box 360 Jefferson City, Missouri 65102-0360	
21	FOR:	staffcounselservice@psc.mo.gov Staff of the Missouri Public Service	
22	Commiss		
23			
24			
25			



1 The followings proceedings began at 9:01 a.m.: 2 Good morning. JUDGE CLARK: Today is April 16th, 2024 and the current time is 9:01 a.m. 3 This proceeding is being held in Room 310 of the 4 5 Governor Office Building. The Commission has set aside this time 6 7 for day two of the evidentiary hearing in, In the 8 Matter of the Petition of Union Electric Company doing 9 business as Ameren Missouri for a Finance Order 10 Authorizing the Issue of Securitized Utility Tariff 11 Bonds for Energy Transition Costs related to the Rush Island Energy Center. And that is Case Number 12 13 EF-2024-0021. My name's John Clark. I'm the Regulatory 14 15 Law Judge overseeing today's proceeding. 16 We have a different court reporter today, 17 so I'm going to ask that everybody, the first time that they are speaking, identify themselves to the 18 19 court reporter, Ms. Taylor, if you haven't already 20 provided your information to her. 21 At this time, I'm going to ask counsel to 22 enter their appearances for the record, starting with 23 Ameren Missouri. 24 Jim Lowery on behalf of MR. LOWERY: 25 Ameren Missouri.

```
Page 4
                 JUDGE CLARK:
 1
                                Thank you, Mr. Lowery.
 2
                             Nash Long, also for Ameren
                 MR. LONG:
 3
    Missouri.
 4
                 JUDGE CLARK:
                                Thank you, Mr. Long.
 5
                 On behalf of the Staff of the Commission.
                             Nicole Mers on behalf of the
 6
                 MS. MERS:
 7
    Staff.
 8
                 JUDGE CLARK:
                                Thank you, Ms. Mers.
 9
                 On behalf of the Office of the Public
    Counsel.
10
11
                                 Nathan Williams appearing
                 MR. WILLIAMS:
12
    on behalf of the Office of the Public Counsel and the
13
    public.
14
                                Thank you, Mr. Williams.
                 JUDGE CLARK:
15
                 Midwest Energy Consumers Group e-mailed
    me this morning and asked to be excused from today's
16
17
    hearing, and has agreed to waive cross of all
18
    witnesses for today.
                           I am going to grant that
19
    request.
20
                 I do not see MI -- MIEC, Midwest --
21
    Missouri Industrial Energy Consumers.
                                             They had also
22
    asked the other day to be excused and that was
23
    granted, so I'm not surprised not to see them today.
24
    Same with Renew Missouri.
                                Same with the Natural
25
    Resources Defense Council.
                                 Same with AARP and
```



- 1 | Consumer Council of Missouri. Sierra Club has also
- 2 asked to be excused, so what we have -- who we have
- 3 | this morning is who we have.
- 4 Now, are there any preliminary matters
- 5 that the Commission needs to take up at this time?
- MR. LOWERY: Just one, Your Honor.
- 7 Mr. Long is handling the questions of prudence related
- 8 to the NSR permitting issue, which is really sort of
- 9 the core part of Issue 3A. I'm handling the harm
- 10 | issues related to that, and also on the other issue
- 11 about whether there would be harm or the
- 12 | retire/retrofit decision.
- I intend to just hold my cross on the
- 14 | harm question on both of those until the same
- 15 | witnesses take the stand on 3B so that we don't double
- 16 | up and sort of have a more inefficient process, if
- 17 | that's okay with you.
- JUDGE CLARK: That is fine with me.
- 19 Thank you for letting me know, Mr. Lowery.
- MR. LOWERY: Thank you.
- JUDGE CLARK: Are there any other
- 22 preliminary matters the Commission needs to take up at
- 23 | this time?
- I hear and see none.
- 25 As you can see to my right, your left,

- 1 | is Chair Kayla Hahn. Also currently on -- appearing
- 2 | via WebEx or attending via WebEx are Commissioner
- 3 | Kolkmeyer and Commission Holsman. Mister -- or
- 4 | Commissioner Holsman is on his way in, I know.
- 5 | Commissioner --
- 6 COMMISSIONER KOLKMEYER: Good morning,
- 7 Judge. This is Commissioner Kolkmeyer. Good morning.
- 8 JUDGE CLARK: Good morning. Thank you
- 9 | very much, Commissioner Kolkmeyer.
- 10 | Commissioners will come and go throughout
- 11 | the day and they may attend variously in person or
- 12 online.
- Now, when we left off yesterday, we had
- 14 | made it through the first two witnesses of Issue 3A,
- 15 | which involves the -- whether or not Ameren Missouri
- 16 | made reasonable and prudent decisions respecting
- 17 | whether to obtain a New Source Review permit.
- 18 | I believe we're still on Ameren Missouri
- 19 | witnesses, so Ameren Missouri, you may call your next
- 20 | witness.
- 21 MR. LONG: Thank you, Judge. Good
- 22 | morning. Nash Long for Ameren Missouri. Ameren
- 23 Missouri calls Mr. Karl Moor.
- JUDGE CLARK: Mr. Moor, would you please
- 25 come take the stand. And would you raise your right

Page 7 1 hand to be sworn. 2 (Witness sworn.) 3 JUDGE CLARK: Thank you. Please be 4 seated. 5 Ameren. KARL MOOR, being first duly sworn, testified as 6 7 follows: 8 DIRECT EXAMINATION BY MR. LONG: 9 0. Please state your name, sir. 10 Α. Karl Moor, K-a-r-l M-o-o-r. 11 And are you the same Karl Moor who caused 0. 12 to be prepared for filing in this docket direct and 13 surrebuttal testimony? 14 Yes, I am. Α. Marked for identification as Exhibit 12-C 15 0. and 12-P as your direct testimony? 16 17 Α. Yes. And marked for identification as 18 0. Exhibit 13, your surrebuttal testimony? 19 20 Α. Yes. 21 Do you have any corrections to any of 0. 2.2 those exhibits? 23 No corrections. Α. 24 And if I posed the same questions to you Q. 25 today, would your answers be the same?



Page 8 1 Α. Yes. 2 Ο. Are those answers true and correct to the 3 best of your knowledge and belief? 4 Α. Yes. 5 MR. LONG: Your Honor, at this time I would move Exhibits 12-C, 12-P and 13 into the record. 6 7 Are there any objections to JUDGE CLARK: 8 admitting the direct testimony of witness Karl Moor, 9 that is 12 and there is a confidential and public version; and Exhibit 13, the surrebuttal testimony of 10 11 Karl Moor onto the hearing record? Are there any 12 objections? 13 I see none. Those will be admitted onto the hearing 14 15 record. 16 (Exhibits 12-C, 12-P and 13 were received 17 into evidence.) 18 MR. LONG: At this time we would tender 19 the witness for cross. 20 JUDGE CLARK: Staff, Do you have any 21 cross-examination for this witness? 22 MS. MERS: Yes. 23 CROSS-EXAMINATION BY MS. MERS: 24 Good morning. Q. 25 Good morning. Α. How are you?



Page 9 1 Q. I'm good. How are you? 2 Α. Very good. Thanks. 3 Q. On page 10 of your direct testimony, line 4 five through six, you mentioned in -- some of the 5 things you reviewed for this case was the declaration of Steve Whitworth, the witness yesterday, in the 6 7 Ameren Missouri litigation in the US District Court. 8 Do you recall? Yes, I did. 9 Α. 10 0. And you attached a portion of a 11 declaration to your testimony as Schedule KRM-D2; is 12 that correct? 13 Ms. Mers, will you speak JUDGE CLARK: more clearly into the microphone, please? 14 15 having a hard time hearing you. 16 Okay. Is this better? MS. MERS: 17 The declaration of THE WITNESS: Yes. 18 Steve Whitworth for the summary judgment. 19 BY MS. MERS: 20 And does that have the attachments to his 0. 2.1 declaration? 22 Α. Actually, I'm not sure if it does have 23 the attachments to the declaration. 24 MS. MERS: If I can approach the

25

witness --

	Page 10
1	THE WITNESS: Sure.
2	MS. MERS: and also have well
3	JUDGE CLARK: Yes, you may.
4	MS. MERS: Just trying to figure out the
5	best way to do this.
6	THE WITNESS: Hey, don't do that. Here.
7	MS. MERS: Sorry.
8	THE WITNESS: Let let me do that,
9	please.
10	MS. MERS: Thank you. Thank you very
11	much.
12	JUDGE CLARK: Thank you, Mr. Moor.
13	THE WITNESS: Thank you.
14	MS. MERS: Thank you so much.
15	THE WITNESS: Yeah. Sorry about that. I
16	forgot to get one for myself.
17	MR. WILLIAMS: I gave mine to Moor.
18	MS. MERS: Sorry.
19	(Exhibit 113 was marked for
20	identification.)
21	BY MS. MERS:
22	Q. And I'll give you a moment to look over,
23	but once you have, can you confirm that appears to be
24	the full declaration with the attachments as well?
25	A. Part two of three, part two of two.



Page 11



Page 12 1 MR. LOWERY: Okay. Just wanted to make 2 sure I was keeping up. Thank you. 3 JUDGE CLARK: And I would like to stick with our numbering system, so I will use 1A as the 4 5 descr- -- or Al as the descriptor. So any objections to admitting Staff 6 7 Exhibit 113 onto the hearing record? 8 I hear and see no objections. 9 Exhibit 113 -- 113 is so admitted. 10 (Exhibit 113 was received into evidence.) 11 BY MS. MERS: 12 Did the Judge rule that Ameren Missouri Ο. 13 violated their Title V permit, to your knowledge? 14 JUDGE CLARK: And you're speaking of the 15 District Court Judge, right? 16 MS. MERS: Yes. 17 THE WITNESS: I don't recall. 18 BY MS. MERS: Okay. You discussed the Missouri S-I-P 19 0. 20 in your -- or SIP in your testimony and you noted it 21 as the 2006 Missouri SIP. Do you know -- do you base 2.2 that date on the date the EPA approved it or the date that it was effective in Missouri? 23 The date that it was effective in 24 Α. 25 Missouri.



- 20 We can mark that one as Exhibit 114. 0. But.
- 2.1 it's the one that (indicating) looks like that.
- 22 Α. Okay.
- 23 (Exhibit 114 was marked for
- 24 identification.)
- 25 JUDGE CLARK: It says at the top: Rules



- 22 Approval and Promulgation of the Missouri SIP plan?
- 23 It appears to be that. Α. Yes.
- 24 And we'll go ahead and mark that as Q.
- 25 Exhibit 115.



- 1 (Exhibit 115 was marked for
- 2 | identification.)
- MS. MERS: And at this time, Staff would
- 4 author -- off -- offer both 114 and 115 into the
- 5 record.
- 6 JUDGE CLARK: Bear with me just a moment.
- 7 Are there any objections to admitting
- 8 | Exhibit 114, the DNR rules; and Exhibit 115, the
- 9 | federal SIP recognition on to the hearing record?
- 10 I hear none. Exhibit 114 and 115 are
- 11 | admitted onto the hearing record.
- 12 (Exhibits 114 and 115 were received into
- 13 | evidence.)
- 14 JUDGE CLARK: And you may continue your
- 15 | questions.
- 16 MS. MERS: Sorry. We're also trying to
- 17 | get our papers in order. So bear with us one second,
- 18 | please.
- 19 BY MS. MERS:
- 20 | O. If you turn to -- let me see if I can
- 21 | give you a page number -- page 21 in those Department
- 22 of Natural Resources rules, and look at the
- 23 | Construction Permits Required portion.
- 24 A. Yes, I'm looking at it and reading
- 25 through. Do you want a specific section?





Page 17 1 now. 2 JUDGE CLARK: I thought we were at --3 yes, 116. 4 (Exhibit 116 was marked for 5 identification.) 6 BY MS. MERS: 7 I'll give you a chance to review to make 0. 8 sure that you also recognize it as a copy of Judge 9 Sippel's summary judgment. 10 Α. Yes, I recognize it as so. 11 Do you recall Ameren contending that 0. 12 Judge Sippel's judgment was dated after the project? 13 Of course. Α. Yes. And the date on this? 14 Q. 15 Α. The date on the summary judgment? 16 Q. Yes. 17 2016, I believe. I don't remember the Α. 18 specific month or a day, but 2016. 19 MS. MERS: I'll go ahead and offer 20 Exhibit 116 into the record. 21 JUDGE CLARK: Any objections to admitting 2.2 Exhibit 116 onto the hearing record? That is the 23 federal memorandum and order. 24 I see and hear no objections. 25 Exhibit 116 is admitted onto the hearing record.



Page 18 (Exhibit 116 was received into evidence.) 1 2 BY MS. MERS: 3 Q. Are you generally familiar with the 4 proceedings that have been going on in the District 5 Court? Yes, I -- I read the opinions. 6 I kept up Α. 7 with it somewhat at the time, so yes, I'm familiar. 8 MS. MERS: If I can approach and mark an 9 exhibit again. 10 JUDGE CLARK: Yes. 11 (Exhibit 117 was marked for identification.) 12 13 BY MS. MERS: Do you recognize the item I've handed you 14 0. 15 that's been marked as -- I think we're at 117? 16 Α. Yes, I do. 17 And is that a transcript of a hearing Ο. that occurred March 28th in the District Court case? 18 19 Yes, it is. Α. 20 And in -- to your understanding, is it a 0. discussion of potential remedies and a path forward 21 2.2 for the case? I wouldn't characterize it. 23 I -- I don't Α. 24 know enough about what he was doing in the proceeding. 25 I think there was some underlying things going on that





Good morning, sir.

25

Α.

1	Q. Are you familiar with a process by which
2	an entity who is subject to the Clean Air Act
3	provisions can get I'll call it predeterminations
4	from the EPA before they undergo projects that
5	might that have Clean Air Act implications?
6	A. As with all things in the Clean Air Act,
7	it's complicated. First, if you have a program that
8	is delegated that the state has no control over, the
9	federal government has control over, you can go to EPA
10	and get an applicability determination. That's
11	happened once or twice.
12	With SIP-type programs, yes, you can get
13	applicability determinations. But the whole purpose

of New Source Review is to avoid that because

everybody recognized that these projects had to be

done for safety, reliability, to keep the fleet up and

running.

And so they didn't want people queuing up with questions about routine repairs and maintenance.

And so it wasn't typical for utilities to seek such a thing. We never sought such a thing. And we had 21,000 megawatts of coal and we never sought such a thing.

- Q. Well, let me ask a few questions to --
- A. Sure.

18

19

20

21

22

23



1	Q help clarify your your answer
2	there. When you talked about applicability
3	determinations, you were talking about getting
4	predeterminations from the EPA. And how was that
5	done? In other words, since the project hadn't been
6	accomplished yet
7	A. Uh-huh.
8	Q there would have to be something
9	presented to the EPA to get a determination. So how
10	would that be done?
11	A. Again, in my experience, we didn't do
12	that. We were and particularly
13	Q. I'm just asking
14	A. Yeah.
15	Q about applicability determinations
16	A. Applicability
17	Q at this time.
18	A determinations
19	JUDGE CLARK: Please don't talk over each
20	other.
21	THE WITNESS: I'm sorry. I apologize.
22	I'm having a little difficulty with the
23	question again because of the complexity. Typically,
24	if you have a SIP, you would go to the state regulator
25	if you had a question, which happened here in Missouri

- 1 a lot, and people did seek those. But typically
- 2 people did not go to EPA for an applicability
- 3 determination, and we didn't.
- 4 BY MR. WILLIAMS:
- Q. And -- and what I'm asking is what is the
- 6 process for getting an applicability determination
- 7 from the EPA? Because at the time you're seeking it,
- 8 | since it's a predetermination, you're not going to
- 9 | have -- engage in the project yet.
- 10 So what would you -- what's the process
- 11 | for getting an applicability determination and -- from
- 12 the EPA in terms of what -- what would you present and
- 13 | what would you be expecting to get back?
- 14 A. I -- I honestly don't know, because we --
- 15 we never did it. I have no experience with it.
- 16 Q. Well, in your first answer regarding the
- 17 process, when you spoke of applicability
- 18 | determinations, you were -- you were referring to
- 19 determinations by the EPA, not by the state lic- --
- 20 | permitting agency?
- 21 A. Right. I think in Missouri they called
- 22 | it an opinion. An opinion, I think they call it,
- 23 | if -- if it were sought.
- Q. No further questions. Thank you.
- 25 JUDGE CLARK: Thank you. Any questions



- 1 | from the Commission? Thank you.
- 2 QUESTIONS BY JUDGE CLARK:
- 3 Q. I have a few questions for you,
- 4 Mr. Moor.
- 5 A. Yes, Judge.
- 6 Q. I've heard a number of times from a
- 7 | number of witnesses during this hearing -- and what is
- 8 your -- let me -- let me back up just a second.
- 9 What is your familiarity with the
- 10 District Court cases that surround these scrubbers,
- 11 | for lack of a better term?
- 12 A. Uh-huh. Very familiar. I think I
- 13 participated in, indirectly or as an observer, at
- 14 every critical NSR case really throughout the
- 15 | history -- 16-year history of initiative.
- I went to every Circuit Court argument.
- 17 | I participated in most of the District Court cases.
- 18 And as a result, I'm very familiar with what the
- 19 | Courts were holding in those cases, particularly on
- 20 | issues like routine maintenance, repair and
- 21 replacement.
- 22 Q. What was your participation in the 2017
- 23 | liability case?
- A. None, other than as an observer.
- 25 Q. Would you -- you attended hearings in



that case?

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

21

22

23

24

- A. Not that case, I'm sorry. I actually left Southern Company at that time in 2015 and -- and moved on to other employment.
 - O. What about the 2019 remedy case?
 - A. No. Wasn't there for that.
 - Q. But you're familiar with these cases?
- A. Fami- -- oh, familiar with the NSR cases, yes. The cases before -- from the period 1999 until 2015, I was responsible for all NSR litigation within the Southern system, and we had four cases.
- Q. Now, I've -- I've heard from a number of witnesses that the District Court made no ruling as to the reasonableness and the prudence of -- of Ameren's decision not to seek New Source Review permitting.
 - A. Yeah.
- Q. And the implication has been there -- at least the implication that I've gotten, is if the Court had thought such a thing, it would have made such a ruling. But that's not the case, is it?
- A. It is not the case. The reasonableness factor that he looked at was only in connection with the annual emissions question about whether or not those were done prudently. With regard to routine -- not --

1 Q. Excuse me. Will you say that again?

A. Not prudently. Excuse me. In fact, I meant to specifically say that the Staff in this case have said that there's been no determination of prudency, it wasn't mentioned in the decision, and at no point did the judge decide prudency.

He used the word "reasonable" one time.

And his use of that in that particular sentence that has been called out repeatedly is the basis for the claim that Ameren Missouri is imprudent. And I don't believe that's the case. I -- I know NSR cases. That was an NSR case. It wasn't a prudency case.

- Q. Bear with me just a moment. In fact, I believe in multiple times throughout most of your testimony you said that -- that the District Court didn't and couldn't make that decision. Would you explain that?
- A. In order to reach his decision, the judge looked at a lot of cases, factors, and facts that came after the decision making that was made in Ameren Missouri in 2005 and -- between 2005 and 2010.

That after-the-fact examination of what

Ameren did and -- and -- and his decisions based upon

what others had shown was the basis for his decision.

Those facts, the case law, even the emissions

- 1 calculations were not available to Ameren in the
- 2 period 2005 to 2010. Those are -- those are later
- 3 derived. The Court made its decision, that's the law
- 4 and the District Court so decided.
- 5 But at no point I do see in that decision
- 6 or anywhere else any kind of an examination of whether
- 7 or not Ameren Missouri was making reasonable, prudent
- 8 decisions at the time it decided to -- to pursue the
- 9 projects.
- 10 Q. Would you explain to me why the District
- 11 | Court couldn't make that decision?
- 12 A. For a variety of reasons, I think.
- 13 | First, as I think the judge in the hearing transcript
- 14 | that -- that was just submitted to us, I think he -- I
- 15 think the judge actually explained it to himself -- or
- 16 | himself. Let me go to that, please.
- 17 Q. And are we talking about Exhibit 117, the
- 18 | March 28th?
- 19 A. Yes. That's -- that's exactly it.
- 20 Q. What page do you want to refer to?
- 21 A. I think if we look at page -- I don't --
- 22 | 32.
- 23 Q. Thank you. Go ahead.
- 24 A. The Court said: What I'm going to ask
- 25 | you to do is order a copy of today's transcript and

- 1 send that to the Public Service Commission for them to
- 2 | evaluate it however they see fit, based upon their
- 3 standards and they'll make their own decision on that
- 4 basis.
- 5 I think the Court is showing appropriate
- 6 respect and deference to this Commission, to its
- 7 standards for prudency and for the evidentiary
- 8 requirements thereof.
- 9 Q. Now, I -- Witness Holmstead was taken out
- 10 of order on April 12th. Are you familiar with Witness
- 11 | Holmstead's testimony?
- 12 A. Yes, I am.
- O. Now, Mr. Holmstead indicated that the
- 14 | violation of the Clean Air Act was, in fact, a strict
- 15 | liability; is that correct?
- 16 A. That is correct.
- 17 Q. So they're not looking at why the Clean
- 18 | Air Act was violated?
- 19 A. Yes. And if I may, Ameren Missouri
- 20 | actually raised the issue with the Court; what would
- 21 have been reasonable for us to know to make the
- 22 decision that EPA is now saying we should have made?
- 23 And the Court said that wasn't relevant.
- 24 What -- what -- your reasonableness was
- 25 | not the issue. It was a question of whether or not

the statute, under strict liability standard, whether you were liable or not. And in 2017, he found them liable. But that's 2017, not 2005.

1

2

3

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

- Q. Given that the District Court couldn't
 make a decision beyond whether or not Ameren was
 liable for violations of the Clean Air Act, why do you
 suppose -- and I know you call it dicta -- or I
 believe obiter dicta -- dicta; is that correct?
 - A. Jeff's a better lawyer, but I think he used the right Latin term, yeah.
 - Q. Okay. Why do you suppose that the Judge put in his order that -- that Ameren's decision to not seek NSR permitting was unreasonable?
 - A. I'm uncertain. It may have been, again, shorthand to describe the process by which strict liability's defined. And, frankly, once you've determined that's the law, then you're free to say that they should have followed the law.
 - Q. Would you agree that given the -- the strict liability standard and that the Court could only rule on whether or not the -- Ameren had violated the Clean Air Act, that the only place that the Court could opine on Ameren's actions was not in the findings?
- 25 A. The only -- Judge, I'm sorry. The -- I

think I got --

dicta; is that correct?

Yeah.

Α.

1

5

6

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Q. If the Court could not find that Ameren
was unreasonable or imprudent, isn't the only place
the Court could discuss that within the dicta -- is in

I -- I think that's the only way

- he could do it. Because the evidentiary standard's
 different, the basis of the evidence is different.

 There's -- there's nothing in the same thing -- same
 in a prudence case before this Commission and what the
 District Court was doing in the Clean Air Act case.
 - Those were -- they're completely unrelated in a sense, even though it all comes back to permitting decisions made in 2005 to 2010 before we knew what the District Court would rule.
 - Q. What do you think is the appropriate weight the Commission should give to Judge Sippel's dicta comments?
 - A. I think the District Court has offered some opinions, which I'm sure the Commission will want to regard. But the truth is, he's one Federal District judge. Many other Federal District judges found exactly contrary; Tennessee, Kentucky, Alabama, Pennsylvania, North Carolina. Other district judges found Ameren's behavior -- would have found, I



1	Page 30 believe, Ameren's behavior to be completely
2	reasonable, in fact, lawful under the Clean Air Act.
3	Judge Sippel's opinion is reasonable, but
4	so are the opinions of these other Courts that would
5	have found that Ameren Missouri made the right
6	decisions on the permits.
7	Q. Now, you say in your surrebuttal
8	testimony that the District Court's liability decision
9	rested on case law, including the Court's own
10	interpretation of both the Missouri SIP and the
11	Federal PSD regulation issued after Ameren Missouri
12	made the permitting decisions and, therefore, was
13	obviously not available at the time.
14	What regulations did Judge Sippel base
15	his decision on that were not available at the time?
16	A. Actually, I'm blanking on what he would
17	have known regulatorily after the fact. There
18	there were changes what was going on during this
19	process is also is, with all things with the Clean
20	Air Act, incredibly complicated.
21	Because from 1999 from the inception of
22	the of the enforcement at issue, we had a series of
23	NSR rulemakings over the next eight years that were
24	all aimed at the at at this enforcement

The

initiative and trying to get it under control.

Page 3 happened in those t move forward. And that knowledge that
t move forward. And
that knowledge that
s Whitworth did
r with his
the Environmental
r Quality Control
resterday how Ameren

16 Α. Yes.

15

17

18

Now, the Missouri SIP, that is something Ο. that is approved by the EPA; is that correct?

had followed the Missouri SIP; is that --

- 19 Yes. Α.
- 20 Now, when the EPA approved Missouri SIP, Q. 21 it explained that provision Section 52.21 supersedes state provisions for the purposes of the PSP program; 22 23 is that correct?
- 24 Supersedes, but I think they also stated Α. 25 that it did not change what the State was doing. And



- 1 at no time did they -- until the -- until they brought
- 2 | suit, no one challenged the Missouri SIP as being
- 3 wrong or anything else. They -- and Missouri
- 4 continued to implement the SIP in the same way they
- 5 | had before the approval.
- 6 So EPA did not communicate to the State
- 7 of Missouri that things were different as a result of
- 8 the 2006 SIP approval. And as a result, things rocked
- 9 along as they were in the state of Missouri up until
- 10 | the time, I assume, Judge Sippel issued his opinion.
- 11 Q. Thank you for clarifying those issues for
- 12 | me. I have no further questions for you.
- 13 A. Thank you.
- 14 JUDGE CLARK: Is there any
- 15 | cross-examination -- or I'm sorry, recross based upon
- 16 | Bench questions from Commission Staff?
- 17 MS. MERS: Very, very briefly.
- 18 | RECROSS-EXAMINATION BY MS. MERS:
- 19 0. If this -- do you recall discussing the
- 20 District Court case with the Judge?
- 21 A. Me?
- 22 Q. Yes.
- 23 A. No, I -- I never did.
- 24 Q. With --
- 25 A. Oh.



- 1 Q. -- the Bench just now?
- A. You mean -- yes, yes. Of course. I'm sorry. I did re- --
- 4 Q. I thought it was a joke.
- 5 A. I played the Judge on television. I 6 apologize.
- JUDGE CLARK: My next few questions are going to be about your memory.
- 9 THE WITNESS: Yes.
- 10 BY MS. MERS:
- 11 Q. If the standard is strict liability,
- 12 | would you agree that it would be reasonable to get an
- 13 | MDNR no permit required letter?
- 14 A. It's strict liability, but the
- 15 | interpretation of Missouri law, its existence and as
- 16 | it was implemented and as Ameren Missouri had used it
- 17 for decades, was unchanged. There was no need to seek
- 18 any additional input. And, frankly, going to MDNR and
- 19 saying we're here to get approval for a project that
- 20 doesn't -- that you obviously don't believe would need
- 21 | that, would be somewhat insensible.
- Q. So you -- are you almost saying that it
- 23 | would be unreasonable to seek --
- 24 A. The statute was clear, MDNR was clear,
- 25 the opinion rules -- opinion letters were clear. All

- Page 34 1 was the same as it was the day before they filed the suit and the day after they filed the suit. 2 3 had changed in that period up until the time that Judge Sippel issued his opinion. 4 5 Thank you for clarifying. 0. Okay. Do you recall discussing with Judge Clark the various courts 6 7 around the country, how they had treated cases such as 8 this -- or similar to the Rush Island case? 9 Α. Yes, I do. 10 Ο. Do you -- is it your understanding that 11 the Rush Island case itself was appealed? 12 Yes, the Rush Island decision was Α. 13 appealed. And so wouldn't that mean another Court 14 Ο. 15 reviewed and affirmed accepting the Labadie portion as 16 reasonable? 17 The District Court affirmed the Α. Yes.
- 18 opinion.
- 19 All right. Thank you. I have no further 0. 20 questions.
- 21 MR. WILLIAMS: I have a few.
- 22 THE WITNESS: Okay.
- 23 JUDGE CLARK: I apologize. I did not 24 catch that last bit.
- 25 I have no further questions. MS. MERS:



Page 35 1 JUDGE CLARK: Thank you. Is there any 2 recross from the Public Counsel based upon Bench 3 questions? 4 MR. WILLIAMS: There is. 5 RECROSS-EXAMINATION BY MR. WILLIAMS: 6 Mr. Moor, when you were responding to 0. 7 Judge Clark, you talked about the '99 enforcement 8 initiative by the EPA and then you made a comment 9 of -- I believe with regard to New Source Rules --10 Α. Yes. 11 -- violations. Then you used the phrase Ο. "trying to get it under control." What did you mean 12 13 by "trying to get it under control"? Now I'm going to speak as a former 14 Α. 15 regulator, not a former utility executive. It's --16 it's an interesting dynamic within EMA. There are 17 really two parts of EPA. There's an Office of 18 Enforcement Compliance and Assurance, which reports up 19 to the administrator in a different way than the 20 Office of Air Policy, where I was the deputy 21 administrator for policy. Those two shops are 22 completely different. 23 In 2005, the number two at the EPA 24 stepped into the NSR cases and said: No more.



not filing any more cases that are not -- don't show

- 1 an hourly increase. In other words, we're going to do
- 2 what they do in Missouri. And the rest of us, who did
- 3 | not have the benefit of Missouri law, said: Whew,
- 4 that's good news.
- So the number two at EPA had to step in and referee between OECA and the policy shop in order
- 7 to handle this -- or attempt to handle it.
- 8 Q. You said OECA. What is OECA?
- 9 A. Office of Enforcement Compliance and
 10 Assurance. Which is the -- the group that hires DOJ
 11 to bring the lawsuits.
- Q. And the federal lawsuit regarding Rush Island took place in 2010, 2011?
- 14 A. 2010, 2011.

21

22

23

24

- Q. Was there a change in policy at the EPA then?
- A. If I could, because I've -- I've listened to you over the last couple of days, and I -- I -- you were talking about some things that really interested me.
 - You remember, this initiative was launched in November of 1999 at the tail end of the Clinton administration. With the firm belief that the Gore administration was going to take it over and carry it forward. George Bush became president and

1	for the next eight years, the two sides of that house
2	did not agree on NSR.
3	The policy shop issued two sets of
4	regulations to try to deal with the emissions increase
5	issue, which I told you Mr. Peacock ruled on; and then
6	also better definition of the equipment replacement
7	rule, and promulgated those to the Federal Register.
8	OECA was leaking things to the press
9	about how unhappy they were with what the policy shop
10	was doing. And so the house was truly divided and it
11	never really came back together.
12	When the Obama administration came in,
13	all they did was go quiet on the enforcement
14	initiative, let OECA and the DOJ do what they want,
15	but then they they started pursuing policy changes,
16	CAIR, CSAPR, mercury. Those were all the initiatives
17	the Bush administration had tried and that the Obama
18	administration got across the line.
19	And those were fine with us. I mean,
20	they were in the Federal Register. We knew what they
21	were, we knew what they were after.
22	But with the NSR cases, look, we didn't
23	know what they wanted and what they were going to do
24	to us. And these weren't about individual units.
25	They were about getting system-wide settlements for

- 1 billions of dollars for the installation of controls
- 2 that nobody had ever mandated. And we thought that
- 3 was wrong. And from 1999 until 2015, we fought it as
- 4 hard as we could because we didn't think it was good
- 5 policy.
- And I think what Ameren did to fight it
- 7 is good for you. I -- you -- you don't want to give a
- 8 federal lawyer a blank check to spend other people's
- 9 money, and that's what could have happened in this
- 10 case had Ameren not stood up and fought them.
- 11 And I really thought both of you should
- 12 be rooting on -- Ameren on for doing the right thing.
- 13 And you can't have this world where OECA can come in,
- 14 | file an NOV and say, Install a scrubber. That's not a
- 15 | fair world. That's not a good world and it isn't a
- 16 workable world.
- 17 So anyway, I apologize for going on.
- 18 Q. I think you've answered my question.
- 19 | Thank you.
- 20 JUDGE CLARK: Thank you, Mr. Williams.
- 21 Any redirect from Ameren?
- 22 | MR. LONG: Just a few -- just a few
- 23 | questions, Your Honor.
- 24 REDIRECT EXAMINATION BY MR. LONG:
- 25 Q. Mr. Moor, you were asked by the lawyer

- 1 | for Staff about whether the District Court's opinions
- 2 | here, because they were affirmed, were reasonable
- 3 opinions. Do you remember that discussion with
- 4 | Staff's lawyer?
- 5 A. Yes, I do.
- Q. And you also talked about the other
- 7 Courts that were looking at New Source Review claims
- 8 | around the country?
- 9 A. Yes.
- 10 Q. Were those other Court decisions
- 11 | reasonable as well?
- 12 A. Yes. Completely.
- Q. Why is that?
- 14 A. I always start with it's complex, but
- 15 | in -- in a good way in this instance. They were
- 16 reasonable because this is what everyone thought the
- 17 | law was.
- 18 After the WEPCO decision, everyone felt
- 19 reassured that our routine maintenance projects at
- 20 | these large facilities that cost multi-million dollars
- 21 to do and involve a lot of tubes, that all of that was
- 22 permissible. And we were assured during the Clean Air
- 23 Act Amendment and afterwards that those projects could
- 24 proceed and that we could keep our units up and
- 25 | running.



1	The Courts who looked at this had a
2	choice. They could go with a new enforcement theory
3	that was devised and when I say this, I have it in
4	deposition testimony in secret meetings at OECA to
5	develop an enforcement theory that could be used to
6	find universal liability at every utility unit in the
7	country.
8	In other words, as the Eleventh Circuit
9	said: Where was the cop on the beat? Where where
10	were they for 20 years when people were doing these
11	projects and they knew of it?
12	Well, they knew what the law was, but in
13	1999, they took a different approach and they launched
14	an enforcement initiative which was really a policy
15	initiative designed to get additional reductions.
16	That wasn't mandated by Congress, that wasn't noticed
17	in the Federal Register. The standards for which they
18	devise were never fleshed out and never to this day
19	published in the Federal Register.
20	And as a result, we have different
21	outcomes in different states governing utilities
22	differently. The judges who looked at it from
23	Tennessee I've mentioned them all before
24	Tennessee, Pennsylvania, Alabama, Kentucky, all of
25	them looked at the same law and said: No, they told

- 1 | them that they wouldn't do this to them, that they
- 2 could maintain these units, that they could keep
- 3 reliability up, and they could sustain their
- 4 generation portfolios and they weren't going to be
- 5 sued.
- In 1999, that all changed. And as a
- 7 result, an industry that formerly had had a relatively
- 8 spotless history with regard to enforcement was told
- 9 that they had all violated the law. This was
- 10 dramatic.
- 11 And I believe that the judges in those
- 12 cases looked at this and said: No way, I'm not going
- 13 to let this go forward.
- Other judges, a few, took the opposing
- 15 view and said what had been devised in the enforcement
- 16 | initiative could move forward and, in fact, you know,
- 17 | ruled -- ruled in their favor. But not all Courts --
- 18 not even most Courts ruled that way.
- 19 O. So let me ask you a specific question.
- 20 | You mentioned a court in Tennessee. Is that the case
- 21 | that involved the Tennessee Valley Authority, the
- 22 | public utility for the federal government?
- 23 A. Yes.
- Q. Okay. And what was it about those
- 25 | projects at issue at Tennessee Valley Authority's

plant that relates to the Rush Island projects?

A. They involved I believe super heaters and economizers. They were high in cost. They were relatively low in frequency at the unit, but they were very common within the industry.

And when the Court looked at the question of whether these projects were being done in the industry, he concluded that they were, that this was the way that people kept units up and reliable by doing these kind of projects.

And TVA, the federal utility, provided the basis for the defense of these cases around the country by compiling a survey and putting it in the Federal Register showing how often these projects were being done across the industry.

And so when the Court ruled in TVA's favor on all of the RMR questions and didn't even have to reach the emissions increase question, he found the way that, frankly, you know, I believe is, of course, a right and good and just outcome, but other Courts disagreed.

I think you can read that one opinion and see in 2010 the reasonable Courts were doing reasonable things with fairly clear law.

Q. Not sure that I understood everything you

- 1 said. Are you saying that the Tennessee Valley
- 2 | Authority Court in Tennessee in 2010 looked at an
- 3 | economizer replacement project for TVA?
- 4 A. I believe so, yes.
 - Q. And you said RMRR was the conclusion?
- A. Yeah.
 - Q. What -- what exactly is that?
- 8 A. Routine --
- 9 MS. MERS: I'd like to object. I think
- 10 | we've gotten a little far afield from just other
- 11 | Courts finding being reasonable, to detailed case
- 12 discussion and propping up those comparisons to Rush
- 13 | Island.

- 14 JUDGE CLARK: I'm going to overrule your
- 15 | objection.
- 16 THE WITNESS: Routine maintenance, repair
- 17 and replacement. I want to put an emphasis on that
- 18 | word "replacement." Since the 1920's, boilers have to
- 19 have tubes replaced in order to operate efficiently,
- 20 | safely and reliably.
- 21 The projects that were at issue in the
- 22 | TVA case, much like the projects here at Ameren
- 23 | Missouri, were designed to do just that. They weren't
- 24 designed to create new sources of pollution, which is
- 25 | what the New Source Review was supposed to be aimed

at.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

21

22

23

24

25

And as a result, doing those projects, those Courts found in the -- and the Tennessee Court found that the replacement, even at large numbers, large scale, hundreds of miles of tubing, that those were routine in the industry and, as a result, they were permissible under the law and under the PSC program.

Q. You had a discussion with Judge Clark about the information that was available to those at Ameren Missouri at the time they were making their permitting decisions. Do you recall that topic of discussion?

A. Yes, I do.

Q. And I think there was a question posed about whether the -- the regulations that were ruled upon by Judge Sippel in 2016 or 2017 were -- were in place at the time of the decisions being made by Ameren Missouri on whether to get permits. Do you recall that question?

A. Yes.

Q. What's your understanding of the time at which the company was making its permitting decisions that's relevant here?

A. A couple of things. I think the

Page 45 1 regulations in Missouri had been and continue to be 2 consistent. So those were the regulations that Ameren 3 Missouri was looking to. Ameren Missouri in 2005 was perfectly 4 5 aware of the Peacock letter saying we're not going to pursue any more unless they increase our early 6 7 They were aware of that. emissions. 8 They were aware of EPA's efforts to more 9 clearly define routine maintenance, repair and 10 replacement in a way that would be consistent with what Ameren Missouri viewed the law to be. 11 And those 12 are the things that he was aware of, I believe. 13 Was the interpretation of the regulations 0. that was rendered by the District Court in 2016 or '17 14 15 available and known to the Company at the time it was 16 making its permitting decisions in '05 through '09? 17 Are you speaking of the 1999 enforcement Α. 18 initiative? 19 No, I'm asking you about the Ο. 20 interpretation that the District Court applied --21 Α. Oh, no, no. 22 Q. -- to the Missouri SIP --23 Α. No, it --24 Let me get my question out, Mr. Moor. Q.



I'm sorry, Nash --

Sorry.

Sorry.

25

Α.

Mr.	Long.
-----	-------

- Q. Was the interpretation that the District Court applied to the SIP, that is the State Implementation Plan, and the federal regulations incorporated into that State Implementation Plan, was the interpretation the Court adopted in its liability decisions available and known to the Company at the time it made its permitting decisions?
 - A. Absolutely not. The Missouri law was one of the best laws in the country. We all wanted the Missouri law. And if we'd had the Missouri law, we could have fought even harder and longer perhaps.

They couldn't have known that because it was an interpretation that said -- it basically said you've got to read out of the Missouri regulations modification. And as soon as you read that out, you're left into a -- a world that nobody knew had existed before then.

And even after those lawsuits were -were brought, because Missouri was still enforcing
what we all knew to be the case, which is if you don't
create a new source of pollution, if you don't expand
the unit, then there's no basis for bringing these
lawsuits.

JUDGE CLARK: Mr. Long, would you clarify

- 1 | for me the exact District Court decision that you've
- 2 been talking about with Mr. Moor?
- 3 MR. LONG: The District Court liability
- 4 decision in 2017.
- JUDGE CLARK: Thank you.
- 6 BY MR. LONG:

decisions?

14

20

21

22

- Q. And with respect to the District Court's summary judgment decision in 2016, which was marked as an exhibit here and put up in front of you around the discussion -- around the Missouri SIP, was the District Court's interpretation rendered in that 2016 summary judgment decision on the Missouri SIP known to the Company at the time it was making its permitting
- 15 A. No. It -- it could not have been.
- Q. You were also asked a question by Judge
 Clark, and I may get the wording wrong, but there was
 a discussion you had with him about dicta in the
 District Court's remedy opinion.
 - And I think the import of the question -- and again, I may get the wording somewhat wrong -- is you were asked about what weight the Commission should give to that dicta. Do you recall that discussion?
- 24 A. Yes, I do.
- Q. Okay. Do you have a view on whether



- 1 | it's -- it's fair for that dicta to be treated as
- 2 dispositive against Ameren Missouri in this prudence
- 3 | proceeding?
- A. I'm going to express a strong opinion.
- 5 It would be a travesty if that were done here.
- 6 Q. Why?
- 7 A. Fair notice. Even the Supreme Court said
- 8 there's a question here about whether the utilities
- 9 knew this or how they could know it. The Supreme
- 10 | Court said you could pursue it in the cases. And in
- 11 many instances we did and in some instances we
- 12 prevailed because EPA didn't provide notice.
- Now, District Court having seen the
- 14 | practice in Missouri, having known what Ameren was
- 15 doing, having known what other utilities were doing,
- 16 made a ruling about the SIP that fundamentally changed
- 17 the nature and direction of the SIP. That wasn't
- 18 knowable to Missouri, that wasn't knowable to Ameren.
- 19 To then say that the ultimate
- 20 determination with regard to PSD using the word
- 21 | "reasonable" with regard to one portion of a
- 22 | three-part test is the basis for finding Ameren
- 23 | Missouri, after all these years, imprudent in its
- 24 behavior? That would be completely unlawful, in my
- 25 | view as a lawyer.





And

Judge, and you indicate that was okay with you.

- 1 | then there was also Mr. Reed that we just completely
- 2 | left off that needs to come up and is scheduled now.
- JUDGE CLARK: And I knew that Mr. Reed
- 4 | was coming up. I just wanted to -- and I'm not
- 5 changing anything. I just wanted to clarify that.
- 6 MR. LOWERY: That's correct. Thank you.
- 7 JUDGE CLARK: Please call your next
- 8 | witness.
- 9 MR. LONG: Ameren Missouri calls Mr. John
- 10 | Reed.
- 11 JUDGE CLARK: Mr. Reed, would you raise
- 12 | your right hand to be sworn.
- 13 (Witness sworn.)
- 14 JUDGE CLARK: Okay. I'm going to ask
- 15 | that you adjust the microphone so that it is close
- 16 enough to you that we can all hear you. Even though
- 17 | you have a loud voice, I want -- I want our
- 18 | Commissioners who are participating via WebEx to hear
- 19 | you.
- 20 You may proceed, Ameren.
- MR. LONG: Thank you, Judge.
- 22 | JOHN REED, being first duly sworn, testified as
- 23 | follows:
- 24 DIRECT EXAMINATION BY MR. LONG:
- 25 Q. Would you please state your name, sir?

1	A. My name is John J. Reed.
2	Q. And are you the same John J. Reed who
3	caused to be prepared for filing in this docket direct
4	and surrebuttal testimony marked for identification as
5	Exhibits 23 and 24?
6	A. Yes.
7	Q. Do you have any corrections to either of
8	those two exhibits?
9	A. I have one correction to Exhibit 24, the
10	surrebuttal testimony.
11	Q. What is that?
12	A. That correction appears at page six,
13	line 21. And the word "not," n-o-t, should be
14	inserted before the word "be" at the beginning of
15	line 21. So that the sentence reads: Put simply, the
16	facility almost certainly would not be retired in 2024
17	without the decisions and so forth.
18	That's the only correction.
19	Q. Thank you. With those corrections, if I
20	pose the same questions to you today, would your
21	answers be the same?
22	A. Yes, they would.
23	Q. Are those answers true and correct, to
24	the best of your knowledge and belief?
25	A. Yes, they are.

1	MR. LONG: Your Honor, at this time
2	Ameren Missouri would move Exhibits 23 and 24 into the
3	record.
4	JUDGE CLARK: Any objections to Ameren
5	Missouri's Exhibits 23, the direct testimony of
6	Mr. Reed; and 24, the surrebuttal testimony of
7	Mr. Reed, onto the hearing record?
8	I hear and see no objections.
9	Exhibits 23 and 24 are admitted onto the hearing
10	record.
11	(Exhibits 23 and 24 were received into
12	evidence.)
13	MR. LONG: Your Honor, at this time
14	Ameren Missouri would tender the witness for cross.
15	JUDGE CLARK: Is there any
16	cross-examination from the Staff of the Commission?
17	MS. MERS: No no, thank you.
18	JUDGE CLARK: Is there any
19	cross-examination from the Office of the Public
20	Counsel?
21	MR. WILLIAMS: No, thank you.
22	JUDGE CLARK: Are there any Commission
23	questions for Mr. Reed?
24	I hear none. And I, likewise, Mr. Reed,
25	have no questions for you.



Page 53 1 THE WITNESS: Okay. 2 JUDGE CLARK: Is there any reason that 3 this witness should not be excused? 4 Okay. Thank you for appearing today, 5 You may step down and you are excused. Mr. Reed. 6 THE WITNESS: Thank you. 7 With the exception of JUDGE CLARK: 8 Mr. Michels, who will be appearing on 3B, I'm assuming 9 that Ameren has no more witnesses for 3A? 10 MR. LONG: Correct. 11 JUDGE CLARK: Thank you. 12 Staff, you may call your first witness. 13 Staff calls Claire Eubanks to MS. MERS: the stand. 14 15 JUDGE CLARK: Ms. Eubanks, would you 16 raise your right hand and be sworn? 17 (Witness sworn.) 18 JUDGE CLARK: Please be seated. 19 CLAIRE EUBANKS, being first duly sworn, testified as 20 follows: 2.1 DIRECT EXAMINATION BY MS. MERS: 2.2 0. Can you please state and spell your name for the record? 23 24 Claire M. Eubanks, C-l-a-i-r-e M. Α. 25 E-u-b-a-n-k-s.



1		Q.	Page 54 And did you prepare or cause to be
2	prepare	ed rebu	uttal testimony that's been marked as
3	Exhibit	102?	
4		A.	Yes.
5		Q.	And surrebuttal testimony that's been
6	marked	as Ext	nibit 103?
7		A.	Yes.
8		Q.	And do you have any corrections to that
9	testimo	ony?	
10		A.	I do to my rebuttal testimony.
11		Q.	Okay.
12		A.	Starting on page four, line one should
13	read:	The se	ecuritization statute in Section
14	393.170	00.1 (7)(a).
15			And then on page five, line eight should
16	read:	Rush I	Island plant.
17		Q.	And are those your only two corrections?
18		A.	Yes.
19		Q.	And with those corrections, are these
20	answers	s true	and accurate to the best of your
21	informa	ation,	knowledge and belief?
22		A.	Yes.
23		Q.	And if I asked you those same questions
24	today v	with th	ne corrections, would your answer
25	answers	s be th	ne same?



		Evidentiary Hearing	April 16, 202
1	Α.	Yes.	Page 55
2		MS. MERS: Ms. Eubanks will be appear	aring
3	again on anot	ther issue I think maybe two more	
4	issues today	; lucky her. So I'll hold off on en	tering
5	her exhibits	into the record.	
6		JUDGE CLARK: Thank you for remember	ring
7	that.		
8		MS. MERS: And I will tender the wi	tness
9	for cross.		
10		JUDGE CLARK: Is there any	
11	cross-examina	ation from the Office of the Public	
12	Counsel?		
13		MR. WILLIAMS: No, thank you.	
14		JUDGE CLARK: Any cross-examination	from
15	Ameren Misson	ıri?	
16		MR. LONG: Yes, Your Honor. Thank	you.
17	CROSS-EXAMINA	ATION BY MR. LONG:	
18	Q.	Good morning, Ms. Eubanks. How are	you?
19	A.	Good morning. I'm okay.	
20	Q.	True or false, Ms. Eubanks: You can	nnot
21	definitively	say that yes, the Company should have	ve
22	gotten permit	ts for the Rush Island projects?	
23	A.	I cannot definitively say that, no.	

Q. And you have drawn no conclusions on the question of why Ameren Missouri did not get NSR



24

	_		
normita	+0~	thaga	nroloatai
	\perp \cup \perp	LHUSE	projects?

7

8

9

10

11

12

16

17

law to be.

- A. I think we've spent a lot of time

 discussing the why in testimony and through Ameren's

 witnesses. So my understanding is what they're

 representing in this case is that they understood the

 law to be different then what the EPA understood the
 - Q. And beyond that, are you drawing any conclusions on your own as to why Ameren Missouri did not get NSR permits for these projects?
 - A. I don't believe I offer an opinion on that in my rebuttal testimony, no.
- Q. So you're -- you're not disputing
 Mr. Birk's testimony where he said that Ameren
 Missouri intended to comply with the law here.
 - A. I can't speak to what Ameren Missouri intended to do.
- Q. You do agree there -- it was the case
 that Ameren Missouri had a different understanding of
 the legal requirements for permitting then that which
 the District Court later held?
- A. I agree that that is Ameren Missouri's position in this case.
- Q. Well, you also agree that in order for the Commission to determine whether Ameren Missouri



1	Page 5 made reasonable permitting decisions, the Commission
2	needs to know whether its understanding of the legal
3	requirements was reasonable?
4	A. I think that question may help the
5	Commission in their fact-finding.
6	Q. But you're not offering any opinions on
7	that question, are you?
8	A. And what was the question again, just to
9	make sure I
10	Q. The question of whether Ameren Missouri's
11	understanding of the legal requirements was
12	reasonable.
13	A. I have not offered an opinion on that in
L 4	particular, no.
15	Q. Were you in the courtroom yesterday when
16	Judge Clark asked Mr. Whitworth about whether it was a
17	requirement under the Missouri regulations to do
18	calculations of emissions?
L9	A. I do recall that, yes.
20	Q. Do you know whether the Missouri State
21	Implementation Plan required at the time there to be a
22	calculation to demonstrate the lack of potential
23	emissions increase?



25

Α.

can answer that question, no.

Whether it required it? I don't think I

1	Q. You understand that under the Missouri
2	State Implementation Plan at the time, potential
3	emissions are the emissions from the unit at the
4	maximum designed capacity?
5	A. Assuming continuous operation, yes.
6	Q. Correct. And you also understand that if
7	there's no increase in the maximum hourly designed
8	steam flow from the boiler, there would not be an
9	increase in potential emissions, correct?
10	A. Under that scenario, yes.
11	Q. And and that's a question you can
12	answer for us all here without having to do
13	calculations, right?
14	A. Me personally? No, I don't think I can
15	answer that question.
16	Q. Do you know whether the State that is,
17	the Department of Natural Resource was requiring
18	calculations as a matter of course in order to make
19	their determinations on permitting?
20	A. So when the Department of Natural
21	Resources was reviewing no permit required letters,
22	they were looking specifically at each project.
23	Whether and to the extent of everything that they

Can you tell us whether they always

25

Q.

1 required calculations to be submitted in order to 2 issue those determinations? 3 Α. I can't answer that question. You were here in the courtroom a few 4 Ο. 5 minutes ago when Mr. Moor talked about what was going 6 on in other cases around the country at the time that 7 these permitting decisions were made for Rush Island. 8 Do you recall that? 9 Α. Yes. 10 Ο. Have you reviewed any of those other 11 decisions that were available to the Company at the 12 time it was making its permitting decisions? 13 I don't recall reviewing any in Α. particular, no. 14 15 Ο. That's all the cross-examination 16 questions I have. Thank you. 17 JUDGE CLARK: Thank you. Are there any 18 Commission questions? 19 I have just a few. 20 (Voice on WebEx.) 21 JUDGE CLARK: None of those was my 22 question. 23 MR. LOWERY: Didn't even sound like you, 24 Judge. 25 QUESTIONS BY JUDGE CLARK:

Q. I believe it was said during opening that
there's about 17 million dollars difference between
Staff's position and Ameren's position. Without me
having to go in-camera, can you briefly give me an
explanation of what accounts for that 17 million and
what Staff is asking in regard to that?

- A. So I think the 17 million that you're referencing is what should be securitized. And that is a question for Keith Majors.
- Q. Is Staff asking for any amount to be disallowed as a result of this proceeding?
- A. Staff does not have a specific disallowance related to the issue that we're discussing right now. There are costs that are excluded and -- and that witness is Keith Majors.

So Staff has offered that we have concern about future harm related to the ongoing litigation and potential for future remedies. We brought up concerns about short-term capacity in -- in the short term and we brought up concerns about the transmission projects and the costs related to those.

So it is more of a concern for future cases as opposed to, you know, asking the Commission to find something in particular in this case. Now, we did, you know, have some language about hold harmless.

	Evidentiary Hearing April 16, 202
1	Page 61 Happy to discuss that now or when that issue comes up.
2	Q. I believe Chair Hahn has some questions
3	for you.
4	CHAIR HAHN: Thank you, Judge.
5	QUESTIONS BY CHAIR HAHN:
6	Q. Good morning, Ms. Eubanks.
7	A. Good morning.
8	Q. Just to clarify Staff's position, so
9	right now we're on Issue 3A and what you really just

12 Α. Yes.

about --

10

11

- 13 -- but I'll hold those. 0.
- 14 On Issue 3A, to clarify, it's Staff's
- 15 position that at the current time, you can't assess

mentioned was Issue 3B, which I do have questions

- prudence because you -- for the two factors of 16
- 17 prudence and harm, you really don't know the harm yet.
- So it's my understanding that we're trying --18
- you're -- the Staff is trying to preserve that for a 19
- 2.0 future case; is that correct?
- 21 Α. That is correct.
- 22 0. Okay. Is that roughly the same position
- 23 as Issue 3B?
- 24 So I think the -- all the costs Α. Yes.
- 25 that we -- all the concerns that we identified as, you

	Evidentiary Hearing April 16, 202
1	Page 62 know, the the transmission upgrades
2	Q. That are 3B?
3	A. Yes. And the the future harm related
4	to the remedy, any potential capacity shortfalls in
5	the short term, all those are future harm that we
6	don't know now.
7	I will say the transmission projects are
8	a little bit more known because they are nearer term.
9	They're just they're not Ameren Missouri is not
10	seeking recovery of those transmission projects in the
11	securitization case.
12	Q. Thank you, Ms. Eubanks.
13	A. You're welcome.
14	FURTHER QUESTIONS BY JUDGE CLARK:
15	Q. And I wasn't trying to get into 3B
16	issues. What I was trying to establish with Staff is
17	Staff is not asking for a prudence disallowance; is
18	that correct?

- With relation to the NSR permitting 19 Α. 20 decisions, at this time we have not recommended a 21 disallowance, no.
- So the 17 million dollars is just a 22 Q. 23 difference in what costs should be included, correct?
- 24 Α. I -- I have to defer that to Keith 25 Majors.



- 20
- 21 22 the counsel from Ameren your understanding of the 23 District Court opinions?
- 24 Generally, yes. Α.
- 25 And you reviewed those District -- did Q.



you review those District Court opinions?

1

2

3

4

5

6

7

8

9

10

17

18

19

20

21

22

23

- A. Yes. So I reviewed the -- it was kind of split into a liability phase and a remedy phase. So I reviewed both of those opinions and I've also reviewed testimony from Ameren Missouri witnesses, pleadings from both parties -- or the parties in the -- the case. I've reviewed depositions, materials provided in the context of discovery in this case and also in the past rate case. So yes, I'm quite familiar with the litigation.
- 11 Q. And in that testimony would you call that 12 expert testimony?
- 13 A. The testimony by Ameren witnesses and 14 experts?
- Q. Just any of the witnesses that appeared.

 Were there experts on behalf of any parties hired?
 - A. Yes. And there were also Ameren

 Missouri, you know -- Ameren Missouri -- kind of what

 we would call experts. I don't know if there's a

 legal difference, but they were not necessarily all

 hired experts.
 - Q. Could you explain how you weighed that evidence from those experts to inform your recommendation in this case?
- 25 A. Sure. So --



1	MR. LONG: Your Honor, I'm going to			
2	object to that. We did not get into the details of			
3	what was presented to the Court or her analysis of			
4	what was presented in the court record in my			
5	cross-examination. I think this goes beyond the			
6	scope.			
7	JUDGE CLARK: Ms does Staff have a			
8	response?			
9	MS. MERS: Yes. The line of questioning			
10	between counsel for Ameren and Ms. Eubanks went down			
11	the road of implying that she had no basis for her			
12	conclusions. This is to refute those allegations;			
13	that although she did not have the evidence herself,			
14	she relied on expert evidence, like many do in this			
15	field, to come to her conclusions about how this case			
16	should be dealt with.			
17	JUDGE CLARK: The objection's overruled.			
18	I am going to caution you not to go into the content			
19	of the of the Court of the Court decisions.			
20	THE WITNESS: Can you repeat your			
21	question for me?			
22	BY MS. MERS:			
23	Q. Just briefly and without getting into too			
24	much detail, but can you explain how the expert			
25	testimony and all those documents that you reviewed as			

- part of that District Court case you then used to come to your opinion in this case?
- A. Sure. So I personally focused on Ameren Missouri's witnesses and experts in the case and the words of their depositions and transcripts and materials that were from the time of the decision making.

You know, one of the things the -- you know, without, I guess, trying to get into too much detail, the -- the Court talked about what was relevant to the decision makers or what the statements of the decision makers were at the time, and so that was really where I chose to focus my attention to.

- Q. And that's not unusual in your field?
- A. I don't believe so, no.
- Q. Do you recall having a conversation with counsel for Ameren of if Ameren was required to do calculations as part of emissions testing or emissions permitting?
- 20 A. Yes, I do.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

21

22

23

24

- Q. What is your understanding of the emissions testing that Ameren did do?
 - A. So my understanding was Ameren Missouri does not have the calculations that were performed before Unit One to, you know, provide to the



- 1 Commission with, you know, their understanding at the
- 2 | time other than, you know, obviously Steve Whitworth
- 3 provided testimony in this case. But as far as
- 4 looking at documents that Ameren Missouri authored at
- 5 that time, I think that's fairly limited. So there's
- 6 that.
- 7 And then for Unit Two, my understanding
- 8 is they didn't do, you know, emissions calculations,
- 9 per se, before Unit Two, but rather they did their
- 10 analysis of emissions under what the Court kind of
- 11 determined the law to be for Unit Two after the outage
- 12 had started.
- So I don't know if that quite answers
- 14 your question.
- 15 Q. I think that -- that's helpful. I -- in
- 16 part of your conversation with counsel for Ameren, you
- 17 | relied I believe on your experience as an engineer to
- 18 | ask you if there was no increase in maximum output,
- 19 | there would be no increase in emission. Do you recall
- 20 | that?
- 21 A. That wasn't quite his question, but I --
- 22 | I recall the one that you're asking about.
- Q. Could you know if there's an increase in
- 24 | output without calculating anything?
- 25 A. I don't -- I don't know that I can answer

370117	α 11 α 0 \pm 1 α 1	n
yOur	question	- I

- 2 Q. Okay. You also talked about what
- 3 | Missouri -- Missouri Department of Natural Resources,
- 4 | those calculations, what they required. Do you recall
- 5 that with still counsel for Ameren?
- 6 A. Yes, I do.
- 7 Q. Would calculations be an onerous thing to
- 8 do?

- 9 A. No. I mean, Ameren Missouri obviously
- 10 was able to do the calculations, you know, when they
- 11 | did them. So -- now they didn't necess- -- the Court
- 12 | maybe didn't necessarily rely on Ameren Missouri's
- 13 calculations, but it was information available to them
- 14 in the time of the projects, to my knowledge.
- 15 Q. Do you recall in your conversation with
- 16 | Chairwoman Hahn you were discussing kind of Staff's
- 17 position in this case and why we don't have an actual
- 18 disallowance amount when it comes to the issues under
- 19 3A. Do you recall this?
- 20 A. I do.
- 21 | 0. Is there information that you've seen
- 22 | that is not firm, but would cause you concern?
- 23 A. Yes. So obviously we talked a little bit
- 24 about the transcript from the March 28th, 2024
- 25 hearing. So one of the reasons that Staff recommended

that we -- basically that we couldn't know all the harm was because we knew from notices Ameren Missouri was providing in the investigatory docket that there was this potential for future remedies.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

- And this is related to the -- the Labadie part of the decision was -- you know, I don't know the right legal term, but, you know, that part of the de- -- the remedy was kicked out, for lack of a better word, sorry.
- so the Court had asked the parties to essentially come up with proposals. And one of the proposals from the Department of Justice was related to HEPA filters for St. Louis area residents. And so that struck me as something that could be potentially costly. We -- we know from the transcript now that that's estimated to be, according to Department of Justice, the 75 million dollars.
- They also talked about batteries and solar projects that could be a potential remedy. And I think they quoted that to be about 200 million.
- Q. All right. Thank you so much. I have no further redirect for now.
- JUDGE CLARK: What was that last number 24 you gave; 200?
- THE WITNESS: 200 million.



```
Page 70
 1
                 JUDGE CLARK:
                                Thank you.
                                             Thank you,
 2
    Ms. Eubanks. You may step down.
 3
                 THE WITNESS:
                                Thank you.
                                I would like to take about
 4
                 JUDGE CLARK:
 5
    a -- it is now 10:30.
                            I would like to take about a
 6
    15-minute break. So if we can -- I will recess, we
 7
    will go off the record and if we could all come back
 8
    at 10:45.
 9
                 (A recess was taken.)
10
                 JUDGE CLARK:
                                Staff, you may call your
11
    next witness.
12
                 MS. MERS: Staff calls Keith Majors to
13
    the stand.
                                Mr. Majors, would you raise
14
                 JUDGE CLARK:
15
    your -- well, I'm going to remind you -- I'm going to
    go ahead and swear you in since you last appeared
16
17
    yesterday.
18
                  (Witness sworn.)
19
                 JUDGE CLARK: Please be seated.
20
                 Staff, go ahead.
21
                 MS. MERS:
                             I believe I can just tender
22
    you for cross because you've already gone through your
23
    testimony and confirmed your corrections and whatnot,
24
    if you had any. So I will tender this witness for
25
    cross.
```



Page 71 1 JUDGE CLARK: Any cross-examination for 2 the Office of Public Counsel? 3 MR. WILLIAMS: No, thank you at this 4 time. 5 Any cross-examination from JUDGE CLARK: 6 Ameren? 7 Yes, Your Honor. MR. LONG: Thank you. KEITH MAJORS, being first duly sworn, testified as 8 9 follows: 10 CROSS-EXAMINATION BY MR. LONG: 11 Good morning, Mr. Majors. 0. How are you 12 today, sir? 13 Good morning. I'm doing fine. Thank Α. 14 you. 15 Ο. Mr. Majors, do you agree it's possible for a utility to be found in violation of the Federal 16 17 PSD, Prevention of Significant Deterioration Program, 18 yet to have still acted reasonably at the time it made 19 its permitting decisions? 20 As I said now in my dep- --Α. Yes. 21 deposition, that -- that would be yes. 22 0. Now, you make your claim of imprudence 23 here based solely on those three Court opinions you 24 discuss in your testimony; is that correct? 25 Also as you asked, yes, that's -- that's Α.

correct.

- Q. And those three opinions, to be specific, are the 2017 District Court liability decision, the 2019 District Court remedy decision, and the 2021 opinion by the Eighth Circuit affirming the District Court?
- A. Yes, that's correct. The -- the first and the third document are attached to my rebuttal testimony. And the -- unfortunately, the second document is not, although Ms. Eubanks and myself quote that order. So -- but I think that is also an important document that the Commission should consider when determining this issue.
- Q. And it's that second document you just referenced, the remedy decision from 2019, that refers back to the liability decision of 2017, correct?
- A. That's right. The -- the decisions were split into two phases, the liability and the remedy phase, but they're all part of the same litigation, yes.
- Q. And that remedy decision characterizes what was found and held by the District Court in its earlier liability decision from 2017, correct?
 - A. Among other things, yes.
 - Q. Would you agree, Mr. Majors, that the



- 1 best evidence of what the 2017 liability decision says
- 2 | is that decision itself?
- 3 A. Oh, for sure. I think the entire -- I
- 4 said it's 195 pages, but I don't think it's -- in
- 5 reality, it's only 189. So I think it's a very
- 6 important document, should be read in its entirety by
- 7 anyone who's determining what -- the outcome of the
- 8 | issue before the Commission.
- 9 Q. And that's why you called it, in your
- 10 | rebuttal testimony referring to the liability decision
- 11 of 2017, the most important document relevant to this
- 12 | issue of prudence?
- 13 A. That's correct, yes.
- 14 Q. And that is why you attached it, the 2017
- 15 | liability decision, not the remedy decision of 2019 as
- 16 | a schedule to your rebuttal testimony; is that
- 17 | correct?
- 18 A. I think, in hindsight, a more prudent
- 19 auditor would have attached both decisions to his or
- 20 her rebuttal testimony. But I did not attach the
- 21 remedy order to my testimony.
- 22 Q. Let's talk about that liability decision.
- 23 | You recognize that in finding the Company liable, the
- 24 District Court relied upon facts, data and case law
- 25 | that came after the permitting decisions, correct?

1	A.	Not	entirely

3

4

5

9

10

16

17

18

19

20

21

22

23

24

- Q. You recognize they did cite and rely on, in the 2017 liability decision, facts that were developed after the permitting decision, right?
 - A. In -- in part, yes.
- Q. Okay. And they also relied upon analyses that were prepared after the permitting decision, correct?
 - A. The analyses themself were prepared after the permitting decisions themselves, yes.
- Q. And the Court also cited cases that came down after the permitting decision. You know that to be true, right?
- 14 A. Some were before, some were after, but 15 yes.
 - Q. Well, it certainly didn't limit his decision making and finding the Company liable to what was available at the time that the Company made its permitting decisions, correct?
 - A. I think case law cited was after the Company made their permitting decisions.
 - Q. One of the things that you talked about in your deposition and in your testimony was the reliance by the Court on the emission calculations by a Mr. Koppe and a Dr. Sahu. Do you recall that?

1	A.	Yes	,	I	do.

3

4

5

9

10

- Q. Okay. And you know that those were presented by the EPA to the Court during the litigation of the case, right?
- A. Yes, they were.
- Q. After the permitting decisions had been made, correct?
- 8 A. That's correct.
 - Q. And the purpose of those calculations was to quantify the emissions increase that should have been expected by the Company, as you understand it?
- 12 A. Yes.
- Q. And it was those calculations which showed an increase of sulfur dioxide greater than 40 tons per year; is that right?
- A. Yes. Due to the improvements in 2007 and 2011, yes.
- Q. And you understand that was the standard for liability, something that increases the sulfur dioxide by more than 40 tons per year, right?
- 21 A. Yes.
- Q. And the Court adopted the Koppe/Sahu
 calculations because they had been confirmed by the
 post-project data, right?
- 25 A. It would be the -- yes.

	Pogo 7
1	Page 7 Q. And, in fact, the Court said that that
2	actual post-project data confirmed the Koppe/Sahu
3	calculations that the Court used as the basis for its
4	liability decision.
5	A. Yes.
6	Q. And so in this respect, the Court relied
7	upon information that was after the fact, correct?
8	A. Information that was also known by Ameren
9	as well before the fact, but.
10	Q. The emissions data is what I'm talking
11	about, sir. The data of actual emissions that came
12	after the project was not something the Company had
13	before it when it made its pre-project determination,
14	was it?
L 5	A. Right. That's half of the analysis. The
L 6	half the other half is what was done before the
L7	project was commenced.
18	Q. And the Court also relied upon some
19	analyses by a fellow named Dr. Hausman or Mr. Hausman.
20	Do you recall that?
21	A. Yes, that's correct. He used the ProSym
22	model that as we've discussed prior, yes.
23	Q. And he he did those analyses using



25

decisions, correct?

that model also after the Company made its permitting

L	Α.	That's	correct

- Q. Now, you're not contending that the Company should have done those Hausman analyses at the time that it was doing its permitting decisions, right?
- A. It certainly could have, but I'm not saying they ultimately had to. The -- the more -- the more core emissions calculation was the Koppe/Sahu calculations of pre -- of predicted pre- and post-project ana- -- emissions.
- Q. I want to be clear on this, Mr. Majors.

 Are you contending that those -- Dr. Hausman analyses developed after the fact should have factored into the Company's permitting decisions?
- A. I'm not saying they should have. They certainly could have. They had access to the ProSym model. As long as it was data that was modeling the improvements prior to the completion of the projects.

But they obviously would not have known the actual emissions afterward, but they certainly knew the availability increases and emissions increases prior to the completion of the projects.

And so they -- they would have known those increases prior to the completion of the projects.

Q. But you also understand that they were

- 1 applying a different legal standard; that is, looking
 2 for whether potential emissions increased?
 - A. I think it's the same -- the same analyses that the EPA had been using, as the Court noted, since '99.
 - Q. Can you answer --
 - A. 1999, I'm sorry.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

- Q. Can you answer my question, sir? You know as a fact, do you not, that the Company was applying a test of whether the potential emissions would increase in order to make their permitting decisions?
 - A. I think the problem was they didn't analyze the potential emissions based on the replacements. So they didn't do the analysis.
- Q. So you're not aware of what sort of emissions evaluations they actually did before they did the permits?
 - A. Well, I think Mr. Whitworth testified that they didn't analyze it in that regard because they didn't believe that the RMRR, routine maintenance, repair and replacement exclusion, they believed that applied.
 - And the Court found that they were wrong and so they didn't do any kind of emissions



- calculations. I think that's what Mr. Whitworth
 testified. But certainly Mr. Whitworth's testimony
- would be more accurate than my recall of that right
 here.
- Q. Fair enough. Do you have -- you have a bunch of papers up there with you. Can I just ask what you have and whether that includes any of your schedules?
- A. I can go through the entirety of the documents in my possession at this time. One's a legal pad with some notes. Document two is the remedy -- in no particular order, the remedy opinion order. Document three is the liability mem--- liability memorandum opinion and order.
 - Q. Can I stop you right there? That's the one I want to ask you about.
- 17 A. Sure.

- Q. Just wanted to make sure you had it. And that was marked as Schedule KM-R2 on your rebuttal testimony?
- 21 A. That's correct.
- Q. Can you turn to page 133 to 134 of that Schedule KM-R2?
- 24 A. Yes, sir.
- Q. And we looked at this at your deposition,



1 | did we not?

- 2 A. Yes, we did.
- Q. Okay. And you recognize on page 133 at
- 4 | the bottom there's a heading that says Undisputed
- 5 | Elements of Proof. Do you see that?
- 6 A. I do.
- Q. And the discussion continues onto the top 8 of page 134. Do you see that?
- 9 A. I do.
- 10 Q. Okay. The Court is laying out what are
- 11 | the elements of proof here on page 133 to 134 for
- 12 | liability under the PSD provisions of the Clean Air
- 13 Act. You understand that?
- 14 A. I do.
- 15 Q. Okay. And the first element and the
- 16 | first bullet says: Ameren is a person under the
- 17 applicable law and the owner and operator of the Rush
- 18 | Island facility.
- 19 Do you see that?
- 20 A. That's a correct reading, yes.
- 21 Q. Goes onto give the citation, but I'll
- 22 | skip that.
- The second bullet of these elements of
- 24 proof is: Rush Island Units One and Two are each a
- 25 | major emitting facility, a major stationary source,



1	and an electric steam generating unit under the
2	applicable PSD and Title V provisions.
3	Do you see that?
4	A. Yes, that's the correct reading.
5	Q. Goes onto give the citations, which I'll
6	skip.
7	The third of these elements listed here
8	is: EPA provided sufficient pre-filing notice of the
9	violations to Ameren and the state of Missouri and
10	provided notice of the filing of this case to the
11	State.
12	Do you see that?
13	A. Yes, I do.
14	Q. I'll skip the citations there.
15	The fourth element of proof is: At the
	The fourth element of proof is: At the
16	time of the projects, Rush Island was in an area
	_
16	time of the projects, Rush Island was in an area
16 17	time of the projects, Rush Island was in an area designated as attainment for SO2, which is a shorthand
16 17 18	time of the projects, Rush Island was in an area designated as attainment for SO2, which is a shorthand for sulfur dioxide, right?
16 17 18 19	time of the projects, Rush Island was in an area designated as attainment for SO2, which is a shorthand for sulfur dioxide, right? A. Yes, sir.
16 17 18 19 20	time of the projects, Rush Island was in an area designated as attainment for SO2, which is a shorthand for sulfur dioxide, right? A. Yes, sir. Q. So that is the fourth element of proof
16 17 18 19 20 21	time of the projects, Rush Island was in an area designated as attainment for SO2, which is a shorthand for sulfur dioxide, right? A. Yes, sir. Q. So that is the fourth element of proof for the Clean Air Act violation. Is that your
16 17 18 19 20 21 22	time of the projects, Rush Island was in an area designated as attainment for SO2, which is a shorthand for sulfur dioxide, right? A. Yes, sir. Q. So that is the fourth element of proof for the Clean Air Act violation. Is that your understanding?

23

24

25

And you've read these opinions; that is, 0. the 2017 liability opinion, the 2019 remedy opinion, and the Court of Appeals opinion several times, have



you not?

1

5

6

7

8

9

17

18

19

- 2 A. In their entirety.
- Q. How many times do you estimate you've read them in their entirety?
 - A. I think at my deposition I said three or four. So I can correct that as now five.
 - Q. And in your reading, did you see anything where the District Court said that Ameren's legal position or understanding was unreasonable?
- 10 A. They found it -- they didn't say it was
 11 reasonable or unreasonable.
- Q. You agree that the understanding of the law that was applied by Ameren Missouri to making its permitting decisions was consistent with a position of MDNR; that is, the Department of Natural Resources, at the time, do you not?
 - A. I -- I think I would agree with that given the -- I think I've read the deposition of a Ms. Kyra -- Kira Moore from MDNR and that was their understanding at the time, yes.
- Q. And their understanding at the time was that only the potential emissions were increasing would permitting apply, correct?
- A. I think she'd be -- I'm sorry. Ms. Moore would be better adept at elucidating MDNR's position,

but	: I	would	not	disagree	with	your	statement.
-----	-----	-------	-----	----------	------	------	------------

- 2 Was that your takeaway from reading her 0. 3 deposition?
- 4 Α. Yes.

5

6

11

12

13

14

15

16

19

20

21

22

23

24

- And you agree that the District Court did 0. not evaluate whether the Company was prudent in any of 7 those three decisions you're relying on, correct?
- 8 Α. I -- I agree with that, that prudence is 9 not listed, at least to my knowledge, in any of the 10 three documents.
 - Has -- if the Commission agrees with Ο. Ameren Missouri that the issue of prudence has not been decided by the Courts, then you have no evidence to offer suggesting imprudence, do you, sir?
 - Α. Other than the three documents I've referenced, no.
- 17 Those three documents being the Court Ο. 18 opinions?
 - Well, those are the ones I reference. Ι Α. think there's been other documents that have been included as -- I can't -- included as exhibits. so I think the Commission should consider those as But the documents I evaluated when determining well. my opinions were the three documents.
 - And those are the three that you're Q.



Page 85 1 relying on for your position that the Company acted 2 imprudently? 3 Α. That's correct. I have no further questions at this time. 4 Q. 5 JUDGE CLARK: Are there any Commission questions? 6 7 I hear none. 8 QUESTIONS BY JUDGE CLARK: 9 I have a few questions for you, 0. You were here when I asked Witness 10 Mr. Majors. 11 Eubanks about the 17 million, correct? 12 Oh, yes, sir. Α. 13 And I had asked her, and that was the 0. inappropriate witness to ask, to give me a breakdown 14 15 of -- and it's not a disallowance, correct? It's just 16 a difference in what should be included in the 17 securitization; is that correct? There's what I would characterize as a 18 Α. 19 disallowance, but I can go through from my -- just 20 recollection on my -- on the line items if you --21 0. Well, if you -- if you could. 2.2 would --23 Α. Sure. 24 -- go through those 17 million preferably Q. 25 without me having to go into camera, but if I have to,



1 | I do.

2

- A. If you'll give me one moment to find my testimony. Okay. Here.
- MR. LOWERY: Judge, I don't believe any
 of the figures he's going to talk about that make up
 the 17 million are confidential.
- JUDGE CLARK: I didn't think so either,

 but there's so many figures that are and that aren't

 and -- and some of them I don't understand why they

 are confidential and others I do, so.
- MR. LOWERY: I just wanted to let you 12 know I didn't think there were in this case.
- JUDGE CLARK: Thank you very much for letting me know. I appreciate the information.
- THE WITNESS: So I'm referencing Schedule

 KM-S1. This was -- would be the sole schedule

 attached to my surrebuttal testimony.
- If you would go to line four, Abandoned
 Capital Projects, there's one abandoned capital
 project, which would be the scrubber studies, which I
 believe is a separate issue on a separate day. That's
- 22 approximately 9.3 million dollars of the difference.
- 23 | There is a very slight difference -- and I'm --
- 24 BY JUDGE CLARK:
- Q. Would you say that schedule again? Is

that KM-S1?

- 2 A. Oh, I'm sorry. KM-S1. It's very similar
- 3 to KM-R4, but there were some updates in my
- 4 surrebuttal testimony. Right now I'm referencing
- 5 | the -- right now the current corrected number is
- 6 KM-S1.
- 7 Q. And that's the one attached to your
- 8 | surrebuttal?
- 9 A. Yes, sir.
- 10 O. Because I'm looking at line four. It
- 11 | says: Abandoned capital projects. And it's roughly
- 12 | around four million?
- 13 A. Yes. The -- I think you asked about the
- 14 differences between Staff and Ameren.
- 15 O. Gotcha.
- 16 A. Right. So that would be -- if I were to
- 17 look at Mr. Lansford's schedule, that would be
- 18 | approximately 9.3 million dollars higher. So that
- 19 | would be approximately 13.2 million, from my
- 20 | recollection. But it's just one capital project.
- 21 Line seven would be slightly different.
- 22 | I think I'm splitting hairs there, but that's a
- 23 | fallout of the differences in CWIP, which would be
- 24 line four. Line ten would be -- I think you said
- 25 | 17 million. I think the remaining four would be the

water treatment and monitoring net present value.

1

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

So our recommendation in the case, those should be treated as ongoing operation and maintenance expenses so those would be excluded from the securitization amount. I would not characterize that as a disallowance. I would characterize item four as

And then line 11 would be community transition without getting -- no, I believe that was not confidential, but there's --

Q. I believe I do know the -- the confidential one you're discussing.

more of a disallowance.

A. There is a confidential one. I won't even say what it is because I believe the title's confidential. That's not included. And then our position on that is, again, that should be included in whatever deferral calculation for -- as what's been discussed as the deferral for the amount that's currently in rates related to Rush Island. So that would be included in that.

And then community transition I think was about 2 million dollars. So I think that gets you above 17, but there's probably some rounding in there. But community transition, again, another issue for another day.

- donations. They're donations; they may not be to charitable organizations, but they're certainly donations that should be characterized as charitable donations so they should not be included in the securitized amounts.
- Q. Thank you. Would you reconcile for me -I'm having a hard time understanding Staff's exact
 position here. Because Witness Eubanks was on the
 stand and asked if she had an opinion as to the
 prudence of the -- the decision not to seek New Source
 Review or permitting.
 - And I think in yours on page nine -- is it page nine? Hold on just a moment. Yes, page nine says: Yes, I agree with Mr. Seaver that the findings in the United -- is that the one I wanted? Hold on just a moment.
 - I had the right line: Yes, I agree with Mr. Seaver that findings in the United States District Court Memorandum Opinion and Order in the liability phase support both Staff and OPC's contention that Ameren Missouri's decisions were imprudent.
 - And since the 2000 -- since the liability decision concerns the Ameren Missouri not seeking the NSR PSD permitting, I'm just -- I'm having a hard time



reconciling what Staff's position is. Why -- why -
why is there a difference between these two Staff

witnesses on whether or not there was imprudence?

3

4

5

6

7

8

9

17

18

19

20

21

22

23

24

- A. Well, I think I'll let Ms. Eubanks' testimony speak for itself. My read of the three documents is that the line of decision making and the facts as found by the Court would lead me to believe that it's -- it's just not -- those actions were not prudent actions.
- And so, I mean, I wouldn't -- I mean,

 again, Ms. Eubanks is going to have her own opinion.

 I don't think she said that they -- their actions were

 absolutely prudent. But I take -- I take it as her

 opinion that the -- their actions were not imprudent.

 They were not prudent -- they were neither prudent nor

 imprudent as determined by her.
 - And so I -- I think my overall opinion is if you -- if you have trouble -- if the Commission disputes that of what my opinion of these three documents is, I would -- I would suggest the Commission themselves read the documents and let them speak for themselves.
 - And so I can certainly answer any more -any other questions about that, but I think a fair
 reading of either three opinions, I don't -- I would



- 1 dispute the word "travesty." I think that's a bit off
- 2 | base, but -- and I can have my opinion on that as
- 3 | well. I can elaborate on that.
- But I would read all three documents in
- 5 their entirety and make your own conclusion. My
- 6 conclusion was that they were -- their actions weren't
- 7 reasonable or prudent.
- Q. And your decision is based -- your
- 9 personal opinion is based on these -- is based on
- 10 | these three decisions in isolation?
- 11 A. No. I -- well, I think -- I think the
- 12 liability and the remedy really, if you read what --
- 13 how those two decisions were split and decided, I
- 14 think they should really be read as one.
- 15 Again, a more prudent auditor would have
- 16 | attached the second -- the remedy decision, but as
- 17 | the -- as the Judge said on page three, I separated --
- 18 | Judge Sippel: I separated the liability and remedies
- 19 phase of this case to more orderly conduct discovery
- 20 and presentation of arguments. In August and
- 21 | September of 2016, the liability phase concluded with
- 22 | a 12-day bench trial.
- On January 23, 2017, I issued my
- 24 | Memorandum Opinion and Order in the liability phase.
- 25 | I found that Ameren violated the Clean Air Act

- 1 42 USC Section 7470 et sequitur by overhauling its
- 2 coal-fired boilers at Rush Island without obtaining
- 3 the required permits. And then it goes on and
- 4 describes the liability phase.
- 5 But I -- the remedy phase, while it
- 6 describes -- and again, that's disputed as what --
- 7 what the Judge said is disputed and what exactly it
- 8 means, I would read them as one.
- 9 But the li- -- the liability phase really
- 10 dissects what were the decisions at the time, what the
- 11 enforcement actions were at the -- and then -- and as
- 12 the Court said, it was starting in 1999, what the --
- 13 how -- how these projects were -- how the actual
- 14 projects, the physical projects were, how they were
- 15 | not qualified as routine maintenance, repair and
- 16 | replacement.
- 17 That they were -- all four of the
- 18 projects on Unit One were of different design from the
- 19 original specifications, and on Unit Two all three of
- 20 | the projects were different -- were different
- 21 | specifications. Again, I can go back and -- and
- 22 | identify those sections for you, but they're all in
- 23 the order.
- 24 And I think that's -- I think I lost my
- 25 | train of thought, but I hope I answered your question.

Q. I'm going to say you did not, but I think that was more in the way I asked the question. The information you provided -- I let you keep going because it was very, very helpful to me.

- But I guess my question is, is your -- is your opinion of Ameren's prudence based on those three decisions and not anything outside of those three decisions? Or is it based on those three decisions and X other things?
- A. I think -- my -- my testimony was premised on these three decisions. I don't think it would be fair for -- for me to say that the Commission should limits consideration to determine this issue on just those three opinions.
- I think there's been exhibits. I think that the Commission should take all the evidence -- more is always more. So the Commission should take in all -- all the evidence into account in this proceeding to make a fair determination of whether or not Ameren Missouri was prudent and reasonable in their decision making.
- Q. And I very much want to read all three decisions and consider them. Again, I'm going to come back to this. Do you know what Staff's -- I understand what your position is and I understand that

- 1 | Witness Eubanks may be in the undecided category or
- 2 | not yet determined category. But I guess what I don't
- 3 understand again is, do you know what Staff's position
- 4 is?
- 5 A. Okay. So our position is that while --
- 6 our position is that Ameren was found to be
- 7 considering all -- the totality of the evidence,
- 8 imprudent in its decision making, that there's no
- 9 actual adjustment to be made currently to the Rush
- 10 Island amount to be securitized right now.
- I think as Ms. Eubanks spoke on the
- 12 witness stand, that if you take into account the
- 13 future harm to ratepayers due to the ongoing remedy
- 14 discussions with the Court and decision with the
- 15 Court, I think that can certainly -- what the outcome
- 16 of -- of those proceedings could have financial
- 17 | ramifications for Ameren -- for Ameren's ratepayers
- 18 | should Ameren -- and I suspect they will -- ask for
- 19 the economic -- the -- whatever amounts and expenses
- 20 | are being incurred due to the remedy, they're going to
- 21 ask -- the assumption is they would ask for the
- 22 recovery for that through some mechanism in rates.
- 23 And so while I know that the -- there's
- 24 been much conversation about are -- are we just
- 25 preserving this for some kind of future harm? Yes,

- 1 that's true. But this is now the second time that --
- 2 that there has been -- second round of testimony
- 3 filed.
- I suspect -- I suspect that even if the
- 5 Commission finds them that they were not prudent, that
- 6 we're going to have a third round of testimony from
- 7 probably the same witnesses, and litigation from the
- 8 same attorneys about how should the economic damages
- 9 from the remedy portion of the trial, how should those
- 10 impact Ameren ratepayers.
- 11 | So even if we -- the Commission decides
- 12 | something here, I can almost guarantee this won't be
- 13 the last time I'll be here or they'll be here.
- Q. Let's say the Commission agrees with your
- 15 opinion. Let's say that it does. In your mind, does
- 16 | that present any impediment to securitization for this
- 17 | plant?
- A. No, because -- again, I'm not -- I'm not
- 19 an attorney, as the attorneys will point out. But the
- 20 question here is, is it prudent and reasonable to
- 21 | retire the plant given the facts and circumstances
- 22 | now?
- 23 | So let's imagine that there is no NSR
- 24 litigation. Ameren Missouri wants to retire the plant
- 25 now. And so independent of the NSR litigation, they

- want to -- they're determining should we scrub the
 plant, should we install -- the potential to install
 selective catalytic reduction equipment, should we
- 4 have the potential to incur more expenses for the EPA
 5 water regulations?

- I think the question is and -- and you would go to Mr. Michels' testimony that the economic for -- the economic test right now is that you -- the right decision would be to close Rush Island and so that's a prudent, reasonable decision.
- Now, if you -- if you took away the fact that you have to put on scrubbers, that's a different question. But I think the question now is, is it prudent and reasonable to close the plant now and securitize it? I think the answer to that is yes.
- And so while -- regardless of whether or not you think -- the Commission thinks Staff's approach or -- or position and recommendation in this case is -- is right or wrong, if you say that Ameren was perfectly prudent in their decision making, I don't think that bears impact on -- at least in Staff's position -- how much you securitize the overall Rush Island plant.
- I know Office of Public Counsel has a different opinion on that and I'll let their witness



- 1 testify to that. But whether or not -- I think to 2 answer your question in a long-winded fashion, it 3 would not have an impact right now on whether or not 4 you securitize. 5 JUDGE CLARK: Any recross based on Bench 6 questions? Public Counsel? 7 No, thank you. MR. WILLIAMS: 8 JUDGE CLARK: Ameren? 9 MR. LONG: Just a few, Your Honor. Thank 10 you. 11 RECROSS-EXAMINATION BY MR. LONG: 12 Mr. Majors, you had a discussion with the Ο. 13 Court about the three opinions that you rely on for your opinion of imprudence in this case. 14 15 recall that colloquy with Judge Clark? 16 Α. Yes. 17 And you do not read those opinions Ο. Okay. 18 as finding it was unreasonable for Ameren to look at 19 potential emissions as the permitting trigger, do you, 2.0 sir? 21 Α. Can you repeat that one more time? 22 0. You don't read any of those Court 23
 - opinions as holding that the Company was unreasonable to consider a potential emissions increase under the SIP as the trigger for permitting?



1	A. I don't think they were found
2	unreasonable, but they were certainly found wrong. So
3	that's that's a fair distinction.
4	Q. You had a discussion with Judge Clark
5	about reconciling Staff's position on whether the
6	Company was pru prudent or not in its permitting
7	decisions. And I think you said something around
8	the you referenced the totality of the record in
9	the District Court. Do you recall that discussion
10	with the Judge?
11	A. I do. And and that's certainly not
12	the totality of the record in the District Court
13	certainly isn't in the record here, just the decisions
14	and some of the other documents. So that's a fair
15	distinction. But yes, I recall that.
16	Q. And you also know that there are some
17	information that is presented here to the Commission
18	that was not presented to the District Court for its
19	decision, correct?
20	A. Yes.
21	Q. For example, Mr. Holmstead's opinion was
22	given to this Commission. That was not something the
23	District Court considered, right?
24	A. That's my understanding. I believe there

was some kind of -- well, if you told me what the

1	reason was, I wouldn't have a reason to dispute if
2	it assuming that it was the actual reason.
3	But to answer your question, it's my
4	understanding Mr. Holmstead's testimony was not was
5	rejected by the Court or did not make it into
6	evidence, along with Mr. Moor, as you've as you've
7	told me prior to.
8	Q. Well, to be clear, Mr. Moor didn't even
9	appear in the District Court, right? So
10	A. Okay. I I stand corrected.
11	Q. So his testimony that's in the record was
12	not something that was before the District Court in
13	its decision making, right?
14	A. That's correct.
15	Q. Okay. And did you read anything in the
16	District Court decision making about how MDNR was
17	actually applying the Missouri SIP at the time that
18	these decisions were made by Ameren Missouri?
19	A. I think that the that's discussed by
20	the Court in the opinions, so I would go back to the
21	opinion on on how that was at the time.
22	Q. Do you recall any discussion at all or
23	analysis at all of the potential emissions trigger
24	that was actually applied by the State of Missouri?



I mean, I -- I know it's in the opinion,

25

Α.

1	but I couldn't give you a good answer right as I sit
2	here.
3	Q. And you understand that for sources in
4	Missouri, the relevant permitting authority for these
5	New Source Review permits is the MDNR?
6	A. Yes, that's correct.
7	Q. That's all I've got.
8	JUDGE CLARK: Any redirect from Staff?
9	MS. MERS: Yes.
10	REDIRECT EXAMINATION BY MS. MERS:
11	Q. I'm going to take you back to the
12	beginning. Do you recall when counsel for Ameren
13	asked if it was possible for a utility to be in
14	violation, but not be imprudent?
15	A. Yes.
16	Q. Would you have an opinion on if it's more
17	or less likely that a utility that is found in
18	violation was not acting prudently?
19	A. I think there's a high likelihood that
20	they were if they were found in violation, then
21	they would be acting imprudently. I I would agree
22	with that statement.
23	Q. You received on the first round of
24	cross and just recently on the the recross an
25	examination of what in the District Court opinions you

- 1 looked at, if you looked at anything outside those
- 2 District Court opinions. Do you recall those lines of
- 3 | questions?
- 4 A. Yes.
- Q. And you relied on things outside of just the three Court opinions, correct?
- 7 MR. LONG: I'm going to object to that 8 leading question.
- 9 MS. MERS: I can rephrase.
- 10 JUDGE CLARK: Give it a try.
- 11 BY MS. MERS:
- 12 Q. What else did you rely on in that docket?
- 13 A. Well, I certainly reviewed -- there was a
- 14 few summary judgment opinions from the Court, there
- 15 was certainly the slew of data request responses from
- 16 both the investigatory docket and the last rate case.
- 17 | I did I think briefly take a look at the DNR rules,
- 18 whatever the reference was, just for my own
- 19 edification to understand the -- the -- whatever the
- 20 | cite was.
- 21 | 0. And is that true for the District Court
- 22 | docket as well? They don't call them doctors but that
- 23 | you looked at?
- 24 A. There were other various documents
- 25 | certainly that I reviewed. I mean, I didn't cite



- anything else in my testimony other than the three

 docu- -- documents. But I reviewed a lot of
- 3 documents, I think that's a fair statement.
 - Q. When you reviewed any of those documents and expert testimony, did you feel that you needed to redo any of it to come to your opinion in this case?
 - A. Did you say redo?

5

6

7

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

- Q. Uh-huh. The work of the experts in the District Court.
 - A. Oh. No. I mean, I -- I mean, that's -- that's a fair characterization. I didn't -- there was no Majors/Eubanks emissions analysis or any kind of rehash of -- of what the Court examined. So I think in that regard, no. I mean, I didn't go out to Rush Island myself and see the emissions equipment.
 - Q. Can you briefly explain why you didn't feel the need to do that based on the review of the -- all of the documents basically?
 - A. Well, I -- I think if you read the opinions as a whole, they give you pretty much all the information you need to make -- I mean, I -- yes, the opinions speak for themselves, but I think those who have a modicum of experience, I mean, know that if you didn't understand something in the documents, you would research.

1	So so, for example, there's several
2	court cases that both pre and post the improvements,
3	one of them being there's an Ohio case that the Court
4	references and I mean, for sure there's no question
5	that I would have, in some cases, looked and read
6	those opinions separately, which would have formed and
7	put context into what the Court determined.
8	But those wouldn't have been documents in
9	most cases I didn't reference those in testimony,
10	but I mean, a reasonable person reading the documents
11	if there was there was a reference to a court case,
12	they would research the court case.
13	I mean, that's how you kind of dissect
14	witness testimony. If if there's something there
15	that a witness references, you would want to be
16	informed of of the facts they were relying on.
17	Q. Would you say that's unusual for auditors
18	to rely on evidence and conclusions from other experts
19	in the field?
20	A. Oh, we rely on well, I think we rely
21	and evaluate the expert opinions on other individuals
22	in the field. So, for example, it's routine every
23	rate case at least the ones that I've been involved

in -- we review the external audit work papers.

And so I know that has really nothing to

24

- 1 do with -- with what is here, but it's analogous to
- 2 you review other expert opinions so if the external
- 3 auditors have an unqualified opinion on the integrity
- 4 and accuracy of the books and records of the Company,
- 5 then that's -- gives us at least some level of
- 6 assurance that the books and records are being kept in
- 7 accordance to generally accepted accounting
- 8 principles.
- And so that kind of example we -- we
- 10 | would review, just like I reviewed all the testimony
- 11 | filed by Ameren's experts in this case. I reviewed
- 12 | the testimony of Office of Public Counsel's experts in
- 13 this case. So yes, we rely on expert testimony I
- 14 | think is the answer to your question.
- 15 Q. Do you recall having a conversation about
- 16 | the -- if data that was used in the District Court
- 17 opinion was pre- or post-project data?
- 18 A. Right. Yeah.
- 19 Q. What pre-project information did Ameren
- 20 | have at that time that you considered when you were
- 21 | coming up with your recommendation?
- 22 A. Well, I think -- I think the Court -- the
- 23 | Court found that yes, the copies say who evaluation --
- 24 you would evaluate the performance and the emissions
- 25 rate of the -- of the improvements afterwards, yes.

- 1 But Ameren -- the whole reason for doing the
- 2 improvements was to increase the availability of the
- 3 boiler. And the components were redesigned to
- 4 increase the performance of the boiler because of the
- 5 switch from higher sulfur to coal to western coal.
- And so the whole point of the
- 7 improvements was to increase the availability of the
- 8 units, which I think it's -- I think it's a good thing
- 9 that they improve the plant. I mean, you would want
- 10 more availability, you would want to squeeze every
- 11 last megawatt hour out of that unit, like you would
- 12 all base load power plants. I think that answered
- 13 your question.
- 14 Q. You were also asked by counsel for Ameren
- 15 | if you thought any particular test should be used. Do
- 16 | you recall that? If Ameren at the time should have
- 17 | used any particular test?
- 18 A. Right.
- 19 | Q. Would you -- do you have concerns about
- 20 | the amount of testing?
- 21 A. Well, again, I go back to what the Court
- 22 | said. The Court said that -- in at least two spots in
- 23 the order that the method that the EPA was using --
- 24 let's see here.
- 25 Ameren's testifying expert -- at page

- 1 three: Ameren's testifying expert conceded that the
- 2 | method used by the United States ex- -- experts, which
- 3 showed that Ameren should have expected the project to
- 4 trigger PSD rules, hyphen, has been well known in the
- 5 industry since 1999.
- 6 On page 71: Another Ameren testifying
- 7 expert, Marc Chupka, conceded that the method used by
- 8 Mr. Koppe and Dr. Sahu for determining PSC emissions
- 9 increase has at least been well known in the industry
- 10 | since the first enforcement cases were filed in 1999.
- 11 Mr. Koppe testified that he and Dr. Sahu had used the
- 12 same basic formula in this case as he and other
- 13 utilities have used for decades.
- 14 And so I relied on what the Court
- 15 determined in that case as -- it's in the finding of
- 16 | fact. I quess it would be two facts out of the lot --
- 17 lots of findings of fact.
- 18 Q. Do you recall having a discussion about
- 19 | your KM-R2 schedule?
- 20 A. Yes. I -- I have it here. I mean,
- 21 | that's the District Court opinion, the liability.
- 22 | Sure.
- 23 | O. And it was about page 134, the elements
- 24 | that the District Court was looking at.
- 25 A. Right.



2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Page 10 ⁻ Q. And counsel for Ameren asked if that test
was different from the test at the Commission for
prudence. Do you recall that?
A. Yes.
Q. Can you briefly explain how the District
Court's test and resulting finding can inform a PSC
prudence determination?

Well, I think you can't just take this Α. test on page 134. I think that if you take the totality of the facts that the Court considered of the decision making leading up to the -- the decision making of the PSC permitting, I -- I -- I don't disagree, and I'm not an attorney, that the test was strict liability.

Okay. Well, the Court found a lot of facts through I think an 11-day bench trial for the liability and -- and a week-long -- correct me if I'm wrong, it's in the tes- -- it's in the order, for the remedy phase. And so the Court found a lot of facts.

I think if you take those facts in totality, that you have to conclude that it was imprudent and unreasonable decision making. Which I mean -- I see the irony this -- this -- now there's really not -- there's no impact now, but the impact comes when Ameren has to buy 75 million dollars worth

Page 108

- 1 of HEPA filters, or 20 or 200 -- depending on if you
- 2 ask the EPA and the Department of Justice, 20 or 200
- 3 electric buses. I mean, that's where the economic
- 4 impact.
- 5 And like I said before, I can't imagine a
- 6 world where Ameren would not request some kind of rate
- 7 recovery of those amounts.
- Q. Do you recall having a discussion with
- 9 the Bench about the differences between you and
- 10 Ms. Eubanks?
- 11 A. Yes.
- 12 Q. Are you familiar with her testimony in
- 13 | this case?
- 14 A. I reviewed it and I've read it, yes.
- 15 Q. The deposition?
- 16 A. Which deposition? The one in the last
- 17 rate case or the current proceeding?
- 18 | O. The most recent.
- 19 A. Yes, I -- I think -- yes, I read it
- 20 through once. It was shorter than the last
- 21 deposition.
- 22 Q. Can you recall any opinions that were
- 23 | within that document about if the actions or inactions
- 24 | undertaken by Ameren Missouri were reasonable?
- 25 A. I think she -- I think she questioned --

- Page 109 1 and again, I'll let her -- I don't think her deposition's in the record, but her testimony 2 3 certainly is. At least when it's admitted, if it's admitted. 4 5 I think she took issue with -- she may have said their decision making was unreasonable. 6 7 don't think she went as -- so far as to say they were 8 imprudent. So I mean, I don't fault her for that. 9 Her testimony is what her testimony is. 10 Ο. And finally, going back to the three 11 opinions, the District Court cases. You were asked on 12 recross about those opinions and if you -- if it was 13 just those three opinions that you premised your Do you remember --14 opinion on. 15 Α. Yes. 16
 - -- counsel for Ameren asking you that? Q.
- 17 Α. Yes.

21

22

23

24

- 18 Did you compare the evidence in those 0. 19 three opinions with your experiences in this industry?
 - Oh, for sure. I mean, I think everything Α. that -- my experiences in the -- or in filing testimony and reading and studying these issues over the last 17 years would assist my understanding of the three documents for sure.
 - Q. And then one last question. Do you



- 1 recall a conversation with counsel for Ameren about --
- 2 | I believe Kyra Moore was brought up and MDNR's
- 3 understanding or what their belief of the emission
- 4 | increase and permitting intersection?
- 5 A. Yes.

16

17

18

19

20

21

22

23

24

- Q. Who's the highest authority for that enforcement though?
- A. Well, my understanding is it was

 9 delegated by the EPA -- well, okay, by -- by -
 10 probably first by Congress and then to the EPA and

 11 then the -- the states would have State Implementation

 12 Plans. I think the overall -- the overall enforcement

 13 actions would have been at the EPA level, not

 14 necessarily at the State of Missouri.
 - Now, I -- since there's 50 states that -some of those states don't have State Implementation

 Plans as has been noted in the record. And
 sometimes -- and so those would have -- the EPA would
 be -- that would have more of a direct link. But
 ultimately how the EPA enforces the PSD and NSPS
 rules, ultimately that enforcement is done by the EPA.
 And so, yeah.
 - Q. Do you recall if at that time there's anything that you can point to that the EPA may have had a different interpretation than MDNR?



1 Well, I would go back to the method that Α. 2 the EPA was enforcing. And I mean, I -- I don't 3 dispute any -- well, I dispute some of the testimony 4 by Mr. Moor, but yes, there was some changes in the way -- in the enforcement and whatnot during the 5 switch in administration, whatnot. 6 But as the Court noted, that methodology, 7 8 one, was -- was at least visible to the -- to Ameren 9 since 19- -- well, visible to utilities since 1999. 10 And I think Ameren disputed in the liability phase 11 that -- yes, that the projects were viewed not by the 12 Judge, not as individual components, but as a project 13 on the whole. If you go back to the opinion, the Judge 14 15 said -- and I'll let him speak for himself, that even if he didn't include the projects and evaluate them as 16 17 a whole, even individually, they did not qualify as 18 routine maintenance, replacement -- repair and 19 replacement -- or replacement, repair. Take your 20 I think that answered your question. pick. It did, and I have no further questions. 21 0. 22 Thank you. 23 JUDGE CLARK: I have a Commission 24 question for the witness. 25 COMMISSIONER KOLKMEYER: Thank you,

Judge.

1

4

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

- 2 | QUESTIONS BY COMMISSIONER HOLSMAN:
- 3 Q. Good morning.
 - A. Good morning.
- Q. You had mentioned in the prior -previous discussion that you -- you thought that
 squeezing every megawatt out of an asset was the
 appropriate approach for prudency. Is that an
 accurate rephrase of your position?
 - A. Well, I don't know that I would link that to prudent. Well, I think that the -- for sure it would be prudent to squeeze absolutely every megawatt hour of an asset, especially if it's an asset like Rush Island. I -- I don't think that's -- for sure not specific to Rush Island.

I think every base load unit and really every generating asset, you want -- the utilities would want to squeeze every single megawatt hour possible out of that asset. And so that's why you have projects like the improvements at Rush Island.

And I can go here ad infinitum about other utility projects that are designed to increase reliability, increase availability as recent as the last decade. I mean, you're making improvements to plants like Wolf Creek, to ab-- squeeze every

- available megawatt out of that unit. And so I think a

 prudent utility would make those improvements.

 And certainly I would say that the Staff

 and, more importantly, the Commission has been

 supportive of -- of those kind of improvements.

 But on the other hand, when you make
 - But on the other hand, when you make improvements and environmental equipment additions, those actually reduce the amount of megawatts coming out of the plant.

8

9

17

18

19

- But the -- again, Staff and the

 Commission has been generally supportive of those

 improvements, because they reduce the -- the -
 certainly the liability and the risk of other

 improvements and a violation being alleged by the EPA.

 And you reduce the amount of SO2 and NOx allowances

 that you have to purchase.
 - And there's the overall societal benefit of cleaner air. So I mean, both -- both -- squeezing as many megawatts as possible is -- is a -- is the overall goal and a good goal.
- Q. So did -- let me -- let me -- let me ask
 then. The legislation that was recently passed that
 we're, you know, evaluating now for securitization, do
 you believe that that legislation provides retirement
 as a prudent option?



1	A. Ye yes. I think well, I think in	
2	the in the prior for Asbury, that determination	
3	was done	
4	Q. So so let me put it this way: Before	
5	the legislation was passed, your position of we should	
6	spend money on scrubbers because this asset won't	
7	naturally retire until 2039, that would be a prudent	
8	measure to make that asset essentially federally	
9	appropriate for the new standards, right?	
10	But now that we have a policy change that	
11	the legislature has put forward offering a new way of	
12	dealing with that asset, does that legislation change	
13	the math on rather its good or beneficial for the	
14	ratepayer if they can securitize the cost and take	
15	that retirement into consideration versus spending the	
16	money on scrubbers for an asset that will will run	
17	a life of you know, to 2039?	
18	A. I think it would change the the	
19	economics, but I we're well, when it comes to	
20	the three major utilities in the state, you're	
21	you're quickly running out of plants that you haven't	
22	scrubbed. And the irony is that and not just	
23	scrubbed. I mean, included or installed vast, huge	
24	expensive, environmental equipment.	

So -- and I think I drew this comparison

- 1 | in my rebuttal testimony in the last case. If you
- 2 look at the other utilities in the state, which I
- 3 | think the -- Ameren has -- has -- you've heard ad
- 4 infinitum about comparisons with what other utilities
- 5 have done, but let's focus on Missouri.
- 6 So if you look at the other side of the
- 7 state, all their major coal-fired units that are still
- 8 in operation have had what I would call the full
- 9 package of environmental improvements done to them.
- 10 You have FGD for sc- -- also known as
- 11 | scrubbers on La Cygne I; La Cygne II; Hawthorn V,
- 12 which is a little bit different because it had a
- 13 boiler explosion in '99, was rebuilt in 2003. But
- 14 they made the investments -- the very expensive
- 15 | investments and now they have that capacity throughout
- 16 | the mid-2030's.
- 17 You have Iatan I, Iatan II. Of course,
- 18 | Iatan II was built in 2010. It had to have the -- the
- 19 | best achievable -- best environmental equipment
- 20 | available at the time. But the improvements have
- 21 | already been made to at least those five units and
- 22 | I've only mentioned scrubbers. Selective catalytic
- 23 reduction to control NOx emissions, several of them
- 24 have cooling towers for the -- the water regulations.
- 25 But the point is that that side of the

- 1 state has -- has made those improvements at -- at a
- 2 huge cost and a huge cost to the ratepayers. But I
- 3 think in the long run, we can now -- at least that
- 4 | side of the state can rely on those improvements well
- 5 into the 2030's while, let's say, society makes a --
- 6 an energy transition to less carbon.
- 7 On the other side of the state you have
- 8 Labadie, which has no -- other than the vintage
- 9 environmental equipment and some -- I believe some
- 10 mercury controls, which are far less expensive, but
- 11 | they don't have, other than Sioux, the massive
- 12 environmental equipment and upgrades that have been
- 13 done on not only the other side of the state, but in
- 14 other plants in the region.
- 15 And I think that there's -- there's a
- 16 | good reason why Ameren has the lowest rates in the
- 17 | state. It's because they haven't made -- in part,
- 18 | they haven't made these investments.
- 19 Yes, Evergy Metro, Evergy West, Empire or
- 20 | Liberty, yes, they have higher rates, but -- and I'll
- 21 | focus on Metro and West. But all their major coal
- 22 | units are -- have -- have this equipment and they can
- 23 operate well into the 2030's.
- 24 And I would add even at the time that --
- 25 of -- that these improvements were made, even

- 1 utilities as small -- on its own Evergy West, formerly
 2 GMO, formerly Aquila, even when they were having
- 3 financial difficulties, they still made the investment 4 on Sibley III.

And they also made investments under the management of Evergy Metro to make those investments at Iatan I and preserve those invaluable assets well into the 2030's and, in fact, for Iatan II, through 2050 if the unit can operate --

- O. Well, let me ask --
- 11 A. -- until then.

5

6

7

8

9

10

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Q. Let me follow up on then. I know it's impossible to predict what the federal government will do in the future or what the EPA will do or -- or who even is going to reside in the executive office to -- to sort of lead that. But do you believe that the environmental impacts made -- you talked about on the eastern side of the state, that those costs have already been borne by the -- the ratepayers.

Do you believe that with the trajectory of federal policy, that they will actually be able to operate at the, let's say, 2035 or 2040 that that -- that that reduction in emission is going to be enough to satisfy those -- those environmental markers that -- that the EPA is -- is striving for?

- A. I think it really hinges on -- it's

 certainly a huge unknown on what carbon sequestration,

 what those impacts if -- if those come to fruition,

 will have on the larger coal units.

 There's also the Good Neighbor Rule,

 which I believe just addresses the NOx emissions.

 That's been taken care of on that -- on the western

 half of the state. And so it really hinges on those

 future regulations.

 But -- but the -- for the most part now,
 - But -- but the -- for the most part now, the -- the western side of the state has addressed the current emissions regulations, not counting carbon.
- Q. So no policy changes, they have the environmental equipment necessary to continue operating until 2050?
- A. I -- I think -- and not getting into specific units, which I think some of those are confidential, but you have certainly the more vintage units into the 2030's, but Iatan II was designed to -- its retirement date is in the 2050's.

But keep in mind, Iatan II is the most -at least in the state of Missouri, the most advanced
unit, the big -- the biggest unit, the cleanest unit,
the most efficient unit by far in terms of net heat
rate. And that unit is -- is designed well --

designed to go into 20 -- in the 2050's.

- O. And the rates reflect those advancements?
- A. Oh, oh, absolutely. Not only do the rates reflect those improvements, there was very unique and special rate-making treatment in the 2005 time frame so -- to enable at that time KCPL and its partners, Empire and now Liberty, and its par- -- and

8 at that time Aquila, to be able to invest in a

9 2 billion dollar power plant.

1

2

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Not only invest in a 2 billion dollar power plant, but to invest in over a half a billion dollars of environmental equipment and improvements to make -- to clean Iatan I.

And so the really pitch there was that pre and post -- before you build Iatan II and do the improvements to Iatan I and afterwards, you would have fewer emissions of SO2 and NOx. With an entire -- entire additional unit, you would have fewer emissions than you would -- did with Iatan I. And so that was part of the pitch with the collaborative effort under the regulatory plan in 2005.

So to answer your question, those were billions -- millions -- several million -- hundreds of millions of investments that -- that, yes, we paid for and yes, those impact rates, for sure. But those



are -- I would call them clean, cleaner, clean coal investments that will benefit ratepayers well into the future.

- Q. And to be clear, obviously Rush Island would not qualify to continue operation without the investment in the environmental improvement equipment?
- A. I think that if you were going to -- I think you could read Ameren's testimony, specifically Mr. Michels, and say that even if we hadn't installed the equipment in 2011, it would -- it would not be better for customers.
- Okay. But that completely ignores that certainly the western side of the state -- that implies that the western side of the state, they were unreasonable in -- in installing that environmental equipment in the same time frame.
- I think that -- I'll be -- I'm more -
 I'm more old school. I think that it's very important
 to have clean base load units that we can rely on,
 especially when you have extraordinary events like
 winter storms.
- When -- when -- if -- if you assume that that kind of thing can happen on a going-forward basis, do we really want to have 300 million dollar expenses and have to either spread those over to

- 1 customers immediately or have to securitize those
- 2 because we've -- we're short on generation? I -- and
- 3 I'm going to speak for myself. I don't think that's a
- 4 great premise.
- 5 Q. So your -- your testimony today is that
- 6 | you believe that it's better for the ratepayers to
- 7 | spend the money on the environmental upgrades and
- 8 | continue to operate Rush Island then it is to shutter
- 9 | the -- the plant and securitize the costs?
- 10 A. No. At this time I don't think that
- 11 | that's economic. I -- I think that the studies that
- 12 have done -- I'll let Ms. Eubanks answer that
- 13 question. That may be available to her -- for her to
- 14 answer that at a later time.
- But I think the time now -- we're in
- 16 2024. You've got 15 years of life left in the unit.
- 17 The time to build these was perhaps decades before.
- 18 | Now you have -- when -- when the western side of the
- 19 | state built those -- built -- made those improvements,
- 20 cost of labor was much lower, cost of materials was
- 21 | much lower. The -- the availability of that craft
- 22 | labor and the -- the manufacturers were available to
- 23 | install those -- install that equipment.
- I can't say that for sure now at -- at --
- 25 in -- in the current time frame. I think if you

- 1 make -- if you read Ameren's testimony, and I think I
- 2 put it in mine, that 42 or 43 out of the scenarios
- 3 that the Company evaluated said that it's more
- 4 economic to retire Rush Island. And so in the time
- 5 now --

19

20

21

22

23

24

25

- 6 Q. Do you agree with those?
- 7 A. I -- I would agree -- I would agree with 8 that premise.
- 9 Q. That it's more economical for the
 10 ratepayer to retire Rush Island, securitize the costs
 11 and to move onto different generation?
- 12 A. Right now, yes.
- Q. Right now.

you with a hatchet.

- A. Given -- given the fact that -- if you
 didn't have to install scrubbers, then you would
 have -- then the status quo is you operating the plant
 until the EPA, as we all know, eventually goes after
 - But status quo, I think you would operate that plant as long as you can. And I would suspect they would operate both Sioux and Labadie as long as possible to -- again, you're squeezing the megawatts out of assets that are -- barring some kind of large base load unit, such as a nuclear unit, are -- are both invaluable and irreplaceable.



- Q. Okay. Thank you.
- 2 COMMISSIONER HOLSMAN: Thank you, Judge.
- 3 JUDGE CLARK: Thank you, Commissioner.
- 4 Any recross based upon Commissioner
- 5 | questions? Public Counsel?
- 6 MR. WILLIAMS: Thank you. I do have a
- 7 | few.

- 8 RECROSS-EXAMINATION BY MR. WILLIAMS:
- 9 Q. You mentioned in one of your answers that
- 10 | Ameren Missouri had put scrubbers on at Sioux?
- 11 A. Yes.
- 12 Q. Do you know when that was -- when those
- 13 | scrubbers were put on?
- 14 A. My recollection, in the 2011 time frame.
- 15 But I'm sure if I'm wrong, Ameren will correct me.
- 16 But I think it was in that time frame. My
- 17 recollection is they have a non-selective catalytic
- 18 reduction system, which would be some kind of re-agent
- 19 injection to ameliorate the NOx emissions. That -- I
- 20 don't believe those were installed the same time
- 21 frame.
- 22 Q. Does it have any emissions control for
- 23 | SOx emissions?
- 24 A. Well, the -- so we're talking about
- 25 | Sioux, and it's S-i-o-u-x. So you're talking about



- 1 Sioux, two units. They both have wet scrubbers, FGD
- 2 | Flue Gas Desulfurization, equipment. And so those
- 3 | would be for SO2 emissions, sulfur dioxide.
- 4 Q. And is Sioux -- you said it's two units.
- 5 | Rush Island's also two units, correct?
- 6 A. Yes.
- 7 Q. Are they comparable in size, the units?
- 8 A. Now you're really testing my memory. I
- 9 think -- I think the Sioux units were vintage late
- 10 1960's. I'm going to say they're both between 500 and
- 11 | 750 megawatts. But again, I'm sure Mr. Lowery's going
- 12 to correct me -- correct my memory if I'm wrong.
- Q. When you say both, are you talking about
- 14 | the units at Sioux or relative to the units at Rush
- 15 | Island or --
- 16 A. Sioux would be between 500 and 750.
- 17 You're -- kind of -- kind of the -- the boilerplate,
- 18 | no pun intended, large coal-fired base load unit.
- 19 O. And wasn't -- didn't Ameren Missouri
- 20 | build Rush Island in the early/mid '70s?
- 21 A. Yes, that's correct.
- 22 Q. Do you know why Ameren Missouri put on
- 23 | the emissions control equipment at Sioux?
- A. Well, other than the obvious; to control
- 25 the emissions. They would have done an economic

- 1 analysis on is it -- is it more economic to keep
- 2 | buying allowances, keep spending allowances or to
- 3 construct the scr- -- the scrubbers to control SO2.
- 4 So there would have been an economic analysis at the
- 5 | time that that -- those decisions were made.
- 6 Q. It didn't involve the New Source Rule,
- 7 | did it?

13

14

15

16

17

18

19

20

21

22

23

8 A. Not to my knowledge.

that's the best you can do.

- 9 Q. And do you know approximately what it 10 cost for Ameren Missouri to put the emissions control 11 equipment on Sioux? I'll take a ballpark figure if
 - A. Well, I know Mr. Lowery's going to correct me if I'm very off. I'm going to say between 400 and 700 million. That's just based on a long recollection. But for sure those final costs would have been -- I don't have Ms. Tatro to correct my case number here. Be 2011-0258, I believe. I've been two for two on case numbers, so.
 - Q. So at least around 2011, Ameren Missouri decided it was cost-effective to put emissions control equipment on Sioux for a plant that's relatively comparable to Rush Island?
- A. Well, I would just correct one part of that. The decision to install those would have been



Page 126

- 1 probably three years prior. Again, Mr. Lowery's going
- 2 to correct me if I'm way off, but it's in that time
- 3 | frame.
- 4 Q. You're talk -- you're making a
- 5 distinction about when a decision was made to put on
- 6 | the emissions control equipment and when it was
- 7 | actually installed? Is that --
- 8 A. Right.
- 9 Q. You're drawing the distinct- --
- 10 A. You're -- right. I think you had men- --
- 11 you just said that the decision was made in 2011.
- 12 | That would have been because there is a very
- 13 lengthy -- lengthy process to engineering, procure,
- 14 construct those assets. So the decisions would have
- 15 | been '08, '09, perhaps '07 time frame.
- 16 Q. Well, didn't Ameren Missouri say for Rush
- 17 | Island that it started their planning -- or initial
- 18 decision to go forward with the improvements in 2007
- 19 and 2010 were initiated in 2005?
- 20 A. Yes.
- 21 0. So that --
- 22 A. For --
- 23 | Q. -- that kind of a time frame? Is that
- 24 | what you're talking about?
- 25 A. Well, the -- the specific improvements

- 1 here, it's in the order -- I think the outage --
- 2 goodness, three or four months, but the actual outage
- 3 | time was in the order. That was to complete the
- 4 construction.
- I think if you're doing an SCR -- yes,
- 6 the actual construction may have been in a more
- 7 | narrow -- I'm sure Ms. Eubanks could correct -- will
- 8 correct me if I'm wrong. That is a much more -- much
- 9 more complicated project to install two scrubbers
- 10 | versus the improvements that were actually completed
- 11 | in the 7/11 time frame in Rush Island. Those are two
- 12 | separate projects.
- 13 Q. So you would expect that the time frame
- 14 | for the advanced planning would have been three years
- 15 or more, given the time frame for the planning for
- 16 | Rush Island? When I'm talk -- and I'm referring to
- 17 | Sioux.
- 18 A. Right. Given -- I'm not an engineer, but
- 19 given my knowledge and experience with other projects,
- 20 | there's a very long lead time with that equipment and
- 21 | getting suppliers ready to -- and craft labor and all
- 22 the planning that goes into those improvements.
- 23 | There's a very long lead time.
- 24 So again, I wouldn't -- I would say
- 25 | that's an approximate date of when those decisions

- Q. And do you know if Ameren Missouri's planning on retiring Sioux in the future?
- A. I -- I'm sure I read a document. I

 couldn't tell you right here a specific date. I know

 they have a projected retirement date for Sioux,

 Labadie and their other units, but as -- as I stand -
 sit here, I don't know when.
- 9 Q. No further questions. Thank you.

JUDGE CLARK: Any recross from Ameren?

MR. LONG: Yes, Your Honor. Thank you.

12 Briefly.

19

1

- 13 | RECROSS-EXAMINATION BY MR. LONG:
- Q. Mr. Majors, at the beginning of this
 segment of your testimony I think you had a question
 from Commissioner Holsman about whether you thought
 squeezing every megawatt out of an asset was
 appropriate. Do you recall that at the beginning of
- 20 A. Yes.

this discussion?

- Q. Okay. And in your response I think you had talked about how other utilities were doing projects to increase availability. Did I hear that correctly?
- 25 A. Yes.



	Evidentially Floating 7tpm 10, 20	
1	Page 12 Q. Okay. Were those other utilities doing	
2	projects that increased availability getting New	
3	Source Review permits?	
4	A. To my knowledge, no, but it could have	
5	been that they were part of part of the argument	
6	against not getting a New Source Review permit is that	
7	you instr install the best achievable best	
8	achievable control technology for SO2 and NOx.	
9	And so as part of the improvements to	
10	Iatan I, there was improvements in the turbine to	
11	gain I don't think it's confidential, but 15 to	
12	20 megawatts. Similar to I think what's been	
13	discussed, it's called a dense pack.	
14	I don't know if it was a dense back on	
15	the turbine, but there were turbine improvements to	
16	squeeze, as I said, every every every stinking	
17	megawatt hour out of the unit within reason without	

causing damage or anything like that. So to get back to your question, I don't know for certain that they had to get a New Source I would suspect not because they had Review permit. already installed the control technology to control

23 those emissions.

18

19

20

21

22

24

25

Q. Were you aware of other utilities Okay. doing availability improvement projects that did not



- have the best available control technology for
 emissions already installed?
- 3 Α. Yes. I think you discussed that. discussed it in the rebuttal testimony in the last 4 5 case and you discussed it with Ms. Eubanks in her 6 deposition. Westar, Western Resources, now Evergy, Kansas Central, they made improvements to the boiler 7 and I believe the turbine and so they were approached 8 9 by the EPA -- well, not approached.
- I mean, they -- they were -- had a Notice

 of Violation from the EPA and so --
- 12 Q. And was that because they didn't get a 13 permit before doing the projects?
 - A. That's correct, yes.

15

16

17

- Q. Okay. Let me ask you, sir, you talked about the controls at Evergy for sulfur dioxide and other criteria pollutants in one of your responses to the Commissioner's questions.
- Would customers need to pay for the pollution control equipment that was installed at Evergy?
- A. Oh, absolutely. It's in -- it's in rates now and probably has -- has been in rates since -- at least for Hawthorn V, since January 1 of 2007.
- Q. Do you know whether Ameren Missouri at

- 1 the time that it was making these permitting decisions
- 2 | for Rush Island had sufficient sulfur dioxide
- 3 | allowances that would have allowed it to continue to
- 4 operate the units without having to have customers pay
- 5 for scrubbers?

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

2.2

23

24

25

A. That's my understanding, yes.

- Q. Do you know what -- I think you talked about there being an economic analysis on whether it was better to use allowances for sulfur dioxide compliance as opposed to scrubber retrofit or sulfur dioxide compliance?
 - A. Yes.
- Q. And would you have expected there to have been that type of economic analysis for the Evergy units when they made these decisions about how to comply with the sulfur dioxide regulations?
 - A. Oh, absolutely.
- Q. So if the Company, that is, Ameren
 Missouri, had sufficient sulfur dioxide allowances to
 comply with the Clean Air Act requirements, you would
 not have expected Ameren Missouri to install scrubbers
 on the units if it was not otherwise required to do
 so, correct?
- A. Even if you could survive with just allowances, there's no question that utilities were



- 1 installing controls for pollution eq- -- for pollution
- 2 equipment, like I've said. And it's not just in the
- 3 | western side of Missouri.
- But yes, the economic analysis could have
- 5 been that, yes, we can survive on just allowances.
- 6 But there's certainly other utilities with -- I'm
- 7 going to say similar units; your subcritical
- 8 | coal-fired power -- power plants that are above, you
- 9 know, 500 megawatts that were installing the equipment
- 10 | that's --
- 11 Q. And are you thinking about some of the
- 12 | Evergy units in that answer?
- 13 A. Well, I would say not just Evergy. There
- 14 | would be Westar, Empire. Again, my -- my immediate
- 15 knowledge as to those utilities in the state that are
- 16 most important.
- Q. And Evergy, Westar, Empire, those units,
- 18 do they have controls for carbon dioxide, CO2?
- 19 A. No.
- 20 O. Okay. So if the forthcoming EPA
- 21 | regulations for carbon dioxide come out, could those
- 22 | lead to the retirement of those Evergy, Westar, Empire
- 23 | plants?
- 24 A. Absolutely.
- 25 Q. And could that result in early retirement

of	those	plants?
----	-------	---------

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

2.2

23

A. Absolutely.

- Q. Going back to the questions about allowances and comparing Ameren to Evergy, might Ameren have had more allowances than Evergy at the time that it was making the decisions whether to comply with scrubbers or to comply with allowances?
- A. That could be the possibility and you -you could purchase allowances. There -- there's a
 market for those.
- Q. And if they had more allowances at Ameren Missouri than Evergy had at the time, would it be better for customers for them to have relied on those allowances for sulfur dioxide compliance?
- A. Perhaps from the -- from an -- from a rate perspective. I mean it's -- obviously the year's 2024 and your -- Ameren's going forward with less pollution controls than -- than its -- its peers, so.
- Q. But the -- you agree that the economic analysis could have shown that the right choice for the consumers, the customers of Ameren Missouri might have been to rely on the allowances?
- A. That's a fair -- fair statement.
- Q. That's all I've got. Thank you, sir.

 JUDGE CLARK: Any redirect from Staff?



Page 134 1 MS. MERS: Yes, and I hope it's 2 relatively brief. 3 REDIRECT EXAMINATION BY MS. MERS: You stirred up a lot of conversation with 4 Ο. 5 your squeezing every megawatt comment. Do you recall having that conversation with Commissioner Holsman? 6 7 Α. Yes. How would you think context would matter 8 0. 9 on -- if squeezing every megawatt hour is the prudent 10 action for a plant? 11 Well, certainly there's a limit, right? Α. 12 There's -- just in the -- in the -- the jargon I think 13 has been, it's somewhere in the case, all -- all valves open, full throttle, all the turbine valves 14 15 open. 16 I mean, you're talking about August 15th 17 when it's 95 in the shade and you want that unit --18 there -- there -- you want to run the unit as with --19 with the pulverizers and the -- feeding as much coal 20 as you want through the boiler, but you certainly 21 don't want to harm the unit or operate the unit in a 22 way that would permanently damage or -- or even 23 temporarily damage the unit. And the same could be said when it's 24

negative 20 during Winter Storm Uri and you're wanting

maximum amount of -- of bang for your buck and maximum amount of coal as possible going through the unit.

- But certainly there's the potential for the misuse of the -- of -- of -- of the equipment.

 But a prudent plant operator would not push the unit as far or farther than it could reasonably go.
- Q. Could you list some items that would be important context when determining if improvements to help squeeze every megawatt hour should be added to a plant or not?
 - A. Well, I think there's a misnomer. It was certainly prudent for -- I don't think there was a question of prudent. It was prudent for Ameren to install that equipment, because your -- as -- there's been a lot of testimony that you had availability issues with the slide build-up and the boiler and the air pre-heaters.

And so certainly -- and there's an economic analysis to that, too. Right? So the -- the engineering planners would have said, well, we're going to have to spend 75 million dollars is -- our 75 million dollar investment for the two units, is that going to pay off in dividends for added off-system sales or -- or -- which is kind of a archaic term, but additional sales or additional hours

1 | that you can run that unit.

load, the auxiliary load to run.

There's always going to be a cost/benefit analysis of turbine improvements, boiler improvements. Even an economic analysis like we've discussed with Mr. Lowery and Mr. Long about the -- the pollution equipment, installing that, which actually reduces the amount of megawatt hour -- megawatt capacity unit because you're increasing the what's called house

When it comes to a scrubber, you've got to run the ball mills, the recyclers, all the incidental equipment that is installed with the environmental controls. But there's always going to be some kind of value added analysis on installing equipment to, again, squeeze every megawatt out of the unit.

- Q. Would you have an opinion that if a utility decided that there was value added to add equipment to, again, squeeze every megawatt hour, but doing it before or without proper testing and permits?
- A. Could you -- could you say that one more time?
- Q. I can try. Would you have a recommendation or an opinion on if a utility would install, and perha- -- prudently, equipment that could



- 1 | help increase efficiency or the squeezing every
- 2 | megawatt hour, but without or before proper testing,
- 3 | permitting and compliance?
- A. Well, I think you would want to do that.
- 5 You would want to do that in concert with the economic
- 6 analysis. I mean, it would -- it would make no sense
- 7 | if you're going to install the equipment, to have to
- 8 then shut down or retire the unit in short measure.
- 9 I -- I guess the -- the contra to that
- 10 | would be -- and it's unfortunate, Empire installed the
- 11 equipment at Asbury and then not -- in short measure,
- 12 turned around and retired the unit. Certainly that
- 13 | was the unfortunate case with Sibley III. The SCR was
- 14 completed in 2009 and it was, in my view,
- 15 unfortunately retired in 2019.
- 16 So I -- there's no point in making those
- 17 | improvements and extending the life span of the unit
- 18 | if you can't run the unit going forward, I guess is an
- 19 answer to your question.
- 20 O. That's all I have. Thank you.
- 21 | COMMISSIONER HOLSMAN: Judge, one
- 22 | follow-up -- just real quick follow-up question. It
- 23 | will take two seconds.
- 24 JUDGE CLARK: We have one more Bench
- 25 | question -- I'm sorry, Commission question.



FURTHER QUESTIONS BY COMMISSIONER HOLSMAN:

Q.	Just real briefly based on that last			
inquiry.	Does the you said as an example, Asbury			
had or	Liberty had installed some environmental			
equipment	and then retired the the unit shortly			
thereafter.				

Does these retired units retain any recycled asset value that could be repurposed either internally within the fleets that -- that are currently existing in this -- in this state or other states or in other countries that don't have the environmentally restrictive polices in places?

And could -- could these assets be sold to a country that doesn't have the same type of environmental codes?

A. I think the potential is there. The real value in these sites is the site itself, right? So for your legacy coal plants, you've got rail -- always have rail because you have to rail in the coal. And you've got a clean source of -- and plentiful source of water. So the sites themselves have value.

But to answer your question could they be sold to countries abroad? One, these are very large assets. They're difficult to move. The one example that I can think of -- and this is really very -- very

- small example. The turbine at Grant Avenue in
 downtown Kansas City, I believe it ended up in South
- 3 America. But you're talking about probably a three,
- four megawatt back brusher turbine that was circa the '40s.
- So certainly -- and I think you mentioned
 maybe salvage value. Yes, there's going to be a
 salvage value to the components of the plant itself.
 They're made of a lot of metal and equipment and
 copper and what have you.
- Q. Is that value included in the numbers
 that we're looking at, the 468 million to securitize?

14

15

16

17

18

19

20

21

22

23

24

- A. I believe the salvage proceeds, and there will be, are included in those numbers. And certainly we would dispute -- if there weren't salvage proceeds, we would absolutely have that as an offset to the net book value or the cost. You -- you wouldn't want to -- because they're scrap proceeds. I mean, there's a -- an economic benefit to those that are sold -- sold to recyclers or what have you.
- Q. Do you know if there's ever any effort to find a market that could potentially recognize the value of -- if you've got 15 years left in an engine and you could find a buyer for that engine, then that value is much greater than scrapping it.

1	A. Well, sure. I I think the potential		
2	for your again, I'm not an engineer, but the		
3	potential for very large coal-fired units, these		
4	the equipment is so massive, I think the potential		
5	could be there for much smaller units; say, a gas		
6	turbine or or something like that. And you can		
7	all but you can take separate components as well		
8	and there could be a potential market for those.		
9	I know when La Cygne had its		
10	environmental retrofits, there was some obsolete		
11	inventory that was was marketed and sold. But I		
12	think the overall proposition that you're asking, it's		
13	pretty difficult. These these are these are		
14	massive components and those are difficult to		
15	difficult to move.		
16	Q. To repurpose.		
17	A. Oh, sure. Now, the site itself has,		
18	again, a lot of value. Because not only I		
19	mentioned rail and water. You also have substations.		
20	So you have access to the grid. My recollection is		
21	there may be a there might be a very small solar		
22	project at Montrose. That's just my recollection. It		

24 Q. Okay.

could be wrong.

23

25 A. But certainly if there was solar -- a

Evidentiary Hearing

1	solar facili	ty, it would have access to substation.
2	Q.	I'm going to I'm going to hold this
3	line of ques	tioning for perhaps an Ameren witness that
4	could talk al	oout maybe Michels on the capacity
5	side.	
6	А.	Oh, sure.
7	Q.	All right. Thank you.
8		COMMISSIONER HOLSMAN: Thank you, Judge.
9		JUDGE CLARK: Any redirect from Public
10	Counsel I	mean, sorry, recross.
11		MR. WILLIAMS: Yes, please.
12	RECROSS-EXAM	INATION BY MR. WILLIAMS:
13	Q.	Do you know if there's any market for
14	a let's sa	ay I think Rush Island, they're in the
15	neighborhood	of 500, 600 megawatts per unit. Correct?
16	А.	I want to say more like 650 but
17	Q.	Okay.
18	А.	sure, yeah.
19	Q.	Whatever they are.
20	А.	Oh, you're asking about a market?
21	Q.	Well, I haven't gotten to that yet.
22	А.	Oh, okay.
23	Q.	Do you know if there's any market for a
24	1970's vintag	ge generating unit of in the neighborhood
25	of 600 megawa	atts, such as those at Rush Island?

- 1 I -- I think -- would it be possible to Α. 2 dismantle the unit and rebuild it somewhere? 3 a possibility. I -- I think it would be so economically unfeasible in terms of cost that you 4 5 would never -- you really wouldn't want to do that. I -- I suppose if you had all the money in the world, 6 you could, but. 7 Well, isn't the real value of that 0. unit -- or the Rush Island units tied to their 9 10 location and interconnection with the grid? 11 Oh, absolutely. The -- the sites Α. 12 themselves -- doesn't matter if it's -- it's Sioux, 13 Labadie, those -- the site itself has the value. So you've got transmission access, grid access, you've 14 15 got plentiful water hopefully, depends on Missouri 16 But -- and then you've got rail access. River. 17 So those are very important to have in 18 any kind of generating -- generating facility of -- of 19 that type. 20 And wouldn't the maximum value from a 0. 21 unit like that be for, say, an independent power 22 producer who just took it over on the site or someone that had a demand for that kind of power production? 23
- 25 A. Okay. Are you assuming that you keep

I don't know, data centers perhaps?

Rush Island intact?

- 2 Q. Yes. Somebody else just takes it over.
- 3 A. Oh. Well, I -- the -- I guess where I
- 4 | could -- the comparison maybe -- and it's really not a
- 5 comparison. The only other example I could think of
- 6 is believe there's a nuclear unit in the Midwest that
- 7 a third party purchased in the hope of restarting it
- 8 and rehabbing it. I -- that's probably a lost cause.
- 9 I -- I would imagine you could if --
- 10 again, if you had a lot of -- a lot of money lying
- 11 around. The problem is -- I mean, can you run the
- 12 unit without -- without installing the environmental
- 13 equipment? I mean, that would be the question.
- 14 And so you're talking about if you had --
- 15 | I'm sure you could cut a deal with Ameren if they
- 16 | didn't have to dismantle the unit. Of course, that
- 17 | would be up to them. But you'd have to have a billion
- 18 and a half lying around to install the environmental
- 19 | equipment.
- 20 And so I can't imagine -- I'm not going
- 21 | to say it's impossible. I would imagine it's -- it's
- 22 | wholly economically infeasible.
- 23 Q. It didn't happen with Asbury, did it?
- A. No. Not to my recollection. Asbury was
- 25 dismantled. And I think Montrose was dismantled. It

1 just depends on -- on what your end goal is. If you want to leave it more or less intact when you -- of 2 3 course, you can take out the -- the money's in the copper or the metal, but if -- if you leave it intact 4 5 or you want to brownfield the site, that's really where the money comes in on dismantling the unit. 6 7 Thank you. No further questions. 0. JUDGE CLARK: Any recross from Ameren? 8 9 MR. LONG: No, Your Honor. 10 JUDGE CLARK: Any redirect from Staff? 11 No, thank you. MS. MERS: No. 12 It is now 12:27. JUDGE CLARK: 13 it's an appropriate time to take a lunch break. So why don't we all come back at one o'clock. 14 15 (A recess was taken.) 16 JUDGE CLARK: Okay. We're back from the 17 lunch break, so let's begin with our next witness. 18 OPC -- or I'm sorry, Public Counsel, you may call your 19 next witness. 20 MR. WILLIAMS: Public counsel calls 21 Jordan Seaver. 22 JUDGE CLARK: Mr. Seaver, will you raise 23 your right hand to be sworn? 24 (Witness sworn.) 25 Please be seated. JUDGE CLARK:

1 JORDAN SEAVER, being first duly sworn, testified as 2 follows: 3 DIRECT EXAMINATION BY MR. WILLIAMS: 4 Q. What is your name? 5 Jordan Seaver, J-o-r-d-a-n S-e-a-v-e-r. Α. 6 By whom are you employed and in what Q. 7 capacity? The Office of Public Counsel as a policy 8 Α. 9 analyst. 10 Ο. Did you prepare rebuttal testimony that's 11 marked for identification as Exhibit 204 for purposes 12 of this hearing? 13 I did. Α. And would you have any corrections to 14 Q. 15 that testimony for it to be your testimony here today? 16 I do. Α. 17 Q. And I should say, or changes as well? 18 Α. Yes. 19 And what are those revisions you would Q. 20 have? 21 Starting on page Α. So there are a handful. 22 six -- and this is the highly confidential version. Ι 23 don't know if the page numbers differ from public or 24 confidential, but --25 They should not. Q.

A. Okay.

1

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

2.2

23

- Q. Is any of the information you're about to modify confidential or highly confidential, because there are three versions?
 - A. I don't -- I don't believe so.
 - Q. Okay. If you'd go forward then.
 - A. So the first one on page six at line four, it should read, Yes, comma, I believe that and then insert "the Company."

The second, again on page six, line 25:
The Company and "has" should be changed to "had,"
h-a-d. Same line, 25, the third word from last is
"would" should be changed to "could."

And then line 26 at the end of that sentence that resumes on line 26, started on line 25, I have a footnote insert: Due to a filed Stipulation and Agreement in Case EA-2023-0286 -- and I don't believe that this is confidential, but I will look to anyone. It's about the solar facilities and the Stipulation and Agreement.

MR. LOWERY: As long as you're not going to reveal what the cost of an individual facility was --

24 THE WITNESS: No.

25 MR. LOWERY: -- then I don't think

```
Page 147
 1
    there's an issue.
 2
                  THE WITNESS:
                                No.
 3
                  MR. WILLIAMS:
                                 Do you want to look at it
    first?
 4
 5
                               Maybe I should.
                  MR. LOWERY:
                                                 Just to --
 6
    can't unring the bell, right? Thank you.
 7
                                It's right at the bottom
                  THE WITNESS:
 8
    there.
 9
                  MR. LOWERY:
                               No.
10
                  THE WITNESS:
                                Okay.
                               Nothing confidential.
11
                  MR. LOWERY:
12
                                Thank you for providing
                  JUDGE CLARK:
13
    your assistance.
14
                  THE WITNESS:
                                So to resume, I believe I
15
    left off with, Removes the Cass, C-a-s-s, County solar
    facility, comma, the immediate cost of the solar
16
17
    facilities will differ from costs used in my
18
    calculation, period.
19
    BY MR. WILLIAMS:
20
                 Are those all the revisions you have for
           0.
21
    that -- for Exhibit 204 to be your testimony here
22
    today?
23
                 No, there are four more.
           Α.
24
                         What is the next one?
           Q.
                  Okay.
25
                  On page seven, line four, after the
           Α.
```



Page 148 1 highly confidential information, there's a comma, and 2 then it says "and." And it should be changed to 3 "costs may" and then it says "be higher." And that should be stricken and changed to "differ." 4 Then --I apologize. 5 MR. LOWERY: Can you -- can 6 you maybe state that one more time? 7 THE WITNESS: Yeah. I wasn't quite tracking. 8 MR. LOWERY: 9 THE WITNESS: So I'll read the sentence 10 and then I'll read the changes. I'll read that part 11 And it co- -- it may be higher once of the sentence: 12 It should read: And costs may differ the CCN is. 13 once the CCN is. And then page seven, line eight the last 14 15 word is "witnesses" and it should have an apostrophe 16 to denote possession. 17 And then the last one, same page seven, 18 line 18. If retiring Rush Island early with It says: 19 continuing to operated Rush for Island. For should 20 just be removed. And those are all the changes. 21 With those revisions you've just Ο. 22 provided, is -- with those revisions to Exhibit 204 23 that you just provided, is Exhibit 204 your testimony 24 here today? 25 It is. Α.

1	MR. WILLIAMS: I offer Exhibit 204.
2	JUDGE CLARK: Anybody object to admitting
3	Exhibit 204, the rebuttal testimony of Jordan Seaver,
4	onto the hearing record?
5	I see and hear no objections.
6	Exhibit 204 is admitted onto the hearing record.
7	(Exhibit 204 was received into evidence.)
8	MR. WILLIAMS: I tender the witness for
9	examination.
10	JUDGE CLARK: Is there any
11	cross-examination from Commission Staff?
12	MS. MERS: Just very, very briefly.
13	CROSS-EXAMINATION BY MS. MERS:
14	Q. Have you been here for the testimony this
15	morning and yesterday from the Company witnesses?
16	A. Yes.
17	Q. And do you recall Ameren's Missouri's
18	statements that many court cases found the not going
19	out and getting a permit to be reasonable?
20	A. Yes. That was earlier this today,
21	yeah.
22	Q. You point and discuss the WEPCO case in
23	your testimony, correct?
24	A. Yes, I do.
25	Q. Are there other examples of cases like



- 1 that? And just for the brevity of time, if we wanted 2 to learn more about them, where could we look?
- 3 Α. There are. They're not included in my 4 I learned about them after writing my 5 But there is an exhibit entered already as testimony. Exhibit -- let me get this right -- 200, which 6 7 discusses the Dense Pack Project of Detroit Edison 8 Power Company. And then there is also the case of 9 Coyote station. I believe it was the Otter Tail Power

Company is a similar case.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

And then there are cases referred to that I don't know specifically so I can't provide you the names or anything, that were given -- or that were mentioned in the -- give me one second -- the 2002 New Source Review Report to the president by the EPA. And the cases mentioned are in comments by UARG, U-A-R-G, and other comments from other intervenors, but that's the one that I remember specifically.

- Q. And just to clarify for the record, is the UR -- UARG that you refer to in that document the same one that Ameren has been referring to in some of their conversations about the Air Control Group?
- A. Yes. Yesterday Mr. Whitworth mentioned the UARG and its -- its activities.
- Q. Okay. Thank you. I have nothing



- 1 | further.
- 2 JUDGE CLARK: Any cross-examination from
- 3 | Ameren Missouri?
- 4 MR. LONG: Yes, Your Honor. Thank you.
- 5 | CROSS-EXAMINATION BY MR. LONG:
- 6 Q. Mr. Seaver, you are not an engineer, are
- 7 | you, sir?
- 8 A. I am not.
- 9 Q. Have you ever been called upon to decide
- 10 when some Clean Air Act requirements would apply to a
- 11 | facility?
- 12 A. I have not.
- 13 Q. Your degree is in philosophy?
- A. Both, yes.
- 15 Q. True or false, sir: When you filed with
- 16 | this Commission your rebuttal testimony in this case
- 17 | claiming that Ameren was imprudent for violating the
- 18 | PSD rules, you had no understanding of what those
- 19 | rules were, did you?
- 20 A. Prior to this case, no.
- 21 Q. You'd never been asked to testify on
- 22 | whether an electric utility had acted prudently,
- 23 | correct?
- 24 A. No, I had not.
- 25 Q. Those cases that you just mentioned in

- 1 discussion in passing with Ms. Mers, counsel for the
- 2 | Staff, did any of those involve application of the
- 3 | Missouri State Implementation Plan?
- A. The two that I specifically mention do
- 5 not.
- 6 Q. Did any?
- A. I don't know about any in the comments

 8 from UARG, because like I said, I don't know the
- 9 specific cases of those. They're just insinuated,
- 10 mentioned.
- 11 Q. No further questions. Thank you.
- 12 JUDGE CLARK: Any Commission questions?
- 13 | I hear none.
- 14 | QUESTIONS BY JUDGE CLARK:
- 15 Q. And I have -- let me ask -- let me ask
- 16 | this: Is -- Public Counsel is asking for a prudence
- 17 | disall- -- or disallowance because of prudence; is
- 18 | that correct?
- 19 A. That is correct.
- 20 Q. But that relates more to the harm issue,
- 21 | correct?
- 22 A. It is -- I wouldn't call it the harm
- 23 | issue. I would say it's 3B that it relates to in my
- 24 testimony. But I do tie the 3B to 3A simply because
- 25 | 3B would not have occurred if it were not for the 3A

- 1 issue. And so in discussing both, I'd say it relates
- 2 to both, although the calculation comes from
- 3 information solely related to 3B.
- Q. Okay. I'll hold my questions my
- 5 substantive questions for 3B.
- 6 JUDGE CLARK: However, I'll go ahead and
- 7 ask the parties, are there -- is there any recross
- 8 based upon -- okay. I see none. And I'm assuming no
- 9 | redirect either.
- 10 MR. WILLIAMS: Correct.
- 11 JUDGE CLARK: All right. Thank you,
- 12 Mr. Seaver. You can step down.
- Okay. We are going to now begin
- 14 | Issue 3B, which is were Ameren's decisions regarding
- 15 | whether to continue to operate Rush Island instead of
- 16 | retiring or retrofitting it with Flue Gas
- 17 Desulphurization equipment reasonable and prudent? If
- 18 | the decisions were not reasonable and prudent, were
- 19 | customers harmed; and if so, in what amount?
- 20 The first witness is Mr. Michels. Would
- 21 | you raise your right hand to be sworn? Didn't have to
- 22 | stand up, but that's okay.
- 23 (Witness sworn.)
- JUDGE CLARK: Thank you. Please be
- 25 | seated.



Evidentiary Hearing Page 154 1 Ameren? 2 MATTHEW MICHELS, being first duly sworn, testified as 3 follows: 4 DIRECT EXAMINATION BY MR. LOWERY: 5 Mr. Michels, did you cause to be prepared 0 for filing in this docket direct testimony that has 6 7 both the confidential and public version, surrebuttal 8 testimony also with confidential and public, and 9 sur-surrebuttal testimony? 10 Α. Yes. 11 Do you have any corrections to that 0. 12 testimony? 13 Α. No. 14 Q. If I were to pose the questions that are in that testimony to you today, would your answers be 15 16 the same today?

17 Α. Yes.

18

19

20

21

22

23

24

25

And are those answers true and correct, 0. to the best of your knowledge?

Yes, they are. Α.

MR. LOWERY: With that, Your Honor, Mr. Michels is actually back on Issue 5, so I won't move any of these in at this time, but I will tender the witness for cross.

Thank you, Mr. Lowery.



Any

JUDGE CLARK:

- 1 cross-examination from the Commission Staff?
- MS. MERS: Yes, hopefully very brief.
- 3 | CROSS-EXAMINATION BY MS. MERS:
- 4 Q. Historically, does peak load for Ameren
- 5 | Missouri occur in the summer?
- 6 A. Historically, yes.
- 7 MS. MERS: If I can approach the witness.
- JUDGE CLARK: You may.
- 9 MS. MERS: And can we mark this as
- 10 Exhibit -- I think we're at 118?
- 11 JUDGE CLARK: Yes.
- 12 (Exhibit 118 was marked for
- 13 | identification.)
- 14 | BY MS. MERS:
- 15 | Q. Have you had a chance to review the
- 16 | document I've provided you?
- 17 A. Yes.
- 18 Q. Do you recognize this as the Capacity
- 19 | Position Work Paper from Ameren's 2020 IRP?
- 20 A. I recognize it as a Capacity Position
- 21 | Work Paper, although I'm not sure which one.
- 22 Q. And work papers like this are usually
- 23 | provided with the IRPs, correct?
- 24 A. That's correct.
- 25 Q. Do you see that there's a listing of the

Page 156 plans on that first page of the work paper? 1 2 Α. Yes. 3 Q. And is plan 19 one of the plans that contemplates Rush Island being retired? 4 5 Α. Yes. 6 0. And what year is that contemplating 7 retirement in? 8 Α. 2024. 9 0. Then if you can turn the page -- and I apologize for, you know, making you have to read this, 10 but can you see a Required Capacity row under part D? 11 12 I'm not sure that I can. Α. 13 Should be the --Ο. 14 I -- I -- I do see the line. Α. Can you -- if you'll go to the 15 Q. Okay. years 2020 through 2040, what's the lowest number in 16 that row? 17 18 You said through 2040? Α. 19 Q. Yes. 20 If I'm reading it correctly, it's 7,339. Α. 21 And what year was that occurring in? 0. 22 Α. 2040. 23 Okay. And would those values represent 0. 24 Ameren Missouri's best expectations at the time of the

2020 IRP for its load and planning margins?

1 A. Yes.

- 2 MS. MERS: At this time I'd like to go
- 3 | ahead and enter Exhibit 118 into the record.
- 4 JUDGE CLARK: Any objections to admitting
- 5 Exhibit 118, the IRP Capacity Work Paper?
- 6 MR. LOWERY: No objection.
- 7 JUDGE CLARK: I hear no objections.
- 8 Exhibit 118 is admitted onto the hearing record.
- 9 (Exhibit 118 was received into evidence.)
- 10 MS. MERS: And if I can approach one last
- 11 | time.
- 12 JUDGE CLARK: Please go ahead.
- 13 | MS. MERS: And if we could mark this as
- 14 | Exhibit 119.
- 15 JUDGE CLARK: Okay. Would you identify
- 16 | it for me?
- 17 MS. MERS: It is the -- Reliability
- 18 | Requirements is probably the easiest title.
- 19 JUDGE CLARK: Thank you.
- 20 | (Exhibit 119 was marked for
- 21 | identification.)
- 22 BY MS. MERS:
- 23 Q. Have you had a chance to look over
- 24 | Exhibit 119?
- 25 A. Yes.





We included some assumptions for that in

25

Α.

- the analysis that I did for my surrebuttal testimony. 1 Might be best if I refresh my memory before I answer. 2 3 Q. Certainly. So for the base analysis I did, which 4 Α.
 - assumed installation in 2012, I used 954 million dollars.
- 7 What are you referring to for that? 0.

5

6

8

9

12

13

14

15

16

17

18

19

20

21

- Α. I'm looking at page 40 of my surrebuttal testimony, line 11.
- 10 Ο. Thank you. No further questions at this time. 11
 - JUDGE CLARK: Before I ask if there are any Commission questions, can the parties provide me with a little bit of clarity in regard to the issue? It says: Were Ameren's Missouri's decisions regarding whether to continue to operate Rush Island instead of retiring or retrofitting it with gas desulphurization equipment reasonable and prudent?
 - Is this -- is this more of a general question regarding these retirement questions or is this a specific point in time, like in 2021 when it made that decision?
- 23 MR. WILLIAMS: Judge, I think that came 24 from you Public Counsel and prudency is an ongoing 25 activity. It's not a point in time, although --



Page 160

1	JUDGE CLARK: But you'll agree that
2	decisions are generally a point in time? There is a
3	point at which a decision is made.
4	MR. WILLIAMS: Yes. But I'm saying that
5	it's a continuum of decisions.
6	JUDGE CLARK: Fair enough. Proceed.
7	All right. Are there any Commission
8	questions? Chair Hahn, please go ahead.
9	CHAIR HAHN: Thank you, Judge.
10	QUESTIONS BY CHAIR HAHN:
11	Q. Good afternoon.
12	A. Good afternoon.
13	Q. After reviewing your testimony, I just
14	had a few questions. One is because I'm not a
15	technical person. I'm hoping you can explain some
15 16	technical person. I'm hoping you can explain some calculations to me.
16	calculations to me.
16 17	calculations to me. In your testimony you note that the long
16 17 18	calculations to me. In your testimony you note that the long run cost to customers in the present value it of
16 17 18 19	calculations to me. In your testimony you note that the long run cost to customers in the present value it of revenue requirement is noted as PVRR. Can you further
16 17 18 19 20	calculations to me. In your testimony you note that the long run cost to customers in the present value it of revenue requirement is noted as PVRR. Can you further explain PVRR and how it's calculated?
16 17 18 19 20 21	In your testimony you note that the long run cost to customers in the present value it of revenue requirement is noted as PVRR. Can you further explain PVRR and how it's calculated? A. Sure. So what we look at is for a

we look at those for each year of a period, say,

- **Evidentiary Hearing** April 16, 2024 Page 161 1 30 years and then we use the weighted average cost of 2 capital to discount those back to today's dollars or 3 another year's dollars. 4 Ο. Thank you. The question as -- I thought 5 I understood the question before us in 3B before I got the response of the continuum from Public Counsel, but 6 7 I'm going to approach this issue as also making it a 8 Company approaching this decision at a point in time 9 and -- because I think that's what the statute 10 requires. 11 So I'm going to ask you some guestions 12 kind of relating to your testimony as far as retrofit 13 or retire.
- 14 Α. Okay.

21

22

- 15 0. You do some analysis of your 2020 IRP and you also note in your testimony how that has changed. 16 17 But first I was hoping you could talk me through your 18 2020 IRP and the assumptions you made at that time. 19 So if you wouldn't mind recapping that from your 20 testimony?
 - Chair Hahn, you're -- you're Α. Sure. talking about the retirement versus retrofit analysis based on the 2020 IRP; is that correct?
- 24 Thank you. Q. Yes.
- 25 So that -- that reflected Α. Okay.



- 1 obviously all of the assumptions that we had included
- 2 in our 2020 IRP. So things like natural gas prices,
- 3 carbon prices, coal prices, costs for different
- 4 resource types; wind, solar, et cetera.
- 5 And then we looked at -- excuse me. We
- 6 looked at a case where we retire the unit in 2024 --
- 7 or the units. And for that, we just simply cease
- 8 operating the plant, so no going-forward cost impacts.
- 9 And then in the other case, we assume that we retrofit
- 10 | it with the scrubber technology also in 2024.
- 11 And so that includes the cost of the
- 12 scrubber and then the continued operation and
- 13 maintenance expense through 2039, which was the
- 14 previously determined retirement date.
- And so we're capturing then all of the
- 16 costs and market revenue impacts of those two
- 17 different cases for comparison to say, okay, this is
- 18 going to be the impact on customers year by year and
- 19 then present valuing that back to today to see what's
- 20 | the overall impact on customers over that time.
- 21 | O. Uh-huh. From my recollection, the PVRR
- 22 | in your analysis was higher in three of the
- 23 | 48 combinations for scrubbers versus retiring the
- 24 asset. So according to your economics, it was more
- 25 | economical to retire the plant based upon your

analysis; is that correct?

- A. That's correct.
- Q. Can you -- how recently did you conduct that analysis for the -- was that just in 2020 or have you repeated that analysis since this -- since that time?
- A. Yes. So I -- I did repeat the analysis using assumptions from our recently filed 2023 IRP.

 And I included the results of that in my surrebuttal testimony.
- Q. Can you talk about some of the changes since the 2020 IRP, specifically as it relates to MISO with resource adequacy concerns? Certainly I noted in your testimony they're significantly different now than they were then. Can you talk a little bit about that?
- A. Sure. So when we did the 2020 IRP, the resource adequacy construct in MISO was focused on summer peak. And so they would do a study every year, an LOLE study, or Loss of Load Expectation study, to determine -- determine what the planning reserve margin requirement would be that would be applied then to the Company's summer peak load for determining what the resource need was.
 - In -- in 2021, MISO applied to FERC -- I

- 1 think it was November of 2021 to change to a seasonal
- 2 construct, seeing that there was more of an appetite
- 3 for looking at reliability season by season, in part
- 4 because there were different impacts on different
- 5 kinds of units across the year, particularly on
- 6 gas-fired units and the availability of fuel during
- 7 | the winter.
- 8 And so they applied to FERC for that.
- 9 They did provide some very preliminary figures as to
- 10 | what that would look like for our system in terms of
- 11 | the unit accreditations or how much capacity we would
- 12 expect to get from units during different seasons.
- 13 And so, you know, that's something that we looked at
- 14 at the time we made the decision.
- 15 Subsequent to that, we spent more time
- 16 and -- and -- and put in a good deal of effort to try
- 17 and estimate what that construct would look like going
- 18 out into the future, because we had to update our
- 19 | Preferred Resource Plan following the decision to
- 20 retire Rush Island. So we included that in our
- 21 | updated preferred plan that we filed in 2022.
- 22 And then FERC approved MISO's seasonal
- 23 resource adequacy construct in August of that year.
- 24 So this was after the decision, after the plant was
- 25 updated. And only at the end of that year did we get

- 1 really solid numbers from MISO with respect to unit
- 2 accreditations, what the planning reserve margin
- 3 requirement was going to be all by the four different
- 4 seasons to use then in our 2023 IRP.
- And I included a table, which you've
- 6 probably seen, that -- that lays out how some of those
- 7 things changed.
- 8 Q. I see a Figure 5 on page 18 of your
- 9 | surrebuttal testimony. Is that what you're referring
- 10 to? A chart or table?
- 11 A. No. I -- I'm thinking of a table that
- 12 | indicates what the changes to our long-term and
- 13 expected capacity need would be. Just give me a
- 14 moment. I'll find it. Maybe it's earlier in my
- 15 | testimony than I thought it was.
- 16 It's Table 1 on page 17. You were only a
- 17 page off. I missed it. So, you know, this -- this
- 18 table kind of summarizes the changes that happened
- 19 between when we filed our Notice of Change in
- 20 | Preferred Plan in 2022 and what we ultimately included
- 21 | in our 2023 IRP based on the good information that we
- 22 | finally got at the end of 2022 from MISO.
- 23 Most of the changes are related to
- 24 changes in unit accreditation, changes in the planning
- 25 reserve margin which went way up, and then also a

change	in	the	way	that	we	did	our	peak	load
forecas	stir	ng fo	or wi	inter	•				

- Q. And you noted at the bottom of that page that the Company expects to be in a net short position during years 2025 to 2027. Can you talk through -- can you describe to me the action -- if -- if the Commission were to move forward with securitizing this plant as requested by the Company, how do you anticipate to make up the net short position over that time frame?
- A. So, you know, since we're in MISO, we have the ability to purchase capacity from other entities within MISO. We've historically used a -- what we've called a billed threshold of 300 megawatts that says until you're 300 megawatts short, we won't assume that we're adding any resources to meet that.

So in these instances, all these shortfalls are below that threshold. So historically we would not plan to build for that.

In the intervening time, we have seen, you know, some of the severe weather events that have become more common. And so it appears that there's a need for even greater resource capacity in order to meet those needs above and beyond what MISO suggests through its resource adequacy process.



2.0

And so we have been adding capability to
simple-cycle combustion turbine units to be able to
use oil fuel in the winter whenever there's no gas
available. We've done that at a couple of different
sites. We're also planning to do that at another one
of our sites at Audrain.

And -- and then another important thing for meeting those resource requirements is the continuation of our Energy Efficiency and Demand Response Programs under MEEIA.

So all of those kind of work together, along with the renewable resources that we're planning to add, which provide mostly energy, but do provide some capacity benefit as well. All of those work together to help meet those customer needs in the -- in the short-term and the long-term.

Q. I hear a lot here in the capital city about economic development projects and the need for additional capacity to bring projects to our state.

And not any projects. Projects that can provide -- that are dispatchable.

And so can you speak to adding specific resources in place? Or how would retiring Rush Island potentially impact the ability to be a competitor for economic development projects?

1	A. So I I don't know how retirement of
2	Rush Island would affect things. Certain if we had
3	the capacity, we would have perhaps more ability to
4	meet some of those needs, at least for a short term
5	until you know, unless and until there was a major
6	expense that did flow out of some of the regulations
7	that might be considered in the future.
8	So, you know, that might stretch things a
9	little bit. Am I understanding your question
10	correctly?
11	Q. Yeah. Do you in your forecast, do
12	you I'm sure you do take into account
13	anticipated load growth as a result of economic
14	development projects?
15	A. We do, although it's become increasingly
16	a challenge to estimate where that's going to go with
17	some of the things that we're seeing across the
18	country with respect to data centers and and other
19	such loads.
20	Q. Can you give me an example of average
21	economic development project size from 2020 to
22	current? I think of your the utility on the west
23	side and how that has changed, but I'm wondering if

25 A. Yeah. And -- and this is something that

you can provide the same?

- 1 has kind of evolved in the last year, I would say.
- 2 But, you know, just a couple or three years ago, we
- 3 were looking at average economic development project
- 4 size as probably in the tens of megawatts. Now we're
- 5 looking at potential projects in the hundreds of
- 6 megawatts, to even a gigawatt or more range.
- 7 Q. Can you speak to Rush Island's operation?
- 8 | For example, planned outages, scheduled outages, how
- 9 | much it's actually producing for MISO currently, and
- 10 | maybe what its operational pattern has been over the
- 11 | last year or two?
- 12 A. Sure. It's been very limited since
- 13 | September of 2022. We've been operating under what's
- 14 | called an SSR agreement or System Support -- System
- 15 | Support Resource agreement with MISO.
- 16 There are some very specific and very
- 17 | complicated triggers for that that I'm not intimately
- 18 | familiar with, but they include looking at things like
- 19 whether other units in the region are in operation.
- 20 | They also look at temperature triggers to determine
- 21 | whether Rush Island will operate.
- 22 And as a result, Rush Island has operated
- 23 | far below what its historical production has been for
- 24 | the last few years.
- 25 Q. Okay. Can you give me any, you know,

Page 170

- 1 da- -- you know, hard data or, you know, examples of
- 2 | how it had been operating versus how --
- 3 A. Sure.
- $4 \mid Q$. -- in the past two years it --
- A. Sure. Annual production from Rush Island previously was eight or nine million megawatts hours a year. That's for both units together. And now it's a million megawatt hours or less per year operating under the SSR agreement.
- 10 Q. That's really helpful, so thank you.
- 11 Let's see if I have any more questions. I don't have
- 12 | any.
- A. Okay.
- Q. Thank you.
- JUDGE CLARK: Any further Commission
- 16 | questions?
- 17 COMMISSIONER HOLSMAN: Yes.
- 18 JUDGE CLARK: Commissioner Holsman,
- 19 please go ahead.
- 20 COMMISSIONER HOLSMAN: Thank you.
- 21 QUESTIONS BY COMMISSIONER HOLSMAN:
- 22 O. Good afternoon.
- A. Afternoon.
- Q. You said that MISO -- on their capacity
- 25 projections, that if you're under 300 megawatts,

you're going to buy it from somebody else and not 1 2 trigger a requirement to build. Is that accurate? 3 Α. That's accurate. What capacity do you see in terms of 4 0. 5 Like how much -- if -- if you were demand response? an aggressive demand response, what kind of -- how 6 7 many megawatts do you think could be generated in 8 savings from -- from that effort? 9 I believe our latest potential Α. Yeah. 10 study put that in the 4- to 500 megawatt range. 11 So fairly significant? Okav. Ο. 12 Α. Yes. 13 What about same question with distributed Ο. How much capacity do you think you 14 energy resources. 15 could gain with an aggressive distributed resource 16 campaign? 17 So we do include some assumptions in our Α. 18 load forecasting with respect to distributed energy 19 And I believe the middle scenario has us resources. 20 getting to something like 600 megawatts by 2040. 21 And then on top of that, in the same 22 demand-side potential study where we look at energy 23 efficiency and demand response, they also look at some 24 distributed energy resource potential as part of a

To date, that potential has come in very

25

program.

small relative to the other programs.

- 2 Q. Okay. But, you know, if -- if this plant
- 3 is -- has a natural life of 2039, then by that date,
- 4 you could potentially see a gigawatt in savings,
- 5 slash, production from the demand response and
- 6 distributed energy --

A. Certainly.

- 8 Q. -- potentially?
- 9 Okay. You heard me talk a little bit
- 10 | earlier with Mr. Majors about the retired asset
- 11 | value --

1

- 12 A. Yes.
- 13 Q. -- what -- is first -- my first question
- 14 | is, is that figured into the amount you're trying to
- 15 | securitize? Have you already placed a value on either
- 16 | scrapping or re- -- repurposing any of the existing
- 17 | assets?
- 18 A. Generally for -- for assets of an age
- 19 | similar to Rush Island, we assume that the scrap value
- 20 is on the same order as the cost of dismantling. So
- 21 roughly no net benefit from that.
- 22 | O. Okay. What about the site itself? Do
- 23 | you have any value attached to what you'll do -- do
- 24 | you have a plan for what you're going to do with the
- 25 | site in the future?



1	A. Yeah. In our 2023 IRP we talk about the
2	potential for locating storage resources at the site,
3	battery storage resources.
4	Q. Do you have a a capacity on what you
5	could potentially do there?
6	A. Oh, I'd say potentially 200 megawatts. I
7	don't know if we could fit 400 there, but it's a
8	couple hundred megawatts.
9	Q. A couple hundred megawatts.
10	A. Yeah.
11	Q. So so essentially and what kind of
12	time frame are we talking about? How long would it
13	take to transition from, you know, what's there today
14	to storage being dispatchable?
15	A. Yeah, I I don't know that level of
16	detail. I can tell you that our 2023 preferred plan
17	includes battery storage in 2029.
18	Q. 2029, okay.
19	A. Yes.
20	Q. So essentially within five years if you
21	add 200 megawatts of storage there, you could
22	potentially firm up either a wind asset or a solar
23	asset and make that more base load distributable?
24	A. Certainly. We've included the storage

assets, the demand response resources in our IRP

1 preferred plan right alongside the wind and solar additions that we're -- we're reflecting. 2 3 Q. Do we know what MISO -- how MISO would 4 count that in terms of capacity for -- you know, for 5 your requirement? 6 The battery storage? Α. 7 Yeah. 0. Right now we're assuming a capacity 8 Α. 9 credit I believe of 95 percent of the rated output --10 0. Okay. 11 -- so a 200 megawatt battery would be Α. 12 190 megawatts of capacity credit. 13 Would that delta out from the generation 0. source or would it be in addition to? 14 Like let's 15 say -- let's say you were having wind and the wind was 16 200 megawatts. Would then you net out that or would 17 it be in addition to that -- that nameplate capacity? 18 It could potentially be additive at a Α. 19 given moment in time --20 Right. 0. -- where -- where you may have stored 21 Α. 22 some solar energy during a time and then you're 23 releasing from the battery at the same time the solar 24 is generated. That's a possibility.

And my last question is, you know,

Q.

Okay.

1 we talked earlier just about the -- from a macro 2 perspective. I just want to hear for -- for the 3 It's your -- your testimony that it is in the 4 best interest of the ratepayers to decommission this 5 and retire this coal plant, securitize the amount that would otherwise be depreciable and that is a -- that 6 7 is a more prudent measure than if you were to spend 8 the money on the environmental upgrades and operate 9 the -- operate it for another 15 years? 10 Α. That's correct. 11 Thank you. Q. All right. 12 COMMISSIONER HOLSMAN: Thank you, Judge. 13 Thank you, Commissioner JUDGE CLARK: 14 Are there any other Commission questions? 15 I hear none. At this point I'm going to 16 ask if there's any recross? I'm also -- Mr. Coffman, 17 I just noticed you're here from AARP and Consumer 18 Council of Missouri. Did you have any 19 cross-examination or recross? 20 I do not, Your Honor. MR. COFFMAN: No 21 questions. 22 JUDGE CLARK: Any recross from the 23 Commission Staff based upon questions from the 24 Commission?

A few.

MS. MERS:

	Evidentiary Hearing April 16, 20
1	Page 176 RECROSS-EXAMINATION BY MS. MERS:
2	Q. Do you recall talking with Chair Hahn
3	about NPVRR?
4	A. Yes.
5	Q. Does NPVRR assume perfect rate-making?
6	A. I don't know that it assumes any
7	rate-making. It's it's the revenue requirement,
8	how it's recovered that I think is another matter.
9	Q. If you don't build in the rate cases
10	where items are collected or returned to customers,
11	can that impact how the revenue requi that NVPRR
12	figure would work?
13	A. I think what you'd end up with instead of
14	revenue requirement is present value of revenue.
15	Q. Are you aware that MISO do you recall
16	discussing the seasonal construct with were you
17	aware that MISO began discussing the seasonal contract
18	prior to 2020?
10	A Vec

- And is it your understanding the 2020 20 Q. 21 filing was actually proof of concept, which was the culmination of previous discussions? 22
- 23 Which filing? A.
- 24 Q. The 2020 announcement or -- 2021. 25 so sorry. 2021.



1	Page 177 A. Can I ask you to repeat the full question
2	and give me the context?
3	Q. So the 2021 discussions, do you recall
4	that they were kicked off by the 2020 proof of concept
5	filing?
6	A. Yes.
7	Q. Okay. You also had discussion with the
8	Bench about the IRP and triggers for build thresholds.
9	Do you recall that?
LO	A. Yes.
11	Q. Before the 2023 IRP, when was the last
12	IRP that Ameren was close to the build threshold on?
L3	A. Well, it might be helpful to explain what
L 4	the build threshold is. It's it's a trigger that
L 5	we use for adding resources in the different
L6	alternative plans that we evaluate as part of an IRP
L7	analysis. So it it it's used to develop
L8	alternative resource plans. I'm not I'm not sure
L9	that you would say we're close to it or not.
20	Q. Okay. Thank you for that clarification.
21	You had a discussion with the Bench about how many

Yes. A.

this late -- SSR and before.

22

23

24

25



hours Rush -- Rush Island was operating prior to

the -- oh, God, I'm not going to think of the acronym

Do you recall that?

Page 178 Do you know how many hours Rush Island 1 Q. 2 was operating before the 2007 project? 3 Α. No, I don't. 4 Q. Okay. I have no further questions then. 5 Thank you. 6 JUDGE CLARK: Any recross from Public 7 Counsel? 8 MR. WILLIAMS: Yes, thank you. 9 RECROSS-EXAMINATION BY MR. WILLIAMS: 10 0. Mr. Michels, do you recall in one of your 11 responses you talked about converting some units to 12 burn oil as well as natural gas? 13 Yes, although it's not a conversion. Α. It's a -- it's a -- an addition. 14 15 0. Well, it changes the capability of the 16 unit for what fuels it can burn, correct? 17 We -- we're adding the Α. Correct. 18 capability to fire with oil on units that can and will 19 continue to burn gas. 20 And when did you start doing that 0. 21 conversion to be able to burn oil as well as gas? 22 Α. I'm trying to recall. I think it was 2022. 23 24 And how many megawatts of capacity are we Q.

talking about for the units that have been converted?

- 1 A. Oh.
- 2 Q. And if you want to go by unit by unit,
- 3 | that's fine.
- 4 A. Yeah. I -- I don't -- don't know that I
- 5 can recall specifics, but I'll say total of a couple
- 6 hundred megawatts.
- 7 Q. And what kind of sizes are these units if
- 8 | the total is 200 megawatts?
- 9 A. So --
- 10 Q. Roughly?
- 11 A. So this is an addition of capacity in the
- 12 | winter specifically, because that's when oil firing
- 13 helps with the capacity. So it's not the full
- 14 capacity of the units. It's -- it's just allowing us
- 15 to run them at other times when we might not be able
- 16 to run them on gas.
- So these -- these are the units at
- 18 | Kinmundy and Peno Creek. And I don't recall right
- 19 | now -- I guess I've got a capacity chart in front of
- 20 me, don't I? If I can read it.
- 21 So for Pinckneyville, we're showing total
- 22 | capacity on this chart of 316 megawatts, although I'm
- 23 | not sure what -- what season that I'm looking at here.
- 24 I guess this was 2020, so it would be summer. So that
- 25 | was 316. And then Kinmundy is 438. Those -- those

- 1 are summer ratings from this chart.
- 2 Q. So it's Kinmundy and you said
- 3 | Pinckneyville?
- A. I'm sorry. I erred --
- 5 Q. I thought it was Peno Creek?
- A. It was Peno Creek, you're right. Peno
- 7 | Creek is 192.
- 8 Q. So it's more like a little over
- 9 | 600 megawatts?
- 10 A. What's a little over 600 megawatts?
- 11 Q. The total, 438 and 191. And I understand
- 12 | it's --
- A. Yeah.
- Q. -- it's a capability in winter as opposed
- 15 to --
- 16 A. Right.
- 17 | Q. -- roughly.
- 18 A. Right. Yeah. So -- so summer between
- 19 | the two, I -- I think you probably did the math right.
- 20 | Six hundred sounds right.
- 21 Q. Roughly?
- 22 A. Sure.
- Q. Where is Peno Creek located?
- 24 A. It's in Missouri.
- 25 Q. And Kinmundy?



- 1 A. It's in Illinois.
- Q. Is Illinois implementing a restriction on
- 3 | CO2 emissions?
- 4 A. Yes, through CEJA.
- 5 0. When is that to take effect?
- 6 A. It already has taken effect.
- 7 Q. So how does that impact the Kinmundy
- 8 | plant then?
- 9 A. It -- it does restrict its hours. The
- 10 addition of the oil-fired capability there was
- 11 relatively inexpensive, I think a couple million
- 12 dollars. So -- so adding that capability improves the
- 13 | value in the winter season when we might run into
- 14 things like another Winter Storm Elliott, for
- 15 instance.
- 16 Q. Do you know what impact adding a battery
- 17 at Rush Island would have on local property taxes
- 18 | revenues?
- 19 A. No, I don't.
- 20 Q. No further questions. Thank you.
- 21 JUDGE CLARK: I believe Chair Hahn has a
- 22 | few more questions.
- 23 | FURTHER QUESTIONS BY CHAIR HAHN:
- 24 Q. In your testimony you talk at length
- 25 about the 2020 IRP. And in summary, you also then

- 1 say -- well, you know, I'm summarizing here: Staff
- 2 didn't raise any serious concerns with the IRP at the
- 3 | time. Is that a fair statement?

4 A. That's fair.

10

11

12

13

14

15

16

17

18

19

20

21

- Q. Staff now -- and Ameren may have some capacity issues from the numbers, but we may not know the outcome of the -- of those, you know, capacity shortfalls during the pendency of this case. You know, the lights may never go out.
 - Is it your position that the Commission would have to make a decision on the economics of the case re- -- you know, retrofit or retire and that that was pru- -- you know, the prudence -- making a decision on prudency based upon that and then not -- us just not knowing the harm of the potential capacity of shortfalls moving forward?
 - A. Yeah, I'm not an attorney, of course.

 But my understanding is that the securitization

 statute requires that the decision to retire be

 prudent, but doesn't address any decisions that might

 have led to that.
 - Q. Yeah. No further questions.
- JUDGE CLARK: Mr. Coffman?
- MR. COFFMAN: No questions, Your Honor.
- JUDGE CLARK: Commission Staff?



1	MS. MERS: No, thank you.
2	JUDGE CLARK: Public Counsel?
3	MR. WILLIAMS: Briefly.
4	FURTHER RECROSS-EXAMINATION BY MR. WILLIAMS:
5	Q. Following up on what Chair Hahn just
6	asked you about, couldn't Ameren Missouri have or
7	didn't Ameren Missouri make decisions about whether or
8	not to put on scrubbers at least starting from the
9	point whenever the EPA began its enforcement action at
10	Rush Island?
11	A. I I'm trying to think of how to frame
12	your question in my mind. So you're asking me what
13	we I guess continuously, in effect, we were
14	deciding not to put scrubbers on because we weren't
15	deciding to put scrubbers on.
16	Q. Thank you.
17	JUDGE CLARK: Any Ameren redirect as to
18	either of Commission questions and recross?
19	MR. LOWERY: Yes, Your Honor. Thank you.
19 20	MR. LOWERY: Yes, Your Honor. Thank you. REDIRECT EXAMINATION BY MR. LOWERY:
20	REDIRECT EXAMINATION BY MR. LOWERY:
20 21	REDIRECT EXAMINATION BY MR. LOWERY: Q. I'm probably going to jump around here a
20 21 22	REDIRECT EXAMINATION BY MR. LOWERY: Q. I'm probably going to jump around here a little bit, Mr. Michels, because the questioning sort



- 1 was deciding not to put on scrubbers, you know, when
- 2 | it -- when it didn't decide to put them on, it was
- 3 deciding not to put them on --
- 4 A. Right.

5

7

8

9

10

17

18

- Q. -- I think was the basic point, right?
- A. Right.
 - Q. In making those decisions, which I assume would have taken place just as a part of resource planning on sort of an ongoing basis, certainly a periodic basis, right?
- 11 A. Sure.
- Q. Am I correct to assume that analyses were being done of the ec- -- well, of two things. Let me break it down. Analyses were being done of the environmental requirements that existed, right?
- 16 A. Correct.
 - Q. And analyses were being done of various alternatives for complying with those environmental requirements, right?
- 20 A. Correct.
- Q. And is it true that, again, at least on a periodic basis, every three years, maybe more often, the Company actually analyzed the impact on customers of spending the money on scrubbers and O and M on scrubbers, et cetera, versus complying in an



alternative way?

- A. I -- I don't know that we were always looking at scrubbers specifically as an option simply because that may not have been required by the regulations that we were evaluating. But to the extent it did, yes, there would -- would have been economic analysis saying this -- you know, weighing this option, for instance, against low sulfur coal.
- Q. If -- if an environmental regulation existed and scrubbers were a potential way to comply with it, is it correct or incorrect that the Company would have been analyzing, Should we comply with it by spending money on scrubbers or should we comply with it in another fashion?

A. Definitely.

Q. The Chair asked you some questions here toward the end about Ameren Missouri's position on the need to decide sort of the economics of the retrofit versus retire decision. Do you remember that?

A. Yes.

- Q. You've cond- -- you've prepared two analyses that are in your testimonies in this case of that question, right?
- A. Yes. Of -- of the decision to retire in 2024 and then also the decision not to scrub in 2012.

- Q. Well, I was -- I was and that's -- that's a -- the last one you mentioned is a different analysis about, you know, what would have happened in an alternative universe --
 - A. Correct.

Q. -- if -- if the Company had made a different decision on the NSR permits and then scrubbed the plant back then.

But you've also looked at should the -what did the economics tell Ameren Missouri about
whether it should retrofit or retire once it lost the
District Court case in August of 2021? You looked at
that back in 2021 and you looked at it again recently
and filed analyses in this case, right?

- A. Correct. And -- and most recently what we found was that we would save upwards of a billion dollars. I think there was one case that was slightly below a billion dollars benefit from retiring rather than retrofitting with scrubbers, but most of the cases were over a billion dollars.
- Q. So -- so when you -- when you actually -- and you made the decision in December of 2021 and you had one analysis then that said in 45 of 48 cases, retiring was better for customers, right?
 - A. Correct.



1	Page 187 Q. But when you looked at it again under				
Τ	Q. But When you looked at it again under				
2	essentially current conditions, what we know now about				
3	the MISO seasonal construct and other things that have				
4	happened, the conclusion became even more clear. Is				
5	that fair to say?				
6	A. Yeah, that's fair.				
7	Q. Does does that suggest you know,				
8	obviously with Rush Island off the system, that				
9	capacity's not available anymore, right?				
10	A. It soon won't be.				
11	Q. And and and if there's a need for				
12	capacity going forward, Rush Island can't provide it				
13	so something will have to, right?				
14	A. Correct.				
15	Q. What does the fact that the Net Present				
16	Value of Revenue Requirement is shown to be much lower				

in the retire case versus the retrofit case, what, if anything, does that tell you about the more economic source of the capacity that the Company would need in the future? Is it Rush Island or is it something else?

17

18

19

20

21

22

23

24

- It's something else. And specifically Α. it's mostly gas-fired resources along with energy efficiency demand response and renewable resources.
 - Is that principally because the only way Q.



		Page 188			
1	to keep Rush	Island open would be to spend hundreds of			
2	million of d	lollars or whatever it ends up being on			
3	scrubbers an	d that would impact the price of that			
4	capacity; is	that right?			
5	A.	That would be the only way, and			
6	absolutely i	t would.			
7	Q.	You were asked questions by Mr. Williams			
8	about the ad	dition of oil burning capability in the			
9	winter to certain units. Do you remember that?				
10	A.	Yes.			
11	Q.	And and you looked at a cap you			
12	looked at a	I guess it's an accreditation chart. I			
13	guess that c	ame out of Exhibit 118; is that right?			
14	A.	Yes.			
15	Q.	And you said those were summer ratings?			
16	A.	Correct.			
17	Q.	Are the winter ratings and I know you			
18	probably don't remember what they were at this time				
19	and they could be different now, right? This is 2020,				
20	the accreditation changes. But are the winter ratings				
21	different th	an the summer ratings?			
22	A.	They are. They're			
23	Q.	Higher or lower?			
24	A.	generally lower.			
25	Q.	Generally lower. Ms. Mers asked you some			

Page 189

- 1 questions based on Chair Hahn's questions about Net
- 2 | Present Value of Revenue Requirement analyses. Did --
- 3 | do you remember that?
- A. Yes.
- Q. And a question about perfect rate-making, do you remember that?
- 7 A. Yes.
- Q. And you said it doesn't assume any rate-making at all. Do you remember that?
- 10 A. Correct.
- 11 Q. Can you elab- -- can you just explain
 12 maybe in layperson's terms --
- 13 A. Sure.

16

17

18

19

20

21

22

- Q. -- why it doesn't and -- and why that makes sense that it doesn't?
 - A. Sure. So when we're comparing options which might be, you know, limited in -- in this instance like to scrubbing Rush Island versus continuing to operate it or an entire portfolio, which would also be implicated by that same analysis, what we're looking for is the long-run cost that the utility would seek to recover from customers through rates.
- And so the revenue requirement itself is that cost. What happens with rates in the intervening



- 1 | time is going to be a matter of individual rate
- 2 proceedings and -- and allowed returns, et cetera,
- 3 et cetera. And so what we're really after is what's
- 4 the long-run cost to customers of these different
- 5 options.
- 6 The Integrated Resource Planning rules
- 7 that the Commission adopted most recently in 2011
- 8 specifies that Net Present Value of Revenue
- 9 Requirements are to be the primary criterion for
- 10 | selecting a resource plan. We've -- we've been using
- 11 | that all along, along with some other criteria, but
- 12 NPVRR is -- is the primary one.
- And so that really, to me, is the best
- 14 way to assess the cost differentials between two
- 15 different options because there's going to be
- 16 different timing, there's going to be, you know,
- 17 resource differences, all of those things.
- 18 And to try to capture what the
- 19 appropriate rate-making treatment is going to be in
- 20 | advance for a 20-year plan is sort of a fool's errand.
- 21 Q. Well, and as you indicated, the -- the
- 22 | Commission's IRP rules are telling you not to do that;
- 23 | isn't that right?
- 24 A. That's correct.
- 25 Q. What -- what you're trying to do is

- 1 you're trying to make the best decision for something
- 2 | that's probably going to be around for 30 or 40 or
- 3 | 50 years. And, you know, there -- if you pick gas
- 4 plant versus a coal plant, there's going to be
- 5 | rate-making different -- I mean, the rate --
- 6 presumably you put them at the same time, the
- 7 | rate-making treatment is going to be probably the same
- 8 as you go forward, but you're taking that variable
- 9 out, right, basically?

10 A. That's right.

- Q. You were asked questions by Ms. Mers

 about MISO discussing -- I guess having come signed -
 some kind of proof of concept paper or announcement or
- 14 something in 2020 about the seasonal construct, right?
- 15 A. Yes.
- Q. Did the proof of concept, whatever it
 was, did it -- did it provide the Company with unit
 accreditation values or planning reserve margins or
 any figures that would actually allow it to figure out
 what its capacity position would be in the various
- 21 | season?
- A. No. We only got very preliminary
 information until the end of 2022 prior to the 2023/24
 planning resource option.
- Q. Now, if I remember correctly, the

seasonal construct was not assumed to be in place when you did the 2020 -- either the December 2021 retire versus retrofit analysis; is that right?

- A. Could you repeat the question, please?
- Q. Was the seasonal -- was the -- was the conceptual seasonal construct that MISO was -- was talking about in late 2021, was that accounted for in the December 2021 retirement versus retrofit analysis?
- A. In the analysis itself proper, no, but it is something that we looked at at the time, given the very preliminary information that we had gotten from MISO, which -- which is on this other schedule.
- Q. And when you looked at it, I guess you must have looked at it conceptually mostly because you didn't actually have a construct in place. When you looked at it conceptually, did it suggest that it would have changed your decision?
- A. No. No, it -- it didn't. And, you know, some -- something in particular about these -- these numbers, when -- when MISO was thinking about this concept in 2020 and 2021, they were drastically changing the way unit accreditations were calculated. And along with that, drastically changing the way planning reserve margin requirements were calculated.

And based on information and



- 1 conversations with MISO at the time in 2021, say
- 2 August, September time frame, our understanding was
- 3 that because of the way that they were planning to do
- 4 the unit accreditations, that there would be little or
- 5 no planning reserve margin requirement added to the
- 6 load.
- 7 Q. Did you have any information -- did you
- 8 | have information at that time that was -- was
- 9 | suggesting to you that if Rush Island was retired in
- 10 | 2024, that the Company was going to be in a capacity
- 11 | shortage position starting in 2025?
- 12 A. Yeah. That's -- that's the
- 13 | table in -- in my testimony that's supported by the
- 14 exhibit that was distributed. And that showed that --
- 15 let me put the glasses back on. That showed that
- 16 | in -- in none of the four seasons would we see a
- 17 | shortfall.
- 18 | O. If I'm looking at Exhibit 118 and I look
- 19 at -- this is -- this is hard to read, but I think I
- 20 can make it out -- 2025 and I look at the Capacity
- 21 | Position row down there toward the bottom of that
- 22 page. Are you -- are you seeing what I'm seeing?
- 23 A. Is it Capacity Balance?
- 24 Q. Capacity position after all adjustments.
- 25 | Is that the right one to be looking at? Or am I --

Page 194 1 should be looking -- or -- what -- what does -- let me 2 Does this Exhibit 118 tell you what ask it this way: 3 the predicted capacity position of the plan that you looked at in the 2020 IRP that had Rush Island going 4 5 away in 2024, does this Exhibit 118 tell you what the expected capacity position was in 2025 and so on? 6 7 Α. Yes. And what should we be looking at to find 8 0. 9 that? 10 Α. It would be the -- if I'm looking at the 11 right one, the capacity -- well, no, that's not right. 12 Is it the Capacity Position after Res Q. 13 Compliance row? 14 Α. This is really hard to read. Your Honor, if I can 15 MR. LOWERY: 16 approach, maybe get an exhibit marked? I --17 THE WITNESS: I see it now, yes. 18 BY MR. LOWERY: 19 0. Can you see it? 20 Α. Yes. 21 So do you remember my last question? 0. 22 Α. Could you repeat it? 23 Should we be looking at the Capacity 0. 24 Position after Res Compliance row? 25 I believe so, yes. Α.



	Page 195					
1	Q. And what was the with Rush Island gone					
2	in 2024, according to the planning done in the 2020					
3	IRP, what was the expected capacity position?					
4	A. In 2025 after					
5	Q. Yeah.					
6	A it's gone?					
7	Q. Yeah.					
8	A. Looks like positive 561 megawatts, so the					
9	excess capacity.					
10	Q. And then that stays sort of flat and					
11	grows a little and it's up to about a thousand					
12	megawatts by 2029, 2030, right?					
13	A. That's right.					
14	Q. Now, you didn't explicitly as I					
15	recall, you didn't explicitly take the seasonal					
16	construct into account, while you said you considered					
17	it when you did the December 2021 retirement versus					
18	retrofit analysis. But you did attempt to take it					
19	into account explicitly when you when the Company					
20	filed the change in Preferred Resource Plan in June of					
21	2022?					
22	A. That's correct.					
23	Q. And when you did that and that, of					

That's right.

course, assumed a Rush Island retirement in 2024?

24

25

Α.

1	Q. When you did that, did that planning
2	analysis suggest a shortage of capacity in 2025?
3	A. I don't believe it did. And I think
4	there's a figure in my surrebuttal testimony that
5	shows that. Yes, it's Figure 4 on page 16 of my
6	surrebuttal testimony. And it showed a capacity
7	excess of I believe that says 24 megawatts.
8	Q. And there might have been if I recall,
9	there might have been some small capacity shortages in
10	a couple years after that; is that right?
11	A. That's correct. Nothing beyond the
12	300 megawatt built threshold.
13	Q. And and you talked about that, I
14	think, with the Chair as well, or with somebody. And
15	if you am I correct to understand if you don't see
16	a capacity need that's beyond the build threshold,
17	what that's telling you is you wouldn't do anything
18	different about capacity in your planning, right?
19	A. That's correct. For meeting the resource
20	adequacy standard of MISO, that's correct.
21	Q. The Chair asked you some questions about
22	economic development projects. Do you recall that?
23	A. Yes.
24	Q. We talked a minute ago about what your
25	analysis is suggesting, and that is your retire versus

- 1 retrofit analysis, in terms of what would be the most
- 2 | economic -- what capacity would be most economic to
- 3 | serve such load; would it be Rush Island or would it
- 4 be something else. And you said it would be something
- 5 else because you'd have to scrub Rush Island, right?
- 6 | Is that right?
- 7 A. That's right.
- Q. Is that also true about these economic
 9 development projects that may come along?
- 10 A. It's true for any loads that we would 11 see.
- Q. What -- what's cheapest to serve is sort of agnostic to what the load is?
- 14 A. Yes.
- Q. Do you remember when the Company lost the NSR case once and for all?
- A. Yes. It was -- I think the decision came

 18 out in August of 2021, as I recall.
- Q. And absent a change to the order, what was -- what obligation was the Company under once that order became final?
- A. We would have to pursue the remedy, which
 was to build a scrubber at Rush Island. I don't
 remember exactly how long we were given to do that. I
 believe it was about four and a half years.

1	Q. So till 2025 or perhaps
2	A. Yeah. Early to mid 2025, I believe.
3	Q. Do you have an opinion about how long it
4	would take to
5	A. Cor let me correct that. I think it
6	was 2026.
7	Q. Do you have an opinion about how long it
8	would take to build a scrubber?
9	A. It would take about that long is my
10	understanding.
11	Q. And the Company did the Company was
12	under order to build it. Didn't end up building it.
13	Does that mean that the Company had asked the Judge's
14	permission to to make a different decision?
15	A. Yes.
16	Q. Could the Company have waited two or
17	three or four years to ask the Judge to do that, given
18	that it was going to take that long to build it and it
19	only had that long to build it?
20	A. I don't see how that could have been
21	done.
22	Q. Those are all the questions I have.
23	MR. LOWERY: Thank you, Your Honor.
24	JUDGE CLARK: Mr. Michels, you may step
25	down.



Page 199

- 1 THE WITNESS: Thank you.
- 2 JUDGE CLARK: I believe the next witness
- 3 | is Staff's.
- 4 MS. MERS: Staff calls Ms. Eubanks back
- 5 to the stand.
- 6 JUDGE CLARK: Ms. Eubanks, I'll remind
- 7 | you you're still under oath.
- 8 THE WITNESS: Understood.
- 9 MS. MERS: I think we can go ahead and
- 10 tender Ms. Eubanks for cross then.
- JUDGE CLARK: Any cross-examination by
- 12 the Office of the Public Counsel?
- MR. WILLIAMS: No, thank you.
- JUDGE CLARK: Any cross-examination on
- 15 | the 3B issue by Ameren Missouri?
- 16 MR. LOWERY: Yes, Your Honor. Just a
- 17 | little bit, I think.
- 18 | CLAIRE EUBANKS, having been previously sworn,
- 19 | testified as follows:
- 20 | CROSS-EXAMINATION BY MR. LOWERY:
- 21 O Good after Mis- -- noon, Ms. Eubanks.
- 22 | How are you today?
- A. I'm good. A little warm.
- 24 Q. It is a little warm in here.
- 25 You discuss some transition upgrade

JUDGE CLARK: As a matter of

Α. Let me get there.

5 housekeeping, it is a little warm in here and I'm not 6 going to require anyone to wear a jacket who doesn't 7 want to, if it would be easier.

> THE WITNESS: Appreciate it.

So yes, I talk about the Rush Island reliability projects in my testimony.

11 BY MR. LOWERY:

3

4

8

9

10

15

16

17

18

19

20

21

22

23

24

25

- 12 Which are transmission upgrade projects Ο. 13 that are necessary, because Rush Island's retiring, to keep the grid reliable essentially, right? 14
 - Α. They are related to the Rush Island project or retirement and they are transmission projects, yes.
 - Ο. Those costs have not been included or even sought for inclusion in a revenue requirement in an Ameren Missouri rate case, correct?

Α. That's correct.

0. Once they are done, presumably Ameren Missouri will file a rate case. And if they fall within the test period and the true-up period, Ameren Missouri will then include them in its rate base and

Page 201

- 1 ask that its rate be set to reflect those costs. You
 2 would expect that, right?
- 3 A. I would.

4

6

7

8

9

10

11

12

13

14

15

20

21

22

23

24

- Q. That hasn't happened yet?
- 5 A. It has not happened yet.
 - Q. And when that happens, assuming it does, the Commission will have the opportunity to review the projects and their cost in a future -- in that future case, right?
 - A. That's correct.
 - Q. And you even agree that it would be appropriate for the Commission to decide questions about those transmission projects in a future case, right? In a future rate case?
 - A. Yes, I do.
- Q. You also agree that those costs are not included in the energy transition costs or any other cost that the Company seeks to securitize in this case, right?
 - A. Ameren Missouri has not sought to include that in the securitization case, that's correct.
 - Q. Which means whatever those costs end up being, they won't or can't affect the amount of the securitization bonds Ameren Missouri is asking to issue, can they?

1	A. I don't know whether they can or not, but
2	it was not proposed by Ameren Missouri to be included.
3	Q. You also discuss in your testimony the
4	possibility of future capacity costs that Ameren
5	Missouri right incur under your hypothesis because
6	Rush Island's no longer around, right?
7	A. It initial return, yes.
8	Q. No evidence is presented in this case
9	that establishes that Ameren Missouri customers to
10	date have actually incurred any higher rates based
11	upon a claim about capacity that it might have to buy
12	in the future, has it?
13	A. Right. So the the figures I provided
14	in my testimony are estimated values that are
15	potential future harm, from my view.
16	Q. But obviously potential future harm,
17	potential future capacity costs haven't been reflected
18	in rates today, have they?
19	A. I agree.
20	Q. With respect to any mitigation remedies
21	that arise out of the District Court case, the Federal
22	District Court case, there's been quite a bit of
23	discussion about mitigation remedies in this case,
24	right? You remember that?
25	A. We've talked about the the potential



for	future	remedy	${ t from}$	the	NSR	lit	igation,	yes.
-----	--------	--------	-------------	-----	-----	-----	----------	------

It's also true that there's no evidence 2 Ο. 3 in this case that customer rates have, to date, been 4 impacted by any future remedies out of the District

Court; isn't that right?

- Evidence in this case? I -- I'm not Α. aware of -- of there being an impact to current rates based on the NSR litigation.
- 9 I mean, it's impossible for there to have 0. 10 been any impact on current rates since Judge Sippel 11 hasn't actually ordered any future remedies yet, 12 right?
 - Α. Yes, the -- the future remedies are I think I was clear in my rebuttal testimony about that.
 - You agreed with me previously that the Ο. question of whether something is well documented is different than the question of whether the decision itself was a good or bad decision; isn't that fair?
 - I think documentation goes to the Α. question of reasonableness, but I do recall that question from my deposition.
- 23 And you agreed with me that they are 0. 24 different, are they not?
- 25 I do think they are different Α. Yes.



1

5

6

7

8

13

14

15

16

17

18

19

20

21

questions.

1

2

3

4

5

6

7

8

9

10

13

14

15

16

17

18

19

20

21

22

23

24

- Q. Had Ameren Missouri decided -- made a different decision on the NSR permits and then the plant got scrubbed and it's not retiring, the plant might not have lived to 2039; isn't that right?
 - A. It's possible.
- Q. You're aware, for example, that there are -- there's a Good Neighbor Rule that's been proposed by EPA?
 - A. I am aware of that, yes.
- Q. And there's a separate Greenhouse Gas
 Rule that's been proposed by EPA?
 - A. I am aware of that, yes.
 - Q. And I'm not asking you to agree that those rules would or would not have led to an economic decision later to retire Rush Island, but there was certainly -- there certainly exists a risk that those proposed regulations or some other environmental regulation could, before 2039, put Ameren Missouri, or other utilities for that matter, in the position of having to decide should I spend a lot of money to comply with those regulations or should I retire instead, right?
 - A. So I think in Ameren Missouri's Motion to Modify their remedy ruling, they mentioned four things



- 1 that were changing from the 2019 remedy order. And
- 2 that was natural gas prices were increasing, carbon
- 3 price assumptions, social and environmental justice
- 4 governance kind of policies, and of course, the
- 5 | securitization statute.
- 6 So those are the -- the four things that
- 7 Ameren Missouri told the Court kind of change that led
- 8 to their decision in 2021. So to the extent that
- 9 Ameren Missouri considered those, you know, I will say
- 10 | the -- the 2020 IRP is really -- you know, that --
- 11 that decision is -- I think my understanding is based
- 12 on a difference between the 2017 IRP and the 2020 IRP
- 13 more so than the retrofit retirement analysis
- 14 Mr. Michels performed.
- 15 O. Thank you. Those are all -- all the
- 16 | questions I have.
- 17 JUDGE CLARK: Any Commission questions?
- 18 I hear none.
- 19 OUESTIONS BY JUDGE CLARK:
- 20 Q. In your rebuttal testimony you list three
- 21 | concerns that Staff has.
- 22 A. Yes.
- 23 | Q. And those would be the DOJ, Department of
- 24 Justice, is seeking additional remedies other than
- 25 | just the retirement of Rush Island. And I believe

Page 206

- 1 | that you had also thrown out some DOJ numbers. But
- 2 | that would be related to a -- remedy numbers that the
- 3 Department of Justice might request of the Judge,
- 4 | correct?
- 5 A. That is my understanding, is those
- 6 numbers reflect what the DOC has requested. I think
- 7 the -- my understanding from reading the transcript,
- 8 and then also I -- I asked in a data request for, you
- 9 know, Ameren Missouri's motion -- well, there was some
- 10 kind of pleadings made in the case that I had asked
- 11 | for.
- 12 And so yes, my understanding is the --
- 13 | the parties are kind of instructed to -- or were
- 14 instructed to come to some sort of resolution or make
- 15 | a proposal that would kind of be acceptable to all.
- 16 And I mean, that doesn't sound like they're there yet,
- 17 so.
- 18 Q. And they -- they may never get there,
- 19 | correct?
- 20 A. Sure.
- 21 | O. It may -- it may end up with the Judge
- 22 | just picking a number?
- 23 A. That's right.
- 24 Q. And at this time you have no idea what
- 25 | that number's going to be; is that correct?



	A. That's right. The 2/5 million is just
2	based off of what's in that transcript.
3	Q. So that both hasn't occurred yet and is
4	not quantifiable at this point?
5	A. I agree with that, yes.
6	Q. Now, your second concern is Ameren
7	Missouri's 2023 IRP suggests that it will be short on
8	capacity for MISO resource adequacy purposes; is that
9	correct?
10	A. That's correct.
11	Q. But again, that's in the future, correct?
12	A. It so it is in the future, but Staff's
13	position in this case, my position is Ameren
14	Missouri and you heard Mr. Michels talk about it
15	they understood that the seasonal construct was
16	changing when they made the decision to retire Rush
17	Island.
18	So we're bringing it up because we know a
19	little bit about that decision making and that they
20	had some understanding that that seasonal construct
21	was changing, and it is a future potential harm that
22	may arise or it may not.
23	Q. So at this point, no harm has occurred?
24	A. That's correct.
25	Q. And is that quantifiable yet?



	, , ,
1	A. It's estimated, but no, it's not I
2	mean, it's estimated that those are the values that I
3	provided in my testimony.
4	Q. And the third concern is the Rush Island
5	reliability project that's not securitized; is that
6	correct?
7	A. That's correct.
8	Q. They're not asking?
9	A. They're not asking to securitize it in
10	this case, correct.
11	Q. And what's the potential harm there?
12	A. So from my perspective, Mr. Michels did
13	an analysis in his direct testimony. He based it on
14	some break-even costs and even some scenarios about
15	what's the expectation for how Rush Island would be
16	operating as an SSR.
17	Because when when that analysis was

done in 2021, it was before Ameren had made the retirement decision and before MISO kind of indicated that Rush Island would potentially need to be classified in this as an SSR.

18

19

20

21

22

23

24

25

Which, you know, I -- I think there was some discussion in opening statements about why Staff opened its investigatory docket. And it was related to the SSR designation, not related to the retirement

- 1 decision. I want to make that pretty clear. Sorry.
- 2 I maybe lost track of your -- your question in my
- 3 answering.
- 4 Q. I -- I was asking you to explain the harm
- 5 as it might occur.
- A. Sure. So at the time of my rebuttal
- 7 testimony, I was looking at what Mr. Michels provided
- 8 in his direct testimony, which was based on that 2021
- 9 analysis.
- 10 You know, I think as we've talked about,
- 11 | there's a couple of scenarios where the -- the
- 12 retrofit decision is maybe -- looks a little bit more
- 13 | favorable in the 2020 scenario, right? Or 2021
- 14 analysis.
- 15 And he did some looks at the -- the
- 16 transmission break-even analysis and those scenarios
- 17 about what was expected from potential operation of
- 18 Rush Island in the short-term as an SSR.
- 19 And, you know, obviously we also knew
- 20 that there was potential future remedies from the
- 21 | Court that we don't know not included into his -- his
- 22 | break-even analysis. And then we knew that the
- 23 seasonal construct was changing and wasn't taken into
- 24 | account.
- 25 So when you look at all of those, I think

- 1 it calls into question, you know, that break-even
- 2 analysis and whether, you know, the increase of costs
- 3 | that we -- we saw in the transmission projects from
- 4 what we previously knew them to be, I think all of
- 5 that in culmination is really what -- what that's
- 6 about.

14

15

16

17

18

19

20

21

22

- Q. And as of this point, that is also not guantifiable, correct?
- 9 A. I think we have a pretty good idea of
 10 what the current estimates are, just as clear as some
 11 of the costs that are being securitized in this case.
- 12 Q. So you believe that one's a little firmer 13 than the others?
 - A. I do believe it's a little firmer than the others.
 - Q. Okay. This -- this, as frequently has been said, is kind of a two-step process. And this -- this question indeed, 3B, kind of implies that when it -- you know, it -- the first question is was their choice to retire as opposed to install scrubbers prudent. And obviously if the Commission decides that it wasn't, then they don't get to securitize the retirement of Rush Island, right?
- 24 A. That's correct.
- 25 Q. And you've indicated that these go into a



- 1 | future proceeding and I assume it would maybe be a
- 2 rate case proceeding. But where are we talking about?
- 3 | I mean, how far down the road? At what point does
- 4 | this become quantifiable?
- A. So the reliability projects I would
 expect that we would see in the next Ameren rate case,
 or at the very latest the next one after that, one
 single reliability project. I think it's -- it's

under one project number. Make that clear.

- And the capacity shortfall -- you know,

 potential capacity shortfall in the short-term, I

 think I highlighted the years '25, '26, '27 so that's

 a little bit further out. And then obviously the

 Court remedy, you know, no -- I don't think anyone

 can -- can know.
- Q. I'd like to kind of go the other scenario for a second.
- 18 A. Sure.

- Q. If the Commission determines that the decision to close the plant was prudent, is the second -- what happens to the second part of this analysis then?
- A. You mean the future harm that Staff has identified as concerns?
- Q. Correct.

1	A. So I think what Staff's recommendation
2	is, that the Commission should make a decision on
3	whether the retirement by October 15th, 2025 I
4	think that's the correct date is reasonable and
5	prudent.
6	And from my perspective as an engineer, I
7	can't imagine that it would be a good idea to say now,
8	you know, ignore that Court order that we do have now.
9	And and I understand this is predicated on Ameren
LO	Missouri's decision making.
L1	You know, they they made the decision
L2	in 2021, they reevaluated things in 2022. They, you
13	know, asked the Court for a date certain in August of
L 4	2023. That you know, to me, the decision on the
L5	retirement kind of evolved over that time period.
L6	But ultimately I can't imagine that it
L7	would be a good idea now to say, you know, the
L8	retirement is not not reasonable. And that's my
L9	my perspective.
20	Q. And maybe I didn't understand your
21	your answer. Maybe I didn't ask the question. It
22	sounded like you said if if the Commission
23	determines that the retirement was prudent and the
24	harm goes to a future proceeding, then the Commission

would need to make another prudency decision regarding

an October date; is that --

- A. I -- no, I think that the question before the Commission now is Ameren's Missour- -- is Ameren Missouri's decision to retire the Rush Island plant --
- Q. I see the disconnect. All right. The disconnect, it's in my question.
 - A. Okay.
 - Q. Okay. If -- if the Commission were to determine that the retirement decision over installing the scrubbers was prudent and they were allowed to securitize and this harm goes to some sort of future proceeding, what we -- what are we determining on there if -- if -- if the prudency of the plant has already been determined? I mean, what -- what do we -- what do you do with the harm?
 - A. Well, I think Staff would argue that -ideally the order will be written in a way that Staff
 can argue what it needs to argue in a future case.
- Q. Can you clarify that?
- A. Yeah. I mean, I think if -- I think if you answer the question is it reasonable and prudent for Ameren Missouri to retire Rush Island by October 15th, 2024 -- or 20 -- yes, 2024, is that reasonable and prudent based on the evidence in this case, I think you can answer that question. And I



1 think that preserves concerns about future harm to a 2 future rate case. 3 So, obviously I'm not an attorney and -and you all are much more versed in writing orders, 4 5 so. Thank you. Chair Hahn would like 6 0. Okay. 7 to ask a question. 8 Α. Sure. 9 QUESTIONS BY CHAIR HAHN: 10 0. Afternoon, Claire. 11 Good afternoon. Α. 12 As we were discussing, prudency is Q. 13 related to this retirement and also capacity issues. You have also in your surrebuttal testimony, you talk 14 15 about the four solar CCNs, the three that were just 16 granted and the fourth that's ca- -- that's 17 conditional. 18 Can you talk about why that's in your 19 rebuttal -- your surrebuttal testimony? 20 Yeah. The reason is because OPC proposed Α. 21 a disallowance using the solar CCNs as part of their 22 component of their disallowance. 23 And they -- help me, from your 0. 24 perspective, understand their math. It's the cost of 25 the three plants minus the scrubber? Tell -- tell

- 1 | me -- talk me through that.
- 2 A. I haven't seen work papers from
- 3 Mr. Seaver. They may have come in and I just didn't
- 4 get a chance to look at them. I'm not sure. And I
- 5 missed some of his corrections to his testimony.
- Q. And is that be- -- so is OPC arguing -- I
- 7 guess I'm -- I'm not totally following the
- 8 relationship between the securitization and the solar
- 9 | CCNs.
- 10 A. From Staff's perspective, you know, we
- 11 entered into a settlement with Ameren Missouri about
- 12 | the solar CCNs. So that is -- you know, we've
- 13 recommended the Commission approve the three and the
- 14 | fourth be conditional. I mean, I think -- I ca- -- I
- 15 | really can't speak to Mr. Seaver's analysis.
- 16 Q. I'll ask him. But since it was in your
- 17 | sur, I thought I would ask you.
- 18 A. Yeah, I -- I was trying to point out that
- 19 we didn't totally agree or understand or follow it,
- 20 just for clarification purposes.
- 21 O. Thank you.
- A. Sure.
- 23 Q. Thank you.
- 24 JUDGE CLARK: Any questions from OPC
- 25 | based on Bench questions or Commission questions?

MR. WILLIAMS: No, thank	you.
-------------------------	------

- JUDGE CLARK: Any questions from Ameren
- 3 based on questions from the Commission or Bench?
- 4 | RECROSS-EXAMINATION BY MR. LOWERY:
- Q. I think just one line of inquiry. It way only be one question or two or three, but I don't think it's very many.
 - The Judge was asking you essentially if the Commission decides that the retirement was reasonable and prudent and securitizes -- and I'm just going to -- I'm just going to round to 500 million;

 Company's a little more, you're a little bit less --

A. Sure.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

- Q. -- at this point, you know, what happens in the future? And I think what he's trying to ask is, does -- does -- does that have an impact on later arguments about whether the NSR permitting decisions were or were not prudent. Is that -- is that how you understood it?
 - A. Or -- or any of the planning decisions.
- Q. Or any of the planning decisions. And I think -- I think your answer, and you'll correct me if I'm wrong. I think your answer is you don't see that it really has an impact because those are different decisions. And if those different decisions were

- 1 later found to be imprudent in a rate case and you
- 2 established harm in that rate case, then the
- 3 | Commission would have the authority to -- to impose a
- 4 remedy; is that right?

5 A. Yes.

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Q. And -- and this has been a point that I think has been a little unclear since yesterday morning, so I'm -- I'm going to ask you questions to maybe try to clear it up.

A. Okay.

Q. Isn't the reason that that's the case is that the dollars to be securitized, assuming they are, assuming the Commission says yes, retire versus retrofit was the right decision, those dollars reflect investments that have been made in the Rush Island plant. I mean, we can put aside the decommissioning costs and some minor ones --

A. Sure.

Q. -- but at least the plant balance. You know, those costs, probably 460 or 70 million of the 500, they reflect investments that have been made in Rush Island, I mean, maybe as far back as the '70s, I don't know. But -- but all in the past that were necessary to build it, keep it running, operate it, et cetera. And those costs have nothing to do with



- Page 218 any of these decisions we're talking about; isn't that
- 2 | right?

- A. Well, to the extent there's any cost related to the outages still in rates, I mean, technically there is some cost there, but --
- Q. Okay. But you're -- you're not -- you're not claiming that the Company was imprudent for incurring the costs of the outages in 2007 -- you know, to doing the projects. You may be -- may be claiming or -- you actually aren't at this point, but somebody may claim that not getting permits was imprudent --

A. Well --

Q. -- but nobody's -- nobody's raised a claim, to my knowledge, that says you shouldn't have, you know, fixed the boiler component, you shouldn't have replaced those components from a, you know, operational reliability availability standpoint.

Nobody's made that allegation, right?

A. Okay. To clarify -- because I think the Judge was asking Mr. Majors about my position. My position is there were things that Ameren did that were reasonable, but there are things that they did or did not do that were unreasonable. We didn't calculate a harm for that because it is not known yet.

1	Page 219 And so while Mr. Majors was talking about
2	imprudence, I think there was maybe a little
3	inconsistency between Staff on what we think is
4	imprudent versus unreasonable. And I think that went
5	to some of the the Judge's questions the other days
6	about about reasonableness and prudency.
7	Q. But the Staff is not challenging the
8	prudence of the costs incurred in the past to build or
9	maintain or to re you know, replace components or
10	whatever. The Staff is not challenging the prudence
11	of incurring those costs, is it?
12	A. Those projects were done for
13	availability regaining availability and improving
14	efficiency and were needed for Rush Island to have
15	operated in the past, you know, almost 20 years.
16	Q. Well, those projects and all the other
17	investment, whatever it is that's still on the books,
18	was done to basically build and operate Rush Island
19	over the last several decades, right?
20	That un that undepreciated plant
21	balance was incurred, it's been through rate cases,

24 Well --A.

at 460 or 70 million dollars.

22

23

25

As far as you know, it was prudently Q.

there's been no prudence challenge to those past costs

1 incurred, wasn't it? They were included in rates -- or 2 Α. 3 included -- it is the remaining net book value of the Rush Island facility. 4 5 You don't have any memory of there being 0. any even -- any proposed prudence disallowances about 6 7 Rush Island costs, at least in the 10 or 15 years 8 you've been at the Commission -- Rush Island projects, 9 has there? 10 Α. I don't recall any specifically, no. 11 Q. Thank you. Okay. 12 JUDGE CLARK: Any redirect from Staff? 13 REDIRECT EXAMINATION BY MS. MERS: 14 Good afternoon. Q. Good afternoon. 15 Α. Do you recall talking with counsel for 16 Q. 17 Ameren about the transmission cost upgrades? 18 Yes, I do. Α. 19 0. Do we -- and we're trying to stay 20 out of numbers because that's confidential. 21 Α. Out of numbers. 22 Q. Do we have any range of transmission 23 cost? 24 Well, so I think that number is fairly Α.

25

firm and --

Page 221

- MR. LOWERY: Just --
- 2 THE WITNESS: I won't say the number.
- 3 MR. LOWERY: Okay. Thank you.
- THE WITNESS: Yes, I know. I will not.
- 5 You know, Ameren counsel represented that it was out
- 6 to bid or maybe -- and that is the reason that is
- 7 | confidential. So, you know, I think we'll have a
- 8 better idea, you know, maybe at some point in time.
- 9 BY MS. MERS:
- 10 Q. Do we know if there was a range of
- 11 transmission costs that Ameren used when it was doing
- 12 its NVPRR calculations?
- 13 A. There is a range. I'm hoping you could
- 14 point me to my testimony on that, but maybe not.
- 15 Q. I -- just to save time, I think it's
- 16 | the -- the existence of those numbers versus what
- 17 | those numbers are might be impactful --
- 18 A. Okay. Yes.
- 19 O. -- at this time.
- 20 A. So in past IRPs, yes, there was a range
- 21 | with some level of uncertainty around the -- the, you
- 22 know, transmission projects.
- 23 | 0. But that calculation, to your
- 24 | understanding, is how they determined if retiring or
- 25 | retrofitting was the better decision?



Evidentiary Hearing

A. Well, there's -- there's two different 1 2 uncertainties I talk about in my testimony, so. 3 Q. Okay. In past IRPs -- and Mr. Michels has 4 Α. 5 several attachments to his testimony. And it's -- you know, kind of points out the transmission upgrade 6 costs and various IRPs, you know. And -- and those 7 8 dollar values range, but the uncertainty --9 uncertainty -- uncertainty discussion in my testimony 10 is related to what was assumed in the 2020 IRP. 11 I don't know if that helps or if you have 12 more questions about that. 13 Let's see if I can get at it this way. 0. How could an order in this case hold customers 14 15 harmless even if we don't have firm numbers, but based on the information we already have? 16 17 So they use the *** --Α. 18 JUDGE CLARK: Can you strike that from 19 the record, please? 20 Can we strike that? THE WITNESS: Sorry. 2.1 BY MS. MERS: 2.2 0. We need a buzzer. 23 They -- they used a value. Α. Yes. 24 Hold on just a second. JUDGE CLARK: Go 25 off the record.

	Evidentiary Hearing April 16,	
1	Page (Off the record.)	22
2	JUDGE CLARK: Let's go back on the record	ł
3	and go ahead.	
4	THE WITNESS: Okay. So there there is	3
5	a value that was assumed in the break-even analysis	
6	and that number is known, to answer your question.	
7	BY MS. MERS:	
8	Q. And how can that be used to help hold	
9	harm customers harmless in the future?	
10	A. You know, I I think the Commission	
11	could order in this case something about that	
12	potentially.	
13	Q. Do you recall discussing with counsel for	?
14	Ameren about the difference between something being	
15	well documented versus being a good or bad decision	
16	and how those are different?	
17	A. I do.	
18	Q. How can well documented impact how	
19	regulators determine if a decision was good or bad?	
20	A. Yeah. I think we talked a lot about	
21	well, Mr. Majors, I think, a little bit and other	
22	witnesses talked about, you know, whether Ameren	
23	Missouri could have sought a permit applicability	

25

of position.

determination from DNR or EPA, I think is OPC's kind

Τ		And the reality is had they done that, we
2	would have do	cumentation to, you know, support their
3	position. Bu	t we don't have that in this case, so.
4	Q.	Do you recall discussing with the Bench
5	the three con	cerns you laid out in your rebuttal, but
6	the fact that	no actual harm has occurred no firm
7	harm has occu	rred with those yet?
8	A.	I do recall that discussion, yes.
9	Q.	And one of those was capacity.
10	A.	Yes.
11	Q.	What is your understanding of how
12	timelines wor	k for plant additions?
13	A.	I guess, which plant additions?
14	Q.	Generating plants would probably be the
15	easiest.	
16	A	Are are you talking about IRP planning
17	or are you ta	lking about the length of time it takes
18	from an engin	eering perspective to develop and execute
19	a project?	
20	Q.	Yes.
21	A.	I would need to know which project.
22	Q.	Maybe I'll try to shortcut it. Could a
23	future capaci	ty shortfall require present planning in
24	your experien	ce?
25	A .	Veah it I mean what what the



- Page 225 1 shortfall potentially is related to is winter 2 And so that type of project does take time 3 to develop and execute. Now, Mr. Michels talked about being able 4 5 to get capacity from the planning -- planning option, so there is that too. I mean, it's not like --6 Staff's not trying to raise red flags and say there's 7 8 this crisis. That's -- that's not what we're 9 highlighting here. 10 Ο. In regards to the -- in the -- that 11 discussion you were having with the Judge and the 12 utility of a hold-harmless provision or -- or what 13 impact it can have now versus in the future when those actual actions come in and are asked to be included in 14 15 rates. 16 Do you believe that a hold-harmless 17 provision could -- has any help in actually 18 quantifying the harm for future cases?
 - Judge, I'm -- Judge, I'm MR. LOWERY: going to object. And if my memory's faulty, I'm sure you'll tell me. I don't actually as- -- remember you asking anything about the hold-harmless proposal. You did ask about possible harms related to transmission, but not about the hold-harmless provision.
 - And I also think Ms. Mers is asking



20

21

22

23

24

- 1 essentially Ms. Eubanks to state a legal conclusion
- 2 about, you know, what you can or cannot do. So I
- 3 | think it's beyond the scope of the questions and I
- 4 also think it's calling for a legal conclusion.
- JUDGE CLARK: Would you please restate
- 6 | your question for me?
- 7 MS. MERS: I'm going to try.
- 8 BY MS. MERS:
- 9 Q. Can a hold-harmless provision help
- 10 | quantify the actual harm for later cases?
- 11 JUDGE CLARK: I'm going to overrule the
- 12 | objection.
- 13 You can answer.
- 14 THE WITNESS: Yes, it's a number we know
- 15 they used in their analysis in this case, you know,
- 16 and to be clear, the first analysis in direct
- 17 testimony in this case.
- 18 And yeah, it's a -- it's a number that is
- 19 known and was used in the analysis to support the
- 20 decision and that's really the basis for it. And
- 21 | it -- it would help in the future to track costs
- 22 either above or below, so.
- 23 BY MS. MERS:
- Q. I think this is all I have for you then.
- 25 | There was some discussion towards the end with both

	Daga 00
1	Page 227 the Judge and Ameren Missouri about how imprudence in
2	one decision can interplay with a not finding
3	imprudence in another decision. Do you recall that?
4	A. I do.
5	Q. Okay. Do you distinguish between if
6	Ameren Missouri's decision making in total was
7	reasonable versus if at the culmination of these
8	events, if retiring was a better decision than
9	installing scrubbers on Rush Island?
10	A. I do think those are two different
11	questions, yes.
12	Q. And do you believe that you can find one
13	to be reasonable and the other to be not reasonable?
14	A. Yes.
15	Q. And at this time are there any other
16	actions available to Ameren other than retiring or
17	installing the scrubbers?
18	MR. LOWERY: Objection, that does call
19	for a legal conclusion given that we're under a
20	Federal District Court order to unclose the plant.
21	JUDGE CLARK: State your question one
22	more time, please. I mean, I know I I just want to
23	hear exactly how it's worded.
24	MS. MERS: I believe it was something

like other than retiring or installing the scrubbers,

- 1 | are there any other actions available to Ameren
- 2 | Missouri?
- 3 MR. LOWERY: I'll object to that question
- 4 as being irrelevant. Actions available to Ameren
- 5 | Missouri to do what?
- 6 MS. MERS: How to treat and handle the
- 7 | plant going forward.
- 8 MR. LOWERY: Judge, the problem with the
- 9 question is it requires Ms. Eubanks to decide
- 10 | whether -- whether Ameren Missouri, under the Clean
- 11 | Air Act and under the Judge's order, can disregard or
- 12 | somehow change -- somehow do something different with
- 13 | the plant having been ordered to close it.
- I don't understand why this witness has
- 15 anything to assist the Commission on that issue.
- 16 JUDGE CLARK: I don't know if I agree
- 17 | with you as to that, but I don't -- I do agree with
- 18 | you as to I don't know without asking the Court for
- 19 | another -- if you decide you want to put on the
- 20 | scrubbers, asking for leave of the Court to put on the
- 21 | scrubbers or to modify the -- the judgment again. So
- 22 | I -- I -- or maybe take up the plant and fleet
- 23 | country, but.
- 24 So I -- I do agree that -- that -- that
- 25 | whatever answer would -- I'll -- I'll sustain the

- 1 objection, but not for the reason given.
- MS. MERS: All right. That's all I have,
- 3 but thank you.
- JUDGE CLARK: Is Ms. Eubanks appearing on
- 5 other -- well, I think -- I think her stuff is already
- 6 marked.
- 7 MS. MERS: I think she is back for
- 8 | Issue 5.
- JUDGE CLARK: Yes. Thank you. I forgot
- 10 | about that.
- 11 THE WITNESS: Yes. My testimony's --
- 12 JUDGE CLARK: Ms. Eubanks, you may step
- 13 down.
- 14 THE WITNESS: Okay. Thank you.
- JUDGE CLARK: Staff, you may call your
- 16 next witness.
- 17 MS. MERS: Staff calls Shawn Lange to the
- 18 | stand.
- 19 JUDGE CLARK: And after Mr. Lange, I
- 20 | anticipate taking a short break.
- 21 Mr. Lange, would you raise your right
- 22 | hand to be sworn.
- 23 (Witness sworn.)
- JUDGE CLARK: Please sit down.
- Go ahead, Staff.



- 1 SHAWN LANGE, being first duly sworn, testified as 2 follows:
 - 3 DIRECT EXAMINATION BY MS. MERS:
- 4 Ο. Can you please state and spell your name 5 for the record?
- 6 Α. My name is Shawn, S-h-a-w-n, E. Lange, 7
- 8 And did you prepare or cause to be 0. 9 prepared testimony in this case that has been marked as Exhibit 108, rebuttal testimony; and Exhibit 109, 10 the surrebuttal testimony? 11
- 12 Α. Yes.

L-a-n-g-e.

- 13 And do you have any corrections to that 0. 14 testimony?
- 15 Α. Not that I'm aware.
- 16 And is that -- the information contained Q. 17 within true and accurate, to the best of your knowledge and belief? 18
- 19 Α. Yes.
- 20 And if I asked you those questions today, 0. 21 would your answers be the same?
- 22 Α. Yes.
- 23 At this time we can mark MS. MERS: 24 Exhibit 108 and 109, but Mr. Lange will be back up for 25 Issue 5 so we will hold off on offering it, and offer



Evidentiary Hearing April 16, 2024 Page 231 1 Mr. Lange for cross. (Exhibits 108 and 109 were marked for 2 3 identification.) 4 JUDGE CLARK: Any cross-examination from 5 Public Counsel? 6 MR. WILLIAMS: No, thank you. 7 Any cross-examination from JUDGE CLARK: 8 Ameren? 9 MR. LOWERY: No questions, Judge. 10 JUDGE CLARK: Any Commission questions? 11 Hearing none, I have no questions for 12 you, Mr. Lange, so you may step down. 13 THE WITNESS: Thank you. Staff, you may call your 14 JUDGE CLARK: 15 next witness. MS. MERS: Staff calls Brad Fortson to 16 17 the stand. 18 (Witness sworn.) JUDGE CLARK: Please be seated. 19 20 BRAD FORTSON, being first duly sworn, testified as 21 follows: 2.2 DIRECT EXAMINATION BY MS. MERS: 23 Can you please state and spell your name 0. for the record? 24



Brad, B-r-a-d, J., Fortson,

25

Α.

F-o-r-t-s-o-n.

1

2

3

4

5

- Q. And did you prepare or cause to be prepared rebuttal testimony marked as Exhibit 104 and corrected rebuttal testimony marked as Exhibit 105 in this case?
- A. Yes.
- Q. And do you have any further corrections to that testimony?
 - A. Not to my knowledge.
- Q. And is the information contained within true and accurate, to the best of your knowledge and belief?
- 13 A. Yes.
- Q. And if I asked you the same questions today, would your answers be the same?
- 16 A. They would.
- MS. MERS: I believe Mr. Fortson also
 goes up for Issue 5 again, so I will hold off on
 offering his, but we will tender Mr. Fortson for
 cross.
- JUDGE CLARK: Thank you.
- 22 And I -- I decided not to recess simply
 23 because Mr. Lange was so short. I may at this
 24 point -- because we only have Mr. Seaver left on this
- 25 issue, I may go ahead and try and push through before



- 1 | we take a break.
- 2 Any cross-examination from the Office of
- 3 | the Public Counsel?
- 4 MR. WILLIAMS: No, thank you.
- JUDGE CLARK: Any cross-examination from
- 6 | Ameren Missouri?
- 7 MR. LOWERY: No. No, thank you, Judge.
- 8 JUDGE CLARK: Any questions from the
- 9 | Commission?
- 10 I have no questions for you, Mr. Fortson,
- 11 | so you may step down.
- 12 And the last issue as to this witness
- 13 [sic] is OPC's or Public Counsel's.
- 14 MR. WILLIAMS: Public Counsel calls
- 15 Mr. Seaver to the stand.
- JUDGE CLARK: I'll remind you,
- 17 Mr. Seaver, that you're still under oath.
- 18 THE WITNESS: Understood.
- 19 MR. WILLIAMS: I believe I jumped the gun
- 20 | with him a little bit in his -- well, I don't know.
- 21 | Did I offer your testimony yet?
- 22 THE WITNESS: I believe so.
- JUDGE CLARK: I believe you did actually.
- 24 It's already been admitted over objection. And the --
- 25 the corrections have been noted.



- Page 234 I thought I'd 1 MR. WILLIAMS: Okay. 2 offered it, but I hadn't noted it properly in my 3 recordkeeping. So since testimony's already in 4 evidence, I offer Mr. Seaver for examination. 5 JUDGE CLARK: Any cross-examination by the Commission Staff? 6 7 No, thank you. MS. MERS: JUDGE CLARK: Any cross-examination by 8 9 Ameren Missouri? 10 MR. LOWERY: No questions, Judge. 11 JUDGE CLARK: Any questions from the Commission? 12 13 JORDAN SEAVER, having been sworn, testified as 14 follows: 15 OUESTIONS BY JUDGE CLARK: 16 We may need to go into camera for -- for Q. 17 some of my questions. I've just got a few and I'm 18 going to try and keep it short. And you tell me, 19 Mr. Seaver, if we need to go into -- if we need to go 2.0 into camera -- in-camera.
- 21 Α. Okay.

is that correct?

- 2.2 0. Now, Public Counsel's office is 23 recommending a disallowance of some kind for prudence;
- 25 That is correct. Α.



Q. And what is that disallowance for?

1

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

So that disallowance is recommended in my 2 Α. 3 testimony as a way to reduce the amount of So if you choose to go ahead with 4 securitization. 5 sec- -- if the Commission chooses to go ahead with securitization, the Office of Public Counsel is not 6 recommending -- in my testimony, I'm not recommending 7 that you don't securitize it. 8

And I understand that in order to securitize it, you'd have to determine that the decision to retire is prudent, but I think that there are issues related to -- again, as Mr. Williams pointed out, the continuum from the beginning of this with the decision not to get applicability determination or pursue NSR permits from the EPA up to the decision that's now under consideration.

And it is a way to reduce the cost of securitization for customers. I think that answers the question.

- Q. And what -- what -- what's the imprudent decision that Public Counsel is -- is seeking?
- A. So in my opinion, and this is in my testimony because I believe with the position statement, OPC does take a position on this. So let me just walk you through how I got to this, right?

1	So I don't see how the Company can
2	distinguish between the decision to retire Rush Island
3	and securitize and the upcoming additions of solar and
4	wind and batteries and gas. And that also goes along
5	with its decisions to to retire and presumably
6	securitize other plants as well; coal plants.
7	So my figure of the disallowance was
8	based on an actual figure of something that I
9	considered to be a replacement for part of Rush Island
10	at the time. It was actually presented by the
11	Company. It wasn't just, oh, well, it will be a
12	thousand megawatts of wind right here, right, or in
13	this time period.
14	I could have done something different. I
15	could have said, well, let's see. What would it take
16	to replace Rush Island with renewables? And, of
17	course, if you replace a coal plant with renewables,
18	you need some kind of back-up for dispatch.
19	Because even if you can run even if
20	you get let's say for an entire week you get all of
21	your peak and all of your base load from renewables
22	because you got a bunch of wind and you got a bunch of
23	solar and it's an advantageous week, right? Then what
24	about the next week? You need back-up for it as well.

So you have to consider not just whatever

- 1 Mr. Michels considered, 1,200 megawatts of
- 2 combined-cycle, 800 megawatts of simple-cycle. You
- 3 have to consider the other things as well, because --
- 4 | well, I'm getting a little ahead of myself.
- 5 So I could have gone much further and
- 6 said maybe that's 3.6 billion. Maybe just looking at
- 7 the placement for Rush Island from the period of 2025
- 8 up to the period when we saw in Exhibit 1 -- let's
- 9 see, Staff Exhibit 118 when that capacity balance
- 10 changes in 2025 and then we only see it climb back up
- 11 to what it was before around 2030, well, the Company's
- 12 | planning on putting in 1,800 megawatts of solar,
- 13 | 1,000 megawatts of wind, 400 megawatts of batteries
- 14 and some gas as well.
- Well, that's a lot of money, right? And
- 16 | I didn't take all of that and then subtract my
- 17 | calculation of the scrubbers, which was based on an
- 18 | average from various estimates that I had in front of
- 19 me and then take that amount and subtract that from
- 20 | securitization. That would have given you a positive
- 21 and it would have been no securitization because there
- 22 | would be nothing left.
- But that is, in essence, why I
- 24 recommended a disallowance of something and why I used
- 25 | the four solars. So even -- like I said, in my

- 1 testimony, I made corrections because the one is not
- 2 considered anymore. But it's not like those
- 3 | 150 megawatts from that plant are not going to be at
- 4 some point added. So I still feel that the four is a
- 5 good way to calculate this.
- 6 Q. So would it be fair to say that basically
- 7 | you came up with a fairly wide range and you picked
- 8 what you felt was most reasonable within that range?
- 9 A. Yeah, that's a good way to put it. I
- 10 | think it's just a zone of reasonableness, you know.
- 11 | And I think it's a low amount to disallow, in my
- 12 opinion. Small amount, I should say.
- Q. Okay. I have no more questions.
- 14 JUDGE CLARK: Any recross based upon my
- 15 | questions? Commission Staff?
- 16 MS. MERS: I think very briefly.
- 17 | RECROSS-EXAMINATION BY MS. MERS:
- 18 Q. In your discussion with the Judge, you
- 19 discussed how you viewed Ameren's capacity position
- 20 | work papers to come to your recommendation on what to
- 21 remove and what seemed fair. Is that an accurate
- 22 | summary or --
- 23 A. I didn't use these work papers to come to
- 24 that. I just was referring to them right now as a,
- 25 | you know, way to -- a tool to visualize what I was

doing	
uO III 9	•

- 2 Q. Nothing further. Thank you.
- 3 JUDGE CLARK: Any recross from Ameren
- 4 | Missouri --
- MR. LOWERY: Just --
- 6 JUDGE CLARK: -- or in this case,
- 7 | questions based on Bench questions?
- MR. LOWERY: Thank you.
- 9 RECROSS-EXAMINATION BY MR. LOWERY:
- 10 O. Mr. Seaver, no costs associated with the
- 11 | four solar facilities, or the three if you prefer,
- 12 | since you sort of amended your testimony here today.
- 13 | No costs associated with those solar plants are in
- 14 rates today, correct?
- 15 A. That's correct.
- 16 Q. They haven't even been proposed -- the
- 17 cost of those plants hasn't even been proposed for
- 18 | inclusion in rates yet, has it?
- 19 A. No. I mean, it's assumed that it will
- 20 be, but yeah, no, it hasn't been proposed.
- 21 O. The 500 million dollars the Company seeks
- 22 | to securitize in this case, none of that 500 million
- 23 dollars consists of any expenditures on the solar
- 24 | plants or any other future addition; batteries, gas,
- 25 | anything else. Right?



Page 240

1	A. That's correct.
2	MR. LOWERY: That's all the questions I
3	have, Judge.
4	JUDGE CLARK: Thank you.
5	Any redirect from Public Counsel?
6	MR. WILLIAMS: Thank you, no.
7	JUDGE CLARK: You may step down,
8	Mr. Seaver.
9	THE WITNESS: Thank you.
10	JUDGE CLARK: It is now 3:08. Why don't
11	we come back at 3:20. And we'll go off the record in
12	recess.
13	(A recess was taken.)
14	JUDGE CLARK: All right. We are starting
15	Issue 4, which is Amount to Finance, and that is an
16	A and a B. A is: What amount of abandoned Rush
17	Island's capital project costs should be financed
18	using securitized utility tariff bonds?
19	And B is: Should Staff's proposed
20	exclusions of the costs of the abandoned Rush Island
21	scrubber study be adopted?
22	Is there any reason that we can't keep
23	the witnesses on the stand for both A and B at once?
24	MR. LOWERY: There isn't. And and
25	just a point of clarification. Mr. Birk won't know



- 1 anything about A, and I think the parties know that.
- 2 | I just wanted you to know that, Judge. But
- 3 Mr. Lansford will know about A from that standpoint.
- 4 And I think the other witnesses -- Mr. Majors is
- 5 probably A and Mr. -- Mr. Payne is probably B for OPC,
- 6 | just to orient you.
- 7 JUDGE CLARK: Thank you. I may just ask
- 8 them when they get up to clarify just so that
- 9 | everybody understands.
- 10 MR. LOWERY: Judge, would it -- would it
- 11 | be -- I don't think there are any other Commissioners
- 12 on, and I don't see any here, although maybe the Chair
- 13 | is coming back. Would it be helpful at all for a
- 14 | brief mini opening to orient you to the -- to some of
- 15 | these -- to this issue, particularly the studies
- 16 | issue?
- 17 Or if you don't find it helpful, I don't
- 18 have to say anything, but I could sort of set the
- 19 stage in a mini opening, if it would be helpful to
- 20 | you.
- 21 JUDGE CLARK: I believe that I'd said
- 22 | that any party that wants to do a mini opening on
- 23 | issues may. So you certainly may do a mini opening on
- 24 this. And it might be very helpful to me.
- MR. LOWERY: Would you like me to just go

1 ahead and briefly do that and -- before we take 2 Mr. Birk or --3 JUDGE CLARK: Yes. I assumed you were. 4 MR. LOWERY: Okay. Thank you. In the 5 2009 to 2011 time frame, the Company engaged two engineering firms, Black and Veatch and Shaw, to 6 7 conduct capital projects involving preliminary Rush 8 Island site-specific studies relating to the 9 possibility of installing scrubbers at Rush Island. The reason that the studies were done is 10 11 because the then proposed Clean -- Clean Air Transport 12 Rule, I believe, and Mercury and Air Toxics Rule, two 13 EPA rules, as we understood the proposal at that time, were going to require all of our units to be scrubbed 14 15 over the next several years. 16 As it turned out, the final rules came 17 out less stringent then they had been proposed. because of that and because of a large emissions 18 19 allowance bank that Ameren Missouri had and because we 20 were able to keep looking for alternatives and we 21 found one, that is to burn ultra-low sulfur coal, we 22 didn't have the engineering firms, you know, 23 completely finalize their reports and so on. 24 And we -- we did stop the projects and

didn't -- didn't proceed with scrubbers. And Mr. Birk

Page 243

1 | can discuss that in more detail.

Because of the possibility that EPA could have issued additional rules at any time after that 2009/2010 time frame and that could have meant that using the ultra-low sulfur coal or using allowance wasn't feasible anymore and wasn't economic anymore, we didn't abandon the projects.

These are CWIP projects you remember,

Judge, brought from Liberty. They had some CWIP

projects as well for some environmental CWIP projects,

as a matter of fact, and they abandoned those. And

the Commission did securitize those projects in that

case.

But we didn't -- we -- we didn't -- we -we didn't abandon the projects, you know, from a -from an accounting perspective, which is actually
going to happen when the plant closes, because it was
possible that -- that we might need to add scrubbers.

It was undis- -- it's undisputed, I think -- I don't think anybody's alleging that the projects were not taken in good -- undertaken prudently or in good faith. It's undisputed that they're site-specific to Rush Island.

Staff speculates that they may no longer be used -- useful, but on that basis alone, they say

- 1 | they shouldn't be securitized, but the evidence will
- 2 | show -- and I think Mr. Birk can certainly address
- 3 this for you that, in fact, they do have usefulness.
- And regardless, I don't even think that's
- 5 | the test, in any event. But -- but Mr. Birk can
- 6 discuss why we believe they are useful. So thank you
- 7 | very much.
- JUDGE CLARK: All right. Thank you.
- 9 Mr. Birk, you were here yesterday, but
- 10 | I'm going to ahead and swear you again.
- 11 (Witness sworn.)
- JUDGE CLARK: Thank you.
- MR. LOWERY: Mr. -- Judge, this is the
- 14 | last time Mr. Birk appears. Should I just go ahead at
- 15 | this point and move his testimony into the record?
- 16 | Because I don't think that's been done.
- JUDGE CLARK: Go ahead, Mr. Lowery.
- MR. LOWERY: I'd offer Exhibits 6 and 7,
- 19 | the direct and surrebuttal testimonies respectively of
- 20 | Mark Birk, into the record.
- JUDGE CLARK: Are there any objections to
- 22 admitting Exhibit 6, the direct testimony of Mark
- 23 | Birk; and Exhibit 7, the surrebuttal testimony of Mark
- 24 | Birk onto the hearing record?
- I hear and see no objections.



- 1 | Exhibit 6 and 7 are so admitted onto the hearing
- 2 record.
- 3 (Exhibits 6 and 7 were received into
- 4 | evidence.)
- 5 MR. LOWERY: Company tenders Mr. Birk for
- 6 cross.
- 7 JUDGE CLARK: Any cross-examination from
- 8 | Commission Staff?
- 9 MS. MERS: No, thank you.
- 10 JUDGE CLARK: Any cross-examination from
- 11 | the Office of Public Counsel?
- 12 MR. WILLIAMS: No questions at this time.
- 13 | Thank you.
- 14 JUDGE CLARK: Any Commission questions?
- 15 | MARK BIRK, being first duly sworn, testified as
- 16 | follows:
- 17 OUESTIONS BY JUDGE CLARK:
- 18 O. Well, I'm going to take the bait. Since
- 19 | Mr. Lowery said that you would be explaining -- be
- 20 | able to explain to me why this abandoned study is used
- 21 and useful, I would like to know.
- 22 A. So as Mr. Lowery indicated, in 2008,
- 23 | we -- we hired basically Black and Veatch and Shaw to
- 24 do essentially parallel studies for us. And the
- 25 reason we did that was because we recognized that



- 1 | the -- that the CAIR -- essentially the CAIR rules and
- 2 some other potential rules that were coming down the
- 3 pike may require us to put scrubbers on all of our --
- 4 all of our plants. And we knew that based upon how
- 5 the rules were being laid out, that the time frames
- 6 would be tight.
- 7 So one of the things that -- that we
- 8 benefited by was actually having both of these firms
- 9 come in, look at the specific site at Rush Island,
- 10 actually lay out detailed plans of where the scrubbers
- 11 | would be located all the way down to the specific
- 12 | equipment we would use.
- Now, recognize while this was going on,
- 14 we were also in the middle of constructing the Sioux
- 15 scrubber, so we were learning things from that. We
- 16 were incorporating it in.
- 17 And -- and ultimately what -- what was
- 18 developed allowed us to have essentially a full spec
- 19 that we could go out on the street with to an EPC, an
- 20 | Engineer Procure Construct, contractor and -- and
- 21 build a scrubber.
- 22 Now, you know, I know in -- in some of
- 23 | the testimony it indicated that, well, that really
- 24 didn't give you any head start. But the reality is,
- 25 this study started in 2008 and we got the detailed

- 1 information. Shaw's information came in -- really the
- 2 final in 2011. So it took us a couple years to -- to
- 3 work through all the details associated with
- 4 installing the -- the scrubber at Rush Island.
- 5 And -- and we had the studies to a point
- 6 where in -- in the very near-term we could go out on
- 7 | the street and say, Okay, here is the plan. The --
- 8 the Black and Veatch study was -- was almost 1,400
- 9 pages. The Shaw study was about 4,000 documents, all
- 10 the way down to physical layouts and drawings,
- 11 specific equipment specs. It was -- it was very
- 12 detailed.
- I -- I've gone through -- I haven't gone
- 14 through all 4,000 documents, but I've gone through the
- 15 study and I've gone through both of them. And from an
- 16 engineering perspective, they -- they were ready to
- 17 qo.
- And so we believe that what it would do
- 19 would allow us to shorten the time frame as much as
- 20 possible from the time let's say a rule was finalized
- 21 to the time we had to have the scrubbers on -- on the
- 22 | plant.
- 23 | So that's the reason -- that's the reason
- 24 | that we believe that -- that they were beneficial.
- 25 And it's the reason that -- that we believe it would

- 1 have helped us comply with the potential rules that were coming down the pike. 2
- 3 This is -- this is not unlike other studies that we do and other ways that we look at 4 5 things for other types of equipment that we -- that we put on our generating plants.

12

13

14

15

16

17

18

19

20

21

22

23

24

25

- 7 I know you mentioned that -- I 0. Okay. 8 know you mentioned the Sioux plant. Was this -- was 9 this study commissioned for all of the coal-fired 10 plants or was this study commissioned specifically for 11 the Rush Island?
 - It -- it was -- it was commissioned Α. specifically for Rush Island. One of the things that -- that we recognized with Rush Island, Rush Island and Labadie are pretty similar plants.

So we recognized as -- as we worked through the spec and the detail design for Rush Island, we would also potentially get some benefit if Labadie -- if Labadie needed to put scrubbers in.

They're both -- they're both basically have 600 megawatt tangential-fired units. The site layout's a little different, but essentially ideally if we would have had to have put scrubbers on all six units, two at Rush and four at Labadie, we would have attempted to use the same -- the same equipment

- because we want to share it between plants. That is
 the least cost way to do it. So you'd want to share
- 3 spares, you'd want to make sure that you could design
 4 it similar.
- Q. If you had to put on scrubbers at a different plant, would you have to commission a new study?
- A. If we -- if we look -- if we looked at

 Labadie and said we need to put scrubbers on at

 Labadie, we would pick up some of the information

 that's in this Rush study and we would -- we would use

 it as a starter.
 - It's not going to be exactly the same because the physical layout could be a little different. But a lot of the equipment and a lot of the specifications on let's say sulfur removal and things like that would be -- would be the same.

14

15

16

17

18

19

20

21

22

23

- I'm sure the technology that we picked would have been the same because we had -- we had chosen a wet scrubber technology already for Rush Island in these studies and we had laid out how we were going to provide all the electrical and everything. So a lot of that, you know, could -- could potentially be used at Labadie.
- Q. And not to split hairs. I understand the



- concept of could be useful to Ameren in the future, 1
- 2 but I don't see how that makes it used and useful now.
- 3 Α. Well, I believe that in -- in doing this 4 analysis, it was used and useful for Rush Island. -- you know, we used -- we used the estimated cost of 5 the scrubbers that we got out of this study to 6 determine, you know, whether we made the retirement 7 decision or not.
 - We -- we had confidence because of the analysis that was done that we knew roughly how long it would take to construct the scrubber and how much it would cost.
- 13 Then why -- why is it an abandoned 0. 14 project?

9

10

11

12

15

- Α. It -- it turns out being an abandoned project because we never actually built the scrubbers.
- 17 Was the Black and Veatch study the basis Ο. 18 for the economic analysis that was performed 19 determining that it was more beneficial for Ameren's 20 ratepayers to retire the plant then to install the 21 scrubbers?
- 22 Α. Yes. I believe it was the basis.
- It -- it was the only economic basis? 23 Q.
- 24 I don't know that I can say that, Judge, Α. 25 but it was -- from an engineering perspective, the --

Page 251

- 1 | the information that was provided to Matt Michels
- 2 | had -- had come out of that earlier analysis of -- of
- 3 what we believed it would cost to -- to put scrubbers
- 4 on at Rush Island.
- Q. But just to clarify, the -- the study is not associated with any plant that was ever in service with the completed scrubbers?
- 8 A. That is correct.
- 9 Q. Thank you.
- 10 A. You're welcome.
- 11 JUDGE CLARK: Any Commission questions?
- 12 | I hear none -- oh, I'm sorry. I jumped the gun.
- 13 CHAIR HAHN: Took me a minute to think,
- 14 Judge. Apologies.
- 15 QUESTIONS BY CHAIR HAHN:
- 16 Q. Good afternoon, Mr. Birk.
- 17 A. Good afternoon.
- 18 Q. Just following on Judge Clark's question,
- 19 you said that the Black and Veatch studies were part
- 20 | at least of the rationale of the economic basis for
- 21 | not installing the scrubbers, but instead retiring the
- 22 | plant --
- 23 A. Yes, Commissioner.
- 24 Q. -- right?
- 25 A. Yes, that's correct.



1	Q. You also said that the studies may have
2	not been able to be used exactly to install the
3	scrubbers, but they would have been useful if you had
4	chosen to install the scrubbers because it would have
5	saved time; is that correct?
6	A. That is well, that is correct.
7	Q. Okay.
8	A. That is correct.
9	Q. Would that time savings also have
10	translated into dollar savings should you have chosen
11	to install the scrubbers? For example, if you had
12	commissioned another study to actually or another
13	engineer actual project engineers, would it have
14	saved them, you know, time and money in that
15	estimation?

- Absolutely. Because you would have had Α. to go through and basically do all of that. said, the studies themselves started in '08 and it took almost two years to do that. And you -- you have to do them before you can install the projects because you can't even bid the work out until you do that.
- Q. I'm going to go a little out of order today, because I was listening online last night when you testified --
- 25 Uh-huh. Α.

17

18

19

20

21

22

23



,	Evidentiary Hearing April 16, 202
1	Page 253 Q but I don't like asking questions
2	virtually. I find it difficult.
3	A. That's okay.
4	Q. So I am going to ask going to go back
5	to the last issue a little bit.
6	You know, you mentioned in your testimony
7	last night that the issue that you thought was before
8	the Commission was whether or not the decision the
9	decision not to pursue an NSR permit was reasonable
10	and prudent. And that's the decision you thought
11	Commission had to make; is that right?
12	A. That is correct.
13	Q. According to that interpretation, do you
14	also think the Commission has do you think that,
15	from your view, has to lead into a decision that
16	the that retirement the decision is reasonable
17	and prudent to retire or abandon? Do you think we
18	have to make your the decision that you suggested
19	last night to lead into the second one? Or do you
20	think they can be
21	A. They're

-- mutually exclusive? Q. 22

23

24

25

-- they're two separate -- they're Α. mutually accept- -- exclusive. They're two separate decisions.



Page 254

- 1 Q. Okay. Just wanted to clarify that
- 2 | because I -- I --
- 3 A. Uh-huh.
- 4 Q. -- previously discussed with your counsel
- 5 | I think on day one -- day two or something --
- A. Uh-huh.
- 7 Q. -- just distinguishing those.
- 8 A. Yeah, they're two separate.
- 9 Q. Okay. Also going to now change subjects
- 10 | to something else. Earlier today I discussed with
- 11 | Matt Michels concerns over resource adequacy
- 12 | generally.
- A. Uh-huh.
- 14 Q. How is Ameren generally planning for
- 15 | resource adequacy concerns if you have -- if you're
- 16 going to hit a capacity shortfall in 2025 of
- 17 | 300 megawatts?
- 18 A. So -- so what we're doing -- you know,
- 19 | basically, Commissioner, we're look -- we use our
- 20 | integrated resource planning process to do that. We
- 21 do recognize that the MISO has gone to a seasonal
- 22 construct. And -- and we also recognize that like --
- 23 | like a lot of the -- of the rest of the United States,
- 24 | there's a lot of renewables being added.
- 25 And one of the things and -- that we've

- 1 done with the last IRP and we will do with the
- 2 | subsequent IRPs is we're looking at -- at the resource
- 3 | needs much more granularly. And by that I mean
- 4 it's -- it's hour-by-hour, day-by-day.
- 5 Because we recognized a few years ago
- 6 that -- especially when we got into some of the winter
- 7 issues with Uri and things like that, that -- that you
- 8 can't just look at the summer anymore. You have to
- 9 look at 24/7/365.
- 10 And so when we look at it that way, we
- 11 recognized that -- that as we integrated more
- 12 renewables on the system, we needed more dispatchable
- 13 generation. And so going forward, that is one of the
- 14 | things we're going to focus on.
- 15 I think -- I think when you look at our
- 16 | coal fleet in general -- and this is one of the things
- 17 | that -- you know, that utilities have to deal with is
- 18 | you can't -- you can't look at it without assuming
- 19 there's going to be additional regulation in the
- 20 | future on those plants.
- 21 And I think you also have to look at --
- 22 | I've -- I've worked -- I started in nuclear, but I --
- 23 | I spent most of time in the coal plant so I understand
- 24 | it.
- As they get older, they're going to have

- to retire. It's -- you can't keep -- Meramec was
 almost 70 years old when we retired it. What you
 start to worry about, you can -- you can replace some
 components in there, in the -- but you can't replace
 everything. And so it starts to become a reliability
 and a safety risk.
 - so as we look at our system, we -- we are really trying to figure out how to continue to meet the capacity and energy needs of our customers, along with having the right mix of dispatchable and renewable.

- It's -- it's not easy. Because not only are we -- are we seeing more pressure on some of our existing resources, but -- but we're also seeing lately more and more load. I mean, we're -- we're starting to see interest from data centers and other areas. And I would expect in the future that we're going to have to do more frequent IRPs.
- Some of it could be because -- because we have a unit retiring like Rush Island was doing, but some of it could be that we're picking up additional demand and load in chunks. In the past, you know, we could look at our load growth and it would be somewhere between 1 to 1.5 percent. It followed the GDP. You could almost bank on it.



1	And then when energy efficiency came in
2	and LEDs and everything, it went away from that and it
3	kind of flattened. And what we're seeing now is the
4	loss of some of the base load generation, but the
5	additional of load, but now it's chunks. I mean,
6	when data centers come in, it's not five or ten
7	megawatts. It's it could be 200, 250, it could be
8	500 or more. And those are when our peak load in
9	the summer is 7,800 megawatts, those are big chunks.
10	So I think to answer your question, the
11	way we're going to have to do it is we're going to
12	have to, more frequently, update our Integrated
13	Resource Plan and we're going to have to be able to
14	ensure we have enough dispatchable resources and
15	enough total resources on the system.
16	You know, I think what we found is it's
17	not out there easily to get in the marketplace. I
18	think we've seen that from MISO. And so the other
19	thing we did in in addition to looking at the IRP
20	more granularly is we recognized in order to ensure
21	that that we could keep the lights on, we're going
22	to have we're going to have to build this stuff
23	ourselves.

Q. That's interesting. When I asked
Mr. Michels, you know, how do you plan to make up the

- 1 | shortfall? The answer -- and I'm summarizing -- was,
- 2 | Buy it.

15

16

17

18

19

20

21

22

- A. Yeah.
- Q. But that's a problem because there's nowhere to buy.
- 6 A. It's not always there.
- 7 Q. Not always there.
- 8 A. It's not always there.
- 9 Q. Which is also a concern.
- 10 A. Uh-huh.
- Q. So just want to make sure that we're, you know, taking these things into account as -- as we make these decisions, so.
 - A. Yeah. The -- because, you know, from an engineering perspective and an operating perspective, the last thing we ever want to happen is the lights to go out, period.
 - We know from talking to our customers that the two most important things to them are reliability and affordability. So we're constantly trying to balance that. But generally if you don't have the reliability there, the affordability is probably less important.
- So we have to make sure, first and foremost, we can ensure that we have reliable



1 electricity. And that's what -- that's what we're that's what we're planning to do. 2 3 Q. Well, thank you, Mr. Birk. 4 CHAIR HAHN: Appreciate the Judge's 5 indulgence in letting me cross issues. Thank you. 6 JUDGE CLARK: Thank you, Chair. 7 Any redirect based upon Commission 8 questions from AARP or Consumer Council of Missouri? 9 No thanks, Your Honor. MR. COFFMAN: 10 JUDGE CLARK: Any -- any redirect from 11 the Commission -- or I'm sorry, recross from the 12 Commission Staff based upon Commission questions? 13 RECROSS-EXAMINATION BY MS. MERS: Just very briefly and just for my own 14 Ο. 15 clarification. When you were discussing with the 16 Bench the applicability of the studies to the --17 Uh-huh. Α. 18 -- different plants, I thought at one 0. 19 point I heard you say Sioux and then I thought I heard 20 you at one point say Labadie. 21 Α. Let -- let me clarify that for you. 2.2 Q. Okay, thank you. 23 Yeah, I'm sorry. Α. 24 No, that's okay. Q. 25 That was -- that was probably my fault. Α.

- 1 So at the time that we were doing the -- the study for
- 2 Rush Island, we were in the middle of constructing the
- 3 | Sioux scrubber.
- So as we -- as we were building that,
- 5 we -- we were learning things through that
- 6 construction, maybe -- maybe mater- -- things around
- 7 materials, things around layout and that, that we
- 8 incorporated into the Rush Island plant.
- 9 So the study had nothing to do with
- 10 | Sioux. Sioux was -- Sioux was already underway from a
- 11 | construction perspective. And -- and the reason that
- 12 | I -- that I said it would -- you know, some of the
- 13 parts would be applicable -- could be applicable to
- 14 | Labadie is because Rush and Labadie are -- the units
- 15 themselves are fairly identical.
- 16 They're both -- they're both -- they're
- 17 | all 600 megawatt units. They -- some of the parts are
- 18 even interchangeable, so that's why.
- 19 O. Okay. Thank you for that. And then one
- 20 other clarification. Do you recall discussing how you
- 21 | and Matt Michels used the cost of that -- the -- the
- 22 cost of the scrubbers that came from the study --
- A. Uh-huh.
- 24 Q. -- to do your NVPRR calculations?
- 25 A. The -- the calculations that Matt

1	Michels did	on retirement; is that correct?			
2	Q.	Yes. And if if you don't know this,			
3	this is okay	. But do you recall, did those			
4	calculations	include the cost of that study?			
5	А.	I do not I do not know that.			
6	Q.	Okay.			
7	A.	I'm sorry.			
8	Q.	Thank you very much though.			
9	A.	Okay.			
10		JUDGE CLARK: Any recross any recross			
11	from the Office of Public Counsel?				
12		MR. WILLIAMS: Yes. Thank you.			
13	RECROSS-EXAMINATION BY MR. WILLIAMS:				
14	Q.	Good afternoon, Mr. Birk. How are you			
15	doing?				
16	А.	Good afternoon.			
17	Q.	You said, as I understand it, that the			
18	work that was	s being done on scrubbers at Sioux			
19	informed the	study for putting scrubbers on Rush			
20	Island; is the	nat correct?			
21	A.	Yes.			
22	Q.	Are Sioux and Rush Island, I guess I'll			
23	use the word	sister plants, like you indicated Rush			
24	Island and Labadie are?				
25	A.	They are not sister plants. But but			

- 1 | the type of scrubbers that we were -- we were
- 2 installing at the Sioux and the type of scrubber we
- 3 were going to install at Rush Island was a wet
- 4 scrubber.
- 5 So we -- we were taking learnings from
- 6 that. Learnings how we -- how we fed the power
- 7 through, things like that we were using. So they --
- 8 | they weren't app- -- complete apples to apples, but
- 9 they were close in a lot of regards.
- 10 Q. So when you say sister plant, are you
- 11 | saying they're essentially identical or --
- 12 A. Are you talking about Labadie and Rush
- 13 | Island now?
- Q. Well, you used the term "sister plant" so
- 15 | yes, it would be -- your description was --
- 16 A. Yes.
- 17 | O. -- Labadie and Rush Island.
- 18 A. Yes. So -- so -- so Labadie -- Labadie
- 19 | was built -- so there's four units at Labadie. They
- 20 were built in 1970 through 1973. They were combustion
- 21 engineering, T-fired, which means they're tangential
- 22 | from the walls. And -- and Rush Island was built
- 23 | in -- in '75 and '76. And they're also combustion
- 24 engineering T-fired units.
- 25 So yeah, when you look at them from an

- 1 | industry perspective, they all -- they each have six
- 2 | coal mills per unit, they each use similar boiler feed
- 3 pump. There's a whole lot of similar things that the
- 4 units have.
- 5 So calling -- I think calling them sister
- 6 units -- not completely identical, because one of the
- 7 things I think that we found was as Labadie was
- 8 constructed, there was some shortcomings. The
- 9 furnaces may not be -- been big enough so they made
- 10 them a little bigger at Rush Island.
- 11 There were some other things that they
- 12 found that they improved as they built Rush Island.
- 13 | But essentially -- essentially very similar.
- 14 Q. When was Sioux originally built?
- 15 A. It was built in 1966.
- 16 | Q. And why was -- why did you first put
- 17 | scrubbers on at Sioux?
- 18 A. The -- the scrubbers were installed at
- 19 | Sioux first because Sioux is a cyclone-fired unit,
- 20 different -- different than Labadie and Rush Island.
- 21 And in order to get the full capability out of Sioux,
- 22 | we could not use a complete blend of low-sulfur coal.
- 23 | So we had to -- even to today, we have to mix some
- 24 | high sulfur with low sulfur.
- 25 So essentially, Sioux was our -- was our

- 1 dirtiest plant from an SO2 perspective. And we recognized that at some point we would probably 2 3 have -- potentially have scrubbers throughout the So since Sioux was our -- our dirtiest plant, 4 system. 5 we felt we'd put it on their first. We had to comply from a system perspective and cleaned up the one that 6 7 emitted the most sulfur first. And then you said you had a cost estimate 8 Ο. 9 for scrubbers at Rush Island from the 2008 study and
 - for scrubbers at Rush Island from the 2008 study and information about how long it would take to build the scrubbers at Rush Island from that study?
 - A. Yes, sir.

11

12

13

18

19

20

21

22

23

24

- Q. What was the cost estimate?
- A. If I recall -- and it's -- it probably
 doesn't have all the loaded cost and everything in it,
 but it was -- it was around 720 million dollars.
- 17 Q. So be kind of a preliminary estimate?
 - A. It was a preliminary estimate. And again, that was -- that was based upon -- I think if I remember correctly, starting scrubbers -- completing one of the units in 2015 and the other one in 2016.

 Again, to comply with the potential CAIR and CSAPR requirements that we saw coming down the pike.
 - Q. And when did you get that estimate?
 - A. It would have been -- it would have been

- done when the studies -- when the studies were --
- 2 Q. 2008 or --

- A. The studies were started in '08 and completed in '10 and '11, so been in that time frame.
- Q. And then you got some questions about resource adequacy. And I keep hearing the utilities talking about the capacity requirements that the RTOs and ISOs impose on them. Are those capacity requirements necessarily sufficient for the utility's load itself?
 - A. We -- so -- so MISO, when they went to the seasonal construct, they actually -- when you say capacity requirements, it's -- you -- you have to -- you have to provide enough generation to supply your demand plus a reserve margin.

and so what the -- in the MISO construct -- and I'm not an expert on this, but in the MISO construct, by season that reserve margin can vary. So what -- what the RTOs have started doing, which -- which I think is actually a good -- a good process is when you get into the winter, when you -- you may not have the same level of, let's say, solar assets available. They -- they very well -- they may make you carry a higher reserve margin then you would in the summer.



Page 266

So prior to this seasonal construct, for 2 instance, we had to carry -- be able to meet our 3 demand plus -- plus about -- I think it was 12 or 13 percent in addition to that in the summer. 4

1

7

8

- 5 that accounted for the variability in units and things 6 that may happen.
 - I think it's actually going to -seasonally now it's changing so we have to -- we have to accommodate essentially every season.
- 10 Ο. Well, isn't a utility better off if it's 11 long than if it's short on capacity?
- 12 I would -- I would say from -- from an Α. 13 operating perspective, it -- you -- yeah, you would be better off having -- having more generation than --14 15 than less.
- Callaway was down during Storm Uri, was 16 Q. 17 it not?
- 18 I'd have to go back and look. Α. But I 19 believe -- it was -- it was down during one of the 20 cold spells with -- with the generate -- the generator 21 issue that we had.
- 22 0. And Ameren Missouri was still long enough 23 that it didn't have to deep deeply -- or reach deeply 24 into the energy market, correct?
- 25 Α. I believe that was correct, but I think



1 we were -- I think we were close. We were close.

2

3

4

5

6

7

8

9

10

11

12

- Q. You weren't like Liberty and Evergy West?
- A. I -- I can't speak to them. I will say that, you know, one of the things that we have seen over the last several years is that our winter peak is getting much closer to our summer peak than it had been in the past.
- And so in the past you may have seen, for instance, let's say a summer peak of 7,800 megawatts and in the winter it may have been in the -- in the mid sixes, somewhere in there. I think over some of those times you were talking about, we actually were into the low seven's in the winter.
- So some utilities are actually seeing it get much, much closer. And we are seeing it get closer over time.
- Q. Now, you talked about now getting chunky load. Wasn't Noranda a pretty good chunk of load?
- 19 A. It's definitely a chunk of load, that's 20 correct. It's 500 megawatts, if I recall.
- Q. And when was it Ameren started serving Noranda?
- A. I don't -- I don't recall the exact year it did.
- Q. Approximately?



Page 268

1 A. It would have probably been in the -probably in the early 2000's, somewhere in around 2 3 there. 4 Ο. So you have had some experience with 5 chunky load? Well, when you say "chunky load," Noranda 6 Α. itself was -- and by -- by "chunky load," I meant it 7 8 was being -- it's being added in large chunks and 9 that's what Noranda was. But Noranda itself was --10 it's -- just like data centers, it -- it had a 11 capacity factor that was pretty -- pretty high. Ιt 12 was probably 95 percent. 13 And when you say "capacity factor," you Ο. mean it was using the same amount of electricity --14 15 Α. Yeah. Pretty much --16 Q. -- 24/7? 17 -- 24/7, that's right. That's right. Α. So 18 yeah, it was. 19 Thank you. No further questions. 0. 20 You're welcome. Α. 21 JUDGE CLARK: Any redirect from Ameren? 22 MR. LOWERY: A little bit, Your Honor. 23 REDIRECT EXAMINATION BY MR. LOWERY: Mr. Birk, Mr. Williams asked you -- I 24 0 25 think he asked you why was Sioux scrubbed. And I

1 think you explained it was the dirtiest plant and you

had system-wide SO2 targets you need to meet, right?

A. That's correct.

- Q. Can you -- can you explain why the Company was able to avoid scrubbing the other units?
- A. Yes. The -- the reason that we were able to -- to avoid scrubbing the other units is as the -- as the CAIR and CSAPR -- as the rules were finalized and the market went to one that -- that also had a -- an SO2 credit bank, one of the things that we recognized is that we could burn, especially in -- at Rush and Labadie, ultra low-sulfur coal and use that with our allowance bank.

And we had a pretty -- pretty good allowance bank because we had switched to low-sulfur coals in -- in the mid-'90s on these units. And -- and ultimately we could do that and comply with the requirements with the regulations without having to scrub the units. And -- and we believe that in doing that, it was -- it was definitely to the benefit of our customers.

Q. There was some -- there -- there were -- an issue was raised earlier in the hearing, and I think there was were questions from the Bench. And -- and it relates to this question about why -- you know,

- 1 | why -- why you didn't have to scrub the other plants.
- 2 | It seems like Evergy, for example, had to scrub all
- 3 | their plants.
- 4 Was there something different about the
- 5 | coal or the allowance banks or something that --
- 6 between Ameren and Evergy that might have explained
- 7 | that difference?
- 8 A. Yeah. I believe -- I believe that we had
- 9 a larger allowance bank. And I think that was
- 10 | because, you know, when -- when Ameren -- or it was a
- 11 | time when Union Electric switched over to lower sulfur
- 12 coals. We -- we were one of the early ones in the
- 13 industry to do that.
- 14 And because of that, I think it -- it
- 15 allowed us to -- to have a larger bank and -- and
- 16 | we -- we utilized it.
- 17 | O. So if Ameren Missouri had had
- 18 | significantly less allowances, it might not have been
- 19 able to avoid the scrubbers, right?
- 20 A. That's exactly right. We may have made a
- 21 different decision, but -- but we recognized that --
- 22 | that -- that the cost of -- of installing the
- 23 scrubbers and then the cost of operating the
- 24 | scrubbers. Because they're -- there's also an O and M
- 25 component that goes with it that for us we -- we could

April 16, 2024 Page 271 purchase the ultra low-sulfur coal and it was --1 was beneficial. 2 I believe, if I recall, we even came down 3 and we -- we -- we actually talked to the Staff about 4

kind of our -- our compliance plan around the ultra

- 7 Mr. Williams asked -- he also asked you 0. 8 about the Black and Veatch and Shaw studies and -- and 9 the cost estimates. And -- and I think this -- this 10 is probably clear if you think about it, but you said 11 they -- they were assuming installation in 2015 and
- 13 That's correct. Α.

low-sulfur coal.

2016, right?

5

6

12

17

18

19

20

- Does that mean that the -- the 14 Q. 720 million figure you mentioned was probably in 2014 15 16 or '15 or '16 dollars?
 - Oh, absolutely. Yeah. And it would have Α. had to have been -- and I realize that when -- when we talked to the Court and when we went through the NSR, that the cost was higher than that. But that -- it would have been escalated.
- 22 0. Judge Clark asked you some questions 23 about used and usefulness. Do you remember that?
- 24 Yes, I do. Α.
- 25 Am I correct that any time you have a Q.

- 1 CWIP project that did not result in a project and it
- 2 | gets abandoned, that CWIP project never became used
- 3 | and useful, right?

right?

4 A. That is correct.

- Q. There's some CWIP projects in this case that nobody's opposing securitization of; isn't that
- 8 A. That's correct.
- 9 Q. And -- and again, they're -- they --
- 10 | they -- they couldn't be used and useful either
- 11 | because they never came to fruition, right?
- 12 A. That's correct.
- MR. LOWERY: That's all the questions I
- 14 have, Judge. Thank you.
- JUDGE CLARK: Thank you. You may call
- 16 | your next witness.
- 17 MR. LOWERY: Call Mitch Lansford back to
- 18 | the stand.
- 19 JUDGE CLARK: And Mr. Lansford is here
- 20 | for 4A; is that correct?
- 21 MR. LOWERY: Yes. I don't think he knows
- 22 | a whole lot about the scrubber studies.
- 23 (Witness sworn.)
- 24 JUDGE CLARK: Please be seated.
- MR. LOWERY: And this is not the last he

Page 273 1 appears so I'm not going to offer his testimony at 2 And I tender him for cross. this time. 3 JUDGE CLARK: Any cross-examination 4 from -- AARP is no longer in the room. 5 cross-examination from the Commission Staff? 6 MS. MERS: No, thank you. 7 JUDGE CLARK: Any cross-examination from the Office of Public Counsel? 8 9 MR. WILLIAMS: Thank you, no. 10 JUDGE CLARK: Any questions from the 11 Bench --12 CHAIR HAHN: Yes. 13 JUDGE CLARK: -- or from the Commission? 14 I'm sorry. 15 CHAIR HAHN: Yes. 16 Go ahead. JUDGE CLARK: 17 MITCHELL LANSFORD, being first duly sworn, testified 18 as follows: 19 QUESTIONS BY CHAIR HAHN: 2.0 Good afternoon, Mr. Lansford. 0. 21 Α. Good afternoon. 22 Q. I've been trying to locate -- and I'm 23 sure it's in all this testimony; I've had Staff 24 looking as well -- the value of the scrubber studies. 25 And I assume that it is in the difference between



```
Page 274
 1
    the -- is that -- unless it's confidential.
                                                   I don't
 2
    assume that it is, but --
 3
                  JUDGE CLARK:
                                I don't think it's that.
 4
    It's that we're taking A and B together.
                                            He's on both.
 5
                               He's on B.
                  CHAIR HAHN:
                  JUDGE CLARK:
                                Is he?
 6
 7
                 CHAIR HAHN:
                               Yeah.
                  JUDGE CLARK:
                                Can you answer that
 8
 9
    question?
10
                  THE WITNESS:
                                I can answer that question,
11
    yes.
12
                                I apologize.
                 JUDGE CLARK:
13
    BY CHAIR HAHN:
                  That's okay.
                               I'm just trying to locate
14
           Ο.
15
    the difference between the value of the scrubber
16
    studies and the difference in Staff and Ameren's
17
    position on this issue.
18
                 Yes, I can help -- help clarify that.
           Α.
19
    I'm just going to turn to one of my schedules here.
20
    If I look at Schedule MJL-S5 from my surrebuttal
21
    testimony, line four references abandoned capital
22
    projects and totals 12.9 million dollars.
23
                 And if you compared that to Mr. Majors
24
    similar schedule, I don't -- I don't know the exact
```



On that same line four, he would have

25

reference.

- 1 | 3.9 million dollars under the abandoned capital
- 2 projects line. The difference between those two
- amounts is 9,032,646 dollars. And that's the value of the scrubber study we're talking about.
- 5 Q. Thank you.
- JUDGE CLARK: Are there any other Ben- --
- 7 or any other Commission questions?
- 8 COMMISSIONER HOLSMAN: Yes.
- JUDGE CLARK: Commissioner Holsman,
- 10 | please go ahead.
- 11 COMMISSIONER HOLSMAN: Thank you.
- 12 | QUESTIONS BY COMMISSIONER HOLSMAN:
- 13 Q. That scrubber study, when did that occur?
- 14 A. I'm sorry, Commissioner Holsman, I -- I
- 15 don't have a lot of knowledge around the -- the study
- 16 itself. Mr. Birk had some of that knowledge.
- 17 Q. Are we talking about a single -- a single
- 18 | study?
- 19 A. We are. A single study as it relates to
- 20 Rush Island.
- 21 | O. And I -- my understanding is that, you
- 22 | know, this study is one of the ways that we can
- 23 | discern rather investing in the scrubbers was going to
- 24 | be in the best interest of the ratepayers versus
- 25 retiring the coal plant. Is that accurate, that the

- 1 | study is -- helps us get there?
- 2 JUDGE CLARK: Commissioner Holsman, would
- 3 | you like me to recall Witness Birk? I believe he's
- 4 | the witness for that.
- 5 COMMISSIONER HOLSMAN: Just -- I'm asking
- 6 from a -- from a high-level perspective. I don't know
- 7 | that -- maybe. Not yet.
- JUDGE CLARK: Okay.
- 9 COMMISSIONER HOLSMAN: Let's see -- let's
- 10 | see what --
- JUDGE CLARK: Let me know.
- 12 BY COMMISSIONER HOLSMAN:
- Q. Would you -- would you agree that the
- 14 study is one of the ways that we can discern the
- 15 difference in value for the ratepayer between
- 16 | installing the scrubbers or retiring the coal plant?
- 17 A. I think -- you know, and especially as I
- 18 | listened to some of the testimony from earlier today,
- 19 that -- that that's -- that study helps us understand
- 20 what's necessary to scrub the Rush Island plant, both
- 21 units there, and does help inform the analysis that --
- 22 that Mr. Michels performed, you know, that got to
- 23 | the -- or helped us decide whether or not to scrub the
- 24 | plant or -- or --
- 25 Q. Okay. And the study cost nine million

٦,	٦	٦		_	9
do	\perp	\perp	ar	\simeq	:

2

3

4

5

6

7

8

9

10

11

16

17

18

- A. It does. It did.
- Q. Absent the study, would we have the data necessary to make an informed decision about which direction is in the best interest of the ratepayers?
- A. I'm sorry. I don't really know whether we would have the information that Matt Michels would need to perform the analysis or not. I mean, I guess I do know that the headroom that -- that existed in a lot of the -- in a lot of the scenarios that he evaluated had tremendous headroom, but...
- 12 Q. Thank you.
- COMMISSIONER HOLSMAN: Judge, if you

 14 could recall -- recall Birk for just -- to answer this

 15 one question, I would appreciate it.
 - JUDGE CLARK: Absolutely. Mr. Lansford, will you step down? And at this time I would like to recall Mr. Birk. I'll remind you you're still under oath.
- THE WITNESS: Okay.
- JUDGE CLARK: Go ahead, Commissioner.
- 22 COMMISSIONER HOLSMAN: Thank you.
- 23 | MARK BIRK, having been recalled and previously sworn,
- 24 | testified as follows:
- 25 QUESTIONS BY COMMISSIONER HOLSMAN:



- Q. My apologies for having to ask you back
- 2 | up here.
- 3 A. No problem.
- 4 Q. So you might have heard my question.
- 5 | I'll repeat it. For starters, we're talking about one
- 6 study with the expense of nine million dollars to
- 7 determine the value of the scrubbers for Ameren
- 8 | Missouri; is that correct?
- 9 A. It was -- we called it a study, but we
- 10 actually commissioned two separate engineering firms
- 11 and --
- 12 Q. Okay.
- 13 A. -- they did it. And the reason we did
- 14 | that is because we wanted to get cost and schedule
- 15 | certainty.
- 16 Q. Was that nine million split equally
- 17 | between the two firms?
- 18 A. I don't know -- I don't know that.
- 19 Because we just had it in a work order. But it was --
- 20 | I would tell you from the output of both firms, it was
- 21 probably pretty close.
- 22 Q. Okay.
- 23 A. Because it was pretty detailed, both
- 24 | firms on what they provided.
- 25 Q. Would we be in a position to accurately



- 1 predict what was in the best interest of the
- 2 | ratepayers without the reports?
- A. In my opinion, no, because it -- it -- we
 went through -- it took two years to get to a point
 where we had schedule certainty and cost certainty.
 And so we based -- we based future decisions and
 escalations off the numbers that came out of that
 - Q. Do you think Ameren's position would be different if those reports had come back and said that it's economically feasible to install the scrubbers and extend the life of the plant?
 - A. Well, the -- what the studies did was they just determined the total cost of what the scrubbers would be and how much time it would take to construct them. And then so Matt Michels took that information and really the engineers developed that and put it into his analysis. So it was -- the cost was the basis for his analysis --
- 20 Q. Okay.

9

10

11

12

13

14

15

16

17

18

19

study.

- 21 A. -- from a scrubber perspective.
- Q. Okay. Thank you. Thank you.
- 23 | COMMISSIONER HOLSMAN: Judge, did -- I
- 24 apologize. Did we already hear from Staff on 3B -- or
- 25 | 4B? We have not? Mr. Majors?



Page 280 No, Commissioner, we have 1 JUDGE CLARK: 2 not. 3 COMMISSIONER HOLSMAN: Okay. Thank you. 4 That's all the questions I have. Thank you. Just a second. 5 JUDGE CLARK: There's due 6 process concerns. 7 THE WITNESS: Sorry. 8 JUDGE CLARK: Any redirect from the Commission Staff? 9 10 MS. MERS: I'm sorry, but I have just 11 one. 12 JUDGE CLARK: You don't have to apologize 13 for that. 14 FURTHER RECROSS-EXAMINATION BY MS. MERS: 15 Ο. So the studies were completed in 2011; is 16 that correct? 17 Α. That's correct. 18 0. So --19 '10 and '11. Α. 20 '10 and '11. If Ameren wanted to 0. evaluate on closing Rush Island versus retrofitting, 21 22 if we can imagine the Court cases don't play a part in it; just that decision in an IRP. 23 They had that 24 information in -- starting in at least 2011; is that 25 right then?



- 1 A. That would have been correct.
- 2 Q. Okay.
- A. Yes.
- Q. Thank you very much for clarifying. I appreciate it.
- JUDGE CLARK: Any recross from the Office of Public Counsel?
- MR. WILLIAMS: Yes, I do have a few.
- 9 | FURTHER RECROSS-EXAMINATION BY MR. WILLIAMS:
- 10 Q. When did Ameren Missouri put -- or --
- 11 | yeah. When did Ameren Missouri put scrubbers on
- 12 | Sioux?
- 13 A. Oh, the scrubbers were completed in 2010,
- 14 | I believe.
- 15 Q. And we had a discussion earlier about
- 16 | what occurred at Sioux informed the studies that were
- 17 done for Rush Island, correct?
- 18 A. Informed some of the -- some of the
- 19 equipment analysis.
- Q. And how much did it cost to put the
- 21 | scrubbers on at Sioux?
- 22 A. From what I can recall, it was -- it was
- 23 somewhere -- it was around maybe six -- I'm going off
- 24 | the top of my head here, okay? But it was around 600,
- 25 | 620, somewhere in there.



- 1 Q. 620 bucks?
- A. No, no, no, no. No, no, no. I think it
- 3 was around 6 -- 600 million to 620 million, somewhere
- 4 in there.
- 5 Q. So from your testimony -- well, how much
- 6 different were the scrubbers at Sioux versus scrubbers
- 7 | at Rush Island or Labadie?
- 8 A. Yeah, so that's -- that's a great
- 9 question. Sioux is a -- is a 500 megawatt unit, Rush
- 10 Island is a 600 megawatt unit. There -- there were
- 11 some differences. We -- we had to replace the fans at
- 12 | Sioux because we didn't have enough air capability.
- 13 At Rush, the design was far enough along
- 14 | that we felt we could just replace the motors, put
- 15 | bigger wheels on the fans, which was -- so there was
- 16 some nuances and differences. But Rush was a bigger
- 17 | unit and so it -- you would expect it would cost a
- 18 | little more to put it on then -- then what it cost at
- 19 | Sioux, which it did.
- 20 | O. So the -- the Sioux cost of 600 to
- 21 | 620 million was in '22 -- 2010 dollars, right?
- 22 A. That's correct.
- 23 Q. And the estimates you had of -- what was
- 24 | it, 700 or 720 million --
- A. Uh-huh.

Page 283

- Q. -- for Rush Island were 2015-ish --
- A. Well, they would have been --
- 3 | Q. -- dollars?

1

2

10

11

12

13

14

15

16

17

A. -- they would -- I mean, the studies

would have been completed in -- in 2010 and '11. And

then they would have, you know, escalated. They -
they had built up -- from I recall -- and it -- I'm

not -- I didn't read through the details, but study

built up to cost through the construction period.

And so it would have been escalated throughout that construction period. So 2015 -- it would have started in -- construction in 2011 and ended in 2015.

- Q. Well, I under- -- okay. I understand there would have been a construction period over a -- over time. But the all-in cost by the time you got done at 2015 was -- roughly was estimated to be --
- 18 A. Uh-huh.
- 19 Q. -- in the neighborhood of 700 to 20 720 million?
- 21 A. About 720, uh-huh.
- Q. And you would expect, I guess, similar types of escalation if you were to push the numbers out to, say, 2021 or 2022?
- 25 A. I'm not -- I'm an engineer, not a finance

1	expert.
2	Q. Well, have you ever seen costs go down
3	with time?
4	A. No. No, they do not. So it would it
5	would have been escalated. It would have been
6	escalated for sure.
7	Q. And I'm not asking you to quantify
8	A. No, it would have been escalated, so
9	yeah.
10	Q. Thank you.
11	A. You're welcome.
12	Q. No further questions.
13	JUDGE CLARK: Any Ameren redirect?
14	MR. LOWERY: No, thank you, Your Honor.
15	JUDGE CLARK: Mr. Birk, I appreciate you
16	sticking around to be able to answer these questions.
17	THE WITNESS: No problem.
18	JUDGE CLARK: And you may step down.
19	THE WITNESS: Thank you.
20	JUDGE CLARK: Mr. Lansford, if you will
21	come back up, we will continue your testimony. I'll
22	remind you again that you are still under oath as
23	well.
24	And bear with me just a moment while I
25	find where I was.

- 1 | MITCHELL LANSFORD, having been recalled and previously
- 2 | sworn, testified as follows:
- 3 QUESTIONS BY JUDGE CLARK:
- Q. Would you explain to me briefly the tax concern that was brought up by one of the other
- 6 parties and why you don't believe it's applicable in
- 7 this instance in regard to abandoned capital projects?
- And to refresh your memory, I believe it
- 9 involved the construction work in progress and you
- 10 were talking about a dollar in/dollar out essentially.
- 11 A. Yeah. Sorry. Sorry, Judge. I just had
- 12 to get to the right reference point here. You know,
- 13 as we think about income taxes, we think about, you
- 14 know, taxable income, we think about -- we think about
- 15 | the net, you know, revenues less our expenses.
- 16 And if we think about abandoned capital
- 17 | projects, if we recover those costs, we get revenues
- 18 | equal to that recovery and we have costs equal to the
- 19 costs. Our costs will equal our revenues.
- 20 | Contribution to -- to taxable income is zero as a
- 21 result and, therefore, there is zero income tax
- 22 consequences resulting from the net of those two
- 23 | numbers equaling, of course, zero.
- 24 Q. I think I -- I -- I probably should have
- 25 | asked -- the more articulate question I probably

- 1 | should have asked is, it has been proposed that these
- 2 | abandoned capital projects don't belong here and
- 3 | shouldn't be recovered, and maybe should be recovered
- 4 elsewhere instead of being securitized.
- 5 Are there additional costs with
- 6 securitization that would not be involved with
- 7 | handling these costs through, say, a rate case?
- 8 A. I guess I'd have to understand how the
- 9 Commission might -- you know, might order or find, you
- 10 know, that we would recover those costs in -- in said
- 11 | future rate case.
- 12 Q. I see what you're saying. Okay. Why
- 13 | don't you just explain to me then what costs -- what
- 14 | additional costs will be incurred through
- 15 | securitization by securitizing these costs outside the
- 16 costs of the abandoned capital projects themselves?
- 17 A. Yeah. As -- as we think about, you know,
- 18 any energy transition cost, you know, in --
- 19 contemplated in this case, and it's Ameren Missouri's
- 20 | view that an abandoned capital project retired as a
- 21 result -- or, you know, abandoned as a result of
- 22 retiring, the Rush Island facility would meet that
- 23 definition.
- We -- we'd securitize those energy
- 25 | transition costs and incur -- incur the -- the

Evidentiary Hearing

1 interest charges or the interest costs associated with that -- that financing. 2 3 Q. Bear with me just a moment. 4 Are you -- are you familiar with 5 Mr. Payne's rebuttal testimony? Certainly. I do not have it in 6 Α. Yes. front of me though. 7 8 I have no further questions. Ο. 9 JUDGE CLARK: Any recross from the 10 Commission Staff based upon --11 No, thank you. MS. MERS: 12 Public Counsel? JUDGE CLARK: 13 No questions at this time. MR. WILLIAMS: 14 Thank you. 15 JUDGE CLARK: Redirect? Just a little, Your Honor. 16 MR. LOWERY: 17 REDIRECT EXAMINATION BY MR. LOWERY: 18 Mr. Lansford, the Judge was asking you 0. 19 about costs associated with including the abandoned 20 CWIP projects in the securitization amount. 21 basically said it would be the interest rate on the 2.2 bonds, right? 23 Α. Correct. 24 If the CWIP projects were recovered in a Q. 25 rate case and, let's say, amortized over a period of

- years and included in rate base, there would be a

 financing cost associated with that as well, right?
 - A. That's correct.
 - Q. What would be the interest rate relative the interest rate of the expected interest rate on the securitization bonds?
 - A. The same as any other rate base inclusion; the Company's weighted average cost of capital including income taxes.
- 10 Q. Which is higher?
- 11 A. Which is higher.
- MR. LOWERY: Thank you, Judge. That's
- 13 | all I have.

4

5

6

7

8

9

15

16

17

18

19

20

21

2.2

- 14 | FURTHER QUESTIONS BY JUDGE CLARK:
 - Q. Actually, I am going to ask one more question. And I don't think you need Mr. Payne's testimony to answer this, but I am looking at the chart. And you do you remember there was a chart included in his, in regard to work orders that were still ongoing. And I'm going to ask you -- I think -- you're not going to need this chart. I can see you kind of wincing like you might.
- 23 A. Okay.
- Q. It looks like, at least in regard to one of these, it says: Preliminary engineering and design



- 1 costs for possible construction of Flue Gas
- 2 Desulfurization Scrubber System, Units One and Two, at
- 3 | Evergy Center. And it says: First charge month is
- 4 June 2008 and the last charge is July of 2021 and with
- 5 | a 67.41 percent completion.
- 6 That seems like an awfully long time to
- 7 kind a work order open. Why is that? Why would a
- 8 work order be kept open so long? I mean, that's a
- 9 | little over a decade.
- 10 A. Yeah, I don't know the specifics of -- of
- 11 | that, Judge. But that is the scrubber study that
- 12 Mr. Birk and -- and others were talking about. I
- 13 | could only speculate I guess as to -- to why we might
- 14 keep it open.
- I mean, obviously -- you know, obviously
- 16 | we were -- there was question as to whether or not we
- 17 | would -- we would scrub the facility, you know, all
- 18 the way up to, you know, 2021 and perhaps even beyond.
- 19 | So I guess that doesn't strike me as odd that that was
- 20 open while we were continuing to evaluate whether we
- 21 | would scrub the Rush Island facility.
- 22 Q. Do you know why it says that it's -- that
- 23 | it -- why -- do you know why that the project is
- 24 deemed only 67.41 percent complete?
- 25 A. Yeah. I had a -- you know, I'm aware of

- a data request that related to that. We -- we really didn't have a good way to estimate. The data request
- 3 was: Please estimate how -- how -- the percent
- 4 complete of each of these projects. And we don't
- 5 really have a method for doing that.
- 6 So in responding to that data request, we
- 7 | were very clear that we were taking the -- the costs
- 8 that had been incurred to date and dividing them by
- 9 | the total approved cost associated with that work
- 10 order.
- Now, if that really reflects -- you know,
- 12 | I don't know that that really truly reflects the
- 13 progress, you know, or -- you know, or how close the
- 14 study itself is to completion. Some of those work
- 15 orders couldn't even -- could have even contained
- 16 additional work beyond the studies.
- 17 I did hear Mr. Birk say that the studies
- 18 | were near complete or virtually complete. I don't --
- 19 | I don't know exactly what -- how he characterized
- 20 | that, but --
- 21 | 0. So that 67 percent is really just how
- 22 | much of it -- of the approved budget it used up?
- 23 A. That's exactly right.
- 24 Q. Okay. Thank you. I have no further
- 25 | questions.



```
Page 291
 1
                  JUDGE CLARK:
                                Any recross from Commission
 2
    Staff?
 3
                 MS. MERS:
                             Just one.
 4
    FURTHER RECROSS-EXAMINATION BY MS. MERS:
 5
                  In the study that you guys were just
           0.
    talking about, you referenced recalling Mr. Birk
 6
 7
    talking about it as well. Do you recall him stating
    that the last deliverable for that study was in 2011?
 8
 9
                  I do.
           Α.
10
           Q.
                         Thank you. Nothing further.
                  Okay.
11
                  JUDGE CLARK:
                                Public Counsel?
12
                 MR. WILLIAMS:
                                 Thank you, no.
13
                                Any redirect from Ameren?
                  JUDGE CLARK:
                               No redirect.
14
                 MR. LOWERY:
15
                  JUDGE CLARK:
                                Okay. Mr. Lansford, you
16
    may step down again.
17
                  I believe the next witness is Staff's; is
18
    that correct?
19
                 MS. MERS: Yes.
                                   Staff calls Keith Majors
20
    to the stand.
21
                  JUDGE CLARK:
                                Mr. Majors, I'll remind you
22
    you're still under oath.
23
                  THE WITNESS:
                                Thank you.
24
                 MS. MERS:
                             And I will tender Mr. Majors
25
                He has plenty of appearances over the next
    for cross.
```



- 1 | few days, so it's not time quite yet to enter his
- 2 | testimony in.
- 3 JUDGE CLARK: Any cross-examination from
- 4 | the Office of the Public Counsel?
- 5 MR. WILLIAMS: Not at this time. Thank
- 6 you.
- 7 JUDGE CLARK: Any cross-examination from
- 8 | Ameren Missouri?
- 9 MR. LOWERY: No, thank you.
- 10 JUDGE CLARK: Any Bench questions?
- 11 COMMISSIONER HOLSMAN: Yes, Judge.
- 12 JUDGE CLARK: Go ahead, Commissioner
- 13 | Holsman.
- 14 COMMISSIONER HOLSMAN: Thank you.
- 15 | KEITH MAJORS, having been previously sworn, testified
- 16 | as follows:
- 17 OUESTIONS BY COMMISSIONER HOLSMAN:
- 18 | 0. You heard my exchange previously on the
- 19 issue of the costs associated with the scrubber
- 20 | reports. First off, do you believe that nine million
- 21 | is a historically appropriate number for a report like
- 22 | this? Get -- we -- we heard testimony that it was
- 23 | actually two separate companies that did the analysis
- 24 and -- and provided information, approximately equal
- 25 amounts of effort.



1	A. Right. And I and I think so that
2	would be the establishment of a work order. That work
3	order could have accepted several other different
4	types of charges, like internal labor, other
5	third-party costs that would have been charged to that
6	work order. I don't necessarily have a breakdown
7	of of the nine million.
8	So I guess to answer your question, I
9	I don't know that I really have a basis of comparison
10	for other like-kind studies engineering studies of
11	a potential scrubber system. So I I really
12	wouldn't have a basis of comparison to say is four and
13	a half million per study an accurate number.
14	Q. Do you agree that those reports in the
15	analysis feedback they provided give us an accurate
16	view of what those scrubbers would have cost the
17	ratepayers had they been installed?
18	A. I I think I would. Yes, they would.
19	I think Ameren had had and I mentioned this in my
20	surrebuttal that to evaluate the readiness of Ameren
21	in the remedy phase, they had engaged another
22	
	engineering firm, which is kind of the big three in
23	what I would call the big three in the utility

not -- what the time frame of the scrubbers completion

would be should the Court order that.

In that report, which is attached to Mr. Seavers' rebuttal testimony, it's -- it was completed by a Mr. Ken Snell that -- he was engaged by Ameren to evaluate the scrubber timeline at the time of the remedy phase, and so he discusses his view of what the actual cost would be.

So in terms of the timeline and -- and the accuracy of just the cost information, that might be. That study which was done in the -- in the context of the Court remedy phase might have more updated numbers than the figures from eleven and eight that were -- that were the nine million dollars.

I guess what I'm getting at is I'm going to make -- I wouldn't be surprised if Ameren relied on those -- that information as well since it's another expert they hired to determine the cost estimates.

- Q. Do you think absent the report for nine million dollars, we would have a clearer picture of what's in the best interest of the ratepayers?
- A. Well, those studies are over ten years old. So obviously the -- the cost information would have had to have been updated. So whatever was given to Mr. Michels for -- for the modeling wouldn't solely rely on that -- that old data. So just --

A Oh sure I'm we're not challenging						
data at that time?						
in the best interest of the ratepayers to have that						
reports were initiated, do you believe that they were						
an ongoing thing. But at the point in time that the						
Q. We talked about, you know, prudency being						

A. Oh, sure. I'm -- we're not challenging, I'm not challenging, Staff's not challenging prudence of obtaining those studies and then charging to -- them to the project at the time they were incurred.

I -- I think the question is, is it appropriate to charge -- well, one, their expert -- Ameren's expert in the remedy phase said that the studies wouldn't necessarily save any time. That whatever owner's engineer you'd have to engage would have to evaluate what was actually done in the studies.

I mean, I'm not -- I'm not going to say that there's no value there, but certainly the value came under question under Ameren's own expert that evaluated those studies. And so I would question the -- the relevance and the appropriateness to -- to securitize those costs.

And I guess if I may, to -- to

Mr. Lansford's point, I think you asked him, there's

really no other way in my mind to recover those

- 1 studies other than through securitization. If you
- 2 | just carried those through to the rate case, I think
- 3 my argument would be they're not used and useful,
- 4 they're never used and useful.
- 5 And certainly I can't -- I can't think of
- 6 an -- of an example where you would put -- in that --
- 7 in that case, they would be abandoned costs.
- 8 Q. So -- so you're saying that since they
- 9 | were completed in 2011, they were never brought
- 10 forward to be rate based in a rate case because they
- 11 | would have been disallowed because they were not used
- 12 and useful?
- 13 A. I think right now they would have been
- 14 disallowed because they're not used and useful. If
- 15 | you -- if you built the scrubbers, I -- I think we
- 16 | would -- we would probably evaluate them -- we would
- 17 | evaluate them -- I don't know how we would treat them
- 18 | because you'd have to re- -- you'd have redo that
- 19 information.
- 20 O. What we do know is that they were not
- 21 | brought forward -- they have not been included in any
- 22 | rate base to date, correct?
- 23 A. That's correct. It's -- they're --
- 24 they're not in rate base. They're in construction
- 25 work in progress. The only avenue right now to

- 1 recover those, other than setting up an amortization
- 2 in a future rate case, is through the securitization.
- And, you know, I -- I think -- well,
- 4 the -- the Commission did authorize from CWIP amounts
- 5 | for -- in the securitization case for -- for Empire, I
- 6 mean, just to be clear.
- 7 Q. Uh-huh.
- A. But you know, I think these are different because there's -- there's somewhat of a cosmic irony
- 10 for including costs for scrubber studies that that's
- 11 | kind of the reason why we're here is because you --
- 12 | you didn't get the proper permitting, you didn't
- 13 complete the scrubbers, you -- you were never really
- 14 going to complete the scrubbers going forward.
- 15 Let's say that they prevailed on the NSR
- 16 litigation. There was no certain plans to install
- 17 | those scrubbers. I -- I think the opposite is true
- 18 for the other CW -- CWIP line items. Those are in I
- 19 believe Mr. Payne's rebuttal testimony, but they're in
- 20 a data request as well.
- I think that's the separation. That's --
- 22 that's the real difference in my mind.
- Q. Could an argument be made then that the
- 24 | two reports save the ratepayers money by instructing
- 25 | Ameren that it wasn't cost effective to move forward

with scrubbers; thus, leading us to this place where we are securitizing 15 years of depreciation?

- A. I -- that -- that's not an unfair statement. They -- they assisted them -- they would have had to assist them -- and I'm not going to dispute Mr. Birk's testimony that they did use those in the economic analysis.
- Q. Tell me a little bit about the nine -- or the 3.9 million that Staff is recommending in this -- this 4A. What -- what do you attribute that -- why -- why are you agreeing to that? What -- what does that represent?
 - A. So I mean, I think it would be fair if -if -- if there were -- if there was no evidence that
 they were not going to complete these projects, I
 think -- I -- I think it's fair to include -- and
 barring any -- any legal argument, which I know that
 I'm not an attorney for -- for the CWIP argument on
 whether or not it can be recovered.

But barring that, I think there was -there was a reasonable view that those were ongoing
projects that they -- they would have installed,
they -- they ceased completion of those projects.

So in that regard, they did save ratepayers money because they stopped the projects and

- 1 | they -- and they did not complete them because they
- 2 knew they were going to retire the plant. And so I
- 3 think -- I think that's a fair argument why you would
- 4 include them in securitization.
- 5 Q. Does Staff have a record of when they
- 6 | were informed that this plant was going to be retired?
- 7 Do we know what year that was?
- 8 A. I think that's probably a question for
- 9 Ms. Eubanks. I think we have been notified -- they
- 10 made a filing before the Court in '21 that they -- as
- 11 opposed to installing the scrubbers, that they
- 12 intended on closing the unit and they gave that option
- 13 to the -- to the Judge. And so I believe it would
- 14 have been in '21.
- On whether or not they -- when they
- 16 | informed Staff, that -- that could have been in a --
- 17 | in a somewhat earlier IRP meeting, but it really
- 18 | hinged on -- the decision was -- was related to the
- 19 | litigation.
- 20 Q. Okay. One final question. You know,
- 21 | oftentimes Commission decisions signal potential
- 22 | future behavior. And -- and certainly we can look at
- 23 | Asbury as -- as -- you know, to the past for some of
- 24 | the things that we decided in there as -- as a bit of
- 25 | a -- you know, a marker.

Page 300

Do you believe that disallowing the
report, the nine millions dollars in the report, would
encourage or discourage future retirements?

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

I thought you might ask me that question. Α. I don't know that it would really encourage or discourage future retirements.

Certainly this isn't -- this isn't an isolated event that you have a abandoned costs. of all comes to mind, I think there's 100 million dollars of Callaway II costs that were written off in the '80s. There was the combined operating license cost, I believe those were -- those were also written off when Ameren was seeking a second unit in the last couple decades at -- at Callaway.

And so I really wouldn't view this as an isolated event and I don't know that it would particularly -- I mean, maybe Mr. Birk would have -well, I know Mr. Birk would have a different answer, but I don't think it would encourage or discourage in terms of retirements, which is --

- So based on that response, are you Ο. assuming that the nine million for the reports are still on the books, that that could potentially be, you know, a tax liability?
- 25 Well, they're -- they're certainly on the Α.



Page 301

1 books on construction work in progress. In terms of 2 tax --3 Q. Well, you said that -- you know, you 4 gave examples of when other amounts were written off. 5 I assume when you -- when you say written off, you're 6 talking about, you know, deducting it from your --7 your tax --8 I think there might be a tax deduction Α. 9 there, but --10 0. -- tax benefit? 11 Α. -- mine was -- comment was more written 12 off as in it's no longer an asset --13 Ο. I see. 14 -- on the books --Α. 15 Q. I see. 16 -- and records. Α. 17 Not -- Not literal. You're saying Ο. Okay. 18 they -- they let it go. It's not necessarily a tax 19 deduction? 20 Right. I'm not commenting on abandoned Α. 21 It would just be this is no longer one of 22 seven CWIP. You cannot -- you can no longer -- if 23 you're never going to capitalize it, it's never going to come to fruition --24

Right.

Q.

-- then you're going to have to write it 1 Α. 2 off at some point. 3 Q. Okay. All right. Thank you very much. 4 COMMISSIONER HOLSMAN: Thank you, Judge. 5 Thank you, Commissioner. JUDGE CLARK: 6 Any other Commission questions? 7 I have a few questions for I hear none. 8 you. 9 QUESTIONS BY JUDGE CLARK: Now you're here on both Issues A and B; 10 Ο. 11 is that correct? 12 Yes, sir. Α. 13 That's what I thought. Now, the 0. Okay. scrubber study out of the abandoned capital 14 15 projects -- and let me pull up -- that was the only 16 item on that chart that I had questioned Mr. Lansford about that is in Manzell Payne's testimony. 17 familiar with that chart? 18 19 I -- I am, yes. I have a -- I think it Α. 20 has the same information, but it's a facsimile of that chart right here. 21 I don't have Mr. Payne's testimony, 22 but I have more of a detailed accounting of -- of 23 the -- more of a detailed description of the items. 24 Well, you picked -- you picked one Ο. Okay. 25 item off of that chart and said that you disagreed

- with -- you -- you agreed with OPC, or with Public Counsel, that that item should be removed, correct?
 - Α. Right.

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

- And I'm going to come back to that in 4 Ο. I want to talk about the other just a second. abandoned capital projects for a second and just ask you to explain what's the rationale for having customers pay through securitization for projects that were never completed? I mean, they didn't -- it doesn't appear that the customers -- or that the ratepayers would have received a benefit.
 - I -- I think had the pro- -- had the Α. projects -- there's no evidence that the -- that I can see that the projects -- at least not the scrubber studies. The other projects had a reasonable probability of being completed because they were -they were actively charging costs to those projects.

So I think the rationale will be that the Company did ultimately save ratepayers money because they stopped the projects. Let's say -- well, let -let's say that you're going to close the plant October 15th and they made a decision January 1 to stop charges to these projects and abandon them.

If they had decided -- if they had not made that decision and they had included charges

- 1 through, let's say, June 30th of this year, that would
- 2 | have ultimately increased the net book value that
- 3 | would have -- that they would have been asking
- 4 ratepayers to pay for through securitization, the --
- 5 the additional charges to complete the project.
- 6 So, for example, I'm looking at Rush
- 7 Island Unit Two, warm-up guns and igniters. So -- and
- 8 that's -- at that time -- at the time it was
- 9 abandoned, it was 427 million -- 427,000 dollars.
- 10 So let's assume that you would have had
- 11 another 200,000 dollars of charges for, in my example,
- 12 the first six months of 2024. Well, those would have
- 13 been retired October 15th. So you would have been
- 14 charging ratepayers an extra, in my example,
- 15 | 200,000 dollars that they -- since they made this --
- 16 this decision, they would not have been having to pay
- 17 for. And so it's -- it's a cost-saving measure in
- 18 that regard.
- 19 | Q. Let's move onto -- a second to the
- 20 | scrubber study. Thank you for answering that for me,
- 21 by the way.
- 22 You indicated you would not include the
- 23 | scrubber study and you provided a couple of rationales
- 24 | for that. And one is that it was a preliminary
- 25 | engineering and design cost for something that I guess

	7 .			
$n \triangle t t \triangle r$	occurred;	7 (7	that	aorroat 7
TIC A CT	OCCULLEGI	\pm \circ	LIIaL	COLLECT

- A. Right. And really never projected to in the near time frame.
- Q. And also, because you said how useful could a 13-year-old study be; is that correct?
 - A. Right.

2

3

4

5

6

7

8

9

10

15

16

17

18

19

20

21

22

23

24

25

- Q. You -- you were in the court -- or you were in the courtroom when Mr. Birk was testifying; is that correct?
 - A. That's correct.
- Q. And Mr. Birk was explaining the potential future utility of this study. Did Mr. Birk's testimony change your mind in regard to aspects of this study?
 - A. Well, I'm not going to dispute -- I respect Mr. Birk and he's an engineer and I'm not going to dispute -- I respect his opinion on studies. I guess no, it didn't particularly change my mind.

And too, I would go back to Ameren's expert who you have an expert study that's -- you have an expert making a study about studies is kind of odd. But his study -- the expert's study said that those studies, the nine million dollars, wouldn't substantially reduce the time of constructing scrubbers and that, as I said before, the owner's

Т	engineer would have to I don't know to the extent					
2	they would have to recomplete the entire study.					
3	But certainly I would I wouldn't be					
4	surprised if if it was an owner's engineer that					
5	wasn't Black and Veatch and Shaw, that they would want					
6	to spend significant amounts of money doing their					
7	completing their own studies of the of the					
8	engineering and preliminary engineering of the of					
9	the scrubbers.					
10	So I think in that regard, I would					
11	question yes, they're four thousand pages and a					
12	thousand pages, give or take. But I would question					
13	whether or not an owner's engineer would wouldn't					
14	have to redo substantial amounts, if not all that					
15	work.					
16	And I think that conclusion is the is					
17	similar to the conclusions of Ameren's study on the					
18	studies.					
19	Q. Thank you. Any recross from Public					
20	Counsel based on Commission or Bench questions?					
21	MR. WILLIAMS: Thank you, no.					
22	JUDGE CLARK: Any recross from Ameren					
23	Missouri based upon Commission or Bench questions?					
24	MR. LOWERY: Yes, Your Honor. Thank you.					
25	RECROSS-EXAMINATION BY MR. LOWERY:					

1	Q I think in response to Commissioner					
2	Holsman's questions talking about the you know, the					
3	timing of when these studies were done and and					
4	maybe their utility in terms of helping understand					
5	what the cost of installing scrubbers might be, all					
6	those questions. You remember that?					
7	A. Yes, I do.					
8	Q. Isn't it true that any time after these					
9	studies were done in 2010-ish time frame, whenever					
10	they were finished or whenever the projects were					
11	stopped, any time thereafter, say, over the next five					
12	or ten years, EPA could have imposed different or new					
13	regulations that might have changed the Company's					
14	option or at least the economics of the Company's					
15	options for controlling SO2 at its units?					
16	A. Sure. I I don't dispute that.					

Ο. And -- and had that happened, could have happened in 2012 or '13 or '14 or '15, et cetera, right?

Α. That's right.

17

18

19

20

21

22

23

24

25

And had that happened -- so you --Q. because I think you said something along the lines of -- and I'm not trying to misstate your testimony, it's my memory, that those scrubbers were never going to be built, those studies were never going to be



- used. And that's not true necessarily, is it?
- 2 A. I think in the near-term -- in the
- 3 near-term they wouldn't have. I mean, of course,
- 4 | there's always the possibility that those are going to
- 5 be -- sure, you -- you would absolutely use tho- --
- 6 you would utilize the studies, but I -- with the
- 7 | caveat that your -- your new owner's engineer would
- 8 probably want to redo those studies.
- 9 | O. Well -- well, let's -- let's -- let's --
- 10 | let's talk about that some more, because I -- I don't
- 11 | think the answer you gave is actually reality. You
- 12 | said not in the near term. What if in -- I'll give
- 13 | you a hypothetical. You're an expert witness, so I
- 14 | can ask you a hypothetical question.
- 15 A. Sure.

- 16 Q. What if in 2012 or 2013, EPA had changed
- 17 | the rules in a way that Ameren Missouri was unable to
- 18 | meet the SO2 emissions limits that it had to meet
- 19 | under those new rules by using SO2 allowances and
- 20 | ultra low-sulfur coal and the only option it had,
- 21 | practically speaking, was to scrub the plant. You
- 22 | have those facts in mind?
- 23 A. Yes.
- Q. And the Company at that time, I -- I
- 25 | think you would agree, would look at the situation and

- 1 | would probably do a Net Present Value Revenue
- 2 | Requirement analysis, like Chair -- Commissioner
- 3 | Hol- -- Holsman has been talking about and would make
- 4 a decision based on those economics, right?
- 5 A. Yes.

- Q. And it might also depend on, at that time, what are the expectations for energy prices and what are the expectations for O and M. And all of those various variables would have been taken into account, right?
 - A. Well, I think those -- you'd update the variables, but sure, right.
- Q. So you don't know what the answer would
 have been necessarily at that time had the EPA changed
 the rules and had the -- the -- the option of
 scrubbing been on the table, you don't know whether or
 not those studies would have turned into an actual
 scrubber -- scrubber or not, do you?
- 19 A. No.
- Q. That could have happened any time between 21 2010 and 2020, '21, right?
- 22 A. Sure. Right.
- Q. Did you hear Mr. Lab -- Mr. Labadie -
 Mr. Birk discuss the fact that the Labadie plant, its

 units, are -- I think Mr. Williams -- maybe Mr. Birk's

	Evidentiary Hearing April 16, 20				
1	Page 310 the one that used the term, but called them sister				
2	plants. Did you hear that discussion?				
3	A. Yes.				
4	Q. And what he meant by that was they're				
5	basically the same generators and a lot of the same				
6	components. There's some differences, but they're				
7	very similar.				
8	So that let's say that they never had				
9	to scrub Rush Island, but even in the future from				
10	today, or even in that period 2010 to 2020, that again				
11	EPA changed the rules or something happened such that				
12	a question about scrubbing Labadie came up, Mr. Birk				
13	indicated that these studies would have been useful				
14	for that question, didn't he?				
15	A. Well, then you would want to capitalize				
16	those studies at Labadie for that scrubber project.				
17	So I mean, you want both the nine million dollars now				
18	or the nine million dollars in the future?				
19	O. You also sort of premised your				

- 19 20 question -- the Judge was asking you about -- I don't
- You had a discussion about the Black -- or the 21
- owner's engineer and I think you mentioned it just a 22
- 23 minute ago as well.
- 24 How do you know that the owner's engineer
- 25 for -- had a Rush Island scrubber project actually



- 1 | come to fruition at some point -- and I -- I think you
- 2 | said this earlier. Black and Veatch and Shaw are sort
- 3 of two of the big -- the big -- the big guns, so to
- 4 speak. I don't think that's the term you used, but I
- 5 think that's what you meant in this industry, right?
 - A. Well, yeah. I -- I'm sure Burns and Mac would want in on the business too.
- 8 | 0. Sure.

7

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

- 9 A. Sure.
 - Q. Sure. But since Black and Veatch and Shaw had already done the studies, how do you know that Black and Veatch or Shaw wouldn't have been chosen as the owner's engineer if a scrubber project actually came to fruition?
 - A. Well, I -- I don't know that. I -- I am relatively convinced that they would want to redo the studies and at least update the numbers and -- and appropriately charge you for that.
 - Q. That may be so, but isn't it also certainly possible that the time that they would need and the engineering costs that they would have to incur to review their own work and perhaps update or review it would have been less than if you were starting from scratch? Isn't that certainly likely?
 - A. There -- there's a potential for that,



1	sure.	I'11		I'11	agree	with	that.
---	-------	------	--	------	-------	------	-------

- 2 MR. LOWERY: Thank you, Judge. Those are
- 3 | all my questions.
- 4 JUDGE CLARK: Any redirect from Staff?
- 5 MS. MERS: Yes. And I hope it's
- 6 relatively brief.
- 7 | REDIRECT EXAMINATION BY MS. MERS:
- 8 Q. Do you recall in the questions you had
- 9 | from the Bench, you had a discussion with Commissioner
- 10 | Holsman about if including or not including the
- 11 | studies would encourage future retirements. Do you
- 12 recall this?
- 13 A. Yes.
- 14 Q. How big of an incentive do you think the
- 15 | securitization statute provides in encouraging
- 16 | retirements?
- 17 A. I -- you know, I'm not a utility so I
- 18 | couldn't give you really utility perspective. I think
- 19 | it's a -- it's -- it's a tool, it's a valuable tool
- 20 | certainly.
- Our analysis and the Company's analysis
- 22 | shows that in the long run -- and this is a unique
- 23 | circumstance -- circumstance because you have to
- 24 | cl- -- close the plant.
- I think in the long run, it's -- it's a

- 1 better value proposition for customers to finance it
- 2 at a long-term debt rate as opposed to weighted
- 3 average cost of capital. Maybe with all the

on that, which they appropriately should.

- 4 difficulty that -- well, perceived difficulty that
- 5 Ameren has had in this case, maybe they won't want to
- 6 do a securitization case in the future. I -- I don't
- 7 know.

12

13

14

15

16

17

18

19

20

21

22

- But I -- I think part of the incentive is

 9 that you -- they get the money up front, the half a

 10 billion dollars in this case. So I mean, there's -
 11 and they can reinvest that and earn a rate of return
 - So I -- I don't know that it necessarily reduces their incentive, because every -- again, these are special circumstances. Obviously you didn't have a nine million dollar -- well, at least they -- I'm not aware of, you didn't have a nine million dollar chunk of money at Meramec that was included in rates or -- or -- and it wasn't securitized.
 - I don't know of any other examples where a retirement occurred that you had such a large chunk like that in CWIP. So I don't know that it's -- it's a great impediment or incentive in that regard.
- Q. Just to clarify, are you saying that nine million out of the amount being securitized in



this case is a big chunk?

- A. Well, I think it's -- it's a large chunk compared to the rest of -- of CWIP. When it -- when you compare it to the overall -- let's see, nine million divided by 500 -- no. There's an on button here. Let's see.
 - Five million would be 1 percent, ten would be two. So under 2 percent of the total securitization. I mean, with -- 500 million is a nice round number, so.
- Q. And the perks of getting that 98 percent up front don't you think outweigh the -- or would you have an opinion on if that would outweigh the 2 percent that maybe you miss out on every now and again because of a CWIP project?
- A. I am sure that the Company would disagree with me that -- but that would -- I mean, they're getting 9 -- 98 percent of their ask. I mean, I -- that's a lot more than they usually get in the rate case ask, that's for sure so.
- Q. When you were discussing the CWIP projects, do you recall discussing with the Judge the types of projects that you did include in this case versus the one study that you did not include?

25 A. Yes.



1	Q. Do you recall if any of those other
2	projects were related to different regulations then
3	the study in that you did kick?
4	A. Right. The one the second largest
5	project was related to requirements under the Clean
6	Water Act. So that that's certainly ongoing. You
7	know, I don't know whether or not those projects would
8	have been completed.
9	I I think a lot of that is the intake
LO	and the outflow of the of water from whatever body
L1	of water Rush Island is is adjacent to, either
L2	Missouri River or the Mississippi. I'm not sure of my
L3	geography there. But but that was related to
L 4	another environmental improvement.
15	Q. Do you recall discussing with the
16	Bench I think the quote that was picked out of
17	yours was the how useful could a 13-year-old study be.
18	Do you recall that?
L9	A. Right. I think that was out of my
20	rebuttal testimony.
21	Q. And there was discussion of Mr. Birk's
22	testimony today about the study being used in other
23	cases or in the future. Do you recall that?
24	A. Yes.

Do you know if Ameren is planning on

25

Q.

building any	/ scrubbers	soon?
--------------	-------------	-------

A. Not that I'm aware of.

Q. And finally, you had a conversation with counsel for Ameren about if the EPA had, in the years -- if in the years in between while that study was being completed and after it was concluded, if they had gone back and changed the rules that -- that did require scrubbers. If, you know, at that point then, would we have found value in the study or if it would have been useful. Do you recall that?

A. Yes.

- Q. If we followed that analogy through and Ameren Missouri built the scrubbers, would this discussion be moot?
 - A. Well, I -- I mean -- okay.
- Q. Would the project be abandoned in that situation?
 - A. Well, no. I mean, I wouldn't want -- I certainly wouldn't want ratepayers to have to pay twice if -- if you're going to use -- if you're going to use the study for a potential Labadie scrubber project, then I suppose there would be nothing to capitalize.
 - Because if you securitize the amount now, then you've received your nine million dollars, so



- 1 there would be no basis that you would capitalize to
- 2 | that account.
- I mean, I suppose if -- if there's -- if
- 4 there's a -- if the thought is that you -- those
- 5 studies have a value and if they -- if they do,
- 6 then -- if you're going -- if your -- if the potential
- 7 is to use those at a future time for the Labadie
- 8 plant, I mean, I don't know that we would be -- I'm
- 9 not their external auditor, but I don't know that we
- 10 | would be necessarily opposed to the prospect of those
- 11 studies remaining in construction work in progress.
- I mean, that would be a discussion they
- 13 | would have to have with their external auditor. But I
- 14 mean, again, I don't dispute Mr. Birk's testimony that
- 15 those have the potential of being useful for some kind
- 16 of future Labadie construction project.
- 17 Q. But a project you're not aware of?
- 18 A. Right. No.
- 19 Q. All right. That's all I have. Thank
- 20 | you.
- 21 JUDGE CLARK: Thank you. Thank you,
- 22 | Mr. Majors. You may step down.
- 23 | I believe the next witness is Public
- 24 | Counsel's.
- 25 MR. WILLIAMS: Thank you. Public Counsel

Page 318

1 calls Manzell Payne to the stand. 2 (Witness sworn.) 3 JUDGE CLARK: Please be seated. MANZELL PAYNE, being first duly sworn, testified as 4 5 follows: DIRECT EXAMINATION BY MR. WILLIAMS: 6 7 0. What is your name? 8 Α. Manzell, M-a-n-z-e-l-l, Payne, P-a-y-n-e. 9 0. By whom are you employed and in what 10 capacity? I'm employed with the Office of Public 11 Α. 12 Counsel as a utility regulatory auditor. 13 Did you prepare written rebuttal Ο. testimony that's been marked for identification in 14 15 this proceeding as Exhibit 205? 16 Α. Yes. 17 Ο. Do you have any changes to that testimony 18 for it to be your testimony here today? 19 Not at this time. Α. 20 Mr. Payne's going to MR. WILLIAMS: 21 testify as to other issues later so I will not offer 22 his testimony at this time, but I will tender him for 23 examination. 24 Any cross-examination by JUDGE CLARK: 25 the Commission Staff?

Page 319

- MS. MERS: No, thank you.
- 2 JUDGE CLARK: Any cross-examination by
- 3 | Ameren Missouri?
- 4 MR. LOWERY: No thank you, Judge.
- 5 JUDGE CLARK: Any commission questions?
- 6 COMMISSIONER HOLSMAN: Yes, Judge.
- 7 JUDGE CLARK: Commissioner Holsman, go
- 8 | ahead.
- 9 QUESTIONS BY COMMISSIONER HOLSMAN:
- 10 | 0. Good afternoon.
- 11 A. Good afternoon.
- 12 Q. Thank you for being here today. Says
- 13 OPC's position on this is capital projects should be
- 14 | addressed in Ameren's next rate case where the
- 15 relevancy and prudency should be assessed. Does that
- 16 | mean that you're not saying that at this juncture it
- 17 | should be disallowed?
- 18 A. That the --
- 19 | 0. If you're suggesting that the -- if
- 20 | you're suggesting that the scrubber study be evaluated
- 21 | in the next rate case, that's not a position that
- 22 | you're taking that should be disallowed today then,
- 23 | correct? You're saying evaluate it in the future?
- A. Yes, yes.
- 25 Q. Okay. Do you -- do you know why -- is



- 1 | there a reason why this hasn't been asked to be in
- 2 | rate case before this? Like why -- why hasn't Ameren
- 3 | brought these two studies into a rate case to ask
- 4 | them -- after 2021, we've had a rate case since then.
- 5 They knew that they were going to not
- 6 proceed with scrubbers at least by that point. If
- 7 | they were going to bring in a rate case, why
- 8 | wouldn't -- why didn't they bring it into a rate
- 9 case -- or why do you believe that it wasn't brought
- 10 | into a rate case before a future rate case?
- 11 A. I certainly can't talk for the Company as
- 12 to why they did not bring it in. But I could give a
- 13 little bit of my own opinion on this.
- 14 Q. Yeah, I just want some conjecture.
- 15 A. I think with securitization there's --
- 16 | there's the incentive of the bond interest on top of
- 17 | this amount. So if the Company is able to get this
- 18 | amount through securitization, they get the interest
- 19 on the -- they get the interest back on that amount.
- 20 | That is a part of that 500 million.
- 21 If they take it into a rate case, as in
- 22 when Ameren did this back in 1977 with abandoned
- 23 projects in with a case then, their -- they got their
- 24 money back on those abandoned projects, but there was
- 25 no return on those abandoned projects. So they got

what they invested.

- Q. If this -- if these report costs were

 brought in a rate case, knowing what you know, do you

 believe the OPC would take a position on rather it

 would dis- -- recommend to disallow?
 - A. As of what I know right now, there -- I could see a disallowance on the nine million of the total CWIP for that scrubber study.
 - Q. Okay. Thank you.
- 10 COMMISSIONER HOLSMAN: Thank you, Judge.
- 11 JUDGE CLARK: Thank you Commissioner
- 12 | Holsman.

1

6

7

8

- 13 QUESTIONS BY JUDGE CLARK:
- Q. Mr. Payne, I have a few questions for you. I understand -- I understand from Public Counsel's perspective the idea of not wanting to pay bond interest on this over a term of years for these
- 18 | items.
- 19 What I have a hard time understanding is
- 20 how you decouple these items from the decision to
- 21 | retire Rush Island. Because it seems to me that but
- 22 | for the retirement of Rush Island, all of these
- 23 | projects would still be ongoing. And now that Rush
- 24 | Island is retired, you certainly don't want them to
- 25 | finish any of these projects on a plant that is no

- 1 | longer going to be around.
- 2 So I'm kind of -- it -- it appears to --
- 3 | I guess I don't understand the logic of decoupling it
- 4 from the plant retirement decision when it seems so
- 5 closely tied to it. And it doesn't -- I mean, you're
- 6 | not -- you're not asking that those be removed because
- 7 | the retirement's improved, correct?
- 8 A. That's correct.

13

14

15

16

17

18

19

20

21

22

23

24

25

- 9 Q. Then -- then why decouple them from the 10 plant retirement decision since they're all plant 11 specific?
 - A. I think that is in -- I think I am taking it apart from the securitization due to the fact that if it is in the next rate case, it can get amortized over a shorter period, be more beneficial to ratepayers who are not paying for the amount of these projects and then also the bond interest on top of that.

At that point, though, when it's being amortized in a rate case, say three or five years -five years is what happened in 1977 on Rush Island's abandoned projects then. There was no return on that and they had -- they got their -- they got their money for those investments and it was more economical and beneficial to ratepayers because they were paying over

Evidentiary Hearing Page 323 1 a shorter time and it was off -- it was out of the way 2 shorter. 3 Q. So it is purely an economic decision 4 about the ratepayers paying less? 5 Α. Yes. Do you believe the Company is harmed in 6 0. 7 any way by moving these costs to a rate case as 8 opposed to securitizing them? 9 Α. No. 10 Ο. Obviously they're not going to recover --11 if they're recovered through securitization, the 12 Company gets the money, you know, the second the bonds 13 are issued.

And if there's a rate case that it's deferred to, there's obviously the time between now and -- or when the bond would be issued and there's the time -- you know, the distance to the rate case and then through the rate case. And then the -- the amortization on top of that as the money comes in not all at once, but partially.

14

15

16

17

18

19

20

21

22

23

24

25

So do you believe the -- the Company is harmed by moving those to a rate case?

Α. I do not believe that they are harmed. And I think that because they -- they're still getting It's just with CWIP when it is paid that amount.



1 construction work in progress, they are not getting

2 paid for those items right now. They are -- costs are

3 capitalized, they're not expensed at this time.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Once they are finished, that's when it is put into rate base and that's how you get your cost of service and rate design for these items. And that's where they're getting paid for with it when it's finished.

And I don't believe that they are harmed right now because they're essentially -- I'd say they're not getting harmed right now. They're going to get paid up front with the bond -- or with the securitization bond, plus interest on top of that for 15 years.

I just think it is economical for the other side where the ratepayer is having some benefit to paying back the Company on this amount, but through an amortization of three to five years -- I said five years in my testimony -- and there's no return on that amount. And it's -- the Company's still getting paid back for that.

Q. Is the underlying logic that including those -- including them as completed projects holds a ratepayer benefit as opposed to abandoned projects where the benefit is more speculative to the

ratepayers, if any?

- A. I'm not sure I really follow the first question there.
- Q. I mean, if it's -- if -- if -- if by definition a capital project is abandoned, do the ratepayers receive the benefit of the project? And I'm not a technical person. I could absolutely be wrong on this.
- A. I'm -- I'm not sure -- okay. Will you ask -- will you say that again one more time? I'm sorry.
- Q. I might be able to. Is the logic there that if the project -- or if these abandoned capital projects are carried to fruition, if they're no longer abandoned but are completed projects, the logic of including them in -- in rate base and all of that is because the customers have received a benefit from those projects being completed?
- A. Yes. I -- I -- I think I agree with that, yeah. If they're carried through fruition, that there is a benefit. Because I would hope that the Company didn't do these projects and not want to have some type of benefit to the customer -- or I guess try to harm the customer by doing these projects.
 - But I -- I think right now I do not

- 1 question the prudency or the Company's reason on these
- 2 projects. I just don't think that they should be here
- 3 in securitization and they should recover these in the
- 4 rate -- the next -- the future rate case.
- 5 Q. Thank you.
- 6 | COMMISSIONER HOLSMAN: I have a
- 7 | follow-up.
- JUDGE CLARK: Commissioner Holsman.
- 9 | FURTHER QUESTIONS BY COMMISSIONER HOLSMAN:
- 10 Q. The concept of securitization is a
- 11 | relatively new one. How many other cases outside of
- 12 | Asbury have you had a chance to review or study
- 13 | nation-wide?
- 14 A. Not many. For construction work in
- 15 progress, I tried to find some others around the
- 16 country and it was harder for me to do so. I don't
- 17 | really think I recall a specific case where I did see
- 18 | it.
- 19 O. You may not be the right witness to
- 20 | answer this question. I'm going to ask you anyways to
- 21 | see if maybe we can get to an answer.
- 22 | I was listening to the Judge's inquiry
- 23 | and it kind of made me think. Are you aware of any
- 24 | Commissions in the country who dealt with
- 25 | securitization that have put conditions on the bonding

1 that would require the interest of a certain portion 2 of the amount to be returned to ratepayers? 3 Α. I am not aware of that. And I -- I'm not 4 sure I can even answer that from my knowledge. 5 And I don't know -- I don't know from a 0. statutory standpoint the feasibility of it, but it 6 7 would seem to me that that would be an interesting question to pose, if someone did have the -- the 8 9 background to answer it. 10 If a portion of the bonding could be 11 identified or earmarked for the interest of that 12 portion to be returned to ratepayers in some form of 13 in a future rate case. 14 Yeah. Α. 15 0. If that -- if that interest could be booked for a future rate case. 16 17 Α. Yeah. I -- I do not have the expertise 18 on that. 19 0. Okay. 20 Α. Sorry. 21 COMMISSIONER HOLSMAN: Thank you, Judge. 22 JUDGE CLARK: Thank you, Commissioner. 23 Any recross based on Commission or Bench 24 questions? 25 MS. MERS: No, thank you.

1	JUDGE CLARK: Ameren Missouri?
2	MR. LOWERY: Maybe just a couple.
3	RECROSS-EXAMINATION BY MR. LOWERY:
4	Q. How are you, Mr. Payne?
5	A. I'm doing all right. Been a little sick
6	the past few days, so I'm trying to hang in.
7	Q. Hope you feel better.
8	Commissioner Holsman asked a question
9	about why the Company hadn't I guess since 2021
10	when it made the retirement decision, why it hadn't
11	sought recovery these costs in a rate review. You
12	remember that?
13	A. I yes, I do.
14	Q. Do you know from an accounting
15	perspective when the projects are considered to be
16	abandoned, for example, under Generally Accepted
17	Accounting Principles?
18	A. Not off the top of my head.
19	Q. Might it be that the projects aren't
20	considered abandoned until until the retirement of
21	the plant has actually been determined exactly when
22	it's going to happen and and that there's a
23	mechanism for that to happen, do you know?
24	A. I do not know off the top of my head at
25	this point.



1	Q. If if these costs were included in
2	rates in a rate case over a shorter amortization
3	period, won't the Net Present Value of Revenue
4	Requirement impact on customers be greater than if
5	they are recovered over a longer period of time at a
6	AAA bond interest rate?
7	A. I'd have to see the net present value
8	calculation on that.
9	Q. But you understand what I'm saying,
10	right? If you if you spread the nine million over
11	15, whatever that math is, that's X amount per year
12	and then you've got this AAA bond interest rate.
13	But if you spread it over three or four
14	or five years, the rate impact is going to be greater.
15	And if the rate impact is greater in those earlier
16	years when you do a net present value calculator
17	calculation, the cost in the early years count a lot
18	more on that NPV than the cost in later years, right,
19	because of discounting?
20	A. I think I follow that, yes.
21	Q. You agree with that, right? That's the
22	way
23	A. I think so, yes.
24	Q. That's all the questions I have.
25	JUDGE CLARK: Any redirect from Public

they're, instead, paying more over a shorter period of time?

Α. I think they'd --

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

2.2

23

24 Assume the same original principal Q. 25 amount.



Page 331 beginning

1	A.	I think I'm getting lost on the beginning
2	of the quest	ion.
3	Q.	Okay. Let's assume we're recovering
4	\$100.	
5	A.	Yes.
6	Q.	And we have two avenues to do it. One is
7	through a se	curitization over 15 years with a lower
8	interest rat	e. Then the other option, which is a
9	little bit h	igher interest rate, but over three to
10	five years.	You understand that?
11	Α.	Yeah. Yes.
12	Q.	Okay. How would the total amounts
13	compare, ass	uming the rate differential between the
14	long-term pa	yment, the 15-year payment, and the
15	shorter term	is not huge; let's say it's 1 or
16	2 percent.	
17	A.	I'd say they'd pay less in the shorter
18	term.	
19	Q.	And then you answered some questions
20	where wel	1, let's go to how the bond works.
21	Whenever the	bonds are issued, who gets the proceeds?
22	A.	Ameren Missouri.
23	Q.	And Ameren Missouri's going to get some
24	cost for ser	vicing those bonds over the time, right?
25	A.	Yes.



1	Q. And customers are going to pay charges
2	that cover both the principal and interest amount on
3	those bonds, will they not?
4	A. Yeah.
5	MR. LOWERY: Judge, I think I'm
6	going to I've let this go on for quite a while, but
7	he's just completely leading the witness. And this is
8	redirect, not cross-examination so I object on that
9	basis.
10	MR. WILLIAMS: That's a an objection
11	based on form, not substa it's a technical rule of
12	evidence. Leading's perfectly admi permissible in
13	proceedings such as this.
14	JUDGE CLARK: Response?
15	MR. LOWERY: Well, he hasn't cited any
16	law that says that and that that this is a
17	technical rule of evidence as opposed to fundamental
18	rule of evidence. And I certainly have had and
19	if and against me have had in this in this room
20	many times that objection sustained.
21	So I I'm not taking Mr. Williams' word
22	for it that that's a technical rule of evidence.
23	JUDGE CLARK: And I don't know off the
24	top of my head if it is. I do know that the
25	Commission is not bound by the technical rules of

- 1 | evidence.
- 2 MR. WILLIAMS: I may have misstated.
- 3 | It's not -- it's a technical rule of evidence, not a
- 4 | fundamental rule of evidence.
- JUDGE CLARK: Why don't we just, from
- 6 | this point on, not lead?
- 7 MR. WILLIAMS: Okay.
- 8 BY MR. WILLIAMS:
- 9 Q. In some of your answers you indicated
- 10 | that the utility would, as I understood it, get not
- 11 only the bond principal amount -- the proceeds of the
- 12 | bonds, but interest on the bonds. If you did so, was
- 13 | that an error?
- 14 A. Do you know when I said that exactly?
- 15 | I'm trying to --
- 16 Q. I think it was in response to some
- 17 | questions from Commissioner Holsman as well as Judge
- 18 | Clark.
- 19 A. Okay. And then will you restate that
- 20 | question again?
- 21 O. If Ameren Missouri issues bonds, will it
- 22 get interest on those bonds as well, to your
- 23 | understanding?
- 24 A. Yes. To my understanding, they'll get...
- 25 Q. Okay. Thank you.



1	A. Yes, I yeah.
2	JUDGE CLARK: Mr. Payne, you may step
3	down. Thank you.
4	All right. We are we are currently
5	one issue away from being caught up. It would be my
6	desire to go ahead and see how far we can get into
7	Issue 5. Just because looking at tomorrow's schedule,
8	while the singular issues may be slightly smaller,
9	they they do cover they are they are
10	numerous. So with that in mind, I'd like to go ahead.
11	Ms. Taylor, do you need a break?
12	THE COURT REPORTER: Yes.
13	JUDGE CLARK: I knew it was about time.
14	I was going to try and get by without one, but why
15	don't we all take about ten minutes. It's 5:19, let's
16	call it 5:20. Let's be back at 5:30 and we will start
17	with Issue 5.
18	(A recess was taken.)
19	JUDGE CLARK: As I indicated off the
20	record, it's now 5:30. It's my intention to go to
21	six o'clock and see how many witnesses we can get in
22	in that time frame. It may be one, it may be more.
23	With that, I believe the only the only
24	parties with witnesses on Issue 5 are Staff and Ameren



Missouri. So Staff, you may call your witness.

Page 335 Staff calls Claire Eubanks to 1 MS. MERS: 2 the stand. 3 JUDGE CLARK: Ms. Eubanks, I'll remind 4 you you're still under oath. 5 Understood. THE WITNESS: This is Ms. Eubanks' last 6 MS. MERS: 7 So I would go ahead and offer her appearance. 8 testimony -- her rebuttal testimony that is 9 Exhibit 102, and the surrebuttal testimony that is Exhibit 103. 10 11 JUDGE CLARK: Now, these -- were these --I believe some of these were -- were contained in the 12 13 Motion to Strike; is that correct? 14 MR. LOWERY: That's correct, Judge. 15 MS. MERS: Yes. 16 JUDGE CLARK: Okay. So --17 MR. LOWERY: So I'm assuming -- yeah, I'm 18 assuming it's provisional on that one. 19 JUDGE CLARK: -- it will be -- if we're 20 going to do it, it will be a provisional admission subject to the Commission ruling on those Motions to 21 2.2 Strike. 23 And Judge, we did not have MR. LOWERY: 24 an objection to the rebuttal or Motion to Strike on

the rebuttal, but we did have specific portions on the

Page 336 rebuttal, yeah, just for Ms. Eubanks. 1 2 Thank you for clarifying JUDGE CLARK: 3 that. 4 So we are looking at Exhibit 102? Okay. 5 MS. MERS: Yes. 6 JUDGE CLARK: And 103? 7 MS. MERS: Yes. 8 JUDGE CLARK: Is that it? 9 That is it. MS. MERS: 10 JUDGE CLARK: Are there any objections to 11 admitting Exhibit 102, the rebuttal testimony of 12 Claire Eubanks onto the hearing record? 13 No objection. MR. LOWERY: Exhibit 102 is admitted 14 JUDGE CLARK: 15 onto the hearing record. (Exhibit 102 was received into evidence.) 16 17 Any objections to JUDGE CLARK: 18 provisionally admitting Exhibit 103, the surrebuttal 19 testimony of Claire Eubanks onto the record subject to 2.0 the Commission ruling on the outstanding Motions to 21 Strike that are being taken with this case? 22 MR. LOWERY: No objection. 23 JUDGE CLARK: Exhibit 103 is 24 provisionally admitted. 25 (Exhibit 103 was provisionally received



- 1 | into evidence.)
- 2 MS. MERS: I will tender the witness for
- 3 cross.
- 4 JUDGE CLARK: Any cross-examination from
- 5 | the Office of the Public Counsel?
- 6 MR. WILLIAMS: Thank you, no.
- 7 JUDGE CLARK: Any cross-examination from
- 8 | Ameren Missouri?
- 9 MR. LOWERY: No, Judge.
- 10 JUDGE CLARK: I have some questions.
- 11 | CLAIRE EUBANKS, having been previously sworn,
- 12 | testified as follows:
- 13 QUESTIONS BY JUDGE CLARK:
- 14 O. And the first one is I don't understand
- 15 | this issue at all. I don't understand -- I don't
- 16 | understand why it's here. I -- it's not clear to me
- 17 | what Staff's specific issue is as it relates to the
- 18 | timing of the 2007 and '19 Court orders.
- 19 I feel like we've already discussed the
- 20 | harm -- I feel like we've already discussed harm from
- 21 | the closure so I'm not sure why we're discussing harm
- 22 | from the failure to -- to seek permitting. So I'm
- 23 | hoping that you can explain that to me.
- A. So I guess if I could request a co- --
- 25 request a copy of the issues list or position



statement because --

- 2 MS. MERS: I have the issues list, not
- 3 | the position statements with me. But if I can
- 4 | approach?

- JUDGE CLARK: Please.
- 6 MS. MERS: Actually, Mr. Fortson has the
- 7 | position statement, so --
- 8 BY JUDGE CLARK:
- 9 Q. Again, I guess I would just like to know
- 10 | what this issue is about.
- 11 A. Okay. So my understanding based on what
- 12 | Staff put in its position statement and the issue is
- 13 really more about the planning for the outcome of the
- 14 litigation as opposed to the kind of phrasing of the
- 15 | issues in thr- -- I think it was two -- or one and
- 16 three maybe -- or three, I guess. So I think Staff's
- 17 position is similar.
- 18 A lot of the language in the position
- 19 | statement -- I believe quite a bit of it is from
- 20 Mr. Fortson's testimony and then parts of it are from
- 21 | my testimony that we previously talked about, because
- 22 | the -- the future harm is similar and we've already
- 23 discussed it under other issues.
- Q. When -- you when -- what do you mean
- 25 | similar and what -- what is it and where have we

discussed it?

2.2

A. So from my perspective, the the
planning for the outcome, the future harm is, you
know, obviously the the potential remedy that could
be ordered by the Court, the seasonal construct
changes that led to shortfall in capacity and Ameren's
planning for those or really the lack of planning for
those. And then the transmission projects that we
discussed earlier today.

So we still have all the same concerns under either issue. It's just I think we included, based on the question, a little bit more of Mr. Fortson's --

Q. I guess -- I guess based on -- from a causation angle, wouldn't it be -- wouldn't most of the harms that you meant, actually the causation be the closing of the plant and not the -- the -- the failure to plan for a negative outcome?

I mean, because the failure for -- to plan for the negative outcome just means you've got the negative outcome coming, which in this case, forced them to make some hard choices.

A. So, but those hard choices were reasonably, to a certain extent at least, in my opinion, known and -- many, many years since -- I



- 1 mean, the -- I mean, the Court first ruled on at least
- 2 Ameren Missouri's understanding of the law in 2016, if
- 3 | I recall correctly. And then the liability decision
- 4 was in 2017, the remedy in 2019, then obviously the
- 5 Appellate Court decision in 2021.
- 6 So I think from Staff's perspective,
- 7 it's -- they kind of went down a path and never seemed
- 8 to want to move away from it.
- 9 Q. And I get that. But isn't the -- I mean
- 10 | if the plant doesn't close, none of those harms occur.
- 11 | And so all of those harms are related to the
- 12 | retirement of the plant, correct? What -- what harms
- 13 | are produced just from the failure of -- to seek an
- 14 | S -- NS -- New Source Review? That's just easier for
- 15 | me than getting the letters wrong.
- 16 A. So I think the harm is similar under
- 17 | both -- or -- or is the same under both questions.
- 18 | O. So both issues caused this harm?
- 19 A. I mean, I think the only other
- 20 | difference -- well, I'm sorry. So planning for NSR
- 21 outcome, you know, I don't know that Ameren Missouri
- 22 | could have -- the -- I guess the only thing I'm not
- 23 | sure about, I guess, is the -- the future remedies
- 24 ordered by the Court.
- 25 Q. Okay. Can you explain this issue and how

- 1 | it relates to the timing of the various court order --
- 2 | District Court orders?
- 3 A. I think --
- Q. Because that seems to be the context you're tying them to.
 - A. I think it's more about the planning around the litigation's outcome, whether that be IRP planning or just planning for the eventual retirement.
- 9 Q. And is this issue the issue that you believe most relates to Staff's hold-harmless 11 provision?
- 12 A. Not necessarily, no. I mean, that's
 13 where it ended up in the issues list obviously.
- Q. So that -- so -- I -- I interrupted you.
- 15 | I apologize.

6

7

- 16 A. No, no, no. That --
- Q. Go ahead.
- A. That's okay. It just -- you know, the issues list is what it is. I can't really speak to how the questions are phrased or why they are where they are. But Staff has three concerns and we've talked about them all already under all the other issues.
- Q. Okay. And don't be taken aback. I'm

 25 just -- like I said, I'm just trying to sort this out.



A.	No,	no.	I	understand.
----	-----	-----	---	-------------

- Q. I'm not -- I'm not saying you guys picked the wrong issue. I'm not saying anything -- I'm really honestly just trying to understand.
 - A. Yes. Yes.

- Q. Because I'm having some -- some difficulty with it. So it -- let me ask this question: Could "A" of this issue have fit just as easily on the plant retirement prudence issue? Or was there a reason it needs to be tied to this issue or it is? Is there a reason it's with this issue and not with that one?
 - A. I think Staff made -- you know, Staff discussed planning for the NSR outcome in its testimony. So I -- I suppose it was carved out as a separate issue. For some reason, I just -- I think it fits under the other one, but I just -- I don't know the reasoning behind.
 - Q. Okay.
 - JUDGE CLARK: Can we go ahead and go in-camera because I'm going to ask about some confidential numbers. And if there's anybody in the courtroom who is not an employee of the Commission, is not with one of the parties, or is otherwise not authorized to hear this information, please step out



```
Page 343
 1
    while we're in-camera.
                  A cursory glance, it appears that the
 2
 3
    people that are in here are all entitled to hear this
    information.
 4
 5
                  (REPORTER'S NOTE: At this time, an
 6
    in-camera session was held and is contained in
 7
    Volume 5, pages 344 through 347.)
 8
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```



- 1 JUDGE CLARK: Okay. We are out of
- 2 | in-camera.
- 3 | CLAIRE EUBANKS, testifying:
- 4 BY JUDGE CLARK:
- 5 Q. Is there -- how -- how does Staff see
- 6 | this -- if the Commission were to grant Staff's
- 7 request on this and -- and hold harmless above a
- 8 | certain amount, how does -- how does Staff perceive
- 9 that fitting into a financing order?
- 10 A. I think that is probably best suited for
- 11 | Staff counsel. I -- I would guess that -- I mean, I
- 12 guess if it was a CCN case, the Commission can grant
- 13 conditions. So if it's similar to that, you know,
- 14 | that -- that would be how it would work, I suppose.
- 15 O. And the condition -- I mean the statute
- 16 here specifically authorizes the Commission to
- 17 | establish conditions.
- 18 A. Yeah. But I -- it wouldn't be related to
- 19 the securitized amount in the order, I don't think. I
- 20 don't think that was the intention. It would just be
- 21 a separate condition.
- 22 Q. And I guess that's what I'm grappling
- 23 | with.
- JUDGE CLARK: Any recross based upon
- 25 | Bench questions from Public Counsel?



1	Page 34 MR. WILLIAMS: Thank you, no.
2	JUDGE CLARK: Any recross based on Bench
3	questions from Ameren Missouri?
4	MR. LOWERY: One or two, I think, Judge.
5	RECROSS-EXAMINATION BY MR. LOWERY:
6	Q. Ms. Eubanks, the Judge asked you more or
7	less is this Staff's issue, right? He asked you that
8	question?
9	A. I think he would like to know whose issue
LO	it was, yes.
11	Q. And the answer to the question is that
12	you raised on page 125 of your rebuttal testimony,
13	you raised an alleged lack of planning about a
14	near-term retirement of Rush Island and and how
15	that might relate to transmission upgrades.
16	And Mr. Fortson filed an entire piece of
17	testimony that claimed that Ameren Missouri hadn't
18	planned, as as I think Staff thinks it should have,
19	for a possible NSR loss, right? That's the genesis of
20	this issue, correct?
21	A. Yes. It's just we've also talked about
22	all these issues all day today.
23	Q. No, I understand that. I understand
24	perhaps it could have been folded into. But if if
25	that if your testimony on that page hadn't been

- **Evidentiary Hearing** April 16, 2024 Page 350 1 filed and Mr. Fortson hadn't filed his testimony, we 2 probably wouldn't have a separate planning issue on 3 the issues list; isn't that fair? 4 Α. I think that's fair, yes. 5 Q. Okay. Thank you. JUDGE CLARK: Any redirect from 6 7 Commission Staff? 8 MS. MERS: Yes. Hopefully very briefly. 9 REDIRECT EXAMINATION BY MS. MERS: 10 Ο. You had some questions from the Bench 11 about, you know, essentially why does this matter. 12 Why -- why does the timing of when Ameren's planning 13 on how to handle the outcome of the court case matter. 14 Do you believe that planning for a 15 negative outcome would impact current and future 16 plans? 17 Α. Yes. 18 And how does timing and planning impact 0. 19 costs? 20 Well, I think we heard from one of Α. 21 Ameren's witnesses earlier today that costs are
- 22 generally always going up.
- 23 And do you think planning for a likely 0. 24 negative outcome could cause a utility to invest 25 differently?



1	A.	Yes. Based on what was known at the	ge 351
2	moment in t	ime, yeah.	
3	Q.	I'm going to try to redirect on some of	
4	the in-came	ra stuff, but just avoid the numbers if we	е
5	can, okay?		
6	A.	I will try.	
7	Q.	You discussed a break-even point. Do yo	ou
8	recall that	, with the Judge?	
9	A.	Yes.	
10	Q.	When you say break-even, do you mean if	
11	the transmi	ssion costs are less than that number tha	t
12	we won't sa	y or higher sorry, higher than that	
13	number that	we won't say, that retrofitting may look	
14	more econom	ical?	
15	A.	So we we talked about the scenarios.	
16	I think a l	ot of people threw around the 43, 48 I	
17	can't remem	per exactly scenarios. So in not in	n
18	all of them	is it a concern. It's really more evider	nt
19	in a, you k	now, no carbon future or lower carbon	
20	future.		
21		And depending on how much Rush Island	
22	would have	operated in the, you know, couple years as	s
23	an SSR or,	you know, assuming that would have had mo	re
24	generation,	which it did not.	

So I don't know if I'm answering your

- 1 question exactly, but when I discussed earlier with
- 2 the Judge about, you know, when you think about, yeah,
- 3 we're talking about the transmission costs, but
- 4 there's also short-term capacity potentially and the
- 5 future litigation costs. That -- that also makes it
- 6 look a little less desirable.
- Now, that's based on the analysis in
- 8 direct testimony. Mr. Michels presented additional
- 9 analysis in, I don't know, surrebuttal and there's
- 10 like four different analyses now I think, so.
- 11 Q. Do you recall when that figure that was
- 12 in his direct testimony was developed originally?
- 13 A. Oh, so -- I believe it was the 2020 IRP
- 14 potentially, if I recall correctly.
- Q. Okay. We'll try to now move on from
- 16 potentially sticky questions that might have in-camera
- 17 | in them.
- 18 You were asked a question about the
- 19 Judge -- from the Judge about how the financing order
- 20 | would address the capping transmission costs. Do you
- 21 recall that?
- 22 A. Yes, I do.
- 23 | O. Are those transmission costs securitized
- 24 | costs?
- 25 A. Ameren Missouri did not include them as

securitized costs in thi	ls case	no.
--------------------------	---------	-----

- Q. So the -- is it your understanding they would not be in a financing order?
 - A. That is my understanding, yes.
 - 0. And --

1

4

5

6

7

8

9

14

15

16

17

18

19

20

21

22

23

24

25

- A. So the -- the re- -- I guess if I may, the reason we're talking about it is Ameren Missouri presented discussion about the projects and included the break-even analysis in its direct testimony.
- Q. I'm going to see if I can hopefully help maybe clarify a bit of the hesitation, because I'm thinking we're talking past each other when it comes to the list of issues.

Are you separating the testimony that discusses those issues from the process of how the issue was written and put on that list and in what order?

- A. I mean, I recognize -- as I discussed with Mr. Lowery, I discussed issues with planning and Mr. Fortson discussed issues with planning. You know, we support our testimony. I don't want to speak for Mr. Fortson, but I support my testimony. So Staff has concerns and I think they're valid.
- Q. But I guess could you say some of your hesitation is that out of the collaborative process to

make this issue list, you weren't necessarily -- or anybody, you know, was the one to say, Hold-harmless goes here versus here?

1

2

3

4

5

6

7

13

14

15

16

17

18

19

20

21

22

23

24

25

- A. Oh, yes. I mean, I provided input to Staff counsel's office, but I -- the final version is -- you know, I don't know how it got developed necessarily.
- Q. Okay. That's all I have. Thank you.

 JUDGE CLARK: This is not a question.

 This is just a comment from me. I understand that

 putting the issues list together for the Commission is

 a very difficult and onerous task. And so I wasn't in
 - any way trying to demean that. I certainly appreciate all the hard work that all the parties do in putting that list together. So I don't want anybody to think that this is about that.

I'm just trying to organize and separate in my head what goes where and understand where the -- I'm going to call it failure to plan issue, how that fits in with the rest of the securitization case.

As I indicated before off the record, it appears that we're going to be -- they need to shut down the network for a few hours. So with that in mind, I'm going to -- you may step down, Ms. Eubanks.

THE WITNESS: Thank you.

Page 355 And I am going to adjourn JUDGE CLARK: for the day. Go off the record and we will take up again tomorrow at 9:00 a.m. (Whereupon, the hearing was adjourned until April 17, 2024 at 9:00 a.m.)



April 16, 2024

Evidentiary Hearing

ı	Evidentially Healing	April 10, 2024
1	INDEX	Page 356
2	ISSUE 3	
3	AMEREN EVIDENCE	
4	KARL MOOR	
5	Direct Examination by Mr. Long Cross-Examination by Ms. Mers	7 8
6	Cross-Examination by Mr. Williams Questions by Judge Clark	19 23
7	Recross-Examination by Ms. Mers Recross-Examination by Mr. Williams	32 35
8	Redirect Examination by Mr. Long	38
9	JOHN REED Direct Examination by Mr. Long	50
10	STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION EVIDENCE	
11		
12	CLAIRE EUBANKS Direct Examination by Ms. Mers	53
13	Cross-Examination by Mr. Long Questions by Judge Clark	55 59
14	Questions by Chair Hahn Further Questions by Judge Clark	61 62
15	Redirect Examination by Ms. Mers	63
16	KEITH MAJORS Cross-Examination by Mr. Long	71
17	Questions by Judge Clark Recross-Examination by Mr. Long	85 97
18	Redirect Examination by Ms. Mers Questions by Commissioner Holsman	100 112
19	Recross-Examination by Mr. Williams Recross-Examination by Mr. Long	123 128
	Redirect Examination by Ms. Mers	134
20	Further Questions by Commissioner Holsman Recross-Examination by Mr. Williams	138 141
21	OFFICE OF THE PUBLIC COUNSEL EVIDENCE	
22	JORDAN SEAVER	
23	Direct Examination by Mr. Williams Cross-Examination by Ms. Mers	145 149
24	Cross-Examination by Mr. Long Questions by Judge Clark	151 152
25	Zacscrons Dy Gaage Crark	102



	Evidentiary Hearing	April 10, 2024
1	AMEREN EVIDENCE	Page 357
2	MATTHEW MICHELS	1 5 4
3	Direct Examination by Mr. Lowery Cross-Examination by Ms. Mers	154 155
4	Cross-Examination by Mr. Williams Questions by Chair Hahn	158 160
5	Questions by Commissioner Holsman Recross-Examination by Ms. Mers	170 176
6	Recross-Examination by Mr. Williams Further Questions by Chair Hahn	178 181
7	Further Recross-Examination by Mr. Williams Redirect Examination by Mr. Lowery	183 183
8	STAFF OF THE MISSOURI PUBLIC	
9	SERVICE COMMISSION EVIDENCE	
10	CLAIRE EUBANKS Cross-Examination by Mr. Lowery	199
11	Questions by Judge Clark Questions by Chair Hahn	205 214
12	Recross-Examination by Mr. Lowery Redirect Examination by Ms. Mers	216 220
13	SHAWN LANGE	
14	Direct Examination by Ms. Mers	230
15	BRAD FORTSON Direct Examination by Ms. Mers	231
16	OFFICE OF THE PUBLIC COUNSEL EVIDENCE	
17	JORDAN SEAVER	
18	Questions by Judge Clark Recross-Examination by Ms. Mers	234 238
19	Recross-Examination by Mr. Lowery	239
20	ISSUE 4	
	Opening Statement by Mr. Lowery	242
21	AMEREN EVIDENCE	
22	MARK BIRK	_
23	Questions by Judge Clark Questions by Chair Hahn	245 251
24	Recross-Examination by Ms. Mers Recross-Examination by Mr. Williams	259 261
25	Redirect Examination by Mr. Lowery	268



Evidentiary Hearing April 16, 2024 Page 358 1 MITCHELL LANSFORD Questions by Chair Hahn 273 2 Questions by Commissioner Holsman 275 3 MARK BIRK (RECALLED) Ouestions by Commissioner Holsman 277 4 Further Recross-Examination by Ms. Mers 280 Further Recross-Examination by Mr. Williams 281 5 MITCHELL LANSFORD (RECALLED) 6 Questions by Judge Clark 285 Redirect Examination by Mr. Lowery 287 Further Questions by Judge Clark 7 288 Further Recross-Examination by Ms. Mers 291 8 STAFF OF THE MISSOURI PUBLIC 9 SERVICE COMMISSION EVIDENCE KEITH MAJORS 10 Questions by Commissioner Holsman 292 11 Ouestions by Judge Clark 302 Recross-Examination by Mr. Lowery 306 Redirect Examination by Ms. Mers 12 312 13 OFFICE OF THE PUBLIC COUNSEL EVIDENCE 14 MANZELL PAYNE Direct Examination by Mr. Williams 318 15 Questions by Commissioner Holsman 319 Questions by Judge Clark 321 Further Questions by Commissioner Holsman 326 16 Recross-Examination by Mr. Lowery 328 Redirect Examination by Mr. Williams 330 17 18 TSSUE 5 19 STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION EVIDENCE 2.0 CLAIRE EUBANKS 21 Questions by Judge Clark 337 Questions by Judge Clark (In-Camera) 344 22 Recross-Examination by Mr. Lowery 349 Redirect Examination by Ms. Mers 350 23 24 25



	Lvideritary Flearing	April 10, 2024
1	EXHIBIT INDEX	Page 359 REC ' D
2	MARKED AMEREN:	KEC D
3	Exhibit 6 Direct Testimony of Mark Birk	245
4	Exhibit 7	213
5	Surrebuttal Testimony of Mark Birk	245
6	Exhibit 12-P Direct Testimony of Karl Moor, Public	8
7 8	Exhibit 12-C Direct Testimony of Karl Moor, Confidential	8
9	Exhibit 13 Surrebuttal Testimony of Karl Moor	8
10	Exhibit 23	
11	Direct Testimony of John Reed	52
12	Exhibit 24 Surrebuttal Testimony of John Reed	52
13	STAFF:	
14	Exhibit 102	
15	Rebuttal Testimony of Claire Eubanks	336
16	Exhibit 103 (provisionally admitted) Surrebuttal Testimony of Claire Eubanks	336
17	Exhibit 108	
18	•	231
19	Exhibit 109 Surrebuttal Testimony of Shawn Lange	231
20	Exhibit 113	10 10
21	Three-part Declaration	10 12
22	Exhibit 114 DNR rules	13 15
24	Exhibit 115 Federal SIP Recognition	15 15
25	Exhibit 116 Federal Memorandum and Order	17 18



Evidentiary Hearing

April 16, 2024

	Evidentiary Hearing		April 16, 2024
1		MARKED	Page 360 REC ' D
2	Exhibit 117 District Court transcript dated 3/28/24	18	19
3	Exhibit 118 Capacity Position Work Paper	155	157
4	Exhibit 119		
5	Reliability Requirements	157	158
6	OPC:		
7	Exhibit 204 Rebuttal Testimony of Jordan Seaver		149
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			



CERTIFICATE OF REPORTER

I, Tracy Thorpe Taylor, CCR No. 939, within the State of Missouri, do hereby certify that the testimony appearing in the foregoing matter was duly sworn by me; that the testimony of said witnesses was taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this matter was taken, and further, that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.

Tracy Thorpe Taylor, CCR, RPR

Tracy Jo Jay

April 16, 2024Index: \$100..1999

	108 230:10,24	125 349:12	16 196:5 271:16
\$	231:2 359:17	128 356:19	16-year 23:15
\$100 331:4	109 230:10,24 231:2 359:19	12:27 144:12	160 357:4
	10:30 70:5	12th 27:10	16th 3:3
(10:45 70:8	13 7:19 8:6,10,16 266:4 307:18	17 45:14 60:2,5,7 62:22 85:11,24
(7)(a) 54:14	11 88:8 159:9	359:9,22	86:6 87:25 88:23
0	265:4 280:19,20 283:5	13-year-old 305:5 315:17	109:23 165:16 355:5
05 45:16	11-day 107:16	13.2 87:19	170 357:4
07 126:15	112 356:18	133 79:22 80:3,11	176 357:5
08 126:15 252:18	113 10:19 11:7,23	134 79:22 80:8,11	178 357:5
265:3	12:7,9,10 359:20	106:23 107:9	18 148:18 165:8
09 45:16 126:15	114 13:20,23 15:4, 8,10,12 359:22	356:19	360:2
	115 14:25 15:1,4,	138 356:20	181 357:6
1	8,10,12 359:23	14 307:18	183 357:6,7
1 130:24 165:16	116 16:25 17:3,4,	141 356:20	189 73:5
237:8 256:24	20,22,25 18:1	145 356:23	19 156:3 158:2 337:18 356:5
303:22 314:7 331:15	359:25	149 356:23 360:7	360:2
1,000 237:13	117 18:11,15 19:4, 6,9,10 26:17	15 121:16 129:11 139:23 175:9	19- 111:9
1,200 237:1	360:1	220:7 271:16	190 174:12
1,400 247:8	118 155:10,12	298:2 307:18	191 180:11
1,800 237:12	157:3,5,8,9 188:13 193:18	324:14 329:11 331:7 359:22,24	192 180:7
1.5 256:24	194:2,5 237:9	15-minute 70:6	1920's 43:18
10 9:3 14:1 220:7	360:3	15-year 331:14	195 73:4
265:4 280:19,20	119 157:14,20,24 158:9,11,13 360:4	150 238:3	1960's 124:10
359:21 100 300:9 356:17	12 8:9 266:3	151 356:24	1966 263:15
	359:21	152 356:24	1970 262:20
102 54:3 335:9 336:4,11,14,16	12-C 7:15 8:6,16	154 357:2	1970's 141:24
359:14	359:7	155 357:3 360:3	1973 262:20
103 54:6 335:10	12-day 91:22	157 360:3,5	1977 320:22
336:6,18,23,25 359:16	12-P 7:16 8:6,16	158 357:3 360:5	322:21
104 232:3	359:6	15th 134:16 212:3	199 357:10
105 232:4	12.9 274:22	213:23 303:22	1999 24:9 30:21 36:22 38:3 40:13
100 202.7	123 14:19 356:18	304:13	30.22 30.3 40.13



	Lvideritiai	·	TPIII 10, 2024IIIUEX. 174250
41:6 45:17 78:7	2010 25:21 26:2	168:21 176:18,20,	2027 166:5
92:12 106:5,10	29:14 36:13,14	24 177:4 179:24	2029 173:17,18
111:9	42:23 43:2 115:18	181:25 188:19	195:12
1A 12:4	126:19 158:24	191:14 192:2,21	2030 195:12
	281:13 282:21	194:4 195:2	237:11
2	283:5 309:21	205:10,12 209:13	
	310:10	222:10 309:21	2030's 116:5,23
2 88:22 119:9,10	2010-ish 307:9	310:10 352:13	117:8 118:19
158:2 314:8,14	2011 36:13,14	2021 72:4 159:21	2035 117:22
331:16	75:17 120:10	163:25 164:1	2039 114:7,17
20 40:10 108:1,2	123:14 125:20	176:24,25 177:3	162:13 172:3
119:1 129:12	126:11 190:7	186:12,13,22	204:5,19
134:25 213:23	242:5 247:2	192:2,7,8,21	·
219:15	280:15,24 283:12	193:1 195:17	204 145:11 147:21
	291:8 296:9	197:18 205:8	148:22,23 149:1,
20-year 190:20	2011-0258 125:18	208:18 209:8,13	3,6,7 360:7
200 69:20,24,25		212:12 283:24	2040 117:22
108:1,2 150:6	2012 159:5 185:25	289:4,18 320:4 328:9 340:5	156:16,18,22
173:6,21 174:11,	307:18 308:16		171:20
16 179:8 257:7	2013 308:16	2022 164:21	205 318:15 357:10
200,000 304:11,15	2014 271:15	165:20,22 169:13	
, ,		178:23 191:23	2050 117:9 118:15
2000 89:23	2015 24:3,10 38:3	195:21 212:12	2050's 118:20
2000's 268:2	264:21 271:11	283:24	119:1
2002 16:16 150:14	283:11,13,17	2023 163:8 165:4,	21 15:21 51:13,15
	2015-ish 283:1	21 173:1,16	299:10,14 309:21
2003 16:16 115:13	2016 16:22 17:17,	177:11 207:7	21,000 20:22
2004 16:16,17	18 44:17 45:14	212:14	,
2005 25:21 26:2	47:8,11 91:21	2023/24 191:23	214 357:11
28:3 29:14 35:23	264:21 271:12	2024 3:3 19:7	216 357:11
45:4 119:5,21	340:2	51:16 68:24	21st 16:22
126:19	2017 23:22 28:2,3	121:16 133:17	22 282:21
2006 12:21 14:20	44:17 47:4 72:3,	156:8 162:6,10	
32:8	16,23 73:1,11,14	185:25 193:10	220 357:12
2007 75:16 126:18	74:3 82:24 91:23	194:5 195:2,24 213:23 304:12	23 51:5 52:2,5,9,
130:24 178:2	205:12 340:4	355:5	11 91:23 200:1
218:8 337:18	2019 24:5 72:4,15		356:6 359:10
2008 245:22	73:15 82:24	2025 166:5	230 357:13
246:25 264:9	137:15 205:1	193:11,20 194:6	
265:2 289:4	340:4	195:4 196:2	231 357:15 359:18,19
	2020 155:19	198:1,2 212:3	·
2009 137:14 242:5	156:16,25 161:15,	237:7,10 254:16	234 357:17
2009/2010 243:4	18,23 162:2	2026 198:6	238 357:18
	163:4,12,17		



April 16, 2024Index: 1A..238

April 16, 2024Index: 239..7,339

			11 16, 2024Index. 2397,33
239 357:18 24 51:5,9 52:2,6,9, 11 196:7 359:12 24/7 268:16,17 24/7/365 255:9 242 357:20 245 357:23 359:3, 5 25 146:10,12,15 211:12	3.9 275:1 298:9 3/28/24 360:2 30 161:1 191:2 300 120:24 166:14,15 170:25 196:12 254:17 302 358:11 306 358:11 30th 304:1 310 3:4	23 53:8 61:10,23 62:2,15 152:23, 24,25 153:3,5,14 161:5 199:15 210:18 279:24 4 4 196:5 240:15 357:19 4,000 247:9,14 4- 171:10	132:9 141:15 171:10 216:11 217:21 239:21,22 257:8 267:20 282:9 314:5,9 320:20 52 359:11,12 52.21 31:21 53 356:12 561 195:8
250 257:7 251 357:23 259 357:24 26 146:14,15 211:12	312 358:12 316 179:22,25 318 358:14 319 358:15 32 26:22 356:6	40 75:15,20 159:8 191:2 400 125:15 173:7 237:13 40s 139:5	501 195.8 59 356:13 5:19 334:15 5:20 334:16 5:30 334:16,20
261 357:24 268 357:25 27 211:12 273 358:1 275 207:1 358:2 277 358:3 27th 14:20 280 358:4 281 358:4 285 358:6 287 358:6 288 358:7 28th 18:18 19:7 26:18 68:24 291 358:7 292 358:10	321 358:15 326 358:16 328 358:16 330 358:17 336 359:15,16 337 358:21 344 343:7 358:21 347 343:7 349 358:22 35 16:1,11 356:7 350 358:22 38 356:7 393.1700.1 54:14 3:08 240:10 3:20 240:11	42 92:1 122:2 427 304:9 427,000 304:9 43 122:2 351:16 438 179:25 180:11 45 186:23 460 217:20 219:23 468 139:12 48 162:23 186:23 351:16 4A 272:20 298:10 4B 279:25 5 154:22 165:8 229:8 230:25 232:18 234:7 17	6 6 244:18,22 245:1, 3 282:3 359:3 600 141:15,25 171:20 180:9,10 248:21 260:17 281:24 282:3,10, 20 61 356:13 62 356:14 620 281:25 282:1, 3,21 63 356:14 650 141:16 67 290:21 67.41 289:5,24
3 3 356:2 3.6 237:6	3A 5:9 6:14 49:18, 20,23 53:9 61:9, 14 68:19 152:24, 25 3B 5:15 49:19,22,	232:18 334:7,17, 24 343:7 358:18 50 110:15 191:3 356:9 500 124:10,16	7 7 244:18,23 245:1, 3 356:4 359:4 7,339 156:20



	Evidentia	Ty Healing April 1	o, 2024Index. 7,800adding
7,800 257:9 267:9	9:00 355:3,5	325:7	achievable 115:19
7/11 127:11	9:01 3:1,3	accept- 253:24	129:7,8
70 217:20 219:23		acceptable 206:15	acronym 177:23
256:2 700 125:15 282:24	A 0.4.0.055.0.5	accepted 104:7 293:3 328:16	Act 20:2,5,6 27:14, 18 28:6,22 29:11
283:19	a.m. 3:1,3 355:3,5	accepting 34:15	30:2,20 39:23 80:13 81:21
70s 124:20 217:22	A1 11:17 12:5	access 77:16	82:12,20 91:25
71 14:18 106:6	AAA 329:6,12	140:20 141:1	131:20 151:10
356:16	AARP 4:25 175:17 259:8 273:4	142:14,16	228:11 315:6
720 264:16 271:15 282:24 283:20,21	ab 112:25	accommodate 266:9	acted 71:18 85:1 151:22
7470 92:1	aback 341:24	accomplished	acting 100:18,21
75 69:17 107:25	abandon 243:7,15	21:6	action 134:10
135:21,22 262:23	253:17 303:23	accordance 104:7	166:6 183:9 361:10,14
750 124:11,16	abandoned 86:18, 19 87:11 240:16,	account 93:18 94:12 168:12	actions 28:23
76 262:23	20 243:11 245:20	195:16,19 209:24	90:8,9,12,14 91:6
8	250:13,15 272:2	258:12 309:10	92:11 108:23 110:13 225:14
o	274:21 275:1 285:7,16 286:2,	317:2	227:16 228:1,4
8 356:5 359:6,8,9	16,20,21 287:19	accounted 192:7 266:5	actively 303:17
800 237:2	296:7 300:8 301:20 302:14	accounting 104:7	activities 150:24
80s 300:11	303:6 304:9	243:16 302:22	activity 159:25
85 356:16	316:16 320:22,24,	328:14,17	actual 13:6 68:17
	25 322:22 324:24 325:5,13,15	accounts 60:5	76:2,11 77:20
9	328:16,20	accreditation	92:13 94:9 99:2
9 314:18	ability 166:12	165:24 188:12,20 191:18	127:2,6 224:6 225:14 226:10
9,032,646 275:3	167:24 168:3	accreditations	236:8 252:13
9.3 86:22 87:18	361:7	164:11 165:2	294:7 309:17
939 361:3	abroad 138:23	192:22 193:4	ad 112:21 115:3
95 134:17 174:9	absent 197:19 277:3 294:18	accuracy 104:4 294:9	add 116:24 136:18 167:13 173:21
268:12	absolutely 46:9	accurate 54:20	243:18
954 159:5	90:13 112:12	79:3 112:9 171:2,	added 135:9,23
97 356:17	119:3 130:22 131:17 132:24	3 230:17 232:11	136:14,18 193:5
98 314:11,18	133:2 139:16	238:21 275:25 293:13,15	238:4 254:24 268:8
99 35:7 78:5	142:11 188:6	·	adding 166:16
115:13	252:16 271:17 277:16 308:5	accurately 278:25	167:1,22 177:15



_		Evideritia	ry nearing April 16, 20.	zamuex. additionamendet
	178:17 181:12,16	administrator	21 319:10,11	aimed 30:24 43:25
	addition 174:14,	35:19,21	afterward 77:20	air 13:18 20:2,5,6
	17 178:14 179:11	admission 335:20	age 172:18	27:14,18 28:6,22
	181:10 188:8	admit 13:6		29:11 30:2,20
	239:24 257:19	admitted 8:14	agency 22:20	31:11 35:20 39:22
	266:4	12:9 15:11 17:25	agency's 13:11	80:12 81:21
	additional 19:16	19:9 52:9 109:3,4	aggressive 171:6,	82:12,19 91:25 113:18 131:20
	33:18 40:15	149:6 157:8	15	135:17 150:22
	119:18 135:25	158:11 233:24	agnostic 197:13	151:10 228:11
	167:19 205:24	245:1 336:14,24		242:11,12 282:12
	243:3 255:19 256:21 257:5	359:16	agree 28:19 33:12	Alabama 29:23
	286:5,14 290:16	admitting 8:8	37:2 56:18,22,24 71:15 72:25 82:15	40:24
	304:5 352:8	11:16 12:6 15:7	83:12,17 84:5,8	
		17:21 149:2 157:4	89:15,18 100:21	all-in 283:16
	additions 113:7 174:2 224:12,13	158:8 244:22	122:6,7 133:19	allegation 218:19
	236:3	336:11,18	160:1 201:11,16	allegations 65:12
		adopted 46:6	202:19 204:14	alleged 113:14
	additive 174:18	75:22 190:7	207:5 215:19	349:13
	address 182:20	240:21	228:16,17,24	
	244:2 352:20	advance 190:20	276:13 293:14 308:25 312:1	alleging 243:20
	addressed 118:11	advanced 118:22	325:19 329:21	allowance 242:19
	319:14	127:14		243:5 269:13,15
	addresses 118:6	advancements	agreed 4:17 203:16,23 303:1	270:5,9
	adept 83:25	119:2		allowances
	•		agreeing 298:11	113:15 125:2
	adequacy 163:13, 18 164:23 166:25	advantageous 236:23	agreement	131:3,9,19,25 132:5 133:4,5,7,9,
	196:20 207:8		146:17,20 169:14,	11,14,22 270:18
	254:11,15 265:6	affect 168:2	15 170:9	308:19
	adjacent 315:11	201:23	agrees 84:11	allowed 131:3
	•	affirmed 34:15,17	95:14	190:2 213:10
	adjourn 355:1	39:2	ahead 14:24 17:19	246:18 270:15
	adjourned 355:4	affirming 72:5	19:3 26:23 70:16,	allowing 179:14
	adjust 50:15	affordability	20 153:6 157:3,12 160:8 170:19	alongside 174:1
	adjustment 94:9	258:20,22	199:9 223:3	
	adjustments	afield 43:10	229:25 232:25	alternative 177:16,18 185:1
	193:24	after-the-fact	235:4,5 237:4	186:4
	admi- 332:12	25:22	242:1 244:10,14,	
		afternoon 160:11,	17 273:16 275:10 277:21 292:12	alternatives 184:18 242:20
	administration 36:23,24 37:12,	12 170:22,23	319:8 334:6,10	
	17,18 111:6	214:10,11 220:14,	335:7 341:17	ameliorate 123:19
	,	15 251:16,17	342:20	amended 16:8
		261:14,16 273:20,		239:12
		I	I	I



Ameren 3:9,23,25 4:2 6:15,18,19,22 7:5 9:7 12:12 17:11 25:10,20,23 26:1,7 27:19 28:5, 21 29:2 30:5,11 31:5,14 33:16 38:6,10,12,21 43:22 44:11,19 45:2,4,11 48:2,14, 18,22 49:2 50:9, 20 52:2,4,14 53:9 55:15,25 56:9,14, 16,19,22,25 57:10 62:9 63:11,22 64:5,13,17,18 65:10 66:3,17,22, 23 67:4,16 68:5,9, 12 69:2 71:6 76:8 80:16 81:9 83:13 84:12 87:14 89:22,24 91:25 93:20 94:6,17,18 95:10,24 96:19 97:8,18 99:18 100:12 104:19 105:1,14,16 106:3,6 107:1,25 108:6,24 109:16 110:1 111:8,10 115:3 116:16 123:10,15 124:19, 22 125:10,20 126:16 128:2,10 130:25 131:18,21 133:4,5,11,21 135:13 141:3 143:15 144:8 150:21 151:3,17 154:1 155:4	Ameren 3:9,23,25 4:2 6:15,18,19,22 7:5 9:7 12:12 17:11 25:10,20,23 26:1,7 27:19 28:5, 21 29:2 30:5,11 31:5,14 33:16 38:6,10,12,21 43:22 44:11,19 45:2,4,11 48:2,14, 18,22 49:2 50:9, 20 52:2,4,14 53:9 55:15,25 56:9,14, 16,19,22,25 57:10 62:9 63:11,22 64:5,13,17,18 65:10 66:3,17,22, 23 67:4,16 68:5,9, 12 69:2 71:6 76:8 80:16 81:9 83:13 84:12 87:14 89:22,24 91:25 93:20 94:6,17,18 95:10,24 96:19 97:8,18 99:18 100:12 104:19 105:1,14,16 106:3,6 107:1,25 108:6,24 109:16 110:1 111:8,10 115:3 116:16 123:10,15 124:19, 22 125:10,20 126:16 128:2,10 130:25 131:18,21
4:2 6:15,18,19,22 7:5 9:7 12:12 17:11 25:10,20,23 26:1,7 27:19 28:5, 21 29:2 30:5,11 31:5,14 33:16 38:6,10,12,21 43:22 44:11,19 45:2,4,11 48:2,14, 18,22 49:2 50:9, 20 52:2,4,14 53:9 55:15,25 56:9,14, 16,19,22,25 57:10 62:9 63:11,22 64:5,13,17,18 65:10 66:3,17,22, 23 67:4,16 68:5,9, 12 69:2 71:6 76:8 80:16 81:9 83:13 84:12 87:14 89:22,24 91:25 93:20 94:6,17,18 95:10,24 96:19 97:8,18 99:18 100:12 104:19 105:1,14,16 106:3,6 107:1,25 108:6,24 109:16 110:1 111:8,10 115:3 116:16 123:10,15 124:19, 22 125:10,20 126:16 128:2,10 130:25 131:18,21 135:13 141:3 143:15 144:8 150:21 151:3,17 154:1 155:4	4:2 6:15,18,19,22 7:5 9:7 12:12 17:11 25:10,20,23 26:1,7 27:19 28:5, 21 29:2 30:5,11 31:5,14 33:16 38:6,10,12,21 43:22 44:11,19 45:2,4,11 48:2,14, 18,22 49:2 50:9, 20 52:2,4,14 53:9 55:15,25 56:9,14, 16,19,22,25 57:10 62:9 63:11,22 64:5,13,17,18 65:10 66:3,17,22, 23 67:4,16 68:5,9, 12 69:2 71:6 76:8 80:16 81:9 83:13 84:12 87:14 89:22,24 91:25 93:20 94:6,17,18 95:10,24 96:19 97:8,18 99:18 100:12 104:19 105:1,14,16 106:3,6 107:1,25 108:6,24 109:16 110:1 111:8,10 115:3 116:16 123:10,15 124:19, 22 125:10,20 126:16 128:2,10 130:25 131:18,21
156:24 158:22 177:12 182:5 183:6,7,17,25 185:17 186:10	135:13 141:3 143:15 144:8 150:21 151:3,17 154:1 155:4 156:24 158:22

Evidenti
202:2,4,9 204:2, 19,24 205:7,9 206:9 207:6,13 208:18 211:6 212:9 213:3,22 215:11 216:2 218:22 220:17 221:5,11 223:14, 22 227:1,6,16 228:1,4,10 231:8 233:6 234:9 239:3 242:19 250:1 254:14 266:22 267:21 268:21 270:6,10,17 278:7 280:20 281:10,11 284:13 286:19 291:13 292:8 293:19,20 294:5, 15 297:25 300:13 306:22 308:17 313:5 315:25 316:4,13 319:3 320:2,22 328:1 331:22,23 333:21 334:24 337:8 340:2,21 349:3,17 352:25 353:7 356:3 357:1,21 359:2
Ameren's 24:14
28:12,23 29:25 30:1 56:3 60:3 83:8 93:6 94:17 104:11 105:25 106:1 120:8 122:1 133:17 149:17 153:14 155:19 159:15 213:3 238:19 250:19 274:16 279:9 295:12,19 305:19 306:17 319:14 339:6 350:12,21 America 139:3

amortization 297:1 323:19 324:18 329:2
330:14
amortized 287:25 322:14,20
amount 60:10 68:18 88:5,18 94:10 105:20 113:8,15 135:1,2 136:7 153:19 172:14 175:5 201:23 235:3 237:19 238:11,12 240:15,16 268:14 287:20 313:25 316:24 320:17,18, 19 322:16 323:25 324:17,20 327:2 329:11 330:13,25 332:2 333:11 348:8,19
amounts 89:6 94:19 108:7 275:3 292:25 297:4 301:4 306:6,14 331:12
ana- 77:10
analogous 104:1
analogy 316:12
analyses 74:6,9 76:19,23 77:3,12 78:4 184:12,14,17 185:22 186:14 189:2 352:10
analysis 65:3 67:10 76:15 78:15 99:23 102:12 125:1,4 131:8,14 132:4 133:20 135:19 136:3,4,14 137:6 159:1,4 161:15,22 162:22 163:1,4,5,7

ick. / inchamentapologica
177:17 185:7 186:3,23 189:20 192:3,8,9 195:18 196:2,25 197:1 205:13 208:13,17 209:9,14,16,22 210:2 211:22 215:15 223:5 226:15,16,19 250:4,10,18 251:2 276:21 277:8 279:18,19 281:19 292:23 293:15 298:7 309:2 312:21 352:7,9 353:9
analyst 145:9
analyze 78:14,20
analyzed 184:23
analyzing 185:12
angle 339:15
announcement
176:24 191:13
annual 24:23 170:5
answering 209:3 304:20 351:25
answers 7:25 8:2
51:21,23 54:20,25
67:13 123:9
154:15,18 230:21
232:15 235:18
333:9
anticipate 166:9 229:20
anticipated
168:13
anybody's 243:20
anymore 187:9
238:2 243:6 255:8
apologies 251:14



278:1	163:22,25 164:8	ry Hearing April 16, 2024 argument 23:16	Index: apologizeattorney
	•	129:5 296:3	239:19 242:3
apologize 21:21 33:6 34:23 38:17	apply 83:23 151:10	297:23 298:17,18 299:3	assumes 176:6
148:5 156:10 274:12 279:24 280:12 341:15	applying 78:1,10 99:17	arguments 91:20 216:17	assuming 53:8 58:5 99:2 142:25 153:8 174:8 201:6
apology 63:15	approach 9:24 16:24 18:8 40:13	arise 202:21	217:12,13 255:18
apostrophe 148:15	96:18 112:8 155:7 157:10 161:7	207:22 articulate 285:25	271:11 300:22 331:13 335:17,18
app- 262:8	194:16 338:4	as- 225:21	351:23
apparently 16:16	approached 130:8,9	Asbury 114:2	assumption 94:21
appealed 34:11,13	approaching	137:11 138:3 143:23,24 299:23	assumptions 158:25 161:18
Appeals 82:25	161:8	326:12	162:1 163:8 171:17 205:3
appearance 335:7	appropriately 311:18 313:12	aspects 305:13	assurance 35:18
appearances 3:22 291:25	appropriateness	assess 61:15 190:14	36:10 104:6
appeared 64:15	295:21	assessed 319:15	assured 39:22
70:16	approval 14:22	asset 112:7,13,17,	attach 73:20
appearing 4:11 6:1 53:4,8 55:2	32:5,8 33:19 approve 215:13	19 114:6,8,12,16 128:17 138:8	attached 9:10 72:8 73:14,19 86:17
229:4 361:5 appears 10:23	approved 12:22	162:24 172:10 173:22,23 301:12	87:7 91:16 172:23 294:2
14:23 51:12 82:8 166:22 244:14	31:18,20 164:22 290:9,22	assets 117:7	attachments 9:20, 23 10:24 11:7
273:1 322:2 343:2	approximate 127:25	122:23 126:14 138:13,24 172:17,	222:5
354:22	approximately	18 173:25 265:23	attainment 81:17
Appellate 340:5 appetite 164:2	86:22 87:18,19 125:9 158:22	assist 109:23 228:15 298:5	attempt 36:7 195:18
apples 262:8	267:25 292:24	assistance 147:13	attempted 248:25
applicability	April 3:3 27:10	assisted 298:4	attend 6:11
20:10,13 21:2,15, 16 22:2,6,11,17	355:5	assume 32:10	attended 23:25
223:23 235:14	Aquila 117:2 119:8	120:22 162:9 166:16 172:19	attending 6:2
259:16	archaic 135:25	176:5 184:7,12	attention 66:13
applicable 80:17 81:2 260:13 285:6	area 69:13 81:16	189:8 211:1 273:25 274:2	attorney 95:19 107:13 182:17
01.2 200.10 200.0	areas 256:17	301:5 304:10 330:24 331:3	214:3 298:18
application 152:2			1 261.12
application 152:2 applied 45:20 46:3	argue 213:16,18	assumed 159:5	361:12 attorneys 95:8,19



	Lvideritiai	y nearing April 16, 20	D24Index. allindulebelieved
attribute 298:10 audit 103:24 auditor 73:19 91:15 317:9,13 318:12 auditors 103:17 104:3 Audrain 167:6 August 91:20 134:16 164:23 186:12 193:2 197:18 212:13 author 15:4 authored 67:4	aware 31:1 45:5,7, 8,12 78:16 129:24 176:15,17 203:7 204:7,10,13 230:15 289:25 313:17 316:2 317:17 326:23 327:3 B B-R-A-D 231:25 back 22:13 23:8 29:13 37:11 70:7 72:16 81:24 92:21 93:24 99:20	bang 135:1 bank 242:19 256:25 269:10,13, 15 270:9,15 banks 270:5 barring 122:23 298:17,20 base 12:21 30:14 91:2 105:12 112:16 120:19 122:24 124:18 159:4 173:23 200:25 236:21 257:4 288:1,7 296:22,24 324:5	69:1 102:18 191:9 219:18 238:6 245:23 248:20 252:17 254:19 287:21 310:5 basis 25:9,24 27:4 29:8 42:12 46:23 48:22 65:11 76:3 120:24 184:9,10, 22 226:20 243:25 250:17,22,23 251:20 279:19 293:9,12 317:1 332:9 batteries 69:18 236:4 237:13
authority 41:21 43:2 100:4 110:6 217:3 Authority's 41:25 authorize 297:4 authorized 342:25 authorizes 348:16 Authorizing 3:10 auxiliary 136:9 availability 77:21 105:2,7,10 112:23 121:21 128:23 129:2,25 135:15 164:6 218:18 219:13	100:11 105:21 109:10 111:1,14 129:14,19 133:3 139:4 144:14,16 154:22 161:2 162:19 186:8,13 193:15 199:4 217:22 223:2 229:7 230:24 237:10 240:11 241:13 253:4 266:18 272:17 278:1 279:10 284:21 303:4 305:19 316:7 320:19,22,24 324:17,21 334:16 back-up 236:18,24	325:16 based 25:23 27:2 32:15 35:2 63:7 71:23 78:14 91:8, 9 93:6,8 97:5 102:17 123:4 125:15 138:2 153:8 161:23 162:25 165:21 175:23 182:14 189:1 192:25 202:10 203:8 205:11 207:2 208:13 209:8 213:24 215:25 216:3 222:15 236:8 237:17 238:14 239:7 246:4 259:7,12	239:24 battery 173:3,17 174:6,11,23 181:16 be- 215:6 bear 15:6,17 25:13 284:24 287:3 bears 96:21 beat 40:9 began 3:1 176:17 183:9 begin 144:17 153:13 beginning 51:14 100:12 128:14,18 235:13 331:1
avenue 139:1 296:25 avenues 331:6 average 161:1 168:20 169:3 237:18 288:8 313:3 avoid 20:14 269:5, 7 270:19 351:4	background 327:9 bad 203:19 223:15,19 bait 245:18 balance 193:23 217:19 219:21 237:9 258:21 ball 136:11 ballpark 125:11	246:4 259:7,12 264:19 279:6 287:10 296:10 300:21 306:20,23 309:4 327:23 332:11 338:11 339:12,14 348:24 349:2 351:1 352:7 basic 106:12 184:5 basically 46:14	behalf 3:24 4:5,6, 9,12 64:16 behavior 29:25 30:1 48:24 299:22 belief 8:3 36:23 51:24 54:21 110:3 230:18 232:12 believed 78:23 251:3



Evidentiar	y Hearing Ap	ril 16, 2024Index: bellburn
Birk 240:25 242:2,	boilerplate 124:17	183:3 238:16
25 244:2,5,9,14, 20,23,24 245:5,15	boilers 43:18 92:2	242:1 259:14 285:4 350:8
251:16 259:3 261:14 268:24 275:16 276:3 277:14,18,23 284:15 289:12	bond 320:16 321:17 322:17 323:16 324:12,13 329:6,12 331:20 333:11	bring 36:11 167:19 320:7,8,12 bringing 46:23 207:18
290:17 291:6 300:17,18 305:8, 11,16 309:24 310:12 357:22 358:3 359:3,5	bonding 326:25 327:10 bonds 3:11 201:24 240:18 287:22 288:6 323:12	brought 32:1 46:20 60:18,20 110:2 243:9 285:5 296:9,21 320:3,9 321:3
Birk's 56:14 298:6 305:12 309:25	331:21,24 332:3	brownfield 144:5
315:21 317:14	333:12,21,22	brusher 139:4
bit 34:24 62:8	book 139:17 220:3 304:2	buck 135:1
68:23 91:1 115:12	booked 327:16	bucks 282:1
159:14 163:15 168:9 172:9	books 104:4,6	budget 290:22
183:22 199:17 202:22 207:19 209:12 211:13 216:12 223:21	219:17 300:23 301:1,14 borne 117:19	build 119:15 121:17 124:20 166:19 171:2 176:9 177:8,12,14
233:20 253:5 268:22 298:8 299:24 320:13	bottom 80:4 147:7 166:3 193:21 bound 332:25	196:16 197:23 198:8,12,18,19 217:24 219:8,18
331:9 338:19 339:12 353:11	Brad 231:16,20,25 357:14	246:21 257:22 264:10
Black 242:6	break 70:6 144:13,	build-up 135:16
245:23 247:8 250:17 251:19 271:8 306:5	17 184:14 229:20 233:1 334:11	building 3:5 198:12 260:4 316:1
310:21 311:2,10, 12	break-even 208:14 209:16,22 210:1 223:5	built 115:18 121:19 196:12
blank 38:8	351:7,10 353:9	250:16 262:19,20,
blanking 30:16 blend 263:22	breakdown 85:14	22 263:12,14,15 283:7,9 296:15
body 315:10	293:6	307:25 316:13
	brevity 150:1	bullet 80:16,23
boiler 58:8 105:3,4 115:13 130:7 134:20 135:16 136:3 218:16 263:2	briefly 32:17 60:4 65:23 101:17 102:16 107:5 128:12 138:2 149:12 158:19	bunch 79:6 236:22 burn 178:12,16, 19,21 242:21 269:11



bell 147:6

belong 286:2

bench 32:16 33:1

35:2 91:22 97:5

137:24 177:8,21

107:16 108:9

215:25 216:3

259:16 269:24

273:11 292:10

348:25 349:2

350:10

306:20,23 312:9 315:16 327:23

beneficial 114:13

271:2 322:15,25

benefit 31:4 36:3

113:17 120:2

139:19 167:14

172:21 186:18

248:18 269:21

301:10 303:11

325:6,17,21,23

benefited 246:8

bid 221:6 252:21

big 118:23 257:9

311:3 312:14

bigger 263:10

biggest 118:23

billion 119:9,10,11

20 237:6 313:10

143:17 186:16,18,

billed 166:14

billions 38:1

119:23

282:15,16

314:1

263:9 293:22,23

324:16,24,25

247:24 250:19

224:4 239:7

Ben- 275:6

	Lviderillai	ry nearing April 16	o, 2024index. burningcas
burning 188:8	22:22 28:7 50:7	13,14,19,22	266:2
Burns 311:6	53:12 64:11,19	182:6,7,15	carved 342:15
	70:10 101:22	187:12,19 188:4	
buses 108:3	115:8 120:1	191:20 193:10,20,	case 3:12 9:5
Bush 36:25 37:17	144:18 152:22	23,24 194:3,6,11,	18:18,22 23:14,23 24:1,2,5,20,21
business 3:9	227:18 229:15	12,23 195:3,9	25:3,11,12,25
311:7	231:14 272:15,17	196:2,6,9,16,18	29:10,11 30:9
button 044.0	293:23 334:16,25 354:19	197:2 202:4,11,17	32:20 34:8,11
button 314:6	304.19	207:8 211:10,11 214:13 224:9,23	38:10 41:20
buy 107:25 171:1	Callaway 266:16	225:2,5 237:9	43:11,22 46:21
202:11 258:2,5	300:10,14	238:19 254:16	49:8 56:5,18,23
buyer 139:24	called 22:21 25:9	256:9 265:7,8,13	60:24 61:20 62:11
-	73:9 129:13 136:8	266:11 268:11,13	64:7,8,9,24 65:15
buying 125:2	151:9 166:14	318:10 339:6	66:1,2,4 67:3
buzzer 222:22	169:14 278:9	352:4 360:3	68:17 73:24 74:20
	310:1		75:4 81:10 86:12
	calling 226:4	capacity's 187:9	88:2 91:19 96:19
	calling 226:4 263:5	capital 86:19	97:14 101:16
C-A-S-S 147:15		87:11,20 161:2	102:6 103:3,11,
	calls 6:23 50:9	167:17 240:17	12,23 104:11,13
C-L-A-I-R-E 53:24	53:13 70:12	242:7 274:21	106:12,15 108:13,
ca- 214:16 215:14	144:20 199:4	275:1 285:7,16	17 115:1 125:17,
CAIR 37:16 246:1	210:1 229:17	286:2,16,20 288:9	19 130:5 134:13
264:22 269:8	231:16 233:14	302:14 303:6	137:13 146:17
	291:19 318:1	313:3 319:13	149:22 150:8,10
calculate 160:24 218:25 238:5	335:1	325:5,13	151:16,20 162:6,9
	camera 85:25	capitalize 301:23	182:8,12 185:22
calculated 160:20	234:16,20	310:15 316:23	186:12,14,17
192:22,24	campaign 171:16	317:1	187:17 197:16
calculating 67:24		capitalized 324:3	200:20,23 201:9,
•	cap- 188:11	-	13,14,19,21
calculation 57:22	capability 167:1	capping 352:20	202:8,21,22,23
77:8 88:17 147:18 153:2 221:23	178:15,18 180:14	capture 190:18	203:3,6 206:10 207:13 208:10
237:17 329:8,17	181:10,12 188:8 263:21 282:12	capturing 162:15	210:11 211:2,6
calculations 26:1	capacity 58:4	carbon 116:6	213:18,25 214:2
57:18 58:13,18	60:19 62:4 115:15	118:2,12 132:18,	217:1,2,11 222:14 223:11 224:3
59:1 66:18,24	136:7 141:4 145:7	21 162:3 205:2	226:15,17 230:9
67:8 68:4,7,10,13	155:18,20 156:11	351:19	232:5 239:6,22
74:24 75:9,13,23	157:5 164:11	care 118:7	243:13 272:5
76:3 77:9 79:1	165:13 166:12,23		286:7,11,19
160:16 221:12	167:14,19 168:3	Carolina 29:24	287:25 296:2,7,10
260:24,25 261:4	170:24 171:4,14	carried 296:2	297:2,5 313:5,6,
calculator 329:16	173:4 174:4,8,12,	325:14,20	10 314:1,20,23
call 6:19 20:3	17 178:24 179:11,	carry 36:25 265:24	319:14,21 320:2,
Jan 0.13 20.3			,



3,4,7,9,10,21,23 321:3 322:14,20 323:7,14,17,18,22 326:4,17 327:13, 16 329:2 336:21 339:21 348:12 350:13 353:1 354:20 cases 23:10,17,19 24:7,8,9,11 25:11, 19 34:7 35:24,25 37:22 41:12 42:12 48:10 59:6 60:23 74:11 103:2,5,9 106:10 109:11 149:18,25 150:11, 16 151:25 152:9 162:17 176:9 186:20,23 219:21 225:18 226:10 280:22 315:23 326:11 **Cass** 147:15 catalytic 96:3 115:22 123:17 **catch** 34:24 category 94:1,2 **caught** 334:5 causation 339:15. 16

caused 7:11 51:3

340:18

causing 129:18

caution 65:18

caveat 308:7

CCN 148:12.13 348:12

CCNS 214:15,21 215:9,12

CCR 361:3,17

cease 162:7

ceased 298:23

CEJA 181:4

Center 3:12 289:3

centers 142:24 168:18 256:16 257:6 268:10

Central 130:7

certainty 278:15 279:5

CERTIFICATE

361:1

certify 361:4

cetera 162:4 184:25 190:2,3 217:25 307:18

Chair 6:1 61:2,4,5 160:8,9,10 161:21 176:2 181:21,23 183:5 185:16 189:1 196:14,21 214:6,9 241:12 251:13,15 259:4,6 273:12,15,19 274:5,7,13 309:2 356:13 357:4,6, 11,23 358:1

Chairwoman 68:16

challenge 168:16

219:22

challenged 32:2

challenging 219:7,10 295:6,7

chance 17:7 155:15 157:23 215:4 326:12

change 31:25 36:15 114:10,12, 18 164:1 165:19 166:1 195:20 197:19 205:7

228:12 254:9 305:13,18

changed 16:10 34:3 41:6 48:16 146:11,13 148:2,4 161:16 165:7 168:23 192:17 307:13 308:16 309:14 310:11 316:7

changing 50:5 192:22,23 205:1 207:16,21 209:23 266:8

characterization 102:11

characterize 18:23 85:18 88:5,

characterized 89:4 290:19

characterizes 72:21

charge 289:3,4 295:11 311:18

charged 293:5

charges 287:1 293:4 303:23,25 304:5,11 332:1

charging 295:8 303:17 304:14

charitable 89:1,3,

chart 165:10 179:19,22 180:1 188:12 288:18.21 302:16,18,21,25

cheapest 197:12

check 38:8

choice 40:2 133:20 210:20 **choices** 339:22,23

choose 235:4

chooses 235:5

chose 66:13

chosen 249:20 252:4,10 311:13

chunk 267:18,19 313:18,21 314:1,2

chunks 256:22 257:5,9 268:8

chunky 267:17 268:5,6,7

Chupka 106:7

circa 139:4

Circuit 23:16 40:8 72:5

circumstance 312:23

circumstances 95:21 313:15

citation 80:21

citations 81:5,14

cite 74:2 101:20, 25

cited 74:11,20 332:15

city 139:2 167:17

cl- 312:24

claim 25:10 71:22 202:11 218:11,15

claimed 349:17

claiming 151:17 218:7,10

claims 39:7

Claire 53:13,19,24 199:18 214:10 335:1 336:12,19 337:11 348:3



356:11 357:9	147:12 149:2,10	335:3,11,16,19	closely 322:5
358:20 359:15,16	151:2 152:12,14	336:2,6,8,10,14,	closer 267:6,15,16
clarification 49:16	153:6,11,24	17,23 337:4,7,10,	, ,
177:20 215:20	154:25 155:8,11	13 338:5,8 342:20	closes 243:17
240:25 259:15	157:4,7,12,15,19	348:1,4,24 349:2	closing 280:21
260:20	158:8,16 159:12	350:6 354:9 355:1	299:12 339:17
	160:1,6 170:15,18	356:6,13,14,16,24	closure 337:21
clarify 21:1 46:25	175:13,22 178:6	357:10,17,23	ciosure 337.21
50:5 61:8,14	181:21 182:23,25	358:6,7,11,15,21	Club 5:1
150:19 213:19	183:2,17 198:24	Clark's 251:18	co- 148:11 337:24
218:20 241:8	199:2,6,11,14		
251:5 254:1	200:4 205:17,19	classified 208:21	CO2 132:18 181:3
259:21 274:18	215:24 216:2	clean 20:2,5,6	coal 20:22 105:5
313:24 353:11	220:12 222:18,24	27:14,17 28:6,22	116:21 118:4
clarifying 32:11	223:2 226:5,11	29:11 30:2,19	120:1 134:19
34:5 281:4 336:2	227:21 228:16	39:22 80:12 81:21	135:2 138:18,19
	229:4,9,12,15,19,	82:11,19 91:25	162:3 175:5 185:
clarity 11:22	24 231:4,7,10,14,	119:13 120:1,19	191:4 236:6,17
159:14	19 232:21 233:5,	131:20 138:20	242:21 243:5
Clark 3:2,14 4:1,4,	8,16,23 234:5,8,	151:10 228:10	255:16,23 263:2,
8,14 5:18,21 6:8,	11,15 238:14	242:11 315:5	22 269:12 270:5
24 7:3 8:7,20 9:13	239:3,6 240:4,7,		271:1,6 275:25
10:3,12 11:11,25	10,14 241:7,21	cleaned 264:6	276:16 308:20
12:3,14 13:8,12,	242:3 244:8,12,	cleaner 113:18	
25 15:6,14 17:2,	17,21 245:7,10,	120:1	coal-fired 92:2
21 18:10 19:5,16,	14,17 251:11	cleanest 118:23	115:7 124:18
19 21:19 22:25	259:6,10 261:10	Cleanest 110.23	132:8 140:3 248:9
23:2 32:14 33:7	268:21 271:22	clear 33:24,25	coals 269:16
34:6,23 35:1,7	272:15,19,24	42:24 77:11 99:8	270:12
38:20 43:14 44:9	273:3,7,10,13,16	120:4 187:4	andan 120:15
46:25 47:5,17	274:3,6,8,12	203:14 209:1	codes 138:15
49:10,15 50:3,7,	275:6,9 276:2,8,	210:10 211:9	Coffman 175:16,
11,14 52:4,15,18,	11 277:16,21	217:9 226:16	20 182:23,24
22 53:2,7,11,15,	280:1,5,8,12	271:10 290:7	259:9
18 55:6,10,14	281:6 284:13,15,	297:6 337:16	cold 266:20
57:16 59:17,21,25	18,20 285:3	clearer 294:19	
62:14 63:7,11,13,	287:9,12,15		collaborative
18 65:7,17 69:23	288:14 291:1,11,	climb 237:10	119:20 353:25
70:1,4,10,14,19	13,15,21 292:3,7,	Clinton 36:23	collected 176:10
71:1,5 85:5,8	10,12 302:5,9		
86:7,13,24 97:5,8,	306:22 312:4	close 50:15 96:9,	colloquy 97:15
15 98:4 100:8	317:21 318:3,24	14 177:12,19	column 16:10
101:10 111:23	319:2,5,7 321:11,	211:20 228:13	combinations
123:3 128:10	13 326:8 327:22	262:9 267:1	combinations
133:25 137:24	328:1 329:25	278:21 290:13	162:23
141:9 144:8,10,	332:14,23 333:5,	303:21 312:24	combined 300:11
	-,,	340:10	



combined-cycle 234:6,12 235:5 Commissioners 314:4 331:13 237:2 238:15 243:12 6:10 50:18 241:11 compared 274:23 245:8,14 249:6 combustion 167:2 **Commissions** 314:3 251:11 253:8,11, 262:20,23 326:24 comparing 133:4 14 259:7,11,12 comma 146:8 189:16 common 42:5 273:5,13 275:7 147:16 148:1 166:22 280:9 286:9 comparison 287:10 291:1 communicate 114:25 143:4,5 commenced 297:4 299:21 76:17 32:6 162:17 293:9,12 302:6 306:20.23 community 88:8, comparisons comment 35:8 318:25 319:5 21.24 43:12 115:4 134:5 301:11 327:23 332:25 354:10 335:21 336:20 companies 292:23 competitor 167:24 342:23 348:6,12, commenting **company** 3:8 24:3 compiling 42:13 16 350:7 354:11 301:20 44:23 45:15 46:7 complete 127:3 356:10 357:8 comments 29:18 47:13 55:21 59:11 262:8 263:22 358:9,19 150:16,17 152:7 73:23 74:17,18,21 289:24 290:4,18 Commission's 75:11 76:12,24 commission 3:6 297:13,14 298:15 190:22 77:3 78:9 84:6 4:5 5:5,22 6:3 299:1 304:5 85:1 97:23 98:6 commissioned 13:9,10 23:1 27:1, completed 127:10 104:4 122:3 248:9,10,12 6 29:10,17,20 137:14 251:7 131:18 146:9,11 252:12 278:10 32:16 47:22 265:4 280:15 149:15 150:8,10 52:16,22 56:25 Commissioner 281:13 283:5 161:8 166:4,8 57:1,5 59:18 6:2,4,5,6,7,9 294:4 296:9 184:23 185:11 60:23 63:8 67:1 111:25 112:2 303:9,16 315:8 186:6 187:19 72:12 73:8 82:13 123:2,3,4 128:16 316:6 324:23 191:17 193:10 84:11,22 85:5 134:6 137:21 325:15,18 195:19 197:15,20 90:18,21 93:12, 138:1 141:8 198:11,13,16 completely 29:12 16,17 95:5,11,14 170:17,18,20,21 201:18 218:7 30:1 35:22 39:12 96:17 98:17,22 175:12,13 251:23 236:1,11 239:21 48:24 49:1 50:1 107:2 111:23 254:19 275:8,9, 242:5 245:5 269:5 120:12 242:23 113:4,11 137:25 11,12,14 276:2,5, 303:19 308:24 263:6 332:7 149:11 151:16 9,12 277:13,21, 314:16 320:11,17 152:12 155:1 completing 22,25 279:23 323:6,12,21 159:13 160:7 264:20 306:7 280:1,3 292:11, 324:17 325:22 166:7 170:15 12,14,17 302:4,5 328:9 completion 77:18, 175:14,23,24 307:1 309:2 312:9 22,24 289:5 Company's 77:14 182:10,25 183:18 319:6,7,9 321:10, 290:14 293:25 190:7 201:7,12 163:23 216:12 11 326:6,8,9 298:23 205:17 210:21 237:11 288:8 327:21,22 328:8 211:19 212:2,22, 307:13,14 312:21 complex 39:14 333:17 356:18,20 24 213:3.8 324:20 326:1 357:4 358:2,3,10, complexity 21:23 215:13,25 216:3,9 15,16 comparable 124:7 compliance 35:18 217:3,13 220:8 125:23 Commissioner's 36:9 131:10,11 223:10 228:15 130:18 **compare** 109:18 133:14 137:3 231:10 233:9



194:13,24 271:5 complicated 20:7 30:20 127:9 169:17 **comply** 56:15 131:16,20 133:7 185:10,12,13 204:22 248:1 264:5,22 269:17 complying 184:18,25 component 214:22 218:16 270:25 components 105:3 111:12 139:8 140:7,14 218:17 219:9 256:4 310:6 **conceded** 106:1,7 **concept** 176:21 177:4 191:13,16 192:21 250:1 326:10 conceptual 192:6 conceptually 192:14,16 **concern** 60:16,22 68:22 207:6 208:4 258:9 285:5 351:18 concerns 60:19, 20 61:25 89:24 105:19 163:13 182:2 205:21 211:24 214:1 224:5 254:11,15 280:6 339:10 341:21 353:23

concert 137:5

conclude 107:21

concluded 42:8 91:21 316:6 conclusion 43:5 91:5,6 187:4 226:1,4 227:19 306:16 conclusions 55:24 56:9 65:12, 15 103:18 306:17 cond- 185:21 condition 348:15, 21 conditional 214:17 215:14 conditions 187:2 326:25 348:13,17 conduct 91:19 163:3 242:7 confidence 250:9 confidential 8:9 86:6.10 88:10.12. 13,15 118:18 129:11 145:22,24 146:3,18 147:11 148:1 154:7,8 220:20 221:7 274:1 342:22 359:8 confirm 10:23 confirmed 70:23 75:23 76:2 Congress 40:16 110:10 conjecture 320:14 connection 24:22 consequences 285:22 consideration 93:13 114:15 235:16

considered 98:23 104:20 107:10 168:7 195:16 205:9 236:9 237:1 238:2 328:15,20 consistent 45:2. 10 83:14 **consists** 239:23 constantly 258:20 construct 125:3 126:14 163:18 164:2,17,23 176:16 187:3 191:14 192:1,6,15 195:16 207:15,20 209:23 246:20 250:11 254:22 265:12,17,18 266:1 279:16 339:5 constructed 263:8 constructing 246:14 260:2 305:24 construction 15:23 127:4,6 260:6,11 283:9, 11,12,15 285:9 289:1 296:24 301:1 317:11,16 324:1 326:14 Consumer 5:1 175:17 259:8 consumers 4:15, 21 133:21 contained 230:16 232:10 290:15 335:12 343:6 contemplated

contemplating 156:6 contending 17:11 77:2,12 content 65:18 contention 89:21 context 64:8 103:7 134:8 135:8 177:2 294:11 341:4 continuation 167:9 continue 15:14 45:1 118:14 120:5 121:8 131:3 153:15 159:16 178:19 256:8 284:21 continued 32:4 162:12 continues 80:7 continuing 148:19 189:19 289:20 continuous 58:5 continuously 183:13 continuum 160:5 161:6 235:13 contra 137:9 contract 176:17 contractor 246:20 contrary 29:23 Contribution 285:20 **control** 20:8,9 30:25 31:11 35:12,13 115:23 123:22 124:23,24 286:19 125:3,10,21 126:6 contemplates 129:8,22 130:1,20 156:4



150:22

	Eviderilia	ry Hearing April 16, 202	4Index: controllingcounsel
controlling 307:15	100:6 101:6	145:14 154:11	costs 3:11 60:14,
controls 38:1	107:17 123:15	215:5 230:13	21 61:24 62:23
116:10 130:16	124:5,12,21	232:7 233:25	117:18 121:9
132:1,18 133:18	125:14,17,24	238:1	122:10 125:16
136:13	126:2 127:7,8	correctly 128:24	147:17 148:3,12
130.13	130:14 131:23	156:20 168:10	160:23 162:3,16
conversation	141:15 149:23		200:18 201:1,16,
66:16 67:16 68:15	151:23 152:18,19,	191:25 264:20	17,22 202:4,17
94:24 104:15	21 153:10 154:18	340:3 352:14	208:14 210:2,11
110:1 134:4,6	155:23,24 158:4	cosmic 297:9	217:17,20,25
316:3	161:23 163:1,2	20:20 42:2	218:8 219:8,11,22
	175:10 178:16,17	cost 39:20 42:3	220:7 221:11
conversations	184:12,16,20	114:14 116:2	222:7 226:21
150:22 193:1	185:11 186:5,15,	121:20 125:10	239:10,13 240:17,
conversion	25 187:14 188:16	139:17 142:4	20 284:2 285:17,
178:13,21		146:22 147:16	· · · · · · · · · · · · · · · · · · ·
,	189:10 190:24	158:22 160:18	18,19 286:5,7,10,
converted 178:25	195:22 196:11,15,	161:1 162:8,11	13,14,15,16,25
converting 178:11	19,20 198:5	172:20 189:21,25	287:1,19 289:1
211:16	200:20,21 201:10,	190:4,14 201:8,18	290:7 292:19
convinced 311:16	21 206:4,19,25	214:24 218:3,5	293:5 295:22
cooling 115:24	207:9,10,11,24	220:17,23 235:17	296:7 297:10
cop 40:9	208:6,7,10 210:8,	239:17 249:2	300:8,10 303:17
_	24 211:25 212:4	250:5,12 251:3	311:21 321:2
copies 13:6	216:22 234:24,25	260:21,22 261:4	323:7 324:2
104:23	239:14,15 240:1	264:8,13,15	328:11 329:1
copper 139:10	251:8,25 252:5,6,	270:22,23 271:9,	350:19,21 351:11
144:4	8 253:12 261:1,20	20 276:25 278:14	352:3,5,20,23,24
44544470	266:24,25 267:20	279:5,14,18	353:1
copy 14:5,14 17:8	269:3 271:13,25	281:20 282:17,18,	Council 4:25 5:1
26:25 337:25	272:4,8,12,20	20 283:9,16	175:18 259:8
Cor- 198:5	278:8 280:16,17	286:18 288:2,8	
core 5:9 77:8	281:1,17 282:22	290:9 293:16	counsel 3:21 4:10,
Core 5.9 77.8	287:23 288:3	294:7,9,17,22	12 19:20 35:2
correct 8:2 9:12	291:18 296:22,23	297:25 300:12	52:20 55:12 63:9,
11:20,25 27:15,16	302:11 303:2	304:25 307:5	22 65:10 66:17
28:8 29:5 31:12,	305:1,5,9,10	313:3 324:5	67:16 68:5 71:2
18,23 49:23 50:6	319:23 322:7,8	329:17,18 330:8,9	96:24 97:6 100:12
51:23 53:10 58:6,	335:13,14 340:12	331:24	105:14 107:1
9 61:20,21 62:18,	349:20	and offertion	109:16 110:1
23 71:24 72:1,7,	corrected 87:5	cost-effective	123:5 141:10
16,23 73:13,17,25	99:10 232:4	125:21	144:18,20 145:8
74:8,19 75:7,8		cost-saving	152:1,16 158:18
76:7,21,25 77:1	correction 51:9,	304:17	159:24 161:6
79:21 80:20 81:4	12,18	acet/banefit 400:0	178:7 183:2
82:21,22 83:6,23	corrections 7:21,	cost/benefit 136:2	199:12 220:16
84:7 85:3,11,15,	23 51:7,19 54:8,	costly 69:15	221:5 223:13
17 98:19 99:14	17,19,24 70:23		231:5 233:3,14
	17,10,2770.20		



235:6,21 240:5 245:11 254:4 261:11 273:8 281:7 287:12 291:11 292:4 303:2 306:20 316:4 317:25 318:12 330:1 337:5 348:11,25 356:21 357:16 358:13 361:9,12
counsel's 104:12 233:13 234:22 317:24 321:16 354:5
count 174:4 329:17
counting 118:12
countries 138:11, 23
country 34:7 39:8 40:7 42:13 46:10 59:6 138:14 168:18 228:23 326:16,24
County 147:15
couple 36:18 44:25 167:4 169:2 173:8,9 179:5 181:11 196:10 209:11 247:2 300:14 304:23 328:2 351:22
court 3:16,19 9:7 12:15 13:3 18:5, 18 19:6 23:10,16, 17 24:13,19 25:15 26:3,4,11,24 27:5, 20,23 28:4,20,22 29:2,4,11,15,19 32:20 34:14,17 39:10 41:20 42:6, 16 43:2 44:3 45:14,20 46:3,6

Eviderilia
47:1,3 48:7,10,13 49:5 56:21 63:23
64:1 65:3,4,19
66:1,10 67:10
68:11 69:10 71:23
72:3,4,6,22 73:24
74:11,24 75:3,22
76:1,3,6,18 78:4,
24 80:10 82:5,25
83:8 84:5,17
89:20 90:7 92:12
94:14,15 97:13,22
98:9,12,18,23
99:5,9,12,16,20
100:25 101:2,6,
14,21 102:9,13
103:2,3,7,11,12
104:16,22,23
105:21,22 106:14,
21,24 107:10,15,
19 109:11 111:7
149:18 186:12
202:21,22 203:5
205:7 209:21
211:14 212:8,13
227:20 228:18,20
271:19 280:22
294:1,11 299:10
305:7 334:12 337:18 339:5
340:1,5,24 341:1,
2 350:13 360:2
2 330.13 300.2
Court's 30:8,9
39:1 47:7,11,19
82:11 107:6
courtroom 57:15
59:4 305:8 342:23
courts 23:19 30:4
34:6 39:7 40:1
41:17,18 42:20,23
43:11 44:3 84:13
cover 332:2 334:9
Coyote 150:9
craft 121:21
127:21

create 43:24 46:22
credit 174:9,12 269:10
Creek 112:25 179:18 180:5,6,7, 23
crisis 225:8
criteria 130:17 190:11
criterion 190:9
critical 23:14
cross 4:17 5:13 8:19 52:14 55:9 70:22,25 100:24 154:24 199:10 231:1 232:20 245:6 259:5 273:2 291:25 337:3
cross-examination 8:21,23 19:19,23 32:15 52:16,19 55:11,14,17 59:15 65:5 71:1,5,10 149:11,13 151:2,5 155:1,3 158:17,20 175:19 199:11,14, 20 231:4,7 233:2, 5 234:5,8 245:7, 10 273:3,5,7 292:3,7 318:24 319:2 332:8 337:4,7 356:5,12, 16,23,24 357:3,10
CSAPR 37:16 264:22 269:8
CSRS 13:4
culmination 176:22 210:5 227:7
current 3:3 61:15 87:5 108:17 118:12 121:25

```
168:22 187:2
 203:7,10 210:10
 350:15
cursory 343:2
customer 160:24
 167:15 203:3
 325:23,24
customers 120:11
 121:1 130:19
 131:4 133:13,21
 153:19 160:18
 162:18,20 176:10
 184:23 186:24
 189:22 190:4
 202:9 222:14
 223:9 235:18
 256:9 258:18
 269:21 303:8,10
 313:1 325:17
 329:4 330:8,9,13,
 17 332:1
cut 143:15
CW 297:18
CWIP 87:23 243:8,
 9,10 272:1,2,5
 287:20,24 297:4,
 18 298:18 301:22
 313:22 314:3,15,
 21 321:8 323:25
cyclone-fired
 263:19
Cygne 115:11
 140:9
        D
da- 170:1
damage 129:18
 134:22,23
damages 95:8
```



data 73:24 75:24 76:2,10,11 77:17

	Evidentia	ry ricaring April 10, 2	024mdex. dateDepartmen
101:15 104:16,17	185:18 201:12	18 270:21 277:4	deemed 289:24
142:24 168:18	204:21 228:9,19	280:23 299:18	deep 266:23
170:1 206:8	276:23	303:22,25 304:16	-
256:16 257:6	decided 26:4,8	309:4 321:20	deeply 266:23
268:10 277:3	84:13 91:13	322:4,10 323:3	defense 4:25
290:1,2,6 294:25	125:21 136:18	328:10 340:3,5	42:12
295:5 297:20	204:2 232:22	decisions 6:16	defer 11:10 62:24
date 12:22,24	299:24 303:24	25:23 26:8 29:14	
16:2,4,5,9,22	decides 95:11	30:6,12 39:10	deference 27:6
17:14,15 118:20	210:21 216:9	44:12,18,23 45:16	deferral 88:17,18
127:25 128:5,6		46:7,8 47:14	deferred 323:15
162:14 171:25	deciding 183:14,	51:17 57:1 59:7,	
172:3 202:10	15 184:1,3	11,12 62:20 65:19	define 45:9
203:3 212:4,13	decision 5:12	71:19 72:17	defined 28:16
213:1 290:8	24:15 25:5,16,18,	73:19,25 74:10,	definition 37:6
296:22	20,24 26:3,5,11	19,21 75:6 76:25	286:23 325:5
dated 16:22 17:12	27:3,22 28:5,12	77:4,14 78:12	
360:2	30:8,15 34:12	83:14 84:7 89:22	definitively 55:21,
day 3:7 4:22 6:11	39:18 47:1,4,8,12	91:10,13 92:10	23
17:18 34:1,2	66:6,11,12 69:6	93:7,8,11,23 98:7, 13 99:18 125:5	degree 151:13
40:18 86:21 88:25	72:3,4,15,16,21,	126:14 127:25	delegated 20:8
254:5 349:22	23 73:1,2,10,15,	131:1,15 133:6	110:9
355:2	22 74:3,4,7,12,17 76:4 89:11,24	153:14,18 159:15	
day-by-day 255:4	90:6 91:8,16	160:2,5 182:20	deliverable 291:8
	93:21 94:8,14	183:7 184:7	delta 174:13
days 36:18 219:5	96:9,10,20 98:19	216:17,20,21,25	demand 49:5
292:1 328:6	99:13,16 107:11,	218:1 236:5	142:23 167:9
de- 69:8	22 109:6 125:25	253:25 258:13	171:5,6,23 172:5
deal 37:4 143:15	126:5,11,18	279:6 299:21	173:25 187:24
164:16 255:17	159:22 160:3	declaration 9:5,	256:22 265:15
dealing 114:12	161:8 164:14,19,	11,17,21,23 10:24	266:3
	24 182:11,14,19	359:21	demand-side
dealt 65:16 326:24	185:19,24,25 186:7,22 191:1	decommission	171:22
debt 313:2	192:17 197:17	175:4	demean 354:13
decade 112:24	198:14 203:18,19	decommissioning	demonstrate
289:9	204:3,16 205:8,11	217:16	57:22
decades 33:17	207:16,19 208:19	decouple 321:20	
106:13 121:17	209:1,12 211:20	322:9	denote 148:16
219:19 300:14	212:2,10,11,14,25		dense 129:13,14
December 186:22	213:4,9 217:14	decoupling 322:3	150:7
192:2,8 195:17	221:25 223:15,19	deducting 301:6	dep- 71:20
,	226:20 227:2,3,6,	deduction 301:8,	Department 13:17
decide 25:6 82:13	8 235:11,14,16,21 236:2 250:8	19	14:1,15 15:21
151:9 184:2	253:8,9,10,15,16,		31:11 58:17,20
	200.0,0,10,10,10,		, -



68:3 69:12,16 83:15 108:2 205:23 206:3 **depend** 309:6 depending 108:1 351:21 **depends** 142:15 144:1 deposition 40:4 71:21 74:23 79:25 82:15 83:5,18 84:3 108:15,16,21 130:6 203:22 deposition's 109:2 depositions 64:7 66:5 depreciable 175:6 depreciation 298:2 **deputy** 35:20 derived 26:3 descr- 12:5 describe 28:15 166:6 describes 92:4,6 description 82:6 262:15 302:23 descriptor 12:5 **design** 92:18 248:17 249:3 282:13 288:25 304:25 324:6 designated 81:17 designation 208:25 designed 40:15

43:23.24 58:4.7

112:22 118:19,25

119:1 desirable 352:6 **desire** 334:6 Desulfurization 124:2 289:2 desulphurization 153:17 159:17 detail 65:24 66:10 173:16 243:1 248:17 detailed 43:11 246:10,25 247:12 278:23 302:22,23 details 65:2 247:3 283:8 Deterioration 71:17 determination 20:10 21:9 22:3,6, 11 25:4 48:20 76:13 93:19 107:7 114:2 223:24 235:15 determinations 20:13 21:3,15,18 22:18,19 58:19 59:2 determine 56:25 93:13 163:21 169:20 213:9 223:19 235:10 250:7 278:7 294:17 determined 28:17 67:11 90:16 94:2 103:7 106:15 162:14 213:14 221:24 279:14 328:21 determines 211:19 212:23

determining 72:13 73:7 84:23 96:1 106:8 135:8 163:23 213:12 250:19 Detroit 150:7 develop 40:5 177:17 224:18 225:3 developed 74:4 77:13 246:18 279:17 352:12 354:6 development 167:18,25 168:14, 21 169:3 196:22 197:9 **devise** 40:18 devised 40:3 41:15 dicta 28:7,8 29:4, 5,18 47:18,23 48:1 differ 145:23 147:17 148:4,12 difference 60:2 62:23 64:20 85:16 86:22,23 90:2 205:12 223:14 270:7 273:25 274:15,16 275:2 276:15 297:22 340:20 differences 87:14, 23 108:9 190:17 282:11,16 310:6 differential 331:13 differentials 190:14 differently 40:22 350:25

difficult 138:24 140:13,14,15 253:2 354:12 difficulties 117:3 difficulty 21:22 313:4 342:7 **dioxide** 75:14,20 81:18 124:3 130:16 131:2,9, 11,16,19 132:18, 21 133:14 **direct** 7:8,12,16 8:8 9:3 50:24 51:3 52:5 53:21 110:19 145:3 154:4,6 208:13 209:8 226:16 230:3 231:22 244:19,22 318:6 352:8,12 353:9 356:4,9,12, 23 357:2,13,15 358:14 359:3,6,8, 11 direction 48:17 277:5 361:8 dirtiest 264:1,4 269:1 dis- 321:5 disagree 84:1 107:13 314:16 disagreed 42:21 302:25 disall- 152:17 disallow 238:11 321:5 disallowance 60:13 62:17,21 68:18 85:15,19 88:6,7 152:17 214:21,22 234:23 235:1,2 236:7 237:24 321:7



disallowances 220:6
disallowed 60:11 296:11,14 319:17, 22
disallowing 300:1
discern 275:23 276:14
disconnect 213:5,
discount 161:2
discounting 329:19
discourage 300:3, 6,19
discovery 64:8 91:19
discuss 29:4 61:1 71:24 149:22 199:25 202:3 243:1 244:6 309:24
discussed 12:19 49:17,24 76:22 88:18 99:19 129:13 130:3,4,5 136:4 238:19 254:4,10 337:19, 20 338:23 339:1,9 342:14 351:7 352:1 353:18,19, 20
discusses 16:21 150:7 294:6 353:15
discussing 32:19 34:6 56:3 60:14 68:16 88:12 153:1 176:16,17 191:12 214:12 223:13 224:4 259:15 260:20 314:21,22

	Evidentia
315:15 337:	:21
discussion 39:3 43:12 4 13 47:10,18 80:7 97:12 9 99:22 106:1 108:8 112:6 128:19 152: 177:7,21 20 208:23 222: 224:8 225:1 226:25 238: 281:15 310: 312:9 315:2 316:14 317: 330:5 353:8	44:9, 98:4,9 8 1 12:23 9 1 18:2,21 21
discussions 94:14 176:2 177:3	
dismantle 1 143:16	42:2
dismantled 143:25	
dismantling 172:20	144:6
dispatch 23	6:18
dispatchable 167:21 173: 255:12 256: 257:14	:14
dispositive	48:2
dispute 91:7 111:3 139:1 298:6 305:1 307:16 317:	5 5,17
disputed 81 92:6,7 111:	
disputes 90	:19
disputing 5	6:13
disregard 2	28:11

dissects 92:10	[
distance 323:17	(
distinct- 126:9	
distinction 98:3, 15 126:5	(
distinguish 227:5 236:2	(
distinguishing 254:7	
distributable 173:23	(
distributed	•
171:13,15,18,24 172:6 193:14	(
district 9:7 12:15 18:4,18 19:6 23:10,17 24:13	(
25:15 26:4,10	
28:4 29:11,15,19, 22,24 30:8 32:20	
34:17 39:1 45:14,	
20 46:2 47:1,3,7, 11,19 48:13 56:21	
63:23,25 64:1	[
66:1 72:3,4,5,22	
73:24 83:8 84:5 89:19 98:9,12,18,	(
23 99:9,12,16	
100:25 101:2,21	
102:9 104:16 106:21,24 107:5	(
109:11 186:12	
202:21,22 203:4	
227:20 341:2 360:2	
divided 37:10	
314:5	
dividends 135:23	
dividing 290:8	
Division 14:1	
DNR 15:8 101:17	
223:24 359:22	

DOC 206:6 docket 7:12 51:3 69:3 101:12,16,22 154:6 208:24 doctors 101:22 docu- 102:2 document 16:4 72:8,10,12,14 73:6,11 79:11,13 108:23 128:4 150:20 155:16 documentation 203:20 224:2 documented 203:17 223:15,18 documents 65:25 67:4 79:10 84:10, 15,17,20,23,24 90:6,20,21 91:4 98:14 101:24 102:2,3,4,18,24 103:8,10 109:24 247:9,14 **DOJ** 36:10 37:14 205:23 206:1 dollar 119:9,10 120:24 135:22 222:8 252:10 285:10 313:16,17 dollars 38:1 39:20 60:2 62:22 69:17 86:22 87:18 88:22 107:25 119:12 135:21 159:6 161:2,3 181:12 186:17,18,20 188:2 217:12,14 219:23 239:21,23 264:16 271:16 274:22 275:1,3 277:1 278:6 282:21 283:3 294:13,19 300:2,



dissect 103:13

10 304:9,11,15 311:2 329:15 185:18 186:10 **Elliott** 181:14 305:23 310:17,18 339:9 350:21 307:14 309:4 elucidating 83:25 313:10 316:25 352:1 economizer 43:3 **EMA** 35:16 donations 89:2,4, early 45:6 132:25 economizers 42:3 emission 67:19 148:18 198:2 5 edification 101:19 74:24 110:3 268:2 270:12 double 5:15 117:23 329:17 **Edison** 150:7 downtown 139:2 emissions 24:23 early/mid 124:20 EF-2024-0021 dramatic 41:10 25:25 37:4 42:18 3:13 earmarked 327:11 45:7 57:18,23 drastically 192:21, effect 181:5,6 earn 313:11 58:3,9 66:18,22 23 183:13 67:8,10 75:10 easier 11:9 200:7 drawing 56:8 76:10,11 77:8,10, **effective** 12:23,24 340:14 126:9 20,21 78:2,10,14, 297:25 **easiest** 157:18 17,25 83:22 drawings 247:10 efficiency 137:1 224:15 97:19,24 99:23 167:9 171:23 drawn 55:24 102:12,15 104:24 easily 257:17 187:24 219:14 drew 114:25 106:8 115:23 342:9 257:1 118:6,12 119:17, due 75:16 94:13, **eastern** 117:18 efficient 118:24 18 123:19,22,23 20 146:16 280:5 124:3,23,25 easy 256:12 322:13 efficiently 43:19 125:10,21 126:6 **ec-** 184:13 duly 7:6 50:22 effort 119:20 129:23 130:2 economic 94:19 53:19 71:8 145:1 139:21 164:16 181:3 242:18 154:2 230:1 171:8 292:25 95:8 96:7,8 108:3 308:18 231:20 245:15 121:11 122:4 efforts 45:8 emitted 264:7 273:17 318:4 124:25 125:1.4 Eighth 72:5 361:5 131:8,14 132:4 emitting 80:25 133:19 135:19 elab- 189:11 emphasis 43:17 dynamic 35:16 136:4 137:5 elaborate 91:3 **Empire** 116:19 139:19 167:18.25 Ε 119:7 132:14,17, 168:13,21 169:3 **electric** 3:8 81:1 22 137:10 297:5 185:7 187:18 108:3 151:22 e-mail 49:17 196:22 197:2,8 270:11 employed 145:6 204:15 243:6 e-mailed 4:15 318:9,11 361:9,12 electrical 249:22 250:18,23 251:20 E-U-B-A-N-K-S employee 342:23 electricity 259:1 298:7 323:3 53:25 361:12 268:14 economical 122:9 EA-2023-0286 employment 24:4 element 80:15 162:25 322:24 146:17 81:15,20,25 324:15 351:14 **enable** 119:6 earlier 72:23 **elements** 80:5,11, economically encourage 300:3, 149:20 165:14 23 81:7 82:11 5,19 312:11 142:4 143:22 172:10 175:1 106:23 279:11 encouraging 251:2 254:10 **eleven** 294:12 economics 114:19 312:15 269:23 276:18 162:24 182:11 281:15 299:17 Eleventh 40:8 end 36:22 144:1



146:14 164:25 165:22 176:13 185:17 191:23 198:12 201:22 206:21 226:25 330:19
ended 139:2 283:13 341:13
ends 188:2
energy 3:11,12 4:15,21 116:6 167:9,13 171:14, 18,22,24 172:6 174:22 187:23 201:17 256:9 257:1 266:24 286:18,24 309:7
enforcement 30:22,24 35:7,18 36:9 37:13 40:2,5, 14 41:8,15 45:17 92:11 106:10 110:7,12,21 111:5 183:9
enforces 110:20
enforcing 46:20 111:2
engage 22:9 295:14
engaged 242:5 293:21 294:4
engine 139:23,24
engineer 67:17 127:18 140:2 151:6 212:6 246:20 252:13 283:25 295:14 305:16 306:1,4,13 308:7 310:22,24 311:13
engineering

126:13 135:20

224:18 242:6,22

Evidentia
247:16 250:25 258:15 262:21,24 278:10 288:25 293:10,22 304:25 306:8 311:21
engineers 252:13 279:17
ensure 257:14,20 258:25
enter 3:22 157:3 292:1
entered 150:5 158:6 215:11
entering 55:4
entire 73:3 119:17, 18 189:19 236:20 306:2 349:16
entirety 73:6 79:9 83:2,4 91:5
entities 166:13
entitled 343:3
entity 20:2
environmental 31:10 113:7 114:24 115:9,19 116:9,12 117:17, 24 118:14 119:12 120:6,15 121:7 136:13 138:4,15 140:10 143:12,18 175:8 184:15,18 185:9 204:18 205:3 243:10 315:14
environmentally 138:12
EPA 12:22 20:4,9 21:4,9 22:2,7,12, 19 27:22 31:18,20 32:6 35:8,17,23 36:5,15 48:12

81:8 96:4 105:23 108:2 110:9,10, 13,18,20,21,24 111:2 113:14 117:14,25 122:17 130:9,11 132:20 150:15 183:9 204:9,12 223:24 235:15 242:13 243:2 307:12 308:16 309:14 310:11 316:4
EPA's 45:8
EPC 246:19
eq- 132:1
equal 285:18,19 292:24
equaling 285:23
equally 278:16
equipment 37:6 96:3 102:15 113:7 114:24 115:19 116:9,12,22 118:14 119:12 120:6,10,16 121:23 124:2,23 125:11,22 126:6 127:20 130:20 132:2,9 135:4,14 136:6,12,15,19,25 137:7,11 138:5 139:9 140:4 143:13,19 153:17 159:18 246:12 247:11 248:5,25 249:15 281:19
errand 190:20
erred 180:4
error 333:13
escalated 271:21 283:6,10 284:5,6, 8

3, 2	2024Index: endedEubanks
	escalation 283:23
	escalations 279:7
	essence 237:23
	essentially 69:11 114:8 173:11,20 187:2 200:14 216:8 226:1 245:24 246:1,18 248:22 262:11 263:13,25 266:9 285:10 324:10 350:11
	establish 62:16 348:17
	established 217:2
	establishes 202:9
	establishment 293:2
,	estimate 83:3 164:17 168:16 264:8,13,17,18,24 290:2,3
	estimated 69:16 202:14 208:1,2 250:5 283:17
	estimates 210:10 237:18 271:9 282:23 294:17
'	estimation 252:15
	Eubanks 53:13, 15,19,24 55:2,18, 20 61:6 62:12 63:13 65:10 70:2 72:10 85:11 89:9 90:11 94:1,11 108:10 121:12 127:7 130:5 199:4,6,10,18,21 226:1 228:9 229:4,12 299:9 335:1,3 336:1,12,



19 337:11 348:3

56:6 75:3 78:4

349:6 354:24 356:11 357:9 358:20 359:15,16 Eubanks' 90:4 335:6 evaluate 27:2 84:6 103:21 104:24 111:16 177:16 280:21 289:20 293:20,24 294:5 295:15 296:16,17 319:23 evaluated 84:23 122:3 277:11 295:20 319:20 evaluating 113:23 185:5 evaluation 104:23 evaluations 78:17 event 244:5 300:8, 16 **events** 120:20 166:21 227:8 eventual 341:8 eventually 122:17 **Evergy** 116:19 117:1,6 130:6,16, 21 131:14 132:12, 13,17,22 133:4,5, 12 267:2 270:2,6 289:3 evidence 8:17 12:10 15:13 18:1 19:10 29:8 52:12 64:23 65:13,14 73:1 84:13 93:16. 18 94:7 99:6 103:18 109:18 149:7 157:9 158:13 202:8

203:2,6 213:24

234:4 244:1 245:4

298:14 303:13 332:12,17,18,22 333:1,3,4 336:16 337:1 356:3,10,21 357:1,8,16,21 358:9,13,19 **evident** 351:18 evidentiary 3:7 27:7 29:7 evolved 169:1 212:15 **ex-** 106:2 **exact** 47:1 89:8 267:23 274:24 examination 7:8 25:22 26:6 38:24 50:24 53:21 63:20 100:10,25 134:3 145:3 149:9 154:4 183:20 220:13 230:3 231:22 234:4 268:23 287:17 312:7 318:6,23 330:3 350:9 356:4,7,9, 12,14,17,19,23 357:2,7,12,13,15, 25 358:6,12,14, 17,22 examined 102:13 examples 149:25 170:1 301:4 313:20 exception 53:7 **excess** 195:9 196:7 exchange 292:18 excluded 60:15 88:4 exclusion 78:22 exclusions 240:20

exclusive 253:22, 24 **excuse** 25:1,2 162:5 **excused** 4:16,22 5:2 49:11,15 53:3, **execute** 224:18 225:3 executive 35:15 117:15 **exhibit** 7:15,19 8:10 10:19 11:7, 10,15,17,19,20,23 12:7,9,10 13:2,4, 7,13,19,20,23 14:25 15:1,8,10 16:25 17:4,20,22, 25 18:1,9,11 19:4, 5,6,9,10 26:17 47:9 51:9 54:3,6 145:11 147:21 148:22,23 149:1, 3,6,7 150:5,6 155:10,12 157:3, 5,8,9,14,20,24 158:9,11,13 188:13 193:14,18 194:2,5,16 230:10,24 232:3,4 237:8,9 244:22,23 245:1 318:15 335:9,10 336:4, 11,14,16,18,23,25 359:1,3,4,6,7,9, 10,12,14,16,17, 19,20,22,23,25 360:1,3,4,7 exhibits 7:22 8:6, 16 15:12 51:5,8 52:2,5,9,11 55:5 84:21 93:15 231:2 244:18 245:3 existed 46:18

184:15 185:10 277:9 existence 33:15 221:16 existing 138:10 172:16 256:14 exists 204:17 **expand** 46:22 **expect** 127:13 164:12 201:2 211:6 256:17 282:17 283:22 expectation 163:20 208:15 expectations 156:24 309:7,8 expected 75:11 106:3 131:13,21 165:13 194:6 195:3 209:17 288:5 expecting 22:13 expects 166:4 expenditures 239:23 **expense** 162:13 168:6 278:6 expensed 324:3 expenses 88:4 94:19 96:4 120:25 285:15 expensive 114:24 115:14 116:10 experience 21:11 22:15 67:17 102:23 127:19 224:24 268:4 experiences 109:19,21



expert 64:12 65:14,24 102:5 103:21 104:2,13 105:25 106:1,7 265:17 284:1 294:17 295:11,12, 19 305:20,21 308:13
expert's 305:22
expertise 327:17
experts 64:14,16, 19,21,23 66:4 102:8 103:18 104:11,12 106:2
explain 25:17 26:10 64:22 65:24 102:16 107:5 160:15,20 177:13 189:11 209:4 245:20 269:4 285:4 286:13 303:7 337:23 340:25
explained 26:15 31:21 269:1 270:6
explaining 245:19 305:11
explanation 60:5
explicitly 195:14, 15,19
explosion 115:13
express 48:4
extend 279:12
extending 137:17
extent 58:23 185:6 205:8 218:3 306:1 339:24
external 103:24
104:2 317:9,13 extra 304:14

Evidentiar
extraordinary 120:20
F
F-O-R-T-S-O-N 232:1
facilities 39:20 146:19 147:17 239:11
facility 51:16 80:18,25 141:1 142:18 146:22 147:16 151:11 220:4 286:22 289:17,21
facsimile 302:20
fact 25:2,13 27:14 30:2,17 41:16 76:1,7,9 77:13 78:9 96:11 106:16,17 117:8 122:14 187:15 224:6 243:11 244:3 309:24 322:13
fact-finding 57:5
factor 24:22 268:11,13
factored 77:13
factors 25:19 61:16
facts 25:19,25 73:24 74:3 90:7 95:21 103:16 106:16 107:10,16, 19,20 308:22
failure 337:22 339:18,19 340:13 354:19
fair 19:2 38:15 48:1,7 79:5 90:24

93:12,19 98:3,14 102:3,11 133:23 160:6 182:3,4 187:5,6 203:19 238:6,21 298:13, 16 299:3 350:3,4
fairly 42:24 67:5 171:11 220:24 238:7 260:15
faith 243:22
fall 200:23
fallout 87:23
false 55:20 151:15
Fami- 24:8
familiar 18:3,7 19:1 20:1 23:12, 18 24:7,8 27:10 31:7 64:9 108:12 169:18 287:4 302:18
familiarity 23:9
fans 282:11,15
farther 135:6
fashion 97:2 185:14
fault 109:8 259:25
faulty 225:20
favor 41:17 42:17
favorable 209:13
feasibility 327:6
feasible 243:6 279:11
fed 262:6
federal 14:18 15:9 17:23 20:9 29:21, 22 30:11 36:12 37:7,20 38:8 40:17,19 41:22 42:11,14 46:4

71:16 117:13,21 202:21 227:20 359:24 federally 114:8 feed 263:2 feedback 293:15 **feeding** 134:19 feel 102:5,17 238:4 328:7 337:19,20 **fellow** 76:19 felt 39:18 238:8 264:5 282:14 **FERC** 163:25 164:8,22 fewer 119:17,18 **FGD** 115:10 124:1 field 65:15 66:14 103:19,22 **fight** 38:6 figure 10:4 125:11 165:8 176:12 191:19 196:4,5 236:7,8 256:8 271:15 352:11 **figured** 172:14 **figures** 86:5,8 164:9 191:19 202:13 294:12 file 38:14 49:5 200:23 **filed** 34:1,2 95:3 104:11 106:10 146:16 151:15 163:8 164:21 165:19 186:14 195:20 349:16 350:1 filing 7:12 35:25 51:3 81:10 109:21



		<u> </u>	
154:6 176:21,23	324:4,8	fool's 190:20	217:1 242:21
177:5 299:10	fire 178:18	footnote 146:16	257:16 263:7,12 316:9
filters 69:13 108:1	firing 179:12	forced 339:22	fourth 81:15,20
final 125:16 197:21 242:16	firm 36:23 68:22	forecast 168:11	214:16 215:14
247:2 299:20	173:22 220:25 222:15 224:6	forecasting 166:2	frame 119:6
354:5	293:22	171:18	120:16 121:25
finalize 242:23	firmer 210:12,14	foregoing 361:5	123:14,16,21 126:3,15,23
finalized 247:20	firms 242:6,22	foremost 258:25	127:11,13,15
269:8	246:8 278:10,17,	forgot 10:16 229:9	166:10 173:12 183:11 193:2
finally 109:10 165:22 316:3	20,24	form 327:12 332:11	242:5 243:4
finance 3:9 240:15	fit 27:2 173:7 342:8	formed 103:6	247:19 265:4
283:25 313:1	fits 342:17 354:20	formula 106:12	293:25 305:3 307:9 334:22
financed 240:17	fitting 348:9	forthcoming	frames 246:5
financial 94:16	fixed 218:16	132:20	frankly 28:16
117:3	flags 225:7	Fortson 231:16,	33:18 42:19
financially 361:13	flat 195:10	20,25 232:17,19	free 28:17
financing 287:2 288:2 348:9	flattened 257:3	233:10 338:6 349:16 350:1	frequency 42:4
352:19 353:3	fleet 20:16 228:22	353:20,22 357:14	frequent 256:18
find 29:2 40:6	255:16	Fortson's 338:20	frequently 210:16
60:24 86:2	fleets 138:9	339:13	257:12
139:22,24 165:14 194:8 227:12	fleshed 40:18	forward 18:21 31:3 36:25 41:13,	front 47:9 179:19 237:18 287:7
241:17 253:2	flow 58:8 168:6	16 114:11 126:18	313:9 314:12
284:25 286:9 326:15	Flue 124:2 153:16	133:17 137:18	324:12
finding 43:11	289:1	146:6 166:7 182:16 187:12	fruition 118:3
48:22 73:23 74:17	focus 66:13 115:5 116:21 255:14	191:8 228:7	272:11 301:24 311:1,14 325:14,
97:18 106:15	focused 66:3	255:13 296:10,21 297:14,25	20
107:6 227:2	163:18 330:11	fought 38:3,10	fuel 164:6 167:3
findings 28:24 89:15,19 106:17	folded 349:24	46:12	fuels 178:16
finds 95:5	follow 16:1 117:12	found 28:2 29:23,	full 10:24 115:8
fine 5:18 11:11,12,	215:19 325:2	25 30:5 42:18 44:3,4 71:16	134:14 177:1 179:13 246:18
15 37:19 71:13	329:20	72:22 78:24 83:10	263:21 330:20
179:3	follow-up 137:22 326:7	90:7 91:25 94:6	fundamental
finish 321:25	followings 3:1	98:1,2 100:17,20 104:23 107:15,19	332:17 333:4
finished 307:10		149:18 186:16	fundamentally



	Evidentia	у пеаніц — Ар	oni 16, 2024index. iuigun
48:16	gas-fired 164:6	168:20 169:25	grant 4:18 139:1
fur- 63:4	187:23	177:2 246:24	348:6,12
	gave 10:17 69:24	293:15 306:12	granted 4:23
furnaces 263:9	299:12 301:4	308:12 312:18	214:16
future 60:17,18,22	308:11 330:14	320:12	
61:20 62:3,5 69:4		glance 343:2	granularly 255:3
94:13,25 117:14	GDP 256:25		257:20
118:9 120:3 128:3	general 159:19	glasses 193:15	grappling 348:22
164:18 168:7	255:16	GMO 117:2	great 121:4 282:8
172:25 187:20	generally 18:3	goal 113:20 144:1	313:23
201:8,13,14	63:24 104:7		313.23
202:4,12,15,16,17	113:11 160:2	God 177:23	greater 75:14
203:1,4,11,13,14	172:18 188:24,25	going-forward	139:25 166:23
207:11,12,21	254:12,14 258:21	120:23 162:8	329:4,14,15
209:20 211:1,23	328:16 350:22		Greenhouse
212:24 213:11,18	320.10 330.22	good 3:2 6:6,7,8,	204:11
214:1,2 216:15	generate 266:20	21 8:24,25 9:1,2	
223:9 224:23	generated 171:7	19:24,25 36:4	grid 140:20
225:13,18 226:21	174:24	38:4,7,15 39:15	142:10,14 200:14
239:24 250:1		42:20 55:18,19	group 4:15 36:10
255:20 256:17	generating 81:1	61:6,7 71:11,13	150:22
279:6 286:11	112:17 141:24	100:1 105:8	grows 195:11
297:2 299:22	142:18 224:14	112:3,4 113:20	
300:3,6 305:12	248:6	114:13 116:16	growth 168:13
310:9,18 312:11	generation 41:4	118:5 160:11,12	256:23
313:6 315:23	121:2 122:11	164:16 165:21	guarantee 95:12
317:7,16 319:23	174:13 255:13	170:22 199:21,23	
320:10 326:4	257:4 265:14	203:19 204:8	guess 66:9 93:5
327:13,16 338:22	266:14 351:24	210:9 212:7,17	94:2 106:16
339:3 340:23	generator 266:20	214:11 220:14,15	137:9,18 143:3
350:15 351:19,20		223:15,19 238:5,9	179:19,24 183:13
352:5	generators 310:5	243:21,22 251:16,	188:12,13 191:12
	genesis 349:19	17 261:14,16 265:20 267:18	192:13 215:7
G		269:14 273:20,21	224:13 261:22
	geography 315:13	290:2 319:10,11	277:8 283:22
gain 129:11	George 36:25	ŕ	286:8 289:13,19 293:8 294:14
171:15	get all 236:20	goodness 127:2	295.6 294.14
goc 124:2 140:5		Gore 36:24	305:18 322:3
gas 124:2 140:5 153:16 159:17	gigawatt 169:6		325:23 328:9
162:2 167:3	172:4	Gotcha 87:15	337:24 338:9,16
178:12,19,21	give 10:22 14:9	governance 205:4	339:14 340:22,23
179:16 191:3	15:21 16:13 17:7	governing 40:21	348:11,12,22
204:11 205:2	29:17 38:7 47:23		353:6,24
236:4 237:14	60:4 80:21 81:5	government 20:9	,
239:24 289:1	85:14 86:2 100:1	41:22 117:13	gun 233:19 251:12
200.27 200.1	101:10 102:20	Governor 3:5	guns 304:7 311:3



150:14 165:13

21100111101	<i>,</i>	ii ro, 202 iiilaoxi gayoiiiloi
Happy 61:1	hear 5:24 11:18	HEPA 69:13 108:1
hard 9:15 38:4		hesitation 353:11,
89:8,25 170:1	,	25
193:19 194:14	-	Hey 10:6
· · · · · · · · · · · · · · · · · · ·		high 42:3 100:19
354:14		263:24 268:11
harder 46:12		
326:16	227:23 244:25	high-level 276:6
harm 5.0 11 14	251:12 279:24	higher 87:18
* *	290:17 302:7	105:5 116:20
•	309:23 310:2	148:3,11 162:22
•	342:25 343:3	188:23 202:10
·	heard 22:6 24:12	265:24 271:20
•		288:10,11 331:9
· ·		351:12
		high oot 110:6
· ·	· · · · · · · · · · · · · · · · · · ·	highest 110:6
		highlighted
	_	211:12
•	· · · · · · · · · · · · · · · · · · ·	highlighting 225:9
	'	
	· · · · · · · · · · · · · · · · · · ·	highly 145:22
·		146:3 148:1
	-	hindsight 73:18
		hinged 299:18
,	'	
	· ·	hinges 118:1,8
		hired 64:16,21
348:7		245:23 294:17
harms 225:23		hires 36:10
339:16 340:10,11,	hearings 23:25	
12	heat 118:24	historical 169:23
hatchet 122:18	heaters 42:2	historically 155:4,
Hausman 76:19	held 3:4 56:21	6 166:13,18 292:21
77:3,12		
,		history 23:15 41:8
	•	hit 254:16
	276:23	
head 31:11 246:24	helpful 67:15 93:4	Hol- 309:3
·	170:10 177:13	hold 5:13 55:4
332:24 354:18	241:13,17,19,24	60:25 61:13
heading 80:4	helping 307:4	89:14,16 141:2
•		153:4 222:14,24
•	•	223:8 230:25
11	000.44 070 4 40	
11	222:11 276:1,19	232:18 348:7
	hard 9:15 38:4 89:8,25 170:1 193:19 194:14 321:19 339:22,23 354:14 harder 46:12 326:16 harm 5:9,11,14 60:17 61:17 62:3, 5 69:2 94:13,25 134:21 152:20,22 182:15 202:15,16 207:21,23 208:11 209:4 211:23 212:24 213:11,15 214:1 217:2 218:25 223:9 224:6,7 225:18 226:10 325:24 337:20,21 338:22 339:3 340:16,18 harmed 153:19 323:6,22,23 324:9,11 harmless 60:25 222:15 223:9 348:7 harms 225:23 339:16 340:10,11, 12 hatchet 122:18 Hausman 76:19 77:3,12 Hawthorn 115:11 130:24 head 31:11 246:24 281:24 328:18,24 332:24 354:18	Happy 61:1 hear 5:24 11:18 hard 9:15 38:4 89:8,25 170:1 193:19 194:14 321:19 339:22,23 354:14 12:8 15:10 17:24 harder 46:12 326:16 harm 5:9,11,14 60:17 61:17 62:3, 5 69:2 94:13,25 134:21 152:20,22 132:15 202:15,16 207:21,23 208:11 209:4 211:23 212:24 213:11,15 214:1 217:2 218:25 223:9 224:6,7 225:18 226:10 325:24 337:20,21 338:22 339:3 340:16,18 harmed 153:19 323:6,22,23 324:9,11 harmless 60:25 harmless 60:25 222:15 223:9 348:7 158:10,12 231:11 harms 225:23 339:16 340:10,11, 12 hatchet 122:18 Hausman 76:19 77:3,12 Hawthorn 115:11 130:24 head 31:11 246:24 head 31:12 46:24 281:24 328:18,24 332:24 354:18 helpful 67:15 93:4 heading 80:4 helpful 67:15 93:4 heping 307:4



	Evidorida	y incamping to, 2024inack. In	ola ilaliilloooliillpiotoliioli
hold-harmless 225:12,16,22,24 226:9 341:10	hope 92:25 134:1 143:7 312:5 325:21 328:7	321:16 ideally 213:17 248:22	impacts 117:17 118:3 162:8,16 164:4
354:2 holding 23:19	hoping 160:15 161:17 221:13	identical 260:15 262:11 263:6	impediment 95:16 313:23
97:23	337:23	identification	implement 32:4
holds 324:23 Holmstead 27:9, 13	hour 105:11 112:13,18 129:17 134:9 135:9 136:7,19 137:2	7:15,18 10:20 13:24 15:2 17:5 18:12 51:4 145:11 155:13 157:21	Implementation 46:4,5 57:21 58:2 110:11,16 152:3
Holmstead's 27:11 98:21 99:4	hour-by-hour 255:4	231:3 318:14	implemented 33:16
Holsman 6:3,4 112:2 123:2	hourly 36:1 58:7	identified 61:25 211:24 327:11	implementing 181:2
128:16 134:6	hours 135:25	identifies 11:13	implicated 189:20
137:21 138:1 141:8 170:17,18, 20,21 175:12,14	170:6,8 177:22 178:1 181:9 354:23	identify 3:18 92:22 157:15	implication 24:17,
275:8,9,11,12,14	house 37:1,10	igniters 304:7	implications 20:5
276:2,5,9,12 277:13,22,25	136:8	ignore 212:8	implies 120:14
279:23 280:3	housekeeping	ignores 120:12	210:18
292:11,13,14,17 302:4 309:3	200:5	II 115:11,17,18	implying 65:11
302.4 309.3 312:10 319:6,7,9	huge 114:23 116:2 118:2 331:15	117:8 118:19,21 119:15 300:10	import 47:20
321:10,12 326:6, 8,9 327:21 328:8	hundred 173:8,9	III 117:4 137:13	important 72:12 73:6,11 120:18
333:17 356:18,20	179:6 180:20	Illinois 181:1,2	132:16 135:8
357:4 358:2,3,10, 15,16	hundreds 44:5 119:23 169:5	imagine 95:23 108:5 143:9,20,21	142:17 167:7 258:19,23
Holsman's 307:2	188:1	212:7,16 280:22	importantly 113:4
honestly 22:14	hyphen 106:4	immediately 121:1	impose 217:3
342:4	hypothesis 202:5	impact 95:10	265:8
Honor 5:6 8:5 38:23 52:1,13	hypothetical 308:13,14	96:21 97:3 107:24 108:4 119:25	imposed 307:12
55:16 63:12 65:1 71:7 97:9 128:11		162:18,20 167:24 176:11 181:7,16	impossible 117:13 143:21 203:9
144:9 151:4	<u> </u>	184:23 188:3	improve 105:9
154:21 175:20 182:24 183:19	latan 115:17,18 117:7,8 118:19,21	203:7,10 216:16, 24 223:18 225:13	improved 263:12 322:7
194:15 198:23 199:16 259:9 268:22 284:14	119:13,15,16,19 129:10	329:4,14,15 330:11 350:15,18	improvement 120:6 129:25
287:16 306:24	idea 206:24 210:9 212:7,17 221:8	impacted 203:4 impactful 221:17	315:14



	Evidentia	ry riodinigipini 10, 202 mide	x. improvementsinsensibi
improvements	200:25 201:20	137:1 210:2	inexpensive
75:16 77:18 103:2	261:4 298:16	increased 78:2	181:11
104:25 105:2,7	299:4 304:22	129:2 304:2	infeasible 143:22
112:20,24 113:2,	314:23,24 352:25		
5,7,12,14 115:9,	included 11:19	increases 75:19	infinitum 112:21
20 116:1,4,25	62:23 84:21 85:16	77:21,22,23	115:4
119:4,12,16		increasing 83:22	inform 64:23
121:19 126:18,25	88:15,16,20 89:5	136:8 205:2	107:6 276:21
127:10,22 129:9,	114:23 139:11,14		
10,15 130:7 135:8	150:3 158:25	increasingly	information 3:20
136:3 137:17	160:23 162:1	168:15	44:10 54:21
	163:9 164:20	incredibly 30:20	68:13,21 76:7,8
improves 181:12	165:5,20 173:24		86:14 93:3 98:17
improving 219:13	200:18 201:17	incur 96:4 202:5	102:21 104:19
	202:2 209:21	286:25 311:22	146:2 148:1 153:3
imprudence 71:22	220:2,3 225:14	incurred 94:20	165:21 191:23
82:18 84:14 90:3	288:1,19 296:21	202:10 219:8,21	192:11,25 193:7,8
97:14 219:2	303:25 313:18	220:1 286:14	222:16 230:16
227:1,3	329:1 339:11	290:8 295:9	232:10 247:1
imprudent 25:10	353:8		249:10 251:1
29:3 48:23 89:22	includes 79:7	incurring 218:8	264:10 277:7
90:14,16 94:8	162:11 173:17	219:11	279:17 280:24
100:14 107:22		independent	292:24 294:9,16,
109:8 151:17	including 30:9	95:25 142:21	22 296:19 302:20
217:1 218:7,12	287:19 288:9	INDEX 050.4	342:25 343:4
219:4 235:20	297:10 312:10	INDEX 356:1	
	324:22,23 325:16	359:1	informed 103:16
imprudently 85:2	inclusion 200:19	indicating 13:21	261:19 277:4
100:21	239:18 288:8	_	281:16,18 299:6,
in-camera 60:4		indirectly 23:13	16
234:20 342:21	income 285:13,14,	individual 37:24	initial 126:17
343:1,6 348:2	20,21 288:9	111:12 146:22	202:7
351:4 352:16	inconsistency	190:1	initiated 126:19
358:21	219:3	individually	
in/dollar 205:40	incorporated 16:E	111:17	295:3
in/dollar 285:10	incorporated 46:5 260:8		initiative 23:15
inactions 108:23		individuals 103:21	30:25 35:8 36:21
inappropriate	incorporating	indulgence 259:5	37:14 40:14,15
85:14	246:16		41:16 45:18
	incorrect 185:11	Industrial 4:21	initiatives 37:16
incentive 312:14		industry 41:7	
313:8,14,23	increase 36:1 37:4	42:5,8,15 44:6	injection 123:19
320:16	42:18 45:6 57:23	106:5,9 109:19	input 33:18 354:4
inception 30:21	58:7,9 67:18,19, 23 75:10,14 78:11	263:1 270:13 311:5	inquiry 138:3
incidental 136:12	97:24 105:2,4,7		216:5 326:22
include 111:16	106:9 110:4	inefficient 5:16	insensible 33:21
169:18 171:17	112:22,23 128:23		



	Lvideritiai	, , , , , , , , , , , , , , , , , , ,	o, 2024index. inserisiand
insert 146:9,16	intake 315:9	intervening	255:1 257:19
inserted 51:14	integrated 190:6	166:20 189:25	280:23 299:17 341:7 352:13
insinuated 152:9	254:20 255:11	intervenors	
install 38:14 96:2	257:12	150:17	IRPS 155:23 221:20 222:4,7
121:23 122:15	integrity 104:3	intimately 169:17	255:2 256:18
125:25 127:9	intend 5:13	invaluable 117:7	irrelevant 228:4
129:7 131:21 135:14 136:25	intended 56:15,17	122:25	
135.14 136.25	124:18 299:12	inventory 140:11	irreplaceable 122:25
210:20 250:20	intention 334:20	invest 119:8,10,11	Island 3:12 34:8,
252:2,4,11,20	348:20	350:24	11,12 36:13 42:1
262:3 279:11 297:16	interchangeable	invested 321:1	43:13 54:16 55:22
	260:18	investigatory 69:3	59:7 80:18,24
installation 38:1 159:5 271:11	interconnection	101:16 208:24	81:16 88:19 92:2 94:10 96:9,23
	142:10	investing 275:23	102:15 112:14,15,
installed 114:23 120:9 123:20	interest 175:4 256:16 275:24	investment 117:3	20 120:4 121:8
126:7 129:22	277:5 279:1	120:6 135:22	122:4,10 124:15,
130:2,20 136:12	287:1,21 288:4,5	219:17	20 125:23 126:17 127:11,16 131:2
137:10 138:4 158:23 263:18	294:20 295:4	investments	141:14,25 142:9
293:17 298:22	320:16,18,19 321:17 322:17	115:14,15 116:18 117:5,6 119:24	143:1 148:18,19
installing 120:15	324:13 327:1,11,	120:2 217:15,21	153:15 156:4
132:1,9 136:6,14	15 329:6,12	322:24	158:23 159:16 164:20 167:23
143:12 213:9	331:8,9 332:2	involve 39:21	168:2 169:21,22
227:9,17,25 242:9 247:4 251:21	333:12,22	125:6 152:2	170:5 172:19
262:2 270:22	interested 36:19 361:14	involved 41:21	177:22 178:1 181:17 183:10
276:16 299:11		42:2 103:23 285:9 286:6	187:8,12,20 188:1
307:5	interesting 35:16 257:24 327:7	involves 6:15	189:18 193:9
instance 39:15	internal 293:4		194:4 195:1,24
181:15 185:8 189:18 266:2		involving 242:7	197:3,5,23 200:9, 15 204:16 205:25
267:9 285:7	internally 138:9	irony 107:23 114:22 297:9	207:17 208:4,15,
instances 48:11	interplay 227:2		20 209:18 210:23
166:17	interpretation 30:10 33:15	IRP 155:19 156:25 157:5 161:15,18,	213:4,22 217:15, 22 219:14,18
instr- 129:7	45:13,20 46:2,6,	23 162:2 163:8,	220:4,7,8 227:9
instructed 206:13,	14 47:11 110:25	12,17 165:4,21	236:2,9,16 237:7
14	253:13	173:1,25 177:8, 11,12,16 181:25	240:20 242:8,9 243:23 246:9
instructing 297:24	interrupted	182:2 190:22	247:4 248:11,13,
intact 143:1 144:2,	341:14	194:4 195:3	14,15,18 249:21
4	intersection 110:4	205:10,12 207:7 222:10 224:16	250:4 251:4
		222.10 224.10	256:20 260:2,8



261:20,22,24 262:3,13,17,22 263:10,12,20 264:9,11 275:20 276:20 280:21 281:17 282:7,10 283:1 286:22 289:21 304:7 310:9,25 315:11 321:21.22.24 349:14 351:21 **Island's** 124:5 169:7 200:13 202:6 240:17 322:21

isolation 91:10

isolated 300:8,16

ISOS 265:8

issue 3:10 5:8,9, 10 6:14 27:20,25 30:22 37:5 41:25 43:21 55:3 59:2 60:13 61:1,9,10, 14,23 72:13 73:8, 12 84:12 86:21 88:24 93:13 109:5 147:1 152:20,23 153:1,14 154:22 159:14 161:7 199:15 201:25 228:15 229:8 230:25 232:18,25 233:12 240:15 241:15,16 253:5,7 266:21 269:23 274:17 292:19 334:5,7,17,24 337:15,17 338:10, 12 339:11 340:25 341:9 342:3,8,9, 10,11,16 349:7,9, 20 350:2 353:16 354:1,19 356:2 357:19 358:18

issued 30:11 32:10 34:4 37:3 91:23 243:3 323:13,16 331:21

issues 5:10 23:20 32:11 55:4 62:16 68:18 82:7,20 109:22 135:16 182:6 214:13 235:12 241:23 255:7 259:5 302:10 318:21 333:21 334:8 337:25 338:2,15, 23 340:18 341:13, 19.23 349:22 350:3 353:13,15, 19,20 354:11

item 18:14 88:6 302:16,25 303:2

items 85:20 135:7 176:10 297:18 302:23 321:18,20 324:2,6

J

J-O-R-D-A-N

145:5

jacket 200:6

January 16:22 91:23 130:24 303:22

jargon 134:12

Jeff's 28:9

Jim 3:24

John 3:14 50:9,22 51:1,2 356:8 359:11,12

joke 33:4

Jordan 144:21 145:1,5 149:3

234:13 356:22 357:17 360:7

judge 3:2,15 4:1,4, 8,14 5:18,21 6:7, 8,21,24 7:3 8:7,20 9:13 10:3,12 11:10,11,22,25 12:3,12,14,15 13:8,12,25 15:6, 14 16:20 17:2,8, 12,21 18:10 19:5, 16,19 21:19 22:25 23:2,5 25:6,18 26:13,15 28:11,25 29:17,22 30:3,14 31:1 32:10,14,20 33:5,7 34:4,6,23 35:1,7 38:20 43:14 44:9,17 46:25 47:5,16 49:10,14,15,25 50:3,7,11,14,21 52:4,15,18,22 53:2,7,11,15,18 55:6,10,14 57:16 59:17,21,24,25 61:4 62:14 63:7, 11,13,18 65:7,17 69:23 70:1,4,10, 14,19 71:1,5 85:5, 8 86:4,7,13,24 91:17,18 92:7 97:5,8,15 98:4,10 100:8 101:10 111:12,14,23 112:1 123:2.3 128:10 133:25 137:21,24 141:8,9 144:8,10,12,16, 22,25 147:12 149:2,10 151:2 152:12,14 153:6, 11,24 154:25 155:8,11 157:4,7, 12,15,19 158:8,16 159:12,23 160:1, 6,9 170:15,18

175:12,13,22 178:6 181:21 182:23,25 183:2, 17 198:17,24 199:2,6,11,14 200:4 203:10 205:17,19 206:3. 21 215:24 216:2,8 218:21 220:12 222:18,24 223:2 225:11,19 226:5, 11 227:1,21 228:8,16 229:4,9, 12,15,19,24 231:4,7,9,10,14, 19 232:21 233:5, 7,8,16,23 234:5,8, 10,11,15 238:14, 18 239:3,6 240:3, 4,7,10,14 241:2,7, 10,21 242:3 243:9 244:8,12,13,17,21 245:7,10,14,17 250:24 251:11,14, 18 259:6,10 261:10 268:21 271:22 272:14,15, 19,24 273:3,7,10, 13,16 274:3,6,8, 12 275:6,9 276:2, 8,11 277:13,16,21 279:23 280:1,5,8, 12 281:6 284:13, 15,18,20 285:3,11 287:9,12,15,18 288:12,14 289:11 291:1,11,13,15,21 292:3,7,10,11,12 299:13 302:4,5,9 306:22 310:20 312:2,4 314:22 317:21 318:3,24 319:2,4,5,6,7 321:10,11,13 326:8 327:21,22 328:1 329:25 332:5,14,23



333:5,17 334:2, 13,19 335:3,11, 14,16,19,23 336:2,6,8,10,14, 17,23 337:4,7,9, 10,13 338:5,8 342:20 348:1,4,24 349:2,4,6 350:6 351:8 352:2,19 354:9 355:1 356:6,13,14,16,24 357:10,17,23 358:6,7,11,15,21 **Judge's** 198:13 219:5 228:11 259:4 326:22 judges 29:22,24 40:22 41:11,14 iudgment 9:18 16:21 17:9,12,15 47:8,12 101:14 228:21 July 289:4 jump 183:21 jumped 183:23 233:19 251:12 **juncture** 319:16 **June** 14:20 195:20 289:4 304:1 justice 69:12,17 108:2 205:3,24 206:3 K **K-A-R-L** 7:10 **Kansas** 130:7 139:2 **Karl** 6:23 7:6,10, 11 8:8,11 356:4

359:6,8,9

Kayla 6:1 **KCPL** 119:6 keeping 12:2 **Keith** 60:9,15 62:24 70:12 71:8 291:19 292:15 356:15 358:10 Ken 294:4 Kentucky 29:23 40:24 kick 315:3 kicked 69:8 177:4 **kind** 26:6 42:10 49:3 64:2,18 67:10 68:16 78:25 94:25 98:25 102:12 103:13 104:9 108:6 113:5 120:23 122:23 123:18 124:17 126:23 135:24 136:14 142:18,23 161:12 165:18 167:11 169:1 171:6 173:11 179:7 191:13 205:4,7 206:10, 13,15 208:19 210:17,18 211:16 212:15 222:6 223:24 234:23 236:18 257:3 264:17 271:5 288:22 289:7 293:22 297:11 305:21 317:15 322:2 326:23 338:14 340:7 **kinds** 164:5 **Kinmundy** 179:18, 25 180:2,25 181:7 **Kira** 83:19

KM-R2 79:19,23 106:19 **KM-R4** 87:3 **KM-S1** 86:16 87:1, 2,6 **knew** 29:15 37:20, 21 40:11,12 46:17,21 48:9 50:3 69:2 77:21 209:19,22 210:4 246:4 250:10 299:2 320:5 334:13 knowable 48:18 **knowing** 182:15 321:3 knowledge 8:3 12:13 31:4 51:24 54:21 68:14 84:9 125:8 127:19 129:4 132:15 154:19 218:15 230:18 232:9,11 275:15,16 327:4 Kolkmeyer 6:3,6, 7,9 111:25 **Koppe** 74:25 106:8,11 Koppe/sahu 75:22 76:2 77:8 **KRM-D2** 9:11 **Kyra** 83:19 110:2 L **L-A-N-G-E** 230:7 **La** 115:11 140:9 **Lab** 309:23 Labadie 34:15

69:5 116:8 122:21

128:7 142:13

248:15,19,24 249:9,10,24 259:20 260:14 261:24 262:12,17, 18,19 263:7,20 269:12 282:7 309:23,24 310:12, 16 316:21 317:7, 16 labor 121:20,22 127:21 293:4 lack 23:11 57:22 69:8 339:7 349:13 laid 82:6,10 224:5 246:5 249:21 landscape 293:24 Lange 229:17,19, 21 230:1,6,24 231:1,12 232:23 357:13 359:18,19 language 60:25 338:18 Lansford 241:3 272:17,19 273:17, 20 277:16 284:20 285:1 287:18 291:15 302:16 358:1,5 Lansford's 87:17 295:24 large 39:20 44:4,5 122:23 124:18 138:23 140:3 242:18 268:8 313:21 314:2 **larger** 118:4 270:9,15 largest 315:4 late 124:9 177:24 192:7 latest 171:9 211:7



April	16, 2024Index: LatinLOLE
3,16,18,	84:9
10,15,22 19 76:4 80:12	listened 36:17 276:18
24 89:20, ,18,21,24	listening 252:23 326:22
06:21	listing 155:25
7 111:10 00:24	literal 301:17
28:16 2,3,6 :17 16:20	litigation 9:7 24:10 60:17 64:10 72:19 75:4 95:7, 24,25 203:1,8 297:16 299:19 338:14 352:5
8:4 243:9	litigation's 341:7
	lived 204:5
00:11 7 121:16 72:3 2:9 58:16 293:10 I 100:19 52:24	load 105:12 112:16 120:19 122:24 124:18 136:9 155:4 156:25 163:20,23 166:1 168:13 171:18 173:23 193:6 197:3,13 236:21 256:15,22, 23 257:4,5,8 265:10 267:18,19 268:5,6,7
6 134:11	loaded 264:15
7:5 89:17	loads 168:19 197:10
13	local 181:17
:2 307:22 19 112:10	locate 273:22 274:14
16:13	located 180:23 246:11
5:20	locating 173:2
38:2	location 142:10
9 350:3 6 354:1,	logic 322:3 324:22 325:12,15

Latin 28:10
launched 36:22 40:13
law 3:15 25:25 26:3 28:17,18 30:9 33:15 36:3 39:17 40:12,25 41:9 42:24 44:7 45:11 46:9,11 56:6,7,15 67:11 73:24 74:20 80:17 82:2 83:13 332:16 340:2
lawful 30:2
laws 46:10
lawsuit 36:12
lawsuits 36:11 46:19,24
lawyer 28:9 38:8, 25 39:4 48:25
lay 246:10
laying 80:10
layout 249:14 260:7
layout's 248:22
layouts 247:10
layperson's 189:12
lays 165:6
lead 90:7 117:16 127:20,23 132:22 253:15,19 333:6
leading 101:8 107:11 298:1 332:7
Leading's 332:12
leaking 37:8

learn 150:2

learned 150:4
learning 246:15 260:5
learnings 262:5,6
leave 144:2,4 228:20
led 182:21 204:15 205:7 339:6
LEDS 257:2
left 5:25 6:13 24:3 46:17 49:18 50:2 121:16 139:23 147:15 232:24 237:22
legacy 138:18
legal 56:20 57:2, 11 64:20 69:7 78:1 79:11 83:8 226:1,4 227:19 298:17
legislation 113:22, 24 114:5,12
legislature 114:11
length 181:24 224:17
lengthy 11:9 126:13
letter 33:13 45:5
letters 33:25 58:21 340:15
letting 5:19 86:14 259:5
level 104:5 110:13 173:15 221:21 265:22
li- 92:9
liability 23:23 27:15 28:1,20 30:8 33:11,14 40:6 46:6 47:3

64:3 72:3 23 73:1,1 74:3 75:1 79:13,14 82:7,12,2 23 91:12, 92:4,9 10 107:14,17 113:13 30 340:3 liability's liable 28:2 73:23 74: Liberty 11 119:7 138 267:2 lic- 22:19 license 30 life 114:17 137:17 17 279:12 lights 182 257:21 25 like-kind likelihood likewise 5 limit 74:16 limited 67 169:12 18 limits 93: 308:18 lines 101: link 110:1 list 11:20 135:7 205 337:25 33 341:13,19 353:13,16 11,15 listed 16:3,4 81:7

long 4:2,4 5:7 6:21,22 7:8 8:5,18 11:12 16:2,13 38:22,24 46:1,25 47:3,6 50:9,21,24 52:1,13 53:10 55:16,17 63:12 65:1 71:7,10 77:17 97:9,11 101:7 116:3 122:20,21 125:15 127:20,23 128:11, 13 136:5 144:9 146:21 151:4,5 160:17 173:12 197:24 198:3,7,9, 18,19 250:10 264:10 266:11,22 289:6,8 312:22,25 330:15 356:4,7,9, 12,16,17,19,24
long-run 189:21 190:4
long-term 165:12 167:16 313:2 331:14
long-winded 97:2
longer 46:12 202:6 243:24 273:4 301:12,21, 22 322:1 325:14 329:5 330:18
looked 24:22 25:19 40:1,22,25 41:12 42:6 43:2 79:25 101:1,23 103:5 162:5,6 164:13 186:9,12, 13 187:1 188:11,

12 192:10,13,14,

16 194:4 249:8

loss 163:20 257:4

lost 92:24 143:8

349:19

186:11 197:15 209:2 331:1
lot 22:1 25:19 39:21 56:2 102:2 106:16 107:15,19 134:4 135:15 139:9 140:18 143:10 167:17 204:21 223:20 237:15 249:15,23 254:23,24 262:9 263:3 272:22 275:15 277:10 310:5 314:19 315:9 329:17 338:18 351:16
lots 106:17
loud 50:17
Louis 69:13
low 42:4 185:8 238:11 263:24 267:13
low-sulfur 263:22 269:12,15 271:1,6 308:20
lower 121:20,21 187:16 188:23,24, 25 270:11 330:18 331:7 351:19
Lowery 3:24 4:1 5:6,19,20 11:22 12:1 49:24 50:6 59:23 86:4,11 136:5 146:21,25 147:5,9,11 148:5, 8 154:4,21,25 157:6 183:19,20 194:15,18 198:23 199:16,20 200:11 216:4 221:1,3 225:19 227:18 228:3,8 231:9 233:7 234:10 239:5,8,9 240:2,

```
24 241:10.25
 242:4 244:13,17,
 18 245:5,19,22
 268:22,23 272:13,
 17,21,25 284:14
 287:16,17 288:12
 291:14 292:9
 306:24,25 312:2
 319:4 328:2,3
 330:6 332:5,15
 335:14,17,23
 336:13,22 337:9
 349:4,5 353:19
 357:2,7,10,11,18,
 20,25 358:6,11,
 16,22
Lowery's 124:11
 125:13 126:1
lowest 116:16
 156:16
lucky 55:4
lunch 144:13,17
Lundy 293:24
lying 143:10,18
         M
M-A-N-Z-E-L-L
 318:8
M-O-O-R 7:10
Mac 311:6
macro 175:1
made 6:14,16
 24:13,19 25:20
 26:3 27:22 29:14
 30:5,12 35:8
 44:18 46:8 48:16
 57:1 59:7 71:18
 74:18,21 75:7
 76:13,24 94:9
 99:18 115:14,21
 116:1,17,18,25
```

117:3,5,17 121:19

125:5 126:5,11 128:1 130:7 131:15 139:9 159:22 160:3 161:18 164:14 186:6,22 204:2 206:10 207:16 208:18 212:11 217:15,21 218:19 238:1 250:7 263:9 270:20 297:23 299:10 303:22.25 304:15 326:23 328:10 342:13 maintain 41:2 219:9 maintenance

20:19 23:20 39:19 43:16 45:9 78:22 88:3 92:15 111:18

162:13

major 80:25 82:1,2 114:20 115:7 116:21 168:5

Majors 60:9,15 62:25 63:1 70:12, 14 71:8,11,15 72:25 77:11 85:10 97:12 128:14 172:10 218:21 219:1 223:21 241:4 274:23 279:25 291:19,21, 24 292:15 317:22 356:15 358:10

Majors/eubanks 102:12

make 12:1 17:7 25:16 26:11 27:3, 21 28:5 57:9 58:18 71:22 78:11 79:18 86:5 91:5 93:19 99:5 102:21 113:2,6 114:8 117:6 119:13



	ry Hearing Apri	
122:1 137:6 166:9	24	279:16
173:23 182:11 183:7 191:1 193:20 198:14 206:14 209:1 211:9 212:2,25 249:3 253:11,18 257:25 258:11,13, 24 265:24 277:4 294:15 309:3 339:22 354:1	margins 156:25 191:18 mark 13:1,20 14:24 16:25 18:8 155:9 157:13 230:23 244:20,22, 23 245:15 277:23 357:22 358:3 359:3,5	matter 3:8 58: 134:8 142:12 176:8 190:1 2: 204:20 243:11 350:11,13 361 10 matters 5:4,22 MATTHEW 15 357:2
makers 66:11,12 makes 116:5 189:15 250:2 352:5	marked 7:15,18 10:19 11:12 13:23 15:1 17:4 18:11, 15 47:8 51:4 54:2, 6 79:19 145:11	maximum 58:4 67:18 135:1 142:20 MDNR 33:13,1
making 25:20 26:7 44:11,23 45:16 47:13 59:12 66:7 74:17 83:13 90:6	155:12 157:20 194:16 229:6 230:9 231:2 232:3,4 318:14	83:15,19 99:10 100:5 110:25 MDNR's 83:25 110:2
93:21 94:8 96:20 99:13,16 107:11, 12,22 109:6 112:24 126:4	359:1 360:1 marker 299:25 markers 117:24	means 92:8 201:22 262:21 339:20
131:1 133:6 137:16 156:10 161:7 182:13 184:7 207:19	market 133:10 139:22 140:8 141:13,20,23	meant 25:3 24 268:7 310:4 3 339:16
212:10 227:6 305:21	162:16 266:24 269:9 marketed 140:11	measure 114:8 137:8,11 175: 304:17
management 117:6	marketplace 257:17	mechanism 94 328:23
mandated 38:2 40:16	massive 116:11	MEEIA 167:10
manufacturers 121:22	140:4,14 mater- 260:6 material 19:13	meet 166:16,2 167:15 168:4 256:8 266:2 2
Manzell 302:17 318:1,4,8 358:14	materials 64:7	286:22 308:18 meeting 167:8
Marc 106:7	66:6 121:20 260:7 math 114:13	196:19 299:17
March 18:18 19:7 26:18 68:24	180:19 214:24 329:11	meetings 40:4 megawatt 105
margin 163:22 165:2,25 192:24 193:5 265:15,18,	Matt 251:1 254:11 260:21,25 277:7	112:7,12,18 1 128:17 129:17 134:5,9 135:9

136:7,15,19 137:2 139:4 170:8 18 171:10 174:11 196:12 248:21 200:4 260:17 282:9,10 1:5, megawatts 20:22 113:8,19 122:22 124:11 129:12 2 132:9 141:15,25 54:2 166:14,15 169:4,6 170:6,25 171:7,20 173:6,8,9,21 4,7 174:12,16 178:24 179:6,8,22 180:9, 10 195:8,12 196:7 18,24 236:12 237:1,2, 6 12,13 238:3 254:17 257:7,9 267:9,20 5 **mem-** 79:13 memorandum 1 17:23 79:14 89:20 91:24 43:4 memory 33:8 311:5 124:8,12 159:2 220:5 285:8 307:24 :8 7 memory's 225:20 men- 126:10 4:22 mention 152:4 mentioned 9:4) 25:5 40:23 41:20 24 61:10 112:5 115:22 123:9 269:2 139:6 140:19 8 150:14,16,23 151:25 152:10 8 186:2 204:25 248:7,8 253:6 271:15 293:19 5:11 310:22 13:1 Meramec 256:1 7 313:18



290:5
methodology 111:7
Metro 116:19,21 117:6
MI 4:20
Michels 49:20 53:8 120:9 141:4 153:20 154:2,5,22 158:21 178:10 183:22 198:24 205:14 207:14 208:12 209:7 222:4 225:4 237:1 251:1 254:11 257:25 260:21 261:1 276:22 277:7 279:16 294:24 352:8
357:2
Michels' 96:7
microphone 9:14 50:15
mid 198:2 267:11
mid-'90s 269:16
mid-2030's 115:16
middle 171:19 246:14 260:2
Midwest 4:15,20 143:6
MIEC 4:20
miles 44:5
million 60:2,5,7 62:22 69:17,20,25 85:11,24 86:6,22 87:12,18,19,25 88:22 107:25 119:23 120:24 125:15 135:21,22 139:12 159:5 170:6,8 181:11

∕ Hearing A _l	oril 16, 20			
188:2 207:1 216:11 217:2 219:23 239:2 264:16 271: 274:22 275: 276:25 278:6 282:3,21,24 283:20 292:2 293:7,13 294 19 298:9 300 304:9 305:23 310:17,18 31 17,25 314:5, 316:25 320:2	20 21,22 15 1 6,16 20 4:13, 0:9,22 3 13:16, 7,9			
321:7 329:10	J			
millions 119 300:2	:23,24			
mills 136:11	263:2			
mind 63:4 95 118:21 161: 183:12 295:2 297:22 300:9 305:13,18 30 334:10 354:2	19 25 9 08:22			
mine 10:17 1 301:11	22:2			
mini 241:14,19,22, 23				
minor 217:17	7			
minus 214:2	5			
minute 196:2 251:13 310:2				
minutes 59:5 334:15	5			
Mis- 199:21				
misnomer 135:11				
MISO 163:12 25 165:1,22 166:11,13,24 169:9,15 170 174:3 176:15 187:3 191:12	4 0:24 5,17			

192:6,12,20 193:1 196:20 207:8 208:19 254:21 257:18 265:11,16, 18 MISO's 164:22 **missed** 165:17 215:5 missing 63:15 Mississippi 315:12 **Missour-** 213:3 Missouri 3:9,23,25 4:3,21,24 5:1 6:15,18,19,22,23 9:7 12:12,19,21, 23,25 14:22 16:21 21:25 22:21 25:10,21 26:7 27:19 30:5,10,11 31:15,17,20 32:2, 3,7,9 33:15,16 36:2,3 43:23 44:11,19 45:1,3,4, 11,22 46:9,11,15, 20 47:10,12 48:2, 14,18,23 49:2 50:9 52:2,14 55:15,25 56:9,15, 16,19,25 57:17,20 58:1 62:9 63:11 64:5,18 66:23 67:4 68:3,9 69:2 81:9 83:13 84:12 89:24 93:20 95:24 99:17,18,24 100:4 108:24 110:14 115:5 118:22 123:10 124:19,22 125:10,20 126:16 130:25 131:19,21 132:3 133:12,21 142:15 151:3 152:3 155:5 158:22 175:18



		, , ,	
180:24 183:6,7,25	MJL-S5 274:20	59:5 99:6,8 111:4	narrow 127:7
186:10 199:15	mod- 82:1	356:4 359:6,8,9	Nash 4:2 6:22
200:20,23,25	11100- 02.1	Moore 83:19,24	45:25
201:20,24 202:2,	model 76:22,24	110:2	45.25
5,9 204:2,19	77:17	110.2	Nathan 4:11
205:7,9 207:14	modeling 77:17	moot 316:14	nation-wide
213:22 215:11	294:24	morning 3:2 4:16	326:13
223:23 227:1		5:3 6:6,7,8,22	320.13
228:2,5,10 233:6	modicum 102:23	8:24,25 19:24,25	natural 4:24 13:17
234:9 239:4	modification	· · · · · · · · · · · · · · · · · · ·	14:1,15 15:22
242:19 259:8	46:16	55:18,19 61:6,7	58:17,20 68:3
266:22 270:17		71:11,13 112:3,4	83:15 162:2 172:3
278:8 281:10,11	modifications	149:15 217:8	178:12 205:2
292:8 306:23	82:2	motion 204:24	noturally 114:7
308:17 315:12	modify 146:3	206:9 335:13,24	naturally 114:7
316:13 319:3	204:25 228:21	Mationa 225,24	nature 48:17
		Motions 335:21	near-term 247:6
328:1 331:22	moment 10:22	336:20	308:2,3 349:14
333:21 334:25	15:6 25:13 86:2	motors 282:14	300.2,3 349.14
337:8 340:21	89:14,17 165:14	maya 0,6 24,2	nearer 62:8
349:3,17 352:25	174:19 284:24	move 8:6 31:3	necess- 68:11
353:7 356:10	287:3 351:2	41:16 52:2 122:11	1160633- 00.11
357:8 358:8,19	manay 20:0 114:6	138:24 140:15	necessarily 64:20
361:4	money 38:9 114:6, 16 121:7 142:6	154:23 158:6	68:12 110:14
Missouri's 52:5		166:7 244:15	265:9 293:6
56:22 57:10 66:4	143:10 144:6	297:25 304:19	295:13 301:18
68:12 89:22 128:2	175:8 184:24	340:8 352:15	308:1 309:14
149:17 156:24	185:13 204:21	moved 24:4	313:13 317:10
159:15 185:17	237:15 252:14		341:12 354:1,7
204:24 206:9	297:24 298:25	moving 182:16	, , , , , , , , , , , , , , , , , , ,
204.24 200.9	303:19 306:6	323:7,22	needed 102:5
	313:9,18 320:24	multi-million	219:14 248:19
213:4 227:6	322:23 323:12,19	39:20	255:12
286:19 331:23	money's 144:3		negative 134:25
340:2		multiple 25:14	339:18,20,21
misstate 307:23	monitoring 88:1	mutually 253:22,	350:15,24
misstated 333:2	month 17:18	24	,
misstated 333.2	289:3		negligence 82:21
Mister 6:3			Neighbor 118:5
misuse 135:4	months 127:2	N	204:8
1111 5u5e 133.4	304:12		
Mitch 272:17	Montrose 140:22	n-o-t 51:13	neighborhood
MITCHELL 273:17	143:25	name's 3:14	141:15,24 283:19
285:1 358:1,5			net 88:1 118:24
200.1 000.1,0	Moor 6:23,24 7:6,	named 76:19	139:16 166:4,9
mitigation 202:20,	10,11 8:8,11	nameplate 174:17	172:21 174:16
23	10:12,17 19:24	•	187:15 189:1
mix 256:10 263:23	23:4 35:6 38:25	names 150:13	190:8 220:3
1111A 230.10 203.23	45:24 47:2 49:12		285:15,22 304:2
			200.10,22 004.2



309:1 329:3,7,16 **network** 354:23 **news** 36:4 nice 314:9 Nicole 4:6 night 252:23 253:7,19 nobody's 218:14, 19 272:6 non-selective 123:17 noon 199:21 Noranda 267:18, 22 268:6,9 North 29:24 **note** 160:17 161:16 343:5 **noted** 12:20 78:5 110:17 111:7 160:19 163:13 166:3 233:25 234:2 notes 79:11 **notice** 13:5,9 14:21 48:7,12 81:8,10 130:10 165:19 noticed 40:16 175:17 notices 69:2 notified 299:9 **NOV** 38:14 49:5 November 36:22 164:1 **NOX** 113:15 115:23 118:6 119:17 123:19 129:8

NPV 329:18 **NPVRR** 176:3,5 190:12 **NS** 340:14 **NSPS** 110:20 **NSR** 5:8 23:14 24:8,10 25:11,12 28:13 30:23 35:24 37:2,22 55:25 56:10 62:19 89:25 95:23,25 186:7 197:16 203:1,8 204:3 216:17 235:15 253:9 271:19 297:15 340:20 342:14 349:19 **nuances** 282:16 **nuclear** 122:24 143:6 255:22 number 3:12 11:24 14:19 15:21 23:6.7 24:12 35:23 36:5 69:23 87:5 125:18 156:16 206:22 211:9 220:24 221:2 223:6 226:14.18 292:21 293:13 314:10 351:11,13 number's 206:25 numbering 12:4 numbers 16:9 44:4 125:19 139:11,14 145:23 165:1 182:6 192:20 206:1,2,6 220:20,21 221:16, 17 222:15 279:7 283:23 285:23 294:12 311:17 342:22 351:4

numerous 334:10 **NVPRR** 176:11 221:12 260:24 0 oath 199:7 233:17 277:19 284:22 291:22 335:4 **Obama** 37:12,17 obiter 28:8 **object** 43:9 65:2 101:7 149:2 225:20 228:3 332:8 objection 43:15 157:6 226:12 227:18 229:1 233:24 332:10,20 335:24 336:13,22 objection's 65:17 objections 8:7,12 11:16,18 12:6,8 15:7 17:21,24 19:5,8 52:4,8 149:5 157:4,7 158:8 244:21,25 336:10,17 obligation 197:20 **observer** 23:13,24 obsolete 140:10 obtain 6:17 obtaining 92:2 295:8 **obvious** 124:24 occur 155:5 209:5 275:13 340:10 occurred 18:18 152:25 207:3,23 224:6,7 281:16

305:1 313:21

occurring 156:21 **October** 212:3 213:1,23 303:22 304:13 odd 289:19 305:21 **OECA** 36:6,8 37:8, 14 38:13 40:4 off-system 135:24 offer 11:6 15:4 17:19 19:3 56:11 84:14 149:1 230:25 233:21 234:4 244:18 273:1 318:21 335:7 offered 29:19 57:13 60:16 234:2 offering 57:6 114:11 230:25 232:19 office 3:5 4:9,12 19:20 35:17,20 36:9 52:19 55:11 71:2 96:24 104:12 117:15 145:8 158:17 199:12 233:2 234:22 235:6 245:11 261:11 273:8 281:6 292:4 318:11 337:5 354:5 356:21 357:16 358:13 official 13:9 offset 139:16 oftentimes 299:21 **Ohio** 103:3 oil 167:3 178:12, 18,21 179:12 188:8 **oil-fired** 181:10



	Evidentia	Tyricaning April 1	6, 2024Index: olderowner
older 255:25	300:11	313:2 317:10	89:3
one's 13:2 79:10 210:12	operation 58:5 88:3 115:8 120:5	323:8 324:24 332:17 338:14	organize 354:17
-	162:12 169:7,19	opposing 41:14	orient 241:6,14
onerous 68:7 354:12	209:17	272:6	original 92:19 330:24
ongoing 60:17	operational	opposite 297:17	
88:3 94:13 159:24	169:10 218:18	option 113:25	originally 263:14
184:9 288:20	operator 80:17	160:22 185:3,8	352:12
295:2 298:21	135:5	191:24 225:5	Otter 150:9
315:6 321:23	opine 28:23	299:12 307:14	outage 67:11
online 6:12 252:23	-	308:20 309:15	127:1,2
OPC 144:18	opinion 22:22 30:3 32:10 33:25	331:8	outages 169:8
214:20 215:6,24	34:4,18 42:22	options 189:16	218:4,8
235:24 241:5	47:19 48:4 56:11	190:5,15 307:15	,
303:1 321:4 360:6	57:13 66:2 72:5	order 3:9 15:17	outcome 42:20 73:7 94:15 182:7
	79:12,14 82:11,	17:23 25:18 26:25	338:13 339:3,18,
OPC's 89:21 223:24 233:13	18,24,25 89:10,20	27:10 28:12 36:6	20,21 340:21
319:13	90:11,14,17,19	43:19 56:24 58:18	341:7 342:14
	91:2,9,24 93:6	59:1 72:11 73:21	350:13,15,24
open 134:14,15	95:15 96:25 97:14	78:11 79:12,13,14	361:14
188:1 289:7,8,14, 20	98:21 99:21,25	89:20 91:24 92:23	outcomes 40:21
_	100:16 102:6	105:23 107:18	
opened 208:24	104:3,17 106:21 109:14 111:14	127:1,3 166:23 172:20 197:19,21	outflow 315:10
opening 60:1	136:17,24 198:3,7	198:12 205:1	output 67:18,24
208:23 241:14,19,	235:22 238:12	212:8 213:17	174:9 278:20
22,23 357:20	279:3 305:17	222:14 223:11	outstanding
operate 43:19	314:13 320:13	227:20 228:11	336:20
116:23 117:9,22	339:25	235:9 252:22	outweigh 314:12,
121:8 122:19,21	opinions 18:6	257:20 263:21	13
131:4 134:21	29:20 30:4 39:1,3	278:19 286:9	
153:15 159:16	57:6 63:23 64:1,4	289:7,8 290:10	overhauling 92:1
169:21 175:8,9	71:23 72:2 82:17,	293:2,3,6 294:1	overrule 43:14
189:19 217:24	19,23 84:18,24	341:1 348:9,19	226:11
219:18	90:25 93:14	352:19 353:3,17	overruled 65:17
operated 148:19	97:13,17,23 99:20	ordered 203:11	overseeing 3:15
169:22 219:15	100:25 101:2,6,14	228:13 339:5	
351:22	102:20,22 103:6,	340:24	owner 80:17
operating 118:15	21 104:2 108:22 109:11,12,13,19	orderly 91:19	owner's 295:14
122:16 162:8	, , ,	orders 214:4	305:25 306:4,13
169:13 170:2,8	opportunity 201:7	288:19 290:15	308:7 310:22,24
177:22 178:2	opposed 60:23	337:18 341:2	311:13
000.40.050.45	l		
208:16 258:15 266:13 270:23	131:10 180:14	organizations	



Evidential	7 Tioding 7 Pin 10, 202 in	idex:1 // 1 14 E.:perserian
participation	peak 155:4	periodic 184:10,
23:22		22
parties 64:6,16	236:21 257:8 267:5,6,9	perks 314:11
159:13 206:13	peers 133:18	permanently 134:22
241:1 285:6 334:24 342:24	pendency 182:8	permissible 39:22
354:14 361:10,13	Pennsylvania	44:7 332:12
partners 119:7		permission 198:14
parts 11:12 35:17 260:13,17 338:20	180:5,6,23	permit 6:17 12:13
party 143:7 241:22	people 20:18 22:1, 2 40:10 42:9	33:13 58:21 129:6,21 130:13
passed 113:22	343:3 351:16	149:19 223:23
114:5	people's 38:8	253:9
passing 152:1	perceive 348:8	permits 15:23 30:6 44:19 55:22
past 64:9 170:4 217:23 219:8,15,	perceived 313:4	56:1,10 78:18
22 221:20 222:4	-	92:3 100:5 129:3 136:20 186:7
		204:3 218:11
		235:15
	1	permitting 5:8
path 18:21 340:7		22:20 24:15 28:13
pattern 169:10	189:5	29:14 30:12
	perfectly 45:4	44:12,23 45:16 46:8 47:13 56:20
	96:20 332:12	57:1 58:19 59:7.
	perform 277:8	12 62:19 66:19
331:17 332:1	-	71:19 73:25 74:4,
naving 322:16.25	104:24 105:4	7,10,12,19,21
323:4 324:17		75:6 76:24 77:4,
330:18,19,20,21	, -	14 78:11 83:14,23 89:12,25 97:19,25
payment 331:14	276:22	98:6 100:4 107:12
Payne 241:5	perha- 136:25	110:4 131:1 137:3
318:1,4,8 321:14	period 24:9 26:2	216:17 297:12 337:22
328:4 334:2	34:3 147:18	
	160:25 200:24	person 6:11 80:16 103:10 160:15
Payne's 287:5		325:7
	· ·	personal 91:9
·		_
Peacock 37:5 45:5	322:15 329:3,5 330:15,19,20,21	personally 58:14 66:3
	participation 23:22 parties 64:6,16 69:10 153:7 159:13 206:13 241:1 285:6 334:24 342:24 354:14 361:10,13 partners 119:7 parts 11:12 35:17 260:13,17 338:20 party 143:7 241:22 passed 113:22 114:5 passing 152:1 past 64:9 170:4 217:23 219:8,15, 22 221:20 222:4 256:22 267:7,8 299:23 328:6 353:12 path 18:21 340:7 pattern 169:10 pay 130:19 131:4 135:23 303:8 304:4,16 316:19 321:16 330:13 331:17 332:1 paying 322:16,25 323:4 324:17 330:18,19,20,21 payment 331:14 Payne 241:5 318:1,4,8 321:14 328:4 334:2 358:14	parties 64:6,16 69:10 153:7 159:13 206:13 241:1 285:6 334:24 342:24 354:14 361:10,13 partners 119:7 parts 11:12 35:17 260:13,17 338:20 party 143:7 241:22 passed 113:22 114:5 passing 152:1 past 64:9 170:4 217:23 219:8,15, 22 221:20 222:4 256:22 267:7,8 299:23 328:6 353:12 path 18:21 340:7 pattern 169:10 pay 130:19 131:4 135:23 303:8 304:4,16 316:19 321:16 330:13 331:17 332:1 payment 331:14 Payne 241:5 318:1,4,8 321:14 328:4 334:2 358:14 Payne's 287:5 288:16 297:19 302:17,21 318:20 Peacock 37:5 45:5



perspective 133:16 175:2 208:12 212:6,19
214:24 215:10 224:18 243:16
247:16 250:25 258:15 260:11 263:1 264:1,6
266:13 276:6 279:21 312:18
321:16 328:15 339:2 340:6
Petition 3:8
phase 64:3 72:19 89:21 91:19,21,24 92:4,5,9 107:19 111:10 293:21 294:6,11 295:12
phases 72:18
philosophy 151:13
phrase 35:11
phrased 341:20
phrasing 338:14
physical 92:14 247:10 249:14
pick 111:20 191:3 249:10
picked 238:7 249:18 302:24 315:16 342:2
picking 206:22 256:21
picture 294:19
piece 349:16
pike 246:3 248:2 264:23
Pinckneyville 179:21 180:3
pitch 119:14,20

Evidentia
place 28:22 29:3 36:13 44:18 167:23 184:8 192:1,15 298:1
placement 237:7
places 138:12
plan 14:22 46:4,5 57:21 58:2 119:21 152:3 156:3 164:19,21 165:20 166:19 172:24 173:16 174:1 190:10,20 194:3 195:20 247:7 257:13,25 271:5 339:18,20 354:19
planned 169:8 349:18
planners 135:20
planning 126:17 127:14,15,22 128:3 156:25 163:21 165:2,24 167:5,12 184:9 190:6 191:18,24 192:24 193:3,5 195:2 196:1,18 216:20,21 224:16, 23 225:5 237:12 254:14,20 259:2 315:25 338:13 339:3,7 340:20 341:6,8 342:14 349:13 350:2,12, 14,18,23 353:19, 20
plans 110:12,17 156:1,3 177:16,18 246:10 297:16 350:16
plant 42:1 54:16 95:17,21,24 96:2, 14,23 105:9 113:9 119:9,11 121:9

Hearing	April 16,
122:16,20	125:22
134:10 13	•
139:8 162	
164:24 16	
172:2 17	
186:8 19°	
211:20 2	
217:16,19	
224:12,13	
228:7,13,	
236:17 23	
243:17 24	
248:8 249	
250:20 25	•
255:23 26	
262:10,14	
269:1 275 276:16,20	
270.10,20	,
301:21 30	
308:21 30	
312:24 3	
321:25 32	
328:21 33	•
340:10,12	
plants 10	E·10
112:25 1	
116:14 13	
133:1 138	•
214:25 22	
236:6 239	
24 246:4	
10,15 249	•
255:20 25	
261:23,25	5 270:1,3
310:2	
play 280:2	22
played 33	3:5
pleadings	64:5
206:10	
plentiful 142:15	138:20
plenty 29	1:25

<u> </u>	
122:16,20 125:22 134:10 135:5,10 139:8 162:8,25 164:24 166:8 172:2 175:5 181:8 186:8 191:4 204:4 211:20 213:4,13 217:16,19 219:20 224:12,13 227:20 228:7,13,22 236:17 238:3 243:17 247:22 248:8 249:6 250:20 251:6,22	95:19 105:6 110:24 115:25 137:16 149:22 159:21,25 160:2,3 161:8 175:15 183:9 184:5 207:4,23 210:7 211:3 215:18 216:14 217:6 218:10 221:8,14 232:24 238:4 240:25 244:15 247:5 259:19,20 264:2 279:4
255:23 260:8 262:10,14 264:1,4 269:1 275:25 276:16,20,24 279:12 299:2,6 301:21 303:21 308:21 309:24 312:24 317:8 321:25 322:4,10 328:21 339:17 340:10,12 342:9	285:12 295:2,24 302:2 311:1 316:8 320:6 322:19 328:25 333:6 351:7 pointed 235:13 points 222:6 polices 138:12 policies 205:4
plants 105:12 112:25 114:21 116:14 132:8,23 133:1 138:18 214:25 224:14 236:6 239:13,17, 24 246:4 248:6, 10,15 249:1 255:20 259:18 261:23,25 270:1,3 310:2	policy 35:20,21 36:6,15 37:3,9,15 38:5 40:14 49:1 114:10 117:21 118:13 145:8 pollutants 130:17 pollution 43:24 46:22 130:20 132:1 133:18 136:5
play 280:22 played 33:5	portfolio 160:22 189:19 portfolios 41:4
pleadings 64:5 206:10 plentiful 138:20 142:15	portion 9:10 15:23 34:15 48:21 95:9 327:1,10,12 portions 11:8
plenty 291:25	335:25
point 25:6 26:5	pose 51:20 154:14



327:8	
posed	7:24 44:15
60:3 6 68:17 85:1 8 90:1 9 6 96:1 112:9 155:19 182:10 191:20 24 19 195:3 207:13 223:29 235:23 274:13 279:9 321:4	n 56:23 61:8,15,22 83:9,14,25 83:16 89:9 93:25 94:3,5, 8,22 98:5 114:5 9,20 166:4,9 0 185:17 0 193:11,21, 4:3,6,12,24 204:20 3 218:21,22 5 224:3 3,24 238:19 7 278:25 319:13,21 337:25 7,12,17,18
positiv 237:20	e 195:8
posses 148:16	ssion 79:10
142:3	ility 133:8 174:24 242:9 243:2
post 1	03:2 119:15
	r oject 75:24 7:10 104:17
57:22 60:18 19 78: 83:22 97:19, 135:3 140:1, 171:9, 173:2	al 18:21 58:2,9 62:4 69:4, 2,10,14 96:2,4 24 99:23 138:16 ,3,4,8 169:5 22,24,25 182:15 0 202:15,16,

17,25 207:21 208:11 209:17,20 211:11 246:2 248:1 264:22 293:11 299:21 305:11 311:25 316:21 317:6,15 339:4
potentially 69:14 139:22 167:24 172:4,8 173:5,6, 22 174:18 208:20 223:12 225:1 248:18 249:24 264:3 300:23 352:4,14,16
power 105:12 119:9,11 132:8 142:21,23 150:8,9 262:6
practically 308:21
practice 48:14
pre 77:9 103:2 119:15
pre- 77:9 104:17
pre-filing 81:8
pre-heaters 135:17
pre-project 76:13 104:19
predetermination 22:8
predeterminations 20:3 21:4
predicated 212:9
predict 117:13 279:1
predicted 77:9 194:3
prefer 13:7,8 239:11

preferably 85:24	pretty 102:20	
preferred 164:19,	140:13 209:1	
21 165:20 173:16	210:9 248:15	
174:1 195:20	267:18 268:11,15	
preliminary 5:4,22	269:14 278:21,23	
164:9 191:22	prevailed 48:12	
192:11 242:7	297:15	
264:17,18 288:25	Prevention 71:17	
304:24 306:8	previous 112:6	
premise 121:4	176:22	
122:8	previously 162:14	
premised 93:11	170:6 199:18	
109:13 310:19	203:16 210:4	
prepare 54:1	254:4 277:23	
145:10 230:8 232:2 318:13	285:1 292:15,18 337:11 338:21 price 188:3 205:3	
prepared 7:12 51:3 54:2 74:7,9 154:5 185:21 230:9 232:3 present 22:12	prices 162:2,3 205:2 309:7 primary 190:9,12 principal 330:24	
88:1 95:16 160:18 162:19 176:14 187:15 189:2 190:8 224:23 309:1 329:3,7,16 330:4,11	332:2 333:11 principally 187:25 principles 104:8 328:17 prior 76:22 77:18,	
presentation	22,24 99:7 112:5	
91:20	114:2 126:1	
presented 21:9	151:20 176:18	
65:3,4 75:3 98:17,	177:22 191:23	
18 202:8 236:10	266:1	
352:8 353:8	pro- 303:12	
preserve 61:19	probability 303:16	
117:7	problem 78:13	
preserves 214:1	143:11 228:8	
preserving 94:25	258:4 278:3	
president 36:25	284:17	
150:15	proceed 39:24	
press 37:8	50:20 160:6	
pressure 256:13	242:25 320:6	



proceeding 3:4,15 18:24 48:3 60:11 93:19 108:17 211:1,2 212:24 213:12 318:15
proceedings 3:1 18:4 94:16 190:2 332:13
proceeds 139:13, 15,18 331:21 333:11
process 5:16 20:1 22:6,10,17 28:15 30:19 63:15 126:13 166:25 210:17 254:20 265:21 280:6 353:15,25
procure 126:13 246:20
produced 340:13
producer 142:22
producing 169:9
production 142:23 169:23 170:5 172:5
program 20:7 31:22 44:8 71:17 171:25
programs 20:12 167:10 172:1
progress 285:9 290:13 296:25 301:1 317:11 324:1 326:15
project 17:12 21:5 22:9 33:19 43:3 58:22 76:12,17 86:20 87:20 106:3 111:12 127:9 140:22 150:7 168:21 169:3

Evidentia
178:2 200:16 208:5 211:8,9 224:19,21 225:2 240:17 250:14,16 252:13 272:1,2 286:20 289:23 295:9 304:5 310:16,25 311:13 314:15 315:5 316:16,22 317:16, 17 325:5,6,13
projected 128:6 305:2
projections 170:25
projects 20:4,15 26:9 39:19,23 40:11 41:25 42:1, 7,10,14 43:21,22 44:2 55:22 56:1, 10 60:21 62:7,10 68:14 69:19 77:18,22,24 81:16 82:1 86:19 87:11 92:13,14,18,20 111:11,16 112:20, 22 127:12,19 128:23 129:2,25 130:13 167:18,19, 20,25 168:14 169:5 196:22 197:9 200:1,10, 12,17 201:8,13 210:3 211:5 218:9 219:12,16 220:8 221:22 242:7,24 243:7,8,10,12,15, 21 252:20 272:5 274:22 275:2 285:7,17 286:2,16 287:20,24 290:4 298:15,22,23,25 302:15 303:6,8, 13,14,15,17,20,23 307:10 314:22,23 315:2,7 319:13

320:23,24,25 321:23,25 322:17, 22 324:23,24 325:14,15,18,22, 24 326:2 328:15, 19 339:8 353:8
promulgated 37:7
Promulgation 14:22
proof 80:5,11,24 81:15,20 82:1,11 176:21 177:4 191:13,16
proper 136:20 137:2 192:9 297:12
properly 234:2
property 181:17
proposal 206:15 225:22 242:13
proposals 69:11, 12
proposed 202:2 204:9,12,18 214:20 220:6 239:16,17,20 240:19 242:11,17 286:1
proposition 140:12 313:1
propping 43:12
prospect 317:10
Prosym 76:21 77:16
provide 48:12 66:25 150:12 159:13 164:9 167:13,20 168:24 187:12 191:17 249:22 265:14 provided 3:20

42:11 58:24 64:7 67:3 81:8,10 93:3 148:22,23 155:16, 23 202:13 208:3 209:7 251:1 278:24 292:24 293:15 304:23 354:4 providing 69:3 147:12 provision 31:21 225:12,17,24 226:9 341:11 provisional 335:18,20 provisionally 336:18,24,25 359:16 provisions 20:3 31:22 80:12 81:2 pru- 98:6 182:13 prudence 5:7 24:14 29:10 48:2 61:16,17 62:17 73:12 82:13 84:8, 12 89:11 93:6 107:3,7 152:16,17 182:13 219:8,10, 22 220:6 234:23 295:7 342:9 **prudency** 25:5,6, 12 27:7 112:8 159:24 182:14 212:25 213:13 214:12 219:6 295:1 319:15 326:1 prudent 6:16 26:7 73:18 84:6 90:9, 13,15 91:7,15 93:20 95:5,20 96:10,14,20 98:6 112:11,12 113:2,



Dull 302:15 135:5,12,13 153:17,18 159:18 175:7 182:20 210:21 211:20 212:5,23 213:10, 21,24 216:10,18 235:11 253:10,17 252:2 219:25 243:22 219:25 243:22 240:5 241:22 235:15 233:3,13,14 234:22 235:6 216: 56: 16; 317: 23,25 316: 215 336: 24 326: 23 317:23,25 316: 11 321:15 329:25 337:5 348:25 356:10,21 359:6 Dublished 40:19 Dublished 40:19 Dutling 42:13 49:22 237:12 201ting 42:13 49:22 237:12 240:15 236: 24 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 236: 25 338: 25 336: 25 338: 25 336: 25 338: 25 336: 25 338: 25 336: 25 338: 25 336: 25 338: 25 336: 25 338: 25 336: 25 338: 25 336: 25 338: 25 338: 25 336:		Evide
,	135:5,12,13 153:17,18 159:18 175:7 182:20 210:21 211:20 212:5,23 213:10, 21,24 216:10,18 235:11 253:10,17 prudently 24:24 25:2 100:18 136:25 151:22 219:25 243:22 PSC 44:7 106:8 107:6,12 PSD 30:11 48:20 71:17 80:12 81:2 89:25 106:4 110:20 151:18 PSP 31:22 public 4:9,12,13 8:9 19:20 27:1 35:2 41:22 52:19 55:11 63:8 71:2 96:24 97:6 104:12 123:5 141:9 144:18,20 145:8, 23 152:16 154:7,8 158:18 159:24 161:6 178:6 183:2 199:12 231:5 233:3,13,14 234:22 235:6,21 240:5 245:11 261:11 273:8 281:7 287:12 291:11 292:4 303:1 306:19 317:23,25 318:11 321:15 329:25 337:5 348:25 356:10,21 357:8, 16 358:8,13,19 359:6	pull 302:15 pulverizers 134:19 pump 263:3 pun 124:18 purchase 113:16 133:9 166:12 271:1 purchased 143:7 purely 323:3 purpose 20:13 75:9 purposes 11:23 31:22 145:11 207:8 215:20 pursue 26:8 45:6 48:10 197:22 235:15 253:9 pursuing 37:15 push 135:5 232:2 283:23 put 28:12 43:17 47:9 51:15 96:12 103:7 114:4,11 122:2 123:10,13 124:22 125:10,2 126:5 164:16 171:10 183:8,14 15 184:1,2,3 191:6 193:15 204:19 217:16 228:19,20 238:9 246:3 248:6,19,2 249:5,9 251:3 263:16 264:5 279:18 281:10,11 20 282:14,18 296:6 324:5 326:25 338:12 353:16
	published 40:19	•

videntiar	ry Hearing April 16, 202
	261:19 354:11,14
	PVRR 160:19,20
	162:21
	Q
3:16	auglified 02:45
)	qualified 92:15
-	qualify 111:17 120:5
43:7	
	quality 13:18
	31:11
3	quantifiable
	207:4,25 210:8
:23	211:4
	quantify 75:10
)	226:10 284:7
45:6	quantifying
2	225:18
,	question 5:14
15	21:23,25 24:23
32:25	27:25 38:18 41:19
	42:6,18 44:15,20
17	45:24 47:16,20 48:8 55:25 57:4,7,
6:12	8,10,25 58:11,15
11	59:3,22 60:9
),13	65:21 67:14,21
0,21	68:1 78:8 92:25
)	93:2,5 95:20 96:6,
3,14,	13 97:2 99:3
5	101:8 103:4 104:14 105:13
6	109:25 111:20,24
88:9	119:22 121:13
19,23	128:15 129:19
3	131:25 135:13
	137:19,22,25
0,11, 3	138:22 143:13
,	159:20 161:4,5
2	168:9 171:13 172:13 174:25
	177:13 174.23
3	185:23 189:5
2	192:4 194:21

203:17,18,21,22 209:2 210:1,18,19 212:21 213:2,6, 21,25 214:7 216:6 223:6 226:6 227:21 228:3,9 235:19 251:18 257:10 269:25 274:9,10 277:15 278:4 282:9 285:25 288:16 289:16 293:8 295:10,19,20 299:8,20 300:4 306:11,12 308:14 310:12,14,20 325:3 326:1,20 327:8 328:8 331:2 333:20 339:12 342:8 349:8,11 352:1,18 354:9 questioned 108:25 302:16 questioning 65:9 141:3 183:22 questions 5:7 7:24 15:15 19:14, 17,22 20:19,24 22:24,25 23:2,3 32:12,16 33:7 34:20,25 35:3 38:23 42:17 49:9, 21,22 51:20 52:23,25 54:23 59:16,18,25 61:2, 5,10 62:14 63:5,8 85:4,6,8,9 90:24 97:6 101:3 111:21 112:2 123:5 128:9 130:18 133:3 138:1 144:7 152:11,12,14 153:4,5 154:14 159:10,13,20 160:8,10,14 161:11 170:11,16,



		Ty Healing April 10, 2024	filldex. quedingreasonable
21 175:14,21,23	quiet 37:13	330:18 331:8,9,13	82:17,19,23 83:4,
178:4 181:20,22,	quo 122:16,19	rate-making 119:5	18 90:5,21 91:4,
23 182:22,24	•	176:5,7 189:5,9	12,14 92:8 93:22
183:18 185:16	quote 72:10	190:19 191:5,7	97:17,22 99:15
188:7 189:1	315:16	ĺ	102:19 103:5
191:11 196:21	quoted 69:20	rated 174:9	108:14,19 120:8
198:22 201:12	44.000.00.20	ratepayer 114:14	122:1 128:4 146:8
204:1 205:16,17,		122:10 276:15	148:9,10,12
19 214:9 215:24,	R	324:16,24	156:10 179:20
25 216:2,3 217:8	mail 400,40 40	,	193:19 194:14
219:5 222:12	rail 138:18,19 140:19 142:16	ratepayers 94:13,	283:8
226:3 227:11	140:19 142:16	17 95:10 116:2	readiness 293:20
230:20 231:9,10,	raise 6:25 50:11	117:19 120:2	
11 232:14 233:8,	53:16 70:14	121:6 175:4	reading 15:24
10 234:10,11,15,	144:22 153:21	250:20 275:24	19:13 80:20 81:4
17 238:13,15	182:2 225:7	277:5 279:2	83:7 84:2 90:25
239:7 240:2	229:21	293:17 294:20	103:10 109:22
245:12,14,17	raised 27:20	295:4 297:24	156:20 206:7
251:11,15 253:1	218:14 269:23	298:25 303:11,19	reads 51:15
259:8,12 265:5	349:12,13	304:4,14 316:19	
268:19 269:24	·	322:16,25 323:4	ready 19:15
271:22 272:13	ramifications	325:1,6 327:2,12	127:21 247:16
273:10,19 275:7,	94:17	rates 88:19 94:22	real 137:22 138:2,
12 277:25 280:4	range 169:6	116:16,20 119:2,	16 142:8 297:22
284:12,16 285:3	171:10 220:22	4,25 130:22,23	reality 73:5 224:1
287:8,13 288:14	221:10,13,20	160:24 189:23,25	246:24 308:11
290:25 292:10,17	222:8 238:7,8	202:10,18 203:3,	
302:6,7,9 306:20,	rate 64:9 101:16	7,10 218:4 220:2	realize 271:18
23 307:2,6 312:3,	103:23 104:25	225:15 239:14,18	reason 53:2 63:18
8 319:5,9 321:13,	103.23 104.25	313:18 329:2	99:1,2 105:1
14 326:9 327:24	133:16 176:9	ratings 180:1	116:16 129:17
329:24 331:19	190:1 191:5	188:15,17,20,21	214:20 217:11
333:17 337:10,13	200:20,23,25	, , ,	221:6 229:1
340:17 341:20	200.20,23,25	rationale 251:20	240:22 242:10
348:25 349:3	214:2 217:1,2	303:7,18	245:25 247:23,25
350:10 352:16	214.2 217.1,2	rationales 304:23	260:11 269:6
356:6,13,14,16,	287:21,25 288:1,	ro 22:2 172:46	278:13 297:11
18,20,24 357:4,6,	4,5,7 296:2,10,22,	re- 33:3 172:16 182:12 219:9	320:1 326:1
10,11,17,23	24 297:2 313:2,11	296:18 353:6	342:10,11,16
358:1,2,3,6,7,10,	314:19 319:14,21	230.10 333.0	353:7
11,15,16,21	320:2,3,4,7,8,10,	re-agent 123:18	reasonable 6:16
queuing 20:18	21 321:3 322:14,	reach 25:18 42:18	25:7 26:7 27:21
	20 323:7,14,17,	266:23	30:2,3 33:12
quick 49:16	18,22 324:5,6		34:16 39:2,11,16
137:22	325:16 326:4	read 16:20 18:6	42:23,24 43:11
quickly 114:21	327:13,16 328:11	42:22 46:15,16	48:21 57:1,3,12
	329:2,6,12,14,15	54:13,16 73:6	70.21 07.1,0,12



	EvideApa	гулы, еалиму ndex: reasonable	enessRecross-examination
83:11 91:7 93:20	79:3 97:15 98:9,	240:12,13 334:18	150:19 157:3,8
95:20 96:10,14	15 99:22 100:12	recognition 15:9	158:7,10,12 175:3
103:10 108:24	101:2 104:15	359:24	222:19,25 223:1,2
149:19 153:17,18	105:16 106:18	339.24	230:5 231:24
159:18 212:4,18	107:3 108:8,22	recognize 13:16	240:11 244:15,20,
213:21,24 216:10	110:1,23 128:18	14:21 17:8,10	24 245:2 299:5
218:23 227:7,13	134:5 149:17	18:14 73:23 74:2	334:20 336:12,15,
238:8 253:9,16	176:2,15 177:3,9,	80:3 82:10 139:22	19 354:21 355:2
298:21 303:15	24 178:10,22	155:18,20 246:13	
	179:5,18 195:15	254:21,22 353:18	recordkeeping
reasonableness	196:8,22 197:18	recognized 20:15	234:3
24:14,21 27:24	203:21 220:10,16	245:25 248:14,16	records 104:4,6
203:21 219:6	223:13 224:4,8	255:5,11 257:20	301:16
238:10	227:3 260:20	264:2 269:11	recover 189:22
reasoning 342:18	261:3 264:14	270:21	285:17 286:10
reasons 26:12	267:20,23 271:3	270.21	295:25 297:1
68:25	276:3 277:14,18	recollection 85:20	
00.20	281:22 283:7	87:20 123:14,17	323:10 326:3
reassured 39:19	291:7 312:8,12	125:16 140:20,22	recovered 176:8
rebuild 142:2	314:22 315:1,15,	143:24 162:21	286:3 287:24
	18,23 316:10	recommend 321:5	298:19 323:11
rebuilt 115:13	326:17 340:3		329:5
rebuttal 54:2,10	351:8 352:11,14,	recommendation	recovering 331:3
56:12 72:8 73:10,	21	64:24 88:2 96:18	
16,20 79:19 115:1		104:21 136:24	recovery 62:10
130:4 145:10	recalled 277:23	212:1 238:20	94:22 108:7
149:3 151:16	285:1 358:3,5	recommended	285:18 328:11
200:1 203:14	recalling 291:6	62:20 68:25	330:15
205:20 209:6		215:13 235:2	recross 32:15
214:19 224:5	recapping 161:19	237:24	35:2 63:7 97:5
230:10 232:3,4	receive 325:6		100:24 109:12
287:5 294:3	received 8:16	recommending	123:4 128:10
297:19 315:20	12:10 15:12 18:1	234:23 235:7	141:10 144:8
318:13 335:8,24,	19:10 52:11	298:9	153:7 175:16,19,
25 336:1,11	100:23 149:7	recomplete 306:2	22 178:6 183:18
349:12 359:15,18	157:9 158:13	reconcile 89:7	238:14 239:3
360:7	245:3 303:11	leconone 09.7	259:11 261:10
	316:25 325:17	reconciling 90:1	281:6 287:9 291:1
REC'D 359:1	336:16,25	98:5	306:19,22 327:23
360:1	·	record 3:22 8:6,	348:24 349:2
recall 9:8 12:17	recent 108:18	11,15 11:17 12:7	
17:11 32:19 34:6	112:23	15:5,9,11 17:20,	Recross-
44:12,20 47:23	recently 100:24	22,25 19:4,9 52:3,	examination
57:19 59:8,13	113:22 163:3,8	7,10 53:23 55:5	32:18 35:5 97:11
63:21 66:16	186:13,15 190:7	65:4 70:7 98:8,12,	123:8 128:13
67:19,22 68:4,15,	·	13 99:11 109:2	141:12 176:1
19 74:25 76:20	recess 70:6,9	110:17 149:4,6	178:9 183:4 216:4
	144:15 232:22	1	238:17 239:9



238:17 239:9

144:15 232:22

259:13 261:13 280:14 281:9 291:4 306:25 328:3 349:5 356:6,7,17,18,19, 20 357:5,6,11,18, 24 358:4,7,11,16, 22
recycled 138:8
recyclers 136:11 139:20
red 225:7
redesigned 105:3
redirect 38:21,24 63:16,20 69:22 100:8,10 133:25 134:3 141:9 144:10 153:9 183:17,20 220:12, 13 240:5 259:7,10 268:21,23 280:8 284:13 287:15,17 291:13,14 312:4,7 329:25 330:3 332:8 350:6,9 351:3 356:7,14, 17,19 357:7,12,25 358:6,12,17,22
redo 102:6,7 296:18 306:14 308:8 311:16
reduce 113:8,12, 15 235:3,17 305:24
reduced 361:8
reduces 136:6 313:14
reduction 96:3 115:23 117:23 123:18
reductions 40:15
Reed 50:1,3,10,11,

Evidentia
22 51:1,2 52:6,7, 23,24 53:5 356:8 359:11,12
reevaluated 212:12
refer 26:20 150:20
referee 36:6
reference 84:19 101:18 103:9,11 274:25 285:12
referenced 72:15 84:16 98:8 291:6
references 103:4, 15 274:21
referencing 60:8 86:15 87:4
referred 150:11
referring 22:18 73:10 127:16 150:21 159:7 165:9 238:24
refers 72:15
reflect 119:2,4 201:1 206:6 217:14,21
reflected 161:25 202:17
reflecting 174:2
reflects 290:11,12
refresh 159:2 285:8
refute 65:12
regaining 219:13
regard 24:24 29:21 35:9 41:8 48:20,21 49:19 60:6 78:20 102:14 159:14 285:7 288:19,24 298:24 304:18 305:13

306:10 313:23
region 116:14 169:19
Register 14:18 37:7,20 40:17,19 42:14
regulation 30:11 185:9 204:19 255:19
regulations 30:14 31:3 37:4 44:16 45:1,2,13 46:4,15 57:17 96:5 115:24 118:9,12 131:16 132:21 168:6 185:5 204:18,22 269:18 307:13 315:2
regulator 21:24 35:15
regulatorily 30:17
regulators 223:19
regulatory 3:14 119:21 318:12
rehabbing 143:8
rehash 102:13
reinvest 313:11
rejected 99:5
•
relate 349:15

152:20,23 153:1 163:12 269:25 275:19 337:17 341:1,10
relating 161:12 242:8
relation 62:19
relationship 215:8
relative 124:14 172:1 288:4 361:11
releasing 174:23
relevance 295:21
relevancy 319:15
relevant 27:23 44:24 66:11 73:11 100:4
reliability 20:16 41:3 112:23 157:17 158:9 164:3 200:10 208:5 211:5,8 218:18 256:5 258:20,22 360:5
reliable 42:9 200:14 258:25
reliably 43:20
reliance 74:24
relied 65:14 67:17 73:24 74:6 76:6, 18 101:5 106:14 133:13 294:15
rely 68:12 74:2 82:18 97:13 101:12 103:18,20 104:13 116:4 120:19 133:22 294:25
relying 84:7 85:1 103:16



remaining 87:25 **Renew** 4:24 **requires** 161:10 300:22 220:3 317:11 182:19 228:9 renewable 167:12 represent 156:23 remedies 18:21 298:12 requiring 58:17 187:24 256:11 60:18 69:4 91:18 renewables represented 221:5 **Res** 194:12,24 202:20,23 203:4, 236:16,17,21 representing 56:5 research 102:25 11,13 205:24 254:24 255:12 103:12 209:20 340:23 repurpose 140:16 repair 23:20 43:16 **reserve** 163:21 remedy 24:5 47:19 repurposed 138:8 45:9 78:22 92:15 165:2.25 191:18 62:4 64:3 69:8,19 111:18,19 repurposing 192:24 193:5 72:4,15,18,21 172:16 **repairs** 20:19 265:15,18,24 73:15,21 79:12 82:24 91:12,16 request 4:19 reside 117:15 repeat 49:7 65:20 92:5 94:13,20 101:15 108:6 97:21 163:7 177:1 residents 69:13 95:9 107:19 206:3,8 290:1,2,6 192:4 194:22 197:22 203:1 297:20 337:24,25 resolution 206:14 278:5 204:25 205:1 348:7 resource 58:17 repeated 163:5 206:2 211:14 requested 166:8 162:4 163:13,18, 217:4 293:21 repeatedly 25:9 206:6 24 164:19,23 294:6,11 295:12 rephrase 101:9 166:23,25 167:8 requi- 176:11 339:4 340:4 112:9 169:15 171:15,24 require 200:6 remember 17:17 177:18 184:8 replace 219:9 224:23 242:14 36:21 39:3 63:3 190:6,10,17 236:16,17 256:3,4 246:3 316:8 327:1 109:14 150:18 191:24 195:20 282:11.14 185:19 188:9,18 196:19 207:8 required 15:23 replaced 43:19 189:3.6.9 191:25 254:11,15,20 33:13 57:21,24 218:17 194:21 197:15,24 255:2 257:13 58:21 59:1 66:17 202:24 225:21 265:6 replacement 68:4 92:3 131:22 243:8 264:20 23:21 37:6 43:3, 156:11 185:4 resources 4:25 271:23 288:18 17,18 44:4 45:10 13:18 14:1,15 requirement 57:17 307:6 328:12 78:22 92:16 15:22 58:21 68:3 160:19,24 163:22 351:17 111:18,19 236:9 83:15 130:6 165:3 171:2 174:5 remembering 55:6 166:16 167:12,23 replacements 176:7,14 187:16 171:14,19 173:2, 78:15 189:2,24 193:5 **remind** 70:15 3,25 177:15 200:19 309:2 199:6 233:16 report 150:15 187:23,24 256:14 329:4 330:5,12 277:18 284:22 292:21 294:2,18 257:14,15 291:21 335:3 300:2 321:2 requirements 27:8 respect 27:6 47:7 56:20 57:3,11 removal 249:16 reporter 3:16,19 76:6 165:1 168:18 131:20 151:10 334:12 361:1 remove 238:21 171:18 202:20 157:18 158:9 REPORTER'S 305:16,17 **removed** 148:20 167:8 184:15,19 343:5 303:2 322:6 190:9 192:24 respecting 6:16 264:23 265:7,9,13 reports 35:18 **Removes** 147:15 responding 35:6 269:18 315:5 242:23 279:2,10 290:6 rendered 45:14 360:5 292:20 293:14 47:11 295:3 297:24



response 65:8	235:11 236:2,5	192:3,8 195:18	risk 113:13 204:17
128:21 161:6	250:20 253:17	197:1 205:13	256:6
167:10 171:5,6,23	256:1 299:2	209:12 217:14	River 142:16
172:5 173:25	321:21	retrofits 140:10	315:12
187:24 300:21 307:1 332:14	retire/retrofit 5:12	retrofitting 153:16	RMR 42:17
333:16	retired 51:16 137:12,15 138:5,7	159:17 186:19 221:25 280:21	RMRR 43:5 78:21
esponses 101:15 130:17 178:11	156:4 172:10	351:13	road 65:11 211:3
	193:9 256:2	return 202:7	rocked 32:8
esponsible 24:10 est 36:2 254:23	286:20 299:6 304:13 321:24	313:11 320:25 322:22 324:19	room 3:4 273:4 332:19
314:3 354:20	retirement 113:24 114:15 118:20	returned 176:10	rooting 38:12
starting 143:7	128:6 132:22,25	327:2,12	roughly 61:22
estate 226:5	156:7 159:20	returns 190:2	87:11 172:21
330:16 333:19	161:22 162:14 168:1 192:8	reveal 146:22	179:10 180:17,21
ested 30:9	195:17,24 200:16	revenue 160:19,23	250:10 283:17
strict 181:9	205:13,25 208:19,	162:16 176:7,11,	round 95:2,6 100:23 216:11
striction 181:2	25 210:23 212:3,	14 187:16 189:2, 24 190:8 200:19	314:10
estrictive 138:12	15,18,23 213:9 214:13 216:9	309:1 329:3	rounding 88:23
sult 23:18 31:4	250:7 253:16	330:5,12	routine 20:19
32:7,8 40:20 41:7	261:1 313:21	revenues 181:18	23:20 24:24 39:19
44:2,6 60:11 132:25 168:13	321:22 322:4,10	285:15,17,19	43:8,16 44:6 45:9
169:22 272:1	328:10,20 340:12 341:8 342:9	review 6:17 17:7	78:21 92:15
285:21 286:21	341:8 342:9 349:14	20:14 24:15 39:7	103:22 111:18
		43:25 64:1 89:12	row 156:11,17
esulting 107:6 285:22	retirement's 322:7	100:5 102:17 103:24 104:2,10	193:21 194:13,24
esults 163:9	retirements 300:3, 6,20 312:11,16	129:3,6,21 150:15	RPR 361:17
esume 147:14	,	155:15 201:7	RTOS 265:7,19
	retiring 128:3 148:18 153:16	311:22,23 326:12 328:11 340:14	rule 12:12 16:2,5
esumes 146:15	159:17 162:23		28:21 29:15 37:7
etain 138:7	167:23 186:18,24	reviewed 9:5	118:5 125:6
etire 95:21,24	200:13 204:4	34:15 59:10 63:25	204:8,12 242:12
114:7 122:4,10	221:24 227:8,16,	64:2,4,7 65:25	247:20 332:11,17
137:8 161:13	25 251:21 256:20	101:13,25 102:2,4 104:10,11 108:14	18,22 333:3,4
162:6,25 164:20	275:25 276:16	,	ruled 37:5 41:17,
175:5 182:12,19	286:22	reviewing 58:21	18 42:16 44:16
185:19,24 186:11	retrofit 131:10	59:13 160:13	340:1
187:17 192:2	161:12,22 162:9	revisions 145:19	rulemakings
196:25 204:16,22	182:12 185:18	147:20 148:21,22	30:23
207:16 210:20	186:11 187:17		00.20
213:4,22 217:13	1		



rules 13:9,10,17, 25 14:15 15:8,22 33:25 35:9 101:17 106:4 110:21 151:18,19 190:6, 22 204:15 242:13. 16 243:3 246:1,2, 5 248:1 269:8 308:17,19 309:15 310:11 316:7 332:25 359:22 ruling 24:13,20 48:16 204:25 335:21 336:20 run 114:16 116:3 134:18 136:1,9,11 137:18 143:11 160:18 179:15,16 181:13 236:19 312:22,25 running 20:17 39:25 114:21 217:24 **Rush** 3:11 34:8, 11,12 36:12 42:1 43:12 54:16 55:22 59:7 80:17,24 81:16 88:19 92:2 94:9 96:9,23 102:14 112:14,15, 20 120:4 121:8 122:4,10 124:5, 14,20 125:23 126:16 127:11,16 131:2 141:14,25 142:9 143:1 148:18,19 153:15 156:4 158:23

159:16 164:20

172:19 177:22

178:1 181:17

193:9 194:4

169:7,21,22 170:5

183:10 187:8,12,

20 188:1 189:18

167:23 168:2

195:1,24 197:3,5, 23 200:9,13,15 202:6 204:16 205:25 207:16 208:4,15,20 209:18 210:23 213:4,22 217:15, 22 219:14,18 220:4,7,8 227:9 236:2,9,16 237:7 240:16,20 242:7,9 243:23 246:9 247:4 248:11,13, 14,17,24 249:11, 20 250:4 251:4 256:20 260:2,8,14 261:19,22,23 262:3,12,17,22 263:10,12,20 264:9,11 269:12 275:20 276:20 280:21 281:17 282:7,9,13,16 283:1 286:22 289:21 304:6 310:9,25 315:11 321:21,22,23 322:21 349:14 351:21

S

S-E-A-V-E-R 145:5 **S-H-A-W-N** 230:6 **S-I-O-U-X** 123:25 **S-I-P** 12:19 **safely** 43:20 safety 20:16 256:6 **Sahu** 74:25 106:8, 11 **sales** 135:24,25 **salvage** 139:7,8,

13,15

Sargent 293:24 **satisfy** 117:24 **save** 186:16 221:15 295:13 297:24 298:24 303:19 saved 252:5,14 **savings** 171:8 172:4 252:9,10 **sc-** 115:10 **scale** 44:5 scenario 58:10 171:19 209:13 211:16 330:14 scenarios 122:2 208:14 209:11,16 277:10 351:15,17 schedule 9:11 73:16 79:19,23 86:15,16,25 87:17 106:19 192:12 274:20,24 278:14

279:5 334:7

scheduled 50:2 169:8

schedules 79:8 274:19

school 120:18

scope 65:6 226:3

SCR 127:5 137:13

scr- 125:3

scrap 139:18 172:19

scrapping 139:25 172:16

scratch 311:24

scrub 96:1 185:25 197:5 269:19 270:1,2 276:20,23 289:17,21 308:21 310:9

scrubbed 114:22, 23 186:8 204:4 242:14 268:25

scrubber 38:14 86:20 131:10 136:10 162:10,12 197:23 198:8 214:25 240:21 246:15,21 247:4 249:20 250:11 260:3 262:2,4 272:22 273:24 274:15 275:4,13 279:21 289:2.11 292:19 293:11 294:5 297:10 302:14 303:14 304:20,23 309:18 310:16,25 311:13 316:21 319:20 321:8

scrubbers 23:10 96:12 114:6.16 115:11,22 122:15 123:10,13 124:1 125:3 127:9 131:5,21 133:7 158:23 162:23 183:8,14,15 184:1,24,25 185:3,10,13 186:19 188:3 210:20 213:10 227:9,17,25 228:20,21 237:17 242:9,25 243:18 246:3,10 247:21 248:19,23 249:5,9 250:6,16,21 251:3,7,21 252:3, 4,11 260:22 261:18,19 262:1 263:17,18 264:3, 9,11,20 270:19,



23,24 275:23	S
276:16 278:7 279:11,15 281:11,	S
13,21 282:6	S
293:16,25 296:15	S
297:13,14,17 298:1 299:11	
305:25 306:9	S
307:5,24 316:1,8, 13 320:6	S
scrubbing 189:18 269:5,7 309:16	
310:12 searching 14:6	
season 164:3	
179:23 181:13	
191:21 265:18 266:9	
seasonal 164:1,22 176:16,17 187:3 191:14 192:1,5,6 195:15 207:15,20 209:23 254:21 265:12 266:1	
339:5	S
seasonally 266:8	
seasons 164:12 165:4 193:16	
seated 7:4 53:18 70:19 144:25 153:25 231:19 272:24 318:3	
Seaver 89:15,19 144:21,22 145:1,5 149:3 151:6 153:12 215:3 232:24 233:15,17 234:4,13,19 239:10 240:8 356:22 357:17	s
360:7	S
Seaver's 215:15	S

Seavers' 294:3

Evidenti
sec- 235:5
seconds 137:23
secret 40:4
section 15:25 31:21 54:13 92:1
sections 92:22
securitization 54:13 62:11 85:17 88:5 95:16 113:23 182:18 201:21,24 205:5 215:8 235:4,6,18 237:20,21 272:6 286:6,15 287:20 288:6 296:1 297:2,5 299:4 303:8 304:4 312:15 313:6 314:9 320:15,18 322:13 323:11 324:13 326:3,10, 25 330:15 331:7 354:20
securitize 96:15, 22 97:4 114:14 121:1,9 122:10 139:12 172:15 175:5 201:18 208:9 210:22 213:11 235:8,10 236:3,6 239:22 243:12 286:24 295:22 316:24
securitized 3:10 60:8 89:6 94:10 208:5 210:11 217:12 240:18 244:1 286:4 313:19,25 348:19 352:23 353:1
securitizes 216:10
securitizing 166:7 286:15 298:2

323:8
seek 20:20 22:1 24:15 28:13 33:17,23 89:11 189:22 337:22 340:13
seeking 22:7 62:10 89:24 205:24 235:21 300:13
seeks 201:18 239:21
segment 128:15
selecting 190:10
selective 96:3 115:22
send 27:1 49:2
sense 29:13 137:6 189:15
sentence 25:8 51:15 146:15 148:9,11
separate 86:21 127:12 140:7 204:11 253:23,24 254:8 278:10 292:23 342:16 348:21 350:2 354:17
separated 11:8 91:17,18
separately 103:6
separating 353:14
separation 297:21
September 91:21 169:13 193:2
sequestration 118:2
sequitur 92:1

series 30:22
serve 197:3,12
service 27:1 251:6 324:6 356:10 357:8 358:9,19
Services 31:11
servicing 331:24
serving 267:21
session 343:6
set 3:6 14:17 201:1 241:18
sets 37:3
setting 297:1
settlement 215:11
settlements 37:25
seven's 267:13
severe 166:21
shade 134:17
share 249:1,2
Shaw 242:6 245:23 247:9 271:8 306:5 311:2,11,12
Shaw's 247:1
Shawn 229:17 230:1,6 357:13 359:18,19
she'd 83:24
shop 36:6 37:3,9
shops 35:21
short 60:19 62:5 121:2 137:8,11 166:4,9,15 168:4 207:7 229:20 232:23 234:18 266:11 330:14
short-term 60:19 167:16 209:18



	Evidentiai	ry Hearing April 16	o, 2024Index: shortagesor
211:11 352:4	118:11 120:13,14	SIP 12:20,21 14:22	slash 172:5
shortage 193:11	121:18 132:3 141:5 168:23	15:9 16:21 21:24 30:10 31:15,17,20	slew 101:15
196:2	324:16	32:2,4,8 45:22	slide 135:16
shortages 196:9	sides 37:1	46:3 47:10,12	slight 86:23
shortcomings 263:8	Sierra 5:1	48:16,17 97:25 99:17 359:24	slightly 87:21 186:17 334:8
shortcut 224:22	signal 49:2 299:21	SIP-TYPE 20:12	small 117:1 139:1
shorten 247:19	signed 191:12	Sippel 30:14 32:10	140:21 172:1
shorter 108:20	significant 71:17 171:11 306:6	34:4 44:17 91:18 203:10	196:9 238:12
322:15 323:1,2		Sippel's 16:20	smaller 14:17 140:5 334:8
329:2 330:21 331:15,17	significantly 163:14 270:18	17:9,12 29:17	
shortfall 193:17	similar 34:8 87:2	30:3	Snell 294:4
211:10,11 224:23	129:12 132:7	sir 7:9 19:25 50:25	SO2 81:17 113:15
225:1 254:16	150:10 172:19	71:12 76:11 78:8	119:17 124:3 125:3 129:8 264:1
258:1 339:6	248:15 249:4	79:24 81:19 84:14 85:12 87:9 97:20	269:2,10 307:15
shortfalls 62:4	263:2,3,13 274:24	130:15 133:24	308:18,19
166:18 182:8,16	283:22 306:17 310:7 338:17,22,	151:7,15 264:12	social 205:3
shorthand 28:15 81:17	25 340:16 348:13	302:12	societal 113:17
shortly 138:5	simple-cycle 167:2 237:2	sister 261:23,25 262:10,14 263:5	society 116:5
show 35:25 244:2	simply 51:15	310:1	solar 69:19
showed 75:14	152:24 162:7	sit 100:1 128:8	140:21,25 141:1 146:19 147:15,16
106:3 193:14,15	185:3 232:22	229:24	162:4 173:22
196:6	single 112:18	site 138:17 140:17	174:1,22,23
showing 27:5	211:8 275:17,19	142:13,22 144:5	214:15,21 215:8,
42:14 179:21	singular 334:8	172:22,25 173:2 246:9 248:21	12 236:3,23 237:12 239:11,13,
shown 25:24	Sioux 116:11		23 265:22
133:20 187:16	122:21 123:10,25	site-specific 242:8 243:23	solars 237:25
shows 196:5	124:1,4,9,14,16,	sites 138:17,21	sold 138:13,23
312:22	23 125:11,22 127:17 128:3,6	142:11 167:5,6	139:19,20 140:11
shut 137:8 354:22	142:12 246:14	situation 308:25	sole 86:16
shutter 121:8	248:8 259:19 260:3,10 261:18,	316:17	solely 71:23 153:3
Sibley 117:4	22 262:2 263:14,	sixes 267:11	294:24
137:13	17,19,21,25 264:4	size 124:7 168:21	solid 165:1
sic 233:13	268:25 281:12,16, 21 282:6,9,12,19,	169:4	sort 5:8,16 78:16
sick 328:5	21 262.6,9,12,19,	sizes 179:7	117:16 183:22
side 115:6,25 116:4,7,13 117:18		skip 80:22 81:6,14	184:9 185:18 190:20 195:10



	Lvideritiai	y riearing April	10, 2024iildex. 30dgiii3taii
197:12 206:14	specific 15:25	278:16	287:10 291:2,19
213:11 239:12	17:18 41:19 60:12	splitting 87:22	298:9 299:5,16
241:18 310:19	72:2 112:15		312:4 318:25
311:2 341:25	118:17 126:25	spoke 22:17 94:11	334:24,25 335:1
sought 20:21,22	128:5 152:9	spotless 41:8	338:12 341:21
22:23 200:19	159:21 167:22	spots 105:22	342:13 348:5,8,11
201:20 223:23	169:16 246:9,11	-	349:18 350:7
328:11	247:11 322:11 326:17 335:25	spread 120:25	353:22 354:5 356:10 357:8
sound 59:23	337:17	329:10,13	358:8,19 359:13
206:16		squeeze 105:10	·
	specifically 25:3	112:12,18,25	Staff's 11:17,24
sounded 212:22	58:22 120:8	129:16 135:9	39:4 60:3 61:8,14
sounds 180:20	150:12,18 152:4	136:15,19	68:16 89:8 90:1
source 6:17 20:14	163:12 179:12	squeezing 112:7	93:24 94:3 96:17,
24:15 35:9 39:7	185:3 187:22	113:18 122:22	22 98:5 199:3
43:25 46:22 80:25	220:10 248:10,13 348:16	128:17 134:5,9	207:12 212:1 215:10 225:7
89:11 100:5 125:6	340.10	137:1	240:19 291:17
129:3,6,20 138:20	specifications	SSR 169:14 170:9	295:7 337:17
150:15 174:14	92:19,21 249:16	177:24 208:16,21,	338:16 340:6
187:19 340:14	specifics 179:5	25 209:18 351:23	341:10 348:6
sources 43:24	289:10		349:7
100:3	specifies 190:8	St 69:13	
South 139:2	-	Staff 4:5,7 8:20	stage 241:19
	specs 247:11	11:8 12:6,8 15:3	stand 5:15 6:25
Southern 24:3,11	speculate 289:13	19:16 25:3 32:16	49:3 53:14 70:13
SOX 123:23	speculates 243:24	39:1 52:16 53:12, 13 60:6,10,12,16	89:10 94:12 99:10
span 137:17	_	61:19 62:16,17	128:7 153:22 199:5 229:18
_	speculative 324:25	63:8 65:7 68:25	231:17 233:15
spares 249:3		70:10,12,20 87:14	240:23 272:18
speak 9:13 35:14	spell 53:22 230:4	89:21 90:2 100:8	291:20 318:1
56:16 58:24 90:5,	231:23	113:3,10 133:25	335:2
22 102:22 111:15	spells 266:20	144:10 149:11	standard 28:1,20
121:3 167:22	spend 38:8 114:6	152:2 155:1 158:5	33:11 75:18 78:1
169:7 215:15	121:7 135:21	175:23 182:1,5,25	196:20
267:3 311:4 341:19 353:21	175:7 188:1	199:4 205:21	
	204:21 306:6	208:23 211:23	standard's 29:7
speaking 3:18	spending 114:15	213:16,17 219:3, 7,10 220:12	standards 13:18
12:14 45:17	125:2 184:24	229:15,17,25	27:3,7 40:17
308:21	185:13	231:14,16 234:6	114:9
0.000 0.46,40		· ·	standpoint 49:1
spec 246:18	spent 56:2 164:15	237:9 238:15	-
248:17	spent 56:2 164:15 255:23	243:24 245:8	218:18 241:3
•	255:23		-
248:17	255:23 split 64:3 72:18	243:24 245:8 259:12 271:4 273:5,23 274:16	218:18 241:3
248:17 special 119:5	255:23	243:24 245:8 259:12 271:4	218:18 241:3 327:6



	Lviderilla	Ty Healing April 10, 2024	findex. StartedSubstantially
256:3 330:4,10	338:3	303:20 307:11	320:3
334:16	states 40:21 89:19	storage 173:2,3,	study 163:19,20
started 37:15	106:2 110:11,15,	14,17,21,24 174:6	171:10,22 240:21
67:12 126:17	16 138:11 254:23	stored 174:21	245:20 246:25
146:15 246:25	stating 291:7		247:8,9,15 248:9,
252:18 255:22		Storm 134:25	10 249:7,11
265:3,19 267:21	station 150:9	181:14 266:16	250:6,17 251:5
283:12	stationary 80:25	storms 120:21	252:12 260:1,9,22
starter 249:12	status 122:16,19	street 246:19	261:4,19 264:9,11 275:4,13,15,18,
starters 278:5	statute 28:1 33:24	247:7	19,22 276:1,14,
	54:13 161:9	stretch 168:8	19,25 277:3
starting 3:22 54:12 92:12	182:19 205:5		278:6,9 279:8
145:21 183:8	312:15 348:15	stricken 148:4	283:8 289:11
193:11 240:14		strict 27:14 28:1,	290:14 291:5,8
256:16 264:20	statutory 327:6	15,20 33:11,14	293:13 294:10
280:24 311:24	stay 220:19	107:14	302:14 304:20,23
starts 256:5	stays 195:10	strike 222:18,20	305:5,12,14,20,
	steam 58:8 81:1	289:19 335:13,22,	21,22 306:2,17
state 7:9 13:11		24 336:21	314:24 315:3,17, 22 316:5,9,21
20:8 21:24 22:19 31:22,25 32:6,9	step 36:5 49:13 53:5 63:14 70:2	stringent 242:17	319:20 321:8
46:3,5 50:25	153:12 198:24	striving 117:25	326:12
53:22 57:20 58:2			
16 81:9,11 99:24	· 1	strong 48:4	studying 109:22
110:11,14,16	277:17 284:18	struck 69:14	stuff 229:5 257:22
114:20 115:2,7	291:16 317:22	studies 86:20	351:4
116:1,4,7,13,17	334:2 342:25	121:11 241:15	subcritical 132:7
117:18 118:8,11	354:24	242:8,10 245:24	subject 20:2 49:4
22 120:13,14	stepped 35:24	247:5 248:4	335:21 336:19
121:19 132:15 138:10 148:6	Steve 9:6,18 67:2	249:21 251:19	subjects 254:9
152:3 167:19	, i	252:1,18 259:16	_
226:1 227:21	stick 12:3	265:1,3 271:8 272:22 273:24	submitted 26:14 59:1
230:4 231:23	sticking 284:16	274:16 279:13	
361:4	sticky 352:16	280:15 281:16	subsequent
stated 31:24	stinking 129:16	283:4 290:16,17	164:15 255:2
statement 82:16		293:10 294:21	Subsequently
84:1 100:22 102:	Oupaiation	295:8,13,16,20	31:2
133:23 182:3	1 10.10,20	296:1 297:10	substa- 332:11
235:24 298:4	stirred 134:4	303:15 305:17,21, 23 306:7,18	substantial
338:1,7,12,19	stood 38:10	'	306:14
I	31000 30.10	307;3.9.25 308;b.	
357:20	stop 79:15 242:24	307:3,9,25 308:6, 8 309:17 310:13,	substantially
I	stop 79:15 242:24	1 ' '	substantially 305:24
357:20	stop 79:15 242:24 303:23	8 309:17 310:13,	
357:20 statements 66:1	stop 79:15 242:24	8 309:17 310:13, 16 311:11,17	



Evidentiary Hearing April 16, 2024Index: substantivetalking			
substantive 153:5	267:6,9	suspect 94:18	takeaway 84:2
substation 141:1	super 42:2	95:4 122:20	takes 143:2
	•	129:21	224:17
substations 140:19	supersedes 31:21,24	sustain 41:3	taking 191:8
	,	228:25	229:20 258:12
subtract 237:16,	suppliers 127:21	sustained 332:20	262:5 274:4 290:7
19	supply 265:14	swear 70:16	319:22 322:12
sued 41:5	support 89:21	244:10	332:21
sufficient 81:8	169:14,15 224:2		talk 21:19 73:22
131:2,19 265:9	226:19 353:21,22	switch 105:5	86:5 126:4 127:16
suggest 90:20	supported 193:13	111:6	141:4 161:17
187:7 192:16		switched 269:15	163:11,15 166:5
196:2	supportive 113:5,	270:11	172:9 173:1
	11	sworn 7:1,2,6	181:24 200:9
suggested 253:18	supports 158:1	50:12,13,22	207:14 214:14,18
suggesting 84:14	suppose 28:7,11	53:16,17,19 70:18	215:1 222:2 303:5
193:9 196:25	142:6 316:22	71:8 144:23,24	308:10 320:11
319:19,20	317:3 342:15	145:1 153:21,23	talked 21:2 35:7
suggests 166:24	348:14	154:2 199:18	39:6 59:5 66:10
207:7	supposed 43:25	229:22,23 230:1	68:2,23 69:18
suit 32:2 34:2		231:18,20 234:13	74:22 117:17
	Supreme 48:7,9	244:11 245:15	128:22 130:15
suited 348:10	sur 215:17	272:23 273:17	131:7 175:1
sulfur 75:14,19	sur-surrebuttal	277:23 285:2 292:15 318:2,4	178:11 196:13,24
81:18 105:5 124:3	154:9	337:11 361:6	202:25 209:10
130:16 131:2,9,			223:20,22 225:4 267:17 271:4,19
10,16,19 133:14	surprised 4:23 294:15 306:4	system 12:4 24:11	295:1 338:21
185:8 242:21		123:18 164:10 169:14 187:8	341:22 349:21
243:5 249:16 263:24 264:7	surrebuttal 7:13,	255:12 256:7	351:15
270:11	19 8:10 30:7 51:4,	257:15 264:4,6	talking 24:2 26:47
_	10 52:6 54:5	289:2 293:11	talking 21:3 26:17 36:19 47:2 76:10
summarizes	86:17 87:4,8 154:7 158:3		123:24,25 124:13
165:18	159:1,8 163:9	system-wide 37:25 269:2	126:24 134:16
summarizing	165:9 196:4,6	37.25 209.2	139:3 143:14
182:1 258:1	214:14,19 230:11		161:22 173:12
summary 9:18	244:19,23 274:20	T	176:2 178:25
16:20 17:9,15	293:20 335:9	T FIDED 000:04	192:7 211:2 218:1
47:8,12 101:14	336:18 352:9	T-FIRED 262:21, 24	219:1 220:16
181:25 238:22	359:5,9,12,16,19		224:16,17 258:18
summer 155:5	surround 23:10	table 158:2 165:5,	262:12 265:7
163:19,23 179:24		10,11,16,18	267:12 275:4,17
180:1,18 188:15,	survey 42:13	193:13 309:16	278:5 285:10
21 255:8 257:9	survive 131:24	tail 36:22 150:9	289:12 291:6,7 301:6 307:2 309:3
265:25 266:4	132:5		301.0 301.2 308.3
	1	1	I .



352:3 353:7,12
tangential 262:21
tangential-fired 248:21
targets 269:2
tariff 3:10 240:18
task 354:12
Tatro 125:17
tax 285:4,21 300:24 301:2,7,8, 10,18
taxable 285:14,20
taxes 181:17 285:13 288:9
Taylor 3:19 334:11 361:3,17
technical 160:15 325:7 332:11,17, 22,25 333:3
technically 218:5
technology 129:8, 22 130:1 162:10 249:18,20
television 33:5
telling 190:22 196:17
temperature 169:20
temporarily 134:23
ten 87:24 257:6 294:21 307:12 314:7 334:15
tender 8:18 52:14 55:8 70:21,24 149:8 154:23 199:10 232:19 273:2 291:24

Evidentia
tenders 245:5
Tennessee 29:23 40:23,24 41:20, 21,25 43:1,2 44:3
tens 169:4
term 23:11 28:10 60:20 62:5,8 69:7 135:25 168:4 262:14 308:12 310:1 311:4 321:17 331:15,18
terms 22:12 118:24 142:4 164:10 171:4 174:4 189:12 197:1 294:8 300:20 301:1 307:4 330:12
tes- 107:18
test 48:22 78:10 82:10,12 96:8 105:15,17 107:1, 2,6,9,13 200:24 244:5
testified 7:6 50:22 53:19 71:8 78:19 79:2 106:11 145:1 154:2 199:19 230:1 231:20 234:13 245:15 252:24 273:17 277:24 285:2 292:15 318:4 337:12
testify 97:1 151:21 318:21
testifying 105:25 106:1,6 305:8 348:3
testimonies 185:22 244:19
testimony 7:13, 16,19 8:8,10 9:3,

· · · · · · · · · · · · · · · · · · ·
11 12:20 25:15
27:11 30:8 31:8
40:4 49:12 51:4,
10 52:5,6 54:2,5,
9,10 56:3,12,14
64:5,11,12,13
65:25 67:3 70:23
71:24 72:9 73:10,
16,20,21 74:23
79:2,20 86:3,17
87:4 90:5 93:10
95:2,6 96:7 99:4,
11 102:1,5 103:9,
14 104:10,12,13
108:12 109:2,9,22
111:3 115:1 120:8
121:5 122:1
100.15 100.4
128:15 130:4
135:15 145:10,15
147:21 148:23
140.2 14 22
149:3,14,23
150:4,5 151:16
152:24 154:6,8,9,
12,15 158:3
159:1,9 160:13,17
161:12,16,20
163:10,14 165:9,
15 175:3 181:24
193:13 196:4,6
200:1,10 202:3,14
200.1,10 202.3,14
203:14 205:20
208:3,13 209:7,8
214:14,19 215:5
•
221:14 222:2,5,9
• •
226:17 230:9,10,
11,14 232:3,4,8
233:21 235:3,7,23
238:1 239:12
244:15,22,23
246:23 253:6
273:1,23 274:21
276:18 282:5
284:21 287:5
288:17 292:2,22
294:3 297:19
298:6 302:17,21
305:13 307:23

315:20,22 317:14 318:14,17,18,22 324:19 335:8,9 336:11,19 338:20, 21 342:15 349:12, 17,25 350:1 352:8,12 353:9, 14,21,22 359:3,5, 6,8,9,11,12,15,16, 18,19 360:7 361:5,6 testimony's 229:11 234:3

testing 66:18,22 105:20 124:8 136:20 137:2

themself 74:9

theory 40:2,5

thereof 27:8

thereto 361:13

thicker 13:16

thing 20:21,23 24:19 29:9 38:12 49:3 68:7 105:8 120:23 167:7 257:19 258:16 295:2 340:22

things 9:5 18:25 20:6 30:19 31:2 32:7,8 36:19 37:8 42:24 44:25 45:12 66:8 72:24 74:22 93:9 101:5 162:2 165:7 168:2,8,17 169:18 181:14 184:13 187:3 190:17 204:25 205:6 212:12 218:22,23 237:3 246:7,15 248:5,13 249:17 254:25 255:7,14,16 258:12,19 260:5,



318:22 337:2

6,7 262:7 263:3,7, 11 266:5 267:4 269:10 299:24
thinking 132:11 165:11 192:20 353:12
thinks 96:17 349:18
third-party 293:5
tho- 308:5
Thorpe 361:3,17
thought 17:2 24:19 33:4 38:2, 11 39:16 92:25 105:15 112:6 128:16 161:4 165:15 180:5 215:17 234:1 253:7,10 259:18, 19 300:4 302:13 317:4
thousand 195:11 236:12 306:11,12
thr- 338:15
three-part 48:22 359:21
threshold 166:14, 18 177:12,14 196:12,16
thresholds 177:8
threw 351:16
throttle 134:14
thrown 206:1
tie 152:24
tied 142:9 322:5 342:10
tight 246:6
till 198:1
time 3:3,6,17,21

Evidentiar
5:5,23 8:5,18 9:15 11:6 15:3 16:10, 15 18:7 19:12 21:17 22:7 24:3 25:7 26:8 30:13, 15 31:12 32:1,10 34:3 44:11,18,22 45:15 46:8 47:13 49:19 52:1,13 56:2 57:21 58:2 59:6,12 61:15 62:20 66:6,12 67:2,5 68:14 71:4, 18 74:18 77:4 79:10 81:16 83:16,20,21 85:4 89:8,25 92:10 95:1,13 97:21 99:17,21 104:20 105:16 110:23 115:20 116:24 119:6,8 120:16 121:10,14,15,17, 25 122:4 123:14, 16,20 125:5 126:2,15,23 127:3,11,13,15, 20,23 131:1 133:6,12 136:22 144:13 148:6
79:10 81:16 83:16,20,21 85:4 89:8,25 92:10
99:17,21 104:20 105:16 110:23 115:20 116:24
121:10,14,15,17, 25 122:4 123:14,
126:2,15,23 127:3,11,13,15, 20,23 131:1
-
158:5 159:11,21, 25 160:2 161:8,18 162:20 163:6 164:14,15 166:10,
20 173:12 174:19, 22,23 182:3 188:18 190:1
191:6 192:10 193:1,2,8 206:24 209:6 212:15 221:8,15,19
224:17 225:2 227:15,22 230:23 236:10,13 242:5, 13 243:3,4 244:14

Hearing April 16, 20	24I
245:12 246:5 247:19,20,21 252:5,9,14 255:23 260:1 265:4 267:16 270:11 271:25 273:2 277:17 279:15 283:16 284:3 287:13 289:6 292:1,5 293:25 294:5 295:2,5,9, 13 304:8 305:3,24 307:8,9,11 308:24 309:7,14,20 311:20 317:7 318:19,22 321:19 323:1,15,17 324:3 325:10 329:5 330:19,22 331:24 334:13,22 343:5 351:2	to to to to
timeline 294:5,8	t
timelines 224:12 times 23:6 25:14 82:25 83:3 179:15 267:12 332:20	t
timing 190:16 307:3 337:18 341:1 350:12,18	t
title 12:13 81:2 157:18	t
title's 88:14	t
today 3:2,16 4:18,	t
23 7:25 51:20 53:4 54:24 55:4	T t
71:12 121:5	t
145:15 147:22 148:24 149:20	T
154:15,16 162:19 173:13 199:22	t
202:18 230:20	t
232:15 239:12,14 252:23 254:10 263:23 276:18	t
I I	

310:10 315:22 318:18 319:12,22 339:9 349:22 350:21 oday's 3:15 4:16 26:25 161:2 old 37:5 40:25 41:8 98:25 99:7 205:7 comorrow 355:3 omorrow's 334:7 ons 75:15,20 **cool** 238:25 312:19 op 13:25 14:18 80:7 81:24 171:21 281:24 320:16 322:17 323:19 324:13 328:18,24 332:24 opic 44:12 otal 179:5,8,21 180:11 227:6 257:15 279:14 290:9 314:8 321:8 330:8,9,13 331:12 otality 94:7 98:8, 12 107:10,21 otally 215:7,19 otals 274:22 owers 115:24 **Toxics** 242:12 track 209:2 226:21 tracking 148:8 **Tracy** 361:3,17 rain 92:25 rajectory 117:20 ranscript 18:17 19:6 26:13,25 68:24 69:15 206:7



207:2 360:2 203:2 230:17 162:21 252:25 249:25 255:23 232:11 297:17 254:3,6,13 258:10 261:17 276:19 transcripts 66:5 307:8 308:1 259:17 260:23 283:14 286:8 transition 3:11 282:25 283:18,21 307:4 321:15 true-up 200:24 88:9,21,24 116:6 297:7 330:7 322:3 329:9 173:13 199:25 truth 29:21 331:10 337:14,15, ultimate 48:19 201:17 286:18,25 16 342:1,4 349:23 tubes 39:21 43:19 ultimately 77:7 354:10,18 translated 252:10 **tubing** 44:5 110:20,21 165:20 understanding transmission 212:16 246:17 turbine 129:10,15 18:20 34:10 44:22 60:20 62:1,7,10 269:17 303:19 130:8 134:14 56:4,19 57:2,11 142:14 200:12.16 304:2 136:3 139:1,4 61:18 63:22 201:13 209:16 140:6 167:2 ultra 269:12 271:1, 66:21,23 67:1,7 210:3 220:17,22 5 308:20 turn 15:20 79:22 81:22 83:9,12,20, 221:11,22 222:6 21 89:8 98:24 156:9 274:19 225:23 339:8 ultra-low 242:21 99:4 109:23 349:15 351:11 243:5 turned 137:12 110:3,8 131:6 352:3,20,23 242:16 309:17 **un-** 219:20 151:18 168:9 Transport 242:11 turns 250:15 176:20 182:18 **unable** 308:17 travesty 48:5 49:7 193:2 198:10 **TVA** 42:11 43:3,22 uncertain 28:14 205:11 206:5,7,12 91:1 TVA's 42:16 uncertainties 207:20 221:24 treat 228:6 296:17 222:2 224:11 275:21 two-step 210:17 treated 34:7 48:1 321:19 333:23,24 uncertainty tying 341:5 88:3 338:11 340:2 221:21 222:8,9 type 131:14 353:2,4 treatment 88:1 unchanged 33:17 138:14 142:19 119:5 190:19 understands 225:2 262:1,2 unclear 217:7 191:7 241:9 325:23 **unclose** 227:20 tremendous understood 42:25 types 162:4 248:5 277:11 56:5,6 82:5 161:5 undecided 94:1 283:23 293:4 199:8 207:15 trial 82:7,20 91:22 314:23 undepreciated 216:19 233:18 95:9 107:16 219:20 typewriting 361:8 242:13 333:10 tricky 13:2 under- 283:14 335:5 typical 20:20 trigger 97:19,25 undergo 20:4 undertaken typically 21:23 99:23 106:4 171:2 108:24 243:21 22:1 underlying 18:25 177:14 324:22 underway 260:10 triggers 169:17,20 U understand 58:1,6 undis- 243:19 177:8 75:11,18 77:25 undisputed 80:4 **trouble** 90:18 **U-A-R-G** 150:16 80:13 86:9 93:25 243:19,22 94:3 100:3 101:19 true 8:2 14:2 51:23 **UARG** 150:16,20, unfair 298:3 102:24 180:11 54:20 55:20 74:13 24 152:8 196:15 212:9,20 95:1 101:21 unfeasible 142:4 uh-huh 16:19 21:7 214:24 215:19 151:15 154:18 23:12 102:8 unfortunate 228:14 235:9 184:21 197:8,10



137:10,13
unhappy 37:9
Union 3:8 270:11
unique 119:5
312:22
unit 31:12 40:6 42:4 46:23 58:3 66:25 67:7,9,11 81:1 92:18,19 105:11 112:16 113:1 117:9 118:23,24,25 119:18 121:16 122:24 124:18 129:17 134:17,18, 21,23 135:2,5 136:1,7,16 137:8, 12,17,18 138:5 141:15,24 142:2, 9,21 143:6,12,16 144:6 162:6 164:11 165:1,24 178:16 179:2 191:17 192:22 193:4 256:20 263:2,19 282:9, 10,17 299:12 300:13 304:7
United 89:16,19 106:2 254:23
units 37:24 39:24 41:2 42:9 80:24 105:8 115:7,21 116:22 118:4,17, 19 120:19 124:1, 4,5,7,9,14 128:7 131:4,15,22 132:7,12,17 135:22 138:7 140:3,5 142:9 158:23 162:7 164:5,6,12 167:2 169:19 170:7 178:11,18,25 179:7,14,17 188:9

Evidenti
242:14 248:21,24 260:14,17 262:19, 24 263:4,6 264:21 266:5 269:5,7,16, 19 276:21 289:2 307:15 309:25
universal 40:6
universe 186:4
unknown 118:2
unlawful 48:24
unlike 248:3
unqualified 104:3
unreasonable 28:13 29:3 33:23 83:9,11 97:18,23 98:2 107:22 109:6 120:15 218:24 219:4
unrelated 29:13
unring 147:6
unusual 66:14 103:17
upcoming 236:3
update 164:18 257:12 309:11 311:17,22
updated 164:21, 25 294:12,23
updates 87:3
upgrade 199:25 200:12 222:6
upgrades 62:1 116:12 121:7 175:8 220:17 349:15
upwards 186:16
UR 150:20
Uri 134:25 255:7 266:16

Hearing April 16, 20	24Index: unhappyviolate	
USC 92:1	variables 309:9,12	
usefulness 244:3	variety 26:12	
271:23	variously 6:11	
utilities 20:20 40:21 48:8,15	vary 265:19	
106:13 111:9	vast 114:23	
112:17 114:20	Veatch 242:6	
115:2,4 117:1 128:22 129:1,24	245:23 247:8 250:17 251:19	
131:25 132:6,15	271:8 306:5	
204:20 255:17	311:2,10,12	
265:6 267:14	versed 214:4	
utility 3:10 35:15 40:6 41:22 42:11	version 8:10 16:17	
71:16 100:13,17	145:22 154:7	
112:22 113:2	354:5	
136:18,24 151:22 168:22 189:22	versions 146:4	
225:12 240:18	versus 114:15 127:10 161:22	
266:10 293:23 305:12 307:4	162:23 170:2	
312:17,18 318:12	184:25 185:19	
333:10 350:24	187:17 189:18 191:4 192:3,8	
utility's 265:9	195:17 196:25	
utilize 308:6	217:13 219:4 221:16 223:15	
utilized 270:16	225:13 227:7	
	275:24 280:21	
V	282:6 314:24 330:15 354:3	
valid 353:23	view 41:15 47:25	
Valley 41:21,25	48:25 137:14	
43:1	202:15 253:15	
valuable 312:19	286:20 293:16 294:6 298:21	
values 156:23	300:15	
158:2 191:18 202:14 208:2	viewed 45:11	
222:8	111:11 238:19	
valuing 162:19	vintage 116:8	
valves 134:14	118:18 124:9 141:24	
variability 266:5	violated 12:13	
	07.40.00.04.44.0	



27:18 28:21 41:9

91:25

variable 191:8

	Evidentia	ry Hearing April 16,	2024Index: violatingwritter
violating 151:17	Webex 6:2 50:18	63:10 71:3 97:7	350:21 361:6
violation 27:14	59:20	123:6,8 141:11,12	Wolf 112:25
71:16 81:21	week 236:20,23,24	144:20 145:3	
100:14,18,20		147:3,19 149:1,8	wondering 168:23
113:14 130:11	week-long 107:17	153:10 158:19,20	word 25:7 43:18
	weighed 64:22	159:23 160:4	48:20 51:13,14
violations 28:6	weighing 185:7	178:8,9 183:3,4	69:9 91:1 146:12
35:11 81:9		188:7 199:13	148:15 261:23
virtually 253:2	weight 29:17	216:1 231:6	332:21
290:18	47:22	233:4,14,19 234:1	worded 227:23
visible 111:8,9	weighted 161:1	235:12 240:6	
	288:8 313:2	245:12 261:12,13 268:24 271:7	wording 47:17,21
visualize 238:25	WEPCO 39:18	273:9 281:8,9	words 21:5 36:1
voice 50:17 59:20	149:22	287:13 291:12	40:8 49:7 66:5
Volume 14:18		292:5 306:21	work 102:8 103:24
343:7	west 116:19,21	309:25 317:25	155:19,21,22
	117:1 168:22	318:6,20 330:2,3	156:1 157:5
W	267:2	332:10 333:2,7,8	158:1,6 167:11,14
	Westar 130:6	337:6 349:1	176:12 215:2
waited 198:16	132:14,17,22	356:5,7,18,20,23	224:12 238:20,23
	western 105:5	357:3,5,6,24	247:3 252:21
waive 4:17	118:7,11 120:13,	358:4,14,17	261:18 278:19
walk 235:25	14 121:18 130:6	Williams' 183:23	285:9 288:19
walls 262:22	132:3	332:21	289:7,8 290:9,14,
	wet 124:1 249:20	wineing 200,22	16 293:2,6 296:25
wanted 12:1 37:23 46:10 50:4,5	262:3	wincing 288:22	301:1 306:15 311:22 317:11
79:18 86:11 89:16	whatnot 70:23	wind 162:4 173:22	324:1 326:14
150:1 241:2 254:1	111:5,6	174:1,15 236:4,	348:14 354:14
278:14 280:20		12,22 237:13	360:3
wanting 134:25	wheels 282:15	winter 120:21	workable 38:16
321:16	Whew 36:3	134:25 164:7	
	whichever 13:7	166:2 167:3	worked 248:16
warm 199:23,24	Whitworth 9:6,18	179:12 180:14	255:22
200:5	31:6 57:16 67:2	181:13,14 188:9, 17,20 225:1 255:6	works 331:20
warm-up 304:7	78:19 79:1 150:23	265:21 267:5,10,	world 38:13,15,16
water 88:1 96:5		13	46:17 108:6 142:6
115:24 138:21	Whitworth's 79:2	witnesses 4:18	worry 256:3
140:19 142:15	wholly 143:22	5:15 6:14,19 23:7	
315:6,10,11	wide 238:7	24:13 49:18 53:9	worth 107:25
ways 248:4 275:22	Williams 4:11,14	56:4 64:5,13,15	write 302:1
276:14	10:17 14:10	66:4 90:3 95:7	writing 150:4
wear 200:6	19:21,23 22:4	148:15 149:15	214:4
	34:21 35:4,5	223:22 240:23	written 81:23
weather 166:21	38:20 52:21 55:13	241:4 334:21,24	213:17 300:10,12
			213.17 300.10,12

	Evidentiary
301:4,5,11 318:13 353:16 wrong 32:3 38:3 47:17,21 49:2,6 78:24 96:19 98:2 107:18 123:15 124:12 127:8 140:23 216:23 325:8 340:15 342:3	yesterday 6:13 9:6 31:6,14 49:17 57:15 70:17 149:15 150:23 217:7 244:9 Z zone 238:10
Υ	
Ye- 114:1	
year 75:15,20 156:6,21 160:25 162:18 163:19 164:5,23,25 169:1,11 170:7,8 267:23 299:7 304:1 329:11	
year's 133:16 161:3	
years 30:23 37:1 40:10 48:23 109:23 121:16 126:1 127:14 139:23 156:16 161:1 166:5 169:2,24 170:4 173:20 175:9 184:22 191:3 196:10 197:25 198:17 211:12 219:15 220:7 242:15 247:2 252:19 255:5 256:2 267:5 279:4 288:1 294:21 298:2 307:12 316:5 321:17 322:20,21 324:14, 18,19 329:14,16, 17,18 331:7,10	

339:25 351:22

