

1 POLLUTION CONTROL BOARD
2 November 29, 2006
3 IN THE MATTER OF:)
4)
5 PROPOSED NEW CAIR SO2, CAIR NOx) R06-26
6 ANNUAL AND CAIR NOx OZONE SEASON) (Rulemaking - Air)
7 TRADING PROGRAMS, 35 ILL. ADM.)
8 CODE 225, CONTROL OF EMISSIONS)
9 FROM LARGE COMBUSTION SOURCES,)
10 SUBPARTS A,C,D and E.)

11

12 TRANSCRIPT OF PROCEEDINGS held in the
13 above-entitled cause before Hearing Officer John
14 Knittle, called by the Illinois Pollution Control
15 Board, pursuant to notice, taken before Sharon
16 Berkery, CSR, a notary public within and for the
17 County of Cook and State of Illinois, at the James
18 R. Thompson Center, 100 West Randolph Street, Room
19 2-025, Chicago, Illinois, on the 29th day of
20 November, A.D., 2006, commencing at 9:00 a.m.

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24

1 APPEARANCES:

2

3 ILLINOIS POLLUTION CONTROL BOARD:

4 Mr. John Knittle, Hearing Officer

5 Mr. Anand Rao, Senior Environmental Scientist

6 Mr. Thomas E. Johnson, Board Member

7 Mr. G. Tanner Girard, Acting Chairman

8

9 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:

10 Ms. Rachel Doctors

11 Mr. John J. Kim

12 Mr. Ross Cooper

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14 Mr. Robert J. Kaleel

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24 REPORTED BY: SHARON BERKERY, C.S.R.

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1 CERTIFICATE NO. 84-4327.

2 I N D E X

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9

10

11 E X H I B I T S

12 NUMBER MARKED FOR ID RECEIVED

13 Kincaid Generation

14 Exhibit No. 1.....9.....11

15

16 Ameren

17 Exhibit No. 1.....75.....77

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19 Kubert

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1 THE HEARING OFFICER: Good morning, my
2 name is John Knittle. Today is the second day of
3 the second batch of hearings in the CAIR Rule.

4 For the record, it's R0626
5 proposed new CAIR SO2, CAIR NOX, Annual and CAIR
6 NOX Ozone Season Trading Programs, 35 Illinois
7 Administrative Code 225, Control of Emissions From
8 Large Combustion Sources, Subparts A, C, D and E.

9 Present with me today from the
10 Board are board members Tom Johnson, who is the
11 presiding member on this rule making and Chairman
12 Girard. Also with us from the Board today is
13 Anand Rao, who is sitting to my left, your right.

14 We had a day of hearings
15 yesterday, we got through two of our witnesses.
16 Today we are going to start out with C.J.
17 Saladino. Am I saying that right finally?

18 MR. SALADINO: That's right.

19 THE HEARING OFFICER: All right.
20 Please correct me if I get it wrong for like the
21 fifth or sixth time.

22 And I do want to note that, just
23 in case anybody wasn't here yesterday, I don't
24 recognize everybody, if you have a question, at

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1 least in the beginning until the court reporter
2 gets used to your names, please raise your hand
3 and identify yourself just to make it easier for
4 her. I'm sure she will pick it up pretty quickly
5 and we'll be able to identify names thereafter.
6 But that would be helpful in the beginning, at
7 least.

8 Again, if there are any questions
9 made by any member of the Board, it's not meant to
10 show any predisposition to the cause, just --
11 we're trying to build a complete record.

12 So that being said, I think we're
13 just going to start with Mr. Saladino.

14 MR. FORCADE: Good morning, my name is
15 Bill Forcade from Jenner & Block, representing
16 Kincaid Generation LLC. At this time, we'd like
17 to present two witness, Mr. C.J. Saladino who has
18 prepared testimony and Mr. Robert Asplund who has
19 no prepared testimony. If there are questions, he
20 would be available to answer them.

21 THE HEARING OFFICER: I do want to
22 note for the record that Mr. Forcade did inform
23 me, if forgot to note that, if anyone has an
24 objection to the second witness being sworn in,

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1 now would be the time to make it. But we're going
2 to allow him to be sworn in, even though he didn't
3 file any prefile testimony, just on the basis that
4 he may be needed to answer some questions, if I
5 understand correctly.

6 So could be swear them in, please.

7 (WHEREUPON, the witnesses were duly
8 sworn.)

9 THE HEARING OFFICER: All right. Put
10 this on the record: If anyone can't hear
11 anything, we do have bad acoustics in this room,
12 please raise your hand and let us know and we'll
13 do our best to speak up so we can all hear what's
14 going on here today.

15 Mr. Forcade?

16 MR. FORCADE: Yes, thank you.

17 C.J. SALADINO,
18 called as a witness herein, having been first duly
19 sworn, was examined and testified as follows:

20 DIRECT EXAMINATION

21 BY MR. FORCADE:

22 Q. Mr. Saladino, can you please state
23 your name and provide your employment position with
24 Kincaid Generation.

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1 A. My name is C.J. Saladino. I'm the
2 station director of the Kincaid Power Station.

3 ROBERT B. ASPLUND,
4 called as a witness herein, having been first duly
5 sworn, was examined and testified as follows:

6 DIRECT EXAMINATION

7 BY MR. FORCADE:

8 Q. And, Mr. Asplund, would you please
9 provide your name and affiliation with Kincaid?

10 A. My name is Robert Asplund, I'm with
11 Dominion Resource Services of Richmond, Virginia,
12 and I'm an environmental manager, corporate
13 environment.

14 MR. FORCADE: Mr. Hearing Officer, at
15 this time we had like to have marked for
16 identification what may be described as Kincaid
17 Generation Exhibit 1.

18 (WHEREUPON, a certain document was
19 marked Kincaid Generation Exhibit
20 No. 1 for identification, as of
21 11/29/06.)

22 THE HEARING OFFICER: Okay. Is this a
23 hearing officer copy or do you need this back?

24 MR. FORCADE: I got it off the table.

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1 THE HEARING OFFICER: All right. I
2 will use it.

3 Are you moving for admission of
4 Kincaid No. 1?

5 MR. FORCADE: Not until I identify it
6 with the witness, if I could.

7 THE HEARING OFFICER: All right.

8 BY MR. FORCADE:

9 Q. Mr. Saladino, I would ask you if you
10 could examine this document and tell me what it is?

11 A. It's my prepared testimony.

12 Q. Was it true and correct at the time it
13 was submitted to the Pollution Control Board?

14 A. Yes, it was.

15 MR. FORCADE: We'd like to move at
16 this time the admission of the prefiled testimony.

17 THE HEARING OFFICER: Anybody have an
18 objection to Kincaid No. 1 being admitted into the
19 record -- as if read, I assuming?

20 MR. FORCADE: Yes.

21 THE HEARING OFFICER: As if read.

22 Seeing none, this will be so
23 admitted.

24

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1 (WHEREUPON, said document,
2 previously marked Kincaid
3 Generation Exhibit No. 1, for
4 identification, was offered and
5 received in evidence.)

6 BY MR. FORCADE:

7 Q. Mr. Saladino, were you present during
8 the hearing yesterday listening to testimony?

9 A. Yes, I was.

10 Q. Was there any aspect of the testimony
11 provided yesterday that would prompt you to change
12 any part of the prefiled testimony that you gave to
13 the Pollution Control Board?

14 A. The only part yesterday that was, I
15 guess, a surprise to me or different than what I
16 believed and that was the estimated value of the
17 allowances. In my testimony, I had said that the
18 allowances that were being, you know, proposed to be
19 withdrawn from us would have a value of
20 approximately two and a half million dollars as an
21 impact to us and that was based on an estimate of
22 \$1,100 in allowances. Yesterday, a couple different
23 witnesses talked about the value being between
24 \$2,000 and \$2,500. And if that's the case, the loss

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1 of the allowances through the set aside would be
2 approximately a \$5 million impact to our station.

3 Q. Were there any other corrections?

4 A. No.

5 Q. Okay.

6 MR. FORCADE: At this time I believe
7 Mr. Saladino has a brief opening statement then we
8 will open for questions, if that's all right?

9 THE HEARING OFFICER: Please continue.

10 MR. SALADINO: The main points I just
11 wanted to highlight were Kincaid station thinks
12 that the 30 percent set aside is too large, it's a
13 very big financial impact to us. And as I said,
14 it sounds like it may be double what we thought it
15 was going to be.

16 The other part is we are just --
17 you know, I'm very disappointed in the fact that
18 the proposal penalizes Kincaid station for having
19 already installed the best available technology,
20 which is SCRs. You know, we spent about \$85
21 million dollars installing those. And we've been
22 running those during the ozone season. And this
23 proposal, basically, you know, is to take away
24 some of the credits that we would have and reward

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1 them to people that have done nothing at this
2 point in time. If they later choose to install
3 equipment, they're going to get awarded extra
4 credits. It seems backwards to me. You know, we
5 put this equipment on, we've been running it, and,
6 you know, we're kind of being penalized for that.
7 And people that come along afterward are going to
8 be rewarded, so I guess that's the main gist of my
9 feelings here and why I'm here today.

10 MR. FORCADE: Okay. Are we open for
11 questions?

12 THE HEARING OFFICER: Thank you. I
13 think we're open for questions. We didn't talk
14 about this beforehand, but does anyone have
15 questions of Mr. Saladino?

16 MS. DOCTORS: The Agency does, but if
17 anybody else would like to go.

18 MS. BUGEL: I have a question but
19 defer to the Agency.

20 THE HEARING OFFICER: All right. It
21 sounds like the agency is up.

22 MS. DOCTORS: My name is Rachel
23 Doctors, and I'm representing the Illinois
24 Environmental Protection Agency, and I have a

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1 couple questions for you this morning,
2 Mr. Saladino. On Page 4 of your testimony, you
3 state in additional NOX CASA of 25 percent of the
4 Illinois CAIR budget that significantly exceeds
5 the 5 percent set aside for new sources
6 established in the EPA model rule. Doesn't the
7 Illinois EPA proposed CAIR Rule also contain a
8 five percent set aside for new sources called the
9 New Unit Set Aside?

10 MR. SALDINO: Yes, I believe it does.

11 MS. Doctors: Isn't it true that the
12 model rule says and states to consider including
13 other set-asides, such as for renewable energy and
14 energy efficiency projects?

15 MR. SALADINO: Yes.

16 MS. DOCTORS: Hence, the set-asides
17 for renewable and energy efficiency would then be
18 in addition to the five percent set aside for new
19 units, such that the total for both RE and EE and
20 the new unit set-asides would be more than five
21 percent?

22 MR. SALADINO: Yes, that's correct.

23 MS. DOCTORS: With respect to the
24 compliance supplement pool, isn't it true that

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1 states are given flexibility on how they use the
2 compliance supplement pool?

3 MR. SALADINO: Yes.

4 MS. DOCTORS: Isn't it true that
5 states are not prohibited from retiring such
6 allowances?

7 MR. SALADINO: Yes.

8 MS. DOCTORS: Would you agree that the
9 federal CAIR Rule provides that the compliance
10 supplement pool was to provide allowances to
11 sources that could not reasonably meet the
12 requirements by 2009 without undue risk through
13 the electric power supply?

14 MR. SALADINO: Could you repeat that
15 one for me, please?

16 MS. DOCTORS: Sure. Are you aware
17 that the federal CAIR Rule said that one of the
18 purposes of the compliance supplement pool was to
19 provide allowances to sources that cannot
20 reasonably meet the requirements by 2009 without
21 undue risk to the electric power supply?

22 MR. SALADINO: I'm not aware of it,
23 but I assume that's correct.

24 MS. DOCTORS: Are you aware that

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1 Illinois EPA has identified no such risk issues?

2 MR. SALADINO: No, I was not aware of
3 that.

4 MR. ROSS: My name is Jim Ross, I'm
5 with the Illinois EPA.

6 Have you familiarized yourself
7 with the Illinois EPA's technical support document
8 in support of the CAIR Rule?

9 MR. SALADINO: Quite a bit of it,
10 yeah. I don't remember all of it, but I have read
11 through it.

12 MR. ROSS: Me neither. But in
13 Section 10 of the technical support document, we
14 address reliability of the grid issues and how the
15 proposed CAIR would impact any liability to create
16 issues.

17 MR. FORCADE: Is that a question or?

18 MR. ROSS: Well, are you aware of
19 that?

20 MR. SALADINO: I'll take your word for
21 it.

22 MS. DOCTORS: Would you agree that one
23 of the other purposes of the compliance supplement
24 pool is to provide an incentive for earlier

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1 reductions, in addition to --

2 MR. SALADINO: Yes, I believe so.

3 MS. DOCTORS: So isn't it true then
4 that only one of the options suggested by USEPA is
5 that states use the compliance supplement the pool
6 allowances for incentives for early reduction?

7 MR. SALADINO: Yes.

8 MS. DOCTORS: Isn't it true that there
9 is no NOX compliance supplement pool for seasonal
10 allowances only for annual allowances since --

11 MR. SALADINO: Yes.

12 MS. DOCTORS: Isn't it also true that
13 the compliance supplement pool is only a one-time
14 allocation, once the compliance supplement pool is
15 allocated, it is gone, it is not replenished for
16 reallocation like regular allowances?

17 MR. SALADINO: Right.

18 MS. DOCTOR: Do you agree then that
19 the 11,299 allowances of the compliance supplement
20 pool, which equate to 11,299 tons of NOX that will
21 not be allowed into the atmosphere because the
22 compliance supplement was retired?

23 MR. FORCADE: I'm sorry, was there a
24 question there?

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1 MS. DOCTORS: Yeah. Do you agree that
2 if the 11,299 allowances of the compliant
3 supplement pool, which equate to 11,299 tons of
4 NOX that now will not be allowed into the
5 atmosphere because the CSP is retired?

6 MR. SALADINO: If I understand it
7 right, in order to qualify for those 11,299, don't
8 you have to reduce that amount? So I guess --

9 MR. ROSS: I can clarify the question.

10 MR. ASPLUND: We agree that, yes, if
11 they're taken off the table, yes, they're never
12 admitted.

13 MS. DOCTORS: And isn't it also true
14 that --

15 THE HEARING OFFICER: Ms. Doctors, Ms.
16 Bassi has a question.

17 MS. BASSI: I have a follow up to the
18 question about the earlier adopted portion of the
19 compliance supplement pool. And that is,
20 Mr. Saladino -- are you testifying, too,
21 Mr. Asplund?

22 MR. ASPLUND: Yes. If you came on
23 time, you'd know that.

24 MS. BASSI: My train sat there, I'm

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1 sorry. I can't control the train I left home
2 early enough.

3 THE HEARING OFFICER: It's good that
4 that's on the record.

5 MS. BASSI: You could take that off
6 the record, if you like.

7 Okay. Is one portion of the CASA
8 not dedicated to early adopters?

9 MR. ASPLUND: Yes.

10 MR. SALADINO: Yes.

11 MS. BASSI: Yes? Okay.

12 And if there is a portion of the
13 CASA that is dedicated to early adopters, doesn't
14 that indicate to you that there is a need for
15 earlier adopted allowances?

16 MR. SALADINO: Yes, I believe so.

17 MS. BASSI: Thank you.

18 MS. Doctors: A follow up to a
19 question is, isn't it true that if we have lower
20 NOX emissions that that would result in some
21 amount of additional public health and air quality
22 improvements?

23 MR. FORCADE: I'm going to object. I
24 don't believe Mr. Saladino has been qualified as a

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1 health expert and can answer that question.

2 THE HEARING OFFICER: Mr. Saladino, to
3 the extent that you can answer, please attempt to,
4 but your objection is noted for the record.

5 MR. SALADINO: And my assumption is
6 that's why we're doing all of this.

7 MS. DOCTORS: Your testimony indicates
8 that Kincaid already has SCR controls, but Kincaid
9 doesn't have any scrubbers or bag houses; correct?

10 MR. SALADINO: That's correct.

11 MS. DOCTORS: On Page 4 of your
12 testimony, you state that, "The proposal also
13 makes it clear that Illinois EPA intends to retire
14 any allowances left unclaimed in the CASA after
15 the different CASA pools are replenished." And
16 you reference proposed Section 225, 475 E5 as
17 evidence of this claim.

18 However, isn't it true that the
19 regulation in the question simply states that the
20 agency may elect to retire such undistributed
21 allowances rather than conveying any definitive
22 intent?

23 MR. SALADINO: That's correct, it does
24 say that they may choose to do that.

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1 MS. DOCTORS: On Pages 7 and 8 of the
2 testimony, it is stated that "Illinois EPA's
3 explanation of a CASA gives no consideration of
4 the impact that withdrawing these allowances have
5 on the market base principals of the federal CAIR
6 Rule without the additional 25 percent of the NOX
7 allowances budget reverses the economic
8 underpinning of the rule." That's the statement
9 from your testimony.

10 The question is, first, has
11 Kincaid or anyone associated with Kincaid, formed
12 an assessment of the impact of the proposed
13 Illinois EPA CASA on the market based principals
14 for the federal CAIR Rule or performed an economic
15 impact assessment of the proposed CASA?

16 MR. ASPLUND: As applies to Kincaid,
17 yes.

18 MS. DOCTORS: Who performed this
19 assessment?

20 MR. ASPLUND: We have a group in
21 Richmond, Virginia that does that type of
22 analysis.

23 MS. DOCTORS: Can you provide a copy
24 of this assessment to me?

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1 MR. ASPLUND: Sure.

2 MS. BASSI: Question, is that going to
3 be added to the record or is this just for the
4 Agency view?

5 THE HEARING OFFICER: Well, we'd
6 probably, at the Board, like it to be added to the
7 record, but...

8 MR. FORCADE: Excuse me a second. Off
9 the record.

10 (WHEREUPON, discussion was had
11 off the record.)

12 MR. ASPLUND: It's probably a one-page
13 spreadsheet.

14 THE HEARING OFFICER: Do you have a --

15 MR. ASPLUND: And we are constantly
16 evaluating the availability of allowances for any
17 number of states under the CAIR Rule, under the
18 Mercury Rule.

19 THE HEARING OFFICER: Mr. Forcade, do
20 you have a copy your provided for us?

21 MR. FORCADE: That's what I'm asking
22 him right now.

23 THE HEARING OFFICER: Oh.

24 MR. FORCADE: I don't have a copy

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1 personally. We'd have to get a copy and submit it
2 later. We could file it in any way that the --

3 THE HEARING OFFICER: Sure. That
4 would be appropriate.

5 MS. Doctors, do you have a problem
6 with that?

7 MS. DOCTORS: I'm sorry, can you --

8 MR. FORCADE: I don't have a copy of
9 the document at this time. We can secure a copy.

10 If you would like, I can file it
11 with the Board and provide a copy to everyone on
12 the service list. I'm open to what distribution
13 method you would like.

14 MS. Doctors: I think the distribution
15 method sounds fine. What is your timing?

16 I'm more concerned about what the
17 timing is.

18 MR. FORCADE: Sure. Could we go off
19 the record for just a second.

20 (WHEREUPON, discussion was had
21 off the record.)

22 THE HEARING OFFICER: We are on the
23 record.

24 MS. Doctors: Let me ask a couple --

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1 THE HEARING OFFICER: Before we get
2 started on that, we have some information that was
3 asked of -- Mr. Forcade, if you would provide us,
4 let's address that.

5 MR. FORCADE: The Agency asked for
6 some information relating to an economic analysis.
7 A part of that information contains confidential
8 business information. At this time Kincaid has
9 agreed to review that information, provide as much
10 of it as we can in a nonconfidential format,
11 provide that information by filing it with the
12 Board as a public comment and serve it on the
13 notice list.

14 If at that time anyone has
15 objections to the nature and extent of the
16 information, we'll be happy to deal with it
17 through the hearing officer in any appropriate
18 matter. Is that satisfactory to the Agency?

19 MS. DOCTORS: Yes.

20 THE HEARING OFFICER: Two things
21 though. You don't want to serve it on the notice
22 list, probably, you mean the service list.

23 MR. FORCADE: I'm sorry. The service
24 list.

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1 THE HEARING OFFICER: Just -- i don't
2 want you --

3 MR. FORCADE. I misspoke, I apologize.

4 THE HEARING OFFICER: And you had
5 indicated you would be able to get that filed
6 early next week.

7 MR. FORCADE: We believe we could have
8 it filed with the Board and served by Monday of
9 next week.

10 THE HEARING OFFICER: And if that
11 proves to be a problem, just give me a call and we
12 can address it.

13 MR. FORCADE: Sure.

14 THE HEARING OFFICER: Okay,
15 Ms. Doctors, you had further questions?

16 MS. Doctors: Yes, I did on this, as a
17 matter of fact.

18 In your statement, where you say
19 without the additional 25 percent, it will reverse
20 the economic underpinnings of the Rule. Are you
21 talking about with respect to Kincaid, or did you
22 do an analysis how it affects all the -- affected
23 by the federal CAIR Rule?

24 MR. ASPLUND: With regard it Kincaid.

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1 MS. DOCTORS: Okay. And when you're
2 talking about Kincaid, are you talking about
3 Kincaid in Illinois, or do you have facilities in
4 other parts of the country?

5 MR. SALADINO: Just Illinois.

6 MS. DOCTORS: All right. Now, getting
7 back to this assessment that we haven't seen, what
8 were the qualifications of the individual
9 conducting the study?

10 MR. ASPLUND: That group is headed by
11 a man by the name of Andy Yarrows, who appeared
12 before the Board on the Mercury hearing. He heads
13 up our environmental compliance group, looks up
14 different control options for -- across our fleet.

15 I can't -- I don't have right --
16 on me right now what his qualifications -- he's
17 been a station manager and has several degrees.
18 He's been in that job for several years.

19 MS. DOCTORS: Can you include that in
20 the information provided on Monday?

21 MR. FORCADE: Yes.

22 MS. DOCTORS: What prior experience
23 has this individual had with preparing such
24 assessments?

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1 MR. ASPLUND: He's been in that --
2 he's been working in that capacity for Dominion,
3 across the 30-some-odd-thousand megawatts of
4 generation trying to -- for several years,
5 developing compliance plans for CAIR, CAMR, BARD,
6 everything down the line, as far back acid rain,
7 as well. So is that --

8 MS. DOCTORS: Well, I guess my
9 question was a little bit narrow, which is what
10 kind of financial experience in doing financial
11 assessments?

12 MR. ASPLUND: Well, that's part and
13 parcel for doing that type of work. I think he
14 has an MBA, if that helps.

15 MS. DOCTORS: Besides the analysis
16 that he did, what other studies support this
17 conclusion?

18 MR. ASPLUND: I don't know right
19 offhand.

20 MS. Doctors: If there are such
21 studies, could you include them in the information
22 on Monday?

23 MR. ASPLUND: Sure.

24 MS. BASSI: Can I do a follow-up on

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1 that one?

2 THE HEARING OFFICER: Sure. Ms.
3 Bassi, please.

4 MS. BASSI: If 25 percent of the
5 allowances are for CASA, is it a logical
6 assumption that you've lost 25 percent of the
7 allowance issue that you would have otherwise
8 expected to be allocated?

9 MR. SALADINO: Yes.

10 MS. BASSI: Does that represent some
11 kind of an economic loss to Kincaid?

12 MR. SALADINO: Absolutely.

13 MS. BASSI: Thank you.

14 THE HEARING OFFICER: Mr. Ross? Oh,
15 I'm sorry, you can go next after...

16 MR. HARLEY: My name is Keith Harley.
17 I'm an attorney for Environment Illinois. Isn't
18 it correct that you would still be able to
19 purchase credits that had been allocated to
20 projects that were renewable energy projects that
21 were energy efficiency projects?

22 MR. SALADINO: Potentially.

23 MR. HARLEY: So those credits are not
24 lost, they simply would be available at a cost; is

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1 that correct?

2 MR. SALADINO: Correct. The money
3 would be -- you know, it would be a net loss to us
4 when they were taken away and then it would
5 compound itself. Because then we'd have to pay
6 that amount of loss to get them back.

7 MR. HARLEY: But they would be
8 available, potentially?

9 MR. SALADINO: Depending on how many
10 are in the market, potentially they could be
11 available.

12 MR. HARLEY: Thank you.

13 THE HEARING OFFICER: Mr. Ross?

14 MR. ROSS: Well, not to --
15 Mr. Harley would be able to purchase those
16 allowances, aren't the allowances available to
17 Kincaid as they are available to all other
18 affected sources? They are potentially not lost,
19 are they?

20 MR. SALADINO: Well, I think that --

21 MR. ASPLUND: And if we were to
22 qualify for one of those CASAs.

23 MR. ROSS: Correct.

24 MR. ASPLUND: And if they were

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1 existing --

2 MR. ROSS: We testified extensively in
3 Springfield that CASA allowances, you heard the
4 term beat around here a little, were lost to
5 Kincaid, but in fact, Kincaid can apply for and be
6 allocated to those allowances as any other
7 affected source can.

8 MR. ASPLUND: To CAIR NOX reductions.

9 MR. ROSS: The CAIR Rule allows
10 Kincaid the ability to apply for CASA allowances
11 and obtain them and any other affected source;
12 correct?

13 MR. SALADINO: Some of them, that's
14 correct. Some of them -- you know, because we
15 already built SCRs, other people can go build
16 their SCRs now and get extra credits that we can't
17 get.

18 MR. ROSS: Is it true that SCR
19 allowances from the CASA come from the pollution
20 control upgrade category?

21 MR. SALADINO: They are in the --
22 right. That's correct.

23 MR. ROSS: And can Kincaid also apply
24 for allowances from the pollution control upgrade

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1 category for the installation of a scrubber or a
2 bag house?

3 MR. SALADINO: If that was something
4 we were going to do, yes.

5 MR. ROSS: So, in fact, those
6 allowances in that category are available to
7 Kincaid, they are not lost.

8 MR. SALADINO: Some of them are
9 available to us, other plants can build SCRs,
10 which we already have and get extra credit.

11 THE HEARING OFFICER: Ms. Bassi?

12 MR. ROSS: You say (inaudible) to the
13 extent that you add a scrubber or a bag house or
14 whatever would qualify for allowances from the
15 pollution control upgrade category, you can obtain
16 allowances for; correct?

17 MR. SALADINO: Correct.

18 THE HEARING OFFICER: Ms. Bassi had a
19 question.

20 MS. BASSI: Yes.

21 When did Kincaid install the SCRs?

22 MR. SALADINO: In 2002.

23 MS. BASSI: Does that make them
24 eligible for the pollution control upgrade that

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1 the CASA is currently using?

2 MR. SALADINO: No, it does not.

3 MS. BASSI: How far does it miss that
4 pollution control upgrade category; is it by a
5 year?

6 MR. SALADINO: I could look and see
7 here. I think this is for 2009. So it looks like
8 by seven years.

9 MS. BASSI: No, doesn't the CASA
10 category have a back date?

11 MR. SALADINO: Yeah.

12 MS. BASSI: I apologize.

13 MR. ASPLUND: Actually, that's a
14 better question for you.

15 MR. SALADINO: They would in 2002.

16 MS. BASSI: Okay. Did you state and
17 maybe I just missed this, but did you point out
18 that other units in the state did not install
19 SCRs?

20 MR. SALADINO: I believe that's
21 correct.

22 MS. BASSI: Okay. And so, why did
23 Kincaid install these SCRs in 2002?

24 MR. SALADINO: To reduce the NOX

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1 coming from our plant.

2 MS. BASSI: Was there a reason why you
3 were reducing NOX from the plant?

4 MR. SALADINO: There were early
5 reduction credits available.

6 MR. ASPLUND: In compliance with the
7 subpart W NOX SIPCALL.

8 MS. BASSI: Did subpart B of Part 217,
9 which is at 0.25 average requirement, affect your
10 decision at all?

11 MR. ASPLUND: I'm not sure.

12 MS. BASSI: Okay. Could Kincaid have
13 opted not to install SCRs in 2002?

14 MR. SALADINO: Yes.

15 MS. BASSI: And how would you have
16 complied with the SIPCALL if you had not installed
17 the SCRs?

18 MR. SALADINO: Purchasing allowances.

19 MS. BASSI: Okay. And following the
20 Agency's line of questions of presenting you with
21 hypotheticals that are, perhaps, beyond your
22 expertise, did the environment benefit from your
23 installation of SCRs in 2002?

24 MR. SALADINO: I believe they did.

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1 MS. BASSI: Thank you.

2 MR. SALADINO: I did find the answer.

3 MS. BASSI: Okay.

4 MR. SALADINO: July 1st, 2006 was the
5 date that we would have needed to install the
6 SCRs, so we missed it by four years.

7 MS. BASSI: Is there any kind of tune
8 up you could do to the SCRs that would make them
9 qualify for this?

10 MR. SALADINO: Not that I am aware of.

11 MS. BASSI: Does running them
12 year-round qualify?

13 MR. ASPLUND: Well, in our testimony,
14 we offer a solution to our dilemma by recognizing
15 that, even though the CASA only allows
16 installation of new air pollution control
17 equipment to qualify, the change from a five-month
18 ozone season operation to a 12-month year-round
19 operation is a significant change for us that
20 requires a lot more ammonia, a lot more wear and
21 tear on the catalyst and the fans at the station.
22 It represents a significant difference from
23 ozone-only operation. Ozone-season-only
24 operation.

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1 THE HEARING OFFICER: Mr. Harley,
2 you've been trying to ask a question.

3 MR. HARLEY: By virtue of your
4 decision to install SCRs, do you now have credits
5 available to trade?

6 MR. SALADINO: I believe we do, yes.

7 MR. HARLEY: And do you trade those
8 credits with other market participants?

9 MR. SALADINO: Well, I guess that gets
10 into the PPA. We have a power purchase agreement
11 with Exelon, so while the station earns the
12 credits, they're the property of another company
13 right now.

14 MR. HARLEY: But there is already
15 benefits to your company that it's realizing by
16 virtue of installing SCR as a part of the early
17 reduction --

18 MR. SALADINO: Yes.

19 MS. BASSI: Excuse me, is it a benefit
20 to your company or a benefit to Exelon?

21 MR. SALADINO: Well, a benefit to
22 Exelon right now.

23 MR. ASPLUND: Until 2012 or 13.

24 MR. HARLEY: And so you would receive

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1 an additional benefit under your proposal, in
2 addition to the credits that you have already
3 received for the early reducer on the 2001 NOX
4 SIPCALL?

5 MR. FORCADE: Could I ask when you say
6 "you," are you talking about Kincaid Generation,
7 LLC?

8 MR. HARLEY: Kincaid Generation, I'm
9 sorry.

10 MR. SALADINO: Can you repeat that
11 question?

12 MR. HARLEY: Under your proposal, you
13 would receive credits under the Illinois proposal,
14 but you're already receiving credits under the
15 2001 NOX SIPCALL?

16 MR. FORCADE: He's answered already
17 the credits are going to Exelon.

18 MR. SALADINO: I think if you're
19 talking about our proposal to give us credit for
20 running year-round versus just ozone season; is
21 that correct?

22 MR. HARLEY: Yes.

23 MR. SALADINO: After -- by running
24 year-round, if we did receive those extra credits,

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1 we would benefit from that starting after from
2 2030.

3 MS. BASSI: One other follow-up to
4 that: Is this bank of NOX allowances that you
5 have from the NOX SIPCALL, usable in the CAIR
6 annual program?

7 MR. ASPLUND: I'm sorry, say that
8 again.

9 MS. BASSI: Is the bank of allowances
10 that you have available, or Exelon has available,
11 from the NOX SIPCALL, usable in the CAIR annual
12 program?

13 MR. SALADINO: No.

14 THE HEARING OFFICER: Ms. Bugel, did
15 you have a question?

16 MS. BUGEL: I think it's been
17 answered, thank you.

18 THE HEARING OFFICER: Mr. Davis?

19 MR. DAVIS: If this modification in
20 the Rule is made to allow credit for year-round
21 operation, do you have any estimate of how many
22 allowances you might receive from the CASA?

23 MR. ASPLUND: No, I don't.

24 MR. SALADINO: I don't think we do.

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1 MR. ASPLUND: Like the witness
2 yesterday, we'd love to know exactly, certainly,
3 going forward.

4 MR. DAVIS: Sure. But do you have an
5 idea of your emission right now?

6 MR. ASPLUND: No. Those kinds of
7 decisions are based on the additional costs for
8 operating that SCR and deeper levels of reduction
9 versus what the market might bear.

10 MR. DAVIS: Sure. But at some level
11 of you receiving the allowances from -- you would
12 receive some allowances from the CASA.

13 MR. ASPLUND: We believe so.

14 MR. SALADINO: If we change the rule,
15 yes.

16 MR. ASPLUND: It would certainly
17 apply.

18 MR. DAVIS: And being that the CASA is
19 prorated, wouldn't that also reduce the incentive
20 for other companies to install SCRs?

21 MR. ASPLUND: It has to be shared with
22 that many more eligible --

23 MR. DAVIS: Yes.

24 MR. ASPLUND: Yeah, it would all go

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1 into -- I think there is a pretty clear analysis
2 that can be done, based on what your projections
3 are for future cost and allowances versus what
4 it's going to cost you for additional ammonia,
5 additional catalyst wear and tear on the SCR.

6 MR. DAVIS: So would you say that the
7 capital costs for installing the SCR would be
8 higher than the operation maintenance of the SCR?

9 MR. SALADINO: Yes. With the capital
10 costs that we have already incurred.

11 MS. BUGEL: And at the time that those
12 capital costs were incurred, was the CAIR -- had
13 the CAIR program been proposed?

14 MR. ASPLUND: No.

15 MS. BUGEL: And would it be correct to
16 say that those costs were incurred without any
17 expectation of receiving CAIR credits then, in
18 CAIR allowances?

19 MR. SALADINO: Yes.

20 MR. JOHNSON: Let me ask then: Do you
21 think that the policy, as you're asserting,
22 disallowing allowances for pollution control
23 upgrades that have already been installed, do you
24 think that ultimately for the industry -- for you

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1 or for the industry, is going to provide a
2 disincentive for companies to install pollution
3 control equipment before they're required to do
4 so?

5 MR. SALADINO: Absolutely. I think
6 what we're seeing is -- and if I'm allowed to
7 bring it up -- I guess, like in the Mercury
8 hearings, the MPSs were available for companies
9 that had done nothing yet, and because we had
10 already done things, you know, that wasn't
11 available for us. And now we're -- now we're in a
12 situation of, you know, in our mind, you get
13 more -- you gain more by waiting until the last
14 minute and seeing if there's a deal you can
15 strike.

16 THE HEARING OFFICER: Mr. Ross?

17 MR. ROSS: Just to clarify, did you
18 just see the MPS is not available to Kincaid?

19 MR. SALADINO: Well, I mean -- I guess
20 I should clarify that.

21 In some parts of it I guess we
22 could try to say we were going to build scrubbers,
23 \$85 million we already built to SCRs was
24 disallowed, so...

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1 MR. ROSS: So, in fact, the MPS is
2 available to Kincaid, if they choose that as an
3 option?

4 MR. SALADINO: I guess that's correct.

5 MR. ROSS: Just real quick: Is
6 Kincaid unique as being the only company to have
7 existing SCRs in operation in the state, to the
8 best of your knowledge?

9 MR. SALADINO: I don't believe so. I
10 think there are -- I think there are other SCRs.
11 I'm not sure how many. I believe there are other
12 SCRs in service.

13 MR. ROSS: Would around eight other
14 existing SCRs sound correct?

15 MR. SALADINO: Out of all the units,
16 that's probably -- I'll take your word for it.
17 You guys would have better data on it than I
18 would.

19 MR. ROSS: So given that there are 59
20 existing and eight others plus indicates two --
21 doing the math, 59 existing units, ten have SCR,
22 so there are 49 existing units without SCRs; would
23 that be correct math?

24 MR. SALADINO: I'll take your word --

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1 MR. FORCADE: Is this his testimony?

2 MR. SALADINO: I'll take your word for
3 it.

4 THE HEARING OFFICER: This is --

5 MR. ROSS: Is that the correct math?

6 THE HEARING OFFICER: This is -- one
7 second. This is testimony; however, they've been
8 sworn in.

9 MR. ROSS: Yes. I just want to make
10 sure that --

11 MR. FORCADE: (Inaudible.)

12 THE HEARING OFFICER: And I want to
13 remind you all that you have been sworn in and
14 that still stands today.

15 So you can answer the question
16 now, Mr. Saladino.

17 MR. SALADINO: Yes, I take your word
18 for that.

19 MR. ROSS: Thank you.

20 MS. DOCTORS: I want to clarify, maybe
21 I misheard. Was it your testimony that the -- any
22 credits that were earned during the NOX SIPCALL
23 program that is currently going on couldn't be
24 used for compliance during the CAIR program?

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1 MR. ASPLUND: During the annual.

2 MS. DOCTORS: During the annual, okay.

3 I just wanted to clarify.

4 Because it is -- isn't it true
5 that you, in fact, can use any of those allowances
6 for the seasonal compliance and seasonal
7 compliance --

8 MR. ASPLUND: I believe that's
9 correct.

10 MS. DOCTORS: And isn't it true that
11 those allowances, in fact, may have a greater
12 value under the CAIR program than they do under
13 the NOX SIPCALL program?

14 MR. SALADINO: That's not a question I
15 can answer.

16 MS. DOCTORS: Okay. Isn't it true
17 there is no flow control under the CAIR program as
18 there is under the NOX SIPCALL program?

19 MR. ASPLUND: That is correct.

20 MS. DOCTORS: And isn't it true that
21 flow control reduces the value because it reduces
22 the amount of NOX that can be offset per ton?

23 MR. ASPLUND: Yes.

24 MS. DOCTORS: So isn't it true that

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1 the NOX -- the allowances earned under the NOX
2 SIPCALL could, in fact, in some cases, have a
3 greater value in terms of offsetting allowances
4 and how much they can sold for under the CAIR
5 program?

6 MR. ASPLUND: (No audible response.)

7 MS. DOCTORS: Can you speak and not
8 nod.

9 MR. ASPLUND: I can't give a
10 definitive answer to that, but the logic seems to
11 be there.

12 MS. DOCTORS: I just wanted to
13 clarify.

14 THE HEARING OFFICER: Mr. Harley?

15 MR. HARLEY: Do you foresee a rule,
16 which was retroactive in 2002?

17 MR. SALADINO: I think that's part of
18 the changes, yes. That would allow us credit for
19 having built the SCR.

20 MR. HARLEY: And that would be for two
21 units --

22 MR. SALADINO: Correct.

23 MR. HARLEY: -- that you operate?

24 MR. SALADINO: Correct. Well, I guess

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1 others operate it, there's no reason they should
2 be disadvantaged also.

3 MR. HARLEY: Why not 2000?

4 MR. SALADINO: I guess you could go
5 back to who built the first SCR. I think we were
6 one of the first built in the state.

7 MR. HARLEY: 1998?

8 MR. SALADINO: Is that right? I don't
9 know.

10 MR. HARLEY: Could you go back to
11 1996?

12 MR. SALADINO: I guess, theoretically,
13 you could go back to however the agency or board
14 wanted to.

15 MR. HARLEY: What do you recommend?

16 MR. ASPLUND: We're recommending that
17 you -- the rule recognized the significant
18 difference in operating, just on the seasonal
19 ozone season basis, spanning it to a 12-month
20 basis. That's a significant investment for
21 Kincaid.

22 MR. FORCADE: We have already provided
23 specific regulatory language to the Board that we
24 would like to see adopted.

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1 MR. HARLEY: Which is relevant for
2 Kincaid, but there are, potentially, others as
3 well.

4 MR. ASPLUND: (Inaudible.)

5 THE COURT REPORTER: I'm sorry?

6 MR. FORCADE: We're testifying for
7 Kincaid.

8 MR. HARLEY: So this is in our
9 proposal that is in the interest of Kincaid but
10 you have not necessarily considered its impact on
11 other operating units in the state?

12 MR. SALADINO: Correct.

13 MR. HARLEY: I want to make sure the
14 record is absolutely clear on this point. Under
15 the proposed rule, Kincaid would have the option
16 to initiate a renewable energy project and receive
17 an allocation of credits as part of their project;
18 correct?

19 MR. ASPLUND: I think that's a
20 question that's better directed towards the sworn
21 staff of the agency. That is our understanding,
22 yes.

23 MR. HARLEY: Under the proposed rule,
24 Kincaid would have the option to initiate an

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1 energy efficiency project at its coal-fired power
2 plant and receive an allocation of credits; as far
3 as that is concerned; is that correct?

4 MR. ASPLUND: Yes.

5 MR. HARLEY: Thank you.

6 THE HEARING OFFICER: Mr. Bonebrake?

7 MR. BONEBRAKE: Mr. Davis had asked a
8 question about whether the inclusion of additional
9 SCRs pollution control category result in the
10 reduction of allowances that are available for
11 other projects. Do you recall that line of
12 questioning?

13 MR. ASPLUND: Yes.

14 MR. BONEBRAKE: Are you familiar with
15 the "tipping concept," and how that word has been
16 used in connection with the rule, the proposed
17 rule?

18 MR. ASPLUND: I am not.

19 MR. BONEBRAKE: Are you familiar with
20 any regulatory language that would suggest that
21 allowances from other CASA categories --

22 MR. ASPLUND: Oh, yes.

23 MR. BONEBRAKE: -- not used, would be
24 transferred over to categories that had been fully

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1 subscribed?

2 MR. ASPLUND: I used to work
3 replenish.

4 MR. BONEBRAKE: So you're familiar
5 with that concept?

6 MR. ASPLUND: Yes.

7 MR. BONEBRAKE: Would that suggest to
8 you that additional SCRs would be made eligible
9 for the pollution control category without
10 necessarily reducing allowances available to
11 future --

12 MR. ASPLUND: Well, that comes from
13 the EERE set-aside or the claim technology
14 set-aside. It could end up in the air pollution
15 control equipment set-aside, if there was a
16 shortfall.

17 THE HEARING OFFICER: Any further
18 questions for Mr. Saladino?

19 MS. DOCTORS: I think we've -- oh,
20 yeah. I've got some and I think Mr. Cooper -- Mr.
21 Ross Cooper has a couple follow-ups.

22 MR. COOPER: The CASA, as we have
23 presented it, is structured as an incentive;
24 correct?

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1 MR. SALADINO: Correct.

2 MR. COOPER: Was Kincaid already given
3 an incentive to install the SCRs?

4 MR. SALADINO: Through CASA?

5 MR. COOPER: No.

6 MR. ASPLUND: We didn't install the
7 SCRs to comply with Subpart W's NOX SIPCALL rules,
8 we installed them early to take advantage of the
9 early reduction credits and the compliant
10 supplement pool, that role.

11 MR. COOPER: So then, Kincaid has
12 already received --

13 MR. ASPLUND: I think we've gone down
14 this; haven't we?

15 MR. COOPER: I missed that part.

16 MR. ASPLUND: That's all right.

17 MS. DOCTORS: All right. I'm ready to
18 continue. Let's go to a new subject. We're going
19 to talk, a little bit, about the ICF modeling.

20 Are you aware that ICF was
21 performed -- excuse me.

22 Are you aware that ICF performed
23 economic modeling of the economic impact of the
24 closed set-asides?

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1 MR. ASPLUND: Yes.

2 MS. DOCTORS: Are you also aware that
3 modeling results as presented in the key Illinois
4 EPATSD found that, overall, the implementation of
5 the NOX budget reduction policy had minimal affect
6 both in Illinois and across the nation?

7 MR. ASPLUND: Is that a quote from the
8 TSD?

9 MS. DOCTORS: Yes.

10 MR. ASPLUND: I've reviewed it, okay,
11 I may not remember that quote.

12 MR. ROSS: I'd just like to add,
13 that's episode modeling from the support document.
14 That's a quote from the final report that ICF
15 provided to Illinois EPA.

16 MS. DOCTORS: On Page 9 of your
17 testimony, you state, "We expect many of CASA
18 set-asides for energy efficiency that are
19 renewable energy projects that go unclaimed are
20 very likely to be retired," correct?

21 MR. ASPLUND: Correct. Is that in the
22 testimony?

23 MS. DOCTORS: Yes.

24 MR. ASPLUND: Yes.

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1 MS. DOCTORS: Furthermore, the
2 testimony links this statement to what
3 historically occurred in the NOX SIPCALL.
4 However, isn't it true that under the proposed
5 CAIR, that any unclaimed CASA allowances from the
6 RE/EE category will first overflow into the
7 oversubscribed category, such as pollution control
8 upgrade?

9 MR. ASPLUND: (Inaudible.)

10 MR. SALADINO: Yes.

11 MS. DOCTORS: You claim that you
12 expect many allowances to be unused. Have you
13 performed any analysis?

14 MR. ASPLUND: We have -- all we're
15 doing is drawing a comparison to what happened in
16 other states under a SIPCALL experience, when they
17 set aside energy efficiency renewable energy
18 credits. And in many cases, they were
19 undersubscribed. And under those rules, as under
20 the federal CAIR Rule, the unclaimed allowances
21 would then return to the EGUs from which they were
22 set aside.

23 MS. DOCTORS: Are you aware that the
24 EERE from Massachusetts was fully subscribed?

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1 MR. ASPLUND: I am aware, yes, of that
2 one.

3 MS. DOCTORS: Okay. Isn't it possible
4 that by 2015 that some companies will be
5 installing a substantial number of scrubbers, SCRs
6 and bag houses in Illinois?

7 MR. ASPLUND: Especially in Illinois.

8 MS. DOCTORS: Isn't it true that this,
9 in turn, will make them eligible for a large
10 number of CASA allowances that could deplete the
11 pollution control upgrade category?

12 MR. ASPLUND: Yes.

13 MS. DOCTORS: On Page 10 of your
14 testimony, you state, "Excluding existing air
15 pollution control equipment, that must be operated
16 on a year-round basis following an adoption of a
17 proposed rule from applying for allowances from
18 the air pollution control equipment upgrade
19 set-aside is unfair and you urge the Board to
20 change eligibility."

21 Is this correct? I guess we --

22 MR. ASPLUND: Yes.

23 MS. DOCTORS: That's just a repeat,
24 excuse me.

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1 Isn't it true that the most
2 expensive aspect of SCR control are the capital
3 costs to install such controls?

4 MR. SALADINO: Correct.

5 MS. DOCTORS: Can't the capital cost
6 associated with engineering procurement in the
7 installation be in 20 to 60 million range per SCR?

8 MR. SALADINO: Yes.

9 MS. DOCTORS: In fact, don't you state
10 in your testimony that the two SCRs at Kincaid
11 cost \$85 million?

12 MR. SALADINO: Yes.

13 MS. DOCTORS: And isn't operating --
14 aren't -- and aren't operating maintenance costs
15 for SCRs multiple times lower than the huge
16 capital costs?

17 MR. SALADINO: Per year?

18 MR. FORCADE: Are you talking about
19 annual?

20 MR. SALADINO: Per year?

21 MS. DOCTORS: Yes, per year.

22 So given that SCRs cost \$85
23 million and operating costs are much lower, the
24 policymaker was trying to offset the costs, would

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1 it be wise to focus on offsetting the larger costs
2 facing a source?

3 MR. FORCADE: I object. This is a
4 question about what would be the best objective
5 for a state regulator, and you're asking my
6 witness?

7 MR. ROSS: Well, if we may explain.
8 You're -- I don't know if we can make a question
9 of it, and I'll wind up testifying.

10 The testimony is indicating that
11 you want to receive CASA allowances for operating
12 and maintenance costs of your SCRs; correct?

13 MR. SALADINO: Correct.

14 MR. ROSS: And those operating and
15 maintenance costs, the ones you point to in your
16 testimony, are for additional ammonia and so on?

17 MR. SALADINO: Correct.

18 MR. ROSS: And I believe the cost
19 estimates you provide for in your testimony on the
20 additional operating and maintenance costs, are in
21 the neighborhood of 2.5 to \$3 million?

22 MR. FORCADE: May I -- and did you
23 amend that number?

24 MR. SALADINO: Well, now, he's talking

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1 about the operating cost. And based on current
2 known costs, that's correct.

3 MR. ROSS: And so, you also say in
4 your testimony that the capital costs of these
5 SCRs was \$85 million.

6 MR. SALADINO: That's correct.

7 MR. ROSS: So given that the intent of
8 the CASA is to provide an incentive for companies
9 to install additional controls, which can cost up
10 to \$85 million, would you want to take some of
11 those allowances away for the smaller annual
12 operating costs, which are only in the
13 neighborhood of 2.5 to \$3 million, which taking
14 those costs away there, would take away the
15 ability to offset the larger costs?

16 MR. FORCADE: I'm going to object
17 again. He's asking my witness to answer the
18 question about what policy the state has --

19 MR. ROSS: His testimony is stating
20 that the policy should be to offset these smaller
21 operating --

22 THE HEARING OFFICER: Yeah -- one
23 second, Mr. Ross.

24 I would overrule that, objection.

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1 I think it's relevant to hear what he thinks the
2 Agency policy should or ought to be. It's a lot
3 what we've been testifying to anyway.

4 MR. SALADINO: Right. And, I guess --
5 you know, there's several things that, you know,
6 in my testimony I'm asking for, you know. And so,
7 they kind of lump onto each other.

8 One is, we would not like to see
9 30 percent taken from us. But if it is, and if I
10 understand your question, the capital costs are
11 much higher.

12 The preference would be give us
13 credit for the capital costs that incurred and not
14 just the O and M costs. So if somebody else
15 invested \$85 million, they get these credits, give
16 us credit for the fact that we already invested
17 the \$85 million and give us the same number of
18 credits.

19 MR. ROSS: And we'll get to, I believe
20 in a moment, with regards to have you already been
21 given credit for those capital costs.

22 MS. DOCTORS: Right.

23 MR. ROSS: So you would agree --
24 that's the main point and then we can move on

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1 here -- that the capital costs are, in fact,
2 significantly larger than these annual operating
3 and maintenance costs that you're asking for
4 credit for, which currently the Rule does not give
5 any credit for?

6 MR. SALADINO: That's correct.

7 THE HEARING OFFICER: Ms. Bassi?

8 MS. BASSI: In effect, is it your
9 position, and forgive me for putting words in your
10 mouth, but is it your position that Kincaid is
11 subsidizing, through the loss of allowances in the
12 CASA, other company's installation of SCR that
13 you've already put in?

14 MR. SALADINO: Absolutely.

15 THE HEARING OFFICER: Ms. Bugel?

16 MS. BUGEL: If I could just ask: You
17 mentioned a minute ago 30 percent that is being
18 taken away from you, in terms of allowances; is
19 that correct?

20 MR. SALADINO: Yes.

21 MS. BUGEL: And you put a value on the
22 30 percent allowances?

23 MR. SALADINO: Correct.

24 MS. BUGEL: What was the value of

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1 those?

2 MR. SALADINO: Based on yesterday's
3 testimony, the value is, approximately, \$5 million
4 per year taken away from us.

5 MS. BUGEL: Did you put a value on the
6 70 percent of the allowances that you are
7 receiving?

8 MR. SALADINO: No.

9 MS. BUGEL: If 30 percent equal about
10 \$5 million, would about \$15 million sound correct?

11 MR. SALADINO: Probably so, yes.

12 MS. BUGEL: Ballpark?

13 Is the -- does the CAIR -- Model
14 CAIR Rule require the State to give you those for
15 free?

16 MR. ASPLUND: No.

17 MS. BUGEL: Could the State have
18 actually auctioned those or found some other way
19 of selling them?

20 MS. BASSI: Objection. That was
21 answered in the first hearing.

22 THE HEARING OFFICER: I'm going to
23 overrule and let him answer. I don't think he's
24 answered that question.

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1 MR. SALADINO: I believe that's
2 correct.

3 MS. BUGEL: And -- I have no further
4 questions on that. Thank you.

5 THE HEARING OFFICER: Agency? Do you
6 have any further questions?

7 MS. DOCTORS: Yes. Yes, we do.

8 MR. FORCADE: What subpart are we at
9 now?

10 MS. DOCTORS: Oh, I think we are on
11 six.

12 These SCRs that you've installed
13 at Kincaid can achieve up to 90 percent of control
14 efficiency for removing NOX emissions?

15 MR. SALADINO: Correct.

16 MS. DOCTORS: What is the typical NOX
17 emission rate in pounds from million BTU of the
18 units at Kincaid when the SCRs are not operating?

19 MR. SALADINO: I believe it's about
20 .65 pounds per MMBTU.

21 MS. DOCTORS: What is the typical NOX
22 emission rate in pounds per million BTU over 2004
23 and 2005 of the units of Kincaid when the SCRs are
24 operated?

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1 MR. SALADINO: About .065.

2 MS. DOCTORS: Are you familiar with
3 the requirements of USEPA's NOX SIPCALL as it
4 related to the electric utilities?

5 MR. SALADINO: Which part, I guess?

6 MS. DOCTORS: I guess, in this
7 respect, we're talking about how they computed the
8 allocation of NOX allowances.

9 MR. ASPLUND: I'm a little fuzzy on
10 that.

11 MS. DOCTORS: Are you aware that USEPA
12 based the allocations on an assumed emission rate
13 of 0.15 pounds per MMBTU for electric utilities,
14 both --

15 MR. ASPLUND: Yes.

16 MS. DOCTORS: -- in for the NOX
17 SIPCALL and the first phase of CAIR?

18 MR. ASPLUND: Yes.

19 MS. DOCTORS: So the first -- and
20 isn't the first phase of the CAIR Rule 2009
21 through 2014?

22 MR. ASPLUND: 14?

23 MS. DOCTORS: I just want to be clear,
24 the second phase starts January 1st of 2015;

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1 correct?

2 MR. ASPLUND: Correct.

3 MS. DOCTORS: With FCRs already in
4 place, isn't it true that Kincaid can meet the
5 0.15 pounds per MMBTU?

6 MR. SALADINO: Yes.

7 MS. DOCTORS: In fact, at 90 percent
8 control, Kincaid can achieve an even lower
9 emission rate?

10 MR. SALADINO: Yes.

11 MS. DOCTORS: Most of the time?

12 MR. SALADINO: Right.

13 MS. DOCTORS: Assuming that Kincaid
14 has allocated NOX allowances based on 0.15 pounds
15 per MMBTU, and is operating below that level of
16 emissions, Kincaid will have a surplus allowance
17 at the end of the ozone season; correct?

18 MR. SALADINO: Correct.

19 MS. DOCTORS: Has Kincaid had a
20 surplus of allowances in any year since 2004 when
21 the NOX SIPCALL went into effect?

22 MR. FORCADE: I'm going to object.
23 Are you asking Kincaid or are you asking for
24 Exelon?

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1 MS. DOCTORS: I guess it would be
2 Exelon.

3 MR. SALADINO: Exelon. Yes, I believe
4 that's correct.

5 MS. DOCTORS: Can we just get clear
6 why it would be Exelon rather than Kincaid?

7 MR. SALADINO: It's part of a power
8 purchase agreement. The plant used to belong to
9 Exelon. Dominion bought the plant with them along
10 with a power purchase agreement that -- for 15
11 years. So there's certain parents of it that
12 relate to emissions.

13 MS. DOCTORS: Okay. Thank you.

14 MS. BASSI: Can I follow up on that?

15 THE HEARING OFFICER: Yes, Ms. Bassi.

16 MS. BASSI: Do the operators of
17 Kincaid, meaning you guys, control the operations
18 of your SCR?

19 MR. SALADINO: Control, meaning?

20 MS. BASSI: Do you direct when the SCR
21 is to be turned on and turned off or at what rate
22 it is to be operated?

23 MR. SALADINO: No. It's Exelon.

24 MS. BASSI: Exelon controls that?

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1 MR. SALADINO: Yes.

2 THE HEARING OFFICER: Ms. Doctors?

3 MS. DOCTORS: The next -- okay.

4 On Page 5 of your testimony, you
5 recommended that Illinois EPA conduct a modeling
6 demonstration to determine the level of
7 reductions, that may be necessary to resolve any
8 residual nonattainable problems following
9 implementation of the CAIR reduction. Are you
10 aware of the fact that USEPA perform modeling of
11 the CAIR Rule?

12 MR. ASPLUND: Yes.

13 MS. DOCTORS: Isn't it true that USEPA
14 provided the results of their modeling in a
15 document dated March 2005 and entitled Documents
16 of the final CAIR, Clean Air Interstate Rule Air
17 Quality Modeling?

18 MR. ASPLUND: Yes.

19 MS. DOCTORS: Did Illinois EPA
20 summarize using modeling results in its technical
21 support document supporting this rule?

22 MR. ASPLUND: Yes.

23 MS. DOCTORS: Does USEPA's modeling
24 show that NOX -- or nitro oxide, and SO2, sulphur

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1 dioxide, reductions from power plants are
2 effective in reducing ozone and PM 2.5, which is
3 fine particulate matter concentrations, in
4 downwind nonattainment areas?

5 MR. ASPLUND: Yes. Neither of us are
6 modelers, just so we're clear on that.

7 MS. DOCTORS: Okay. This is just to
8 the best of your understanding?

9 MR. ASPLUND: Yes.

10 MS. DOCTORS: Doesn't USEPA's modeling
11 show that the greater the amount of NOX and SO2
12 reductions, the greater the air quality benefit?

13 MR. FORCADE: I'm going to object
14 again. This is something that can come in from
15 testimony on the Agency. You're asking my
16 witnesses to verify USEPA conclusions, which
17 should be of record of the document that USEPA
18 provided.

19 THE HEARING OFFICER: Ms. Doctors?

20 MS. DOCTORS: Do you have any reason,
21 though, to believe that USEPA's conclusions are
22 wrong?

23 MR. SALADINO: No.

24 MS. DOCTORS: And isn't it true that

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1 your testimony indicates that we need to do
2 additional modeling to show whether these
3 statements are true?

4 MR. ASPLUND: Well, I think we tied it
5 to nonattainment. Improvements -- progress in
6 nonattainment areas still exist after the CAIR
7 rules are in place at the federal approach.

8 MS. DOCTORS: And isn't this the fact
9 with using EPA models, was the nonattainment in
10 the issue -- in the areas that would remain in
11 nonattainment after implementation of the
12 CAIR Rule?

13 MR. ASPLUND: Yes. It would be areas
14 that -- residual areas of nonattainment after the
15 CAIR Rule for which large NOX sources downstate
16 may have little affect if they're reduced. And
17 that's -- there's lack of modeling that bears that
18 out.

19 MS. DOCTORS: I think that's where
20 we're headed next. Okay.

21 Are you aware of the fact that
22 USEPA concluded that CAIR would not provide
23 sufficient emission reduction even in Phase II to
24 allow the Chicago nonattainment area to obtain

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1 either the ozone or PM.25 standards?

2 MR. ASPLUND: Yes.

3 THE HEARING OFFICER: Ms. Bassi?

4 MS. BASSI: Does Chicago attain now?

5 THE HEARING OFFICER: Who are you
6 asking?

7 MS. DOCTORS: I'm not testifying,
8 so...

9 MS. BASSI: These guys are sworn in.
10 Does Chicago attain the ozone
11 standard?

12 THE HEARING OFFICER: Well, hold on a
13 second, Ms. Bassi. Do you have a question for
14 these witnesses? We can hold off the Agency's
15 questions.

16 MS. BASSI: You didn't stop other
17 things on the first hearing.

18 MS. DOCTORS: Yeah, I object. I don't
19 like this.

20 MR. ROSS: We went over that
21 extensively in the first hearing.

22 THE HEARING OFFICER? Yeah, I don't
23 really care what happened in the first hearing.
24 But, for now, let's hold off on that until we get

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1 these guys finished up.

2 If you want to ask that after
3 they're done, I'd be happy.

4 MS. DOCTORS: I'd like to -- if you
5 don't have a copy, I can provide one. I'd like to
6 refer you to Table 3.5 of the Illinois EPA
7 technical support document.

8 MR. FORCADE: We don't have copies.

9 MS. DOCTORS: Okay. I've got a
10 couple. I don't know if I have enough for -- I
11 have 15, so anybody that would like a copy, I'm
12 going to keep two. Give me two.

13 MR. RAO: What page of the -- 35?

14 MS. DOCTORS: No. It would be -- the
15 table is on Page 39.

16 (WHEREUPON, discussion was had
17 off the record.)

18 MS. DOCTORS: Can I continue? Are you
19 ready?

20 Okay. Could you read the title of
21 the table -- of the Table 3.5?

22 MR. SALADINO: "Level of control
23 needed to achieve attainment in specific
24 nonattainment areas.

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1 MS. DOCTORS: Doesn't the first line
2 of the table indicate that 75 percent reduction in
3 local BOCs is needed beyond CAIR for attainment of
4 the 302.5 --

5 THE COURT REPORTER: The attainment of
6 what?

7 MR. SALADINO: I guess I don't see the
8 beyond CAIR part, but, I mean, it does say it
9 needs to be greater than 75 percent.

10 MS. BASSI: I don't think it -- excuse
11 me -- I think says 302.5.

12 MR. FORCADE: I'm going to express
13 again an objection to the idea that the Agency is
14 providing my witness with documents that they
15 probably have seen, at most, a long period of time
16 ago. They've admitted that they're not modelers.
17 You're asking them for conclusions on documents.
18 They're far better in the control of the Agency,
19 subject to testimony by the Agency, if you have
20 something you want put on the record.

21 I object to the continuing line of
22 questions for my witnesses asking them to verify
23 USEPA conclusions.

24 MR. KALEEL: What we're trying to

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1 establish is that the witnesses have said that we
2 need to do modeling, the Agency needs to be
3 modeling to demonstrate the needs for attainment
4 in the region. What we're trying to establish is
5 the fact that we have already done the modeling
6 and we have put it on the record.

7 MR. FORCADE: If the Agency has done
8 such modeling, the can make that testimony. But
9 you're asking my witnesses to read USEPA documents
10 and draw conclusions from when they admit they're
11 not modelers.

12 THE HEARING OFFICER: Actually,
13 though, what they're asking is just whether it
14 says that. And I'm not sure how productive it is
15 to ask them whether it says what it says. I mean,
16 they can -- we all can read the title of the
17 table. If you have specific questions about what
18 they think about the results of the table, I'd be
19 happy to hear those.

20 MR. KALEEL: Again, we're trying to
21 establish -- we've already done and presented the
22 modeling he's asked for in his testimony.

23 THE HEARING OFFICER: Mr. Kim?

24 MR. KIM: Witnesses -- I mean, if

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1 their response -- witnesses are simply not
2 familiar with this information and they're not in
3 a position to make any interpretations or
4 statements on it since those -- that's probably
5 the end of that.

6 MR. ASPLUND: Yes.

7 THE HEARING OFFICER: Is that the
8 response from the witnesses?

9 MR. ASPLUND: Yes.

10 MS. DOCTORS: That was the Agency's
11 last question.

12 THE HEARING OFFICER: Anything further
13 for these witnesses? Mr. Harley?

14 MR. HARLEY: I'd like to ask you some
15 questions about things that I think you probably
16 do know about in great detail, the relationship
17 with Exelon. Is it correct to say that
18 transferring allocations to Exelon was part of the
19 consideration for the power purchase agreement
20 between Kincaid and Exelon?

21 MR. SALADINO: At the time I guess I
22 wasn't the one involved in writing the power
23 purchase agreement, but through the end of 2000 --
24 or through 2013, the NOX is the responsibility of

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1 Exelon.

2 MR. HARLEY: So you simply transfer
3 your NOX allowances, your NOX credits that you
4 derive from the early installation SCR to Exelon?

5 MR. SALADINO: I don't remember
6 exactly how it worked. They either transfer them
7 to us to cover our -- you know, what we need to
8 comply, I believe, is how that works.

9 MR. HARLEY: Does it ever go the other
10 way where Exelon is deriving a benefit through the
11 credits that you are transferring to them?

12 MR. SALADINO: It's possible, I don't
13 know --

14 MR. ASPLUND: We don't know what they
15 do with them.

16 MR. HARLEY: Do you keep track of the
17 total number of allowances that you transferred to
18 Exelon?

19 MR. SALADINO: I'm sure someone in the
20 environmental department does.

21 MR. HARLEY: Do you know,
22 approximately, how many allowances you've
23 transferred to Exelon in 2005?

24 MR. SALADINO: I do not.

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1 MR. HARLEY: Do you know if there was
2 a transfer of these valuable allowances to Exelon
3 in 2005?

4 MR. SALADINO: I'm assuming there was,
5 yes.

6 MR. HARLEY: What about in 2004?

7 MR. SALADINO: I would assume that any
8 year there were allowances there, they were
9 transferred to Exelon.

10 MR. HARLEY: And there is some benefit
11 that's derived by Kincaid because this is valuable
12 consideration that helps sustain the power
13 purchase agreement; is that correct?

14 MR. SALADINO: I believe the
15 allowances are used to help offset the costs of
16 building the SCR. So I don't know that it was
17 part -- you know, I don't believe it was part
18 of -- that we benefitted by the fact that the EPA
19 was going to have Exelon take care of the NOX.

20 MR. HARLEY: Thank you.

21 THE HEARING OFFICER: Anything further
22 for either of these witnesses? Thank you, sirs,
23 you may step down.

24 Let's go off the record.

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1 (WHEREUPON, discussion was had
2 off the record.)

3 THE HEARING OFFICER: Back on the
4 record.

5 After a short recess, and we are
6 going to start with testimony of Steven C.
7 Whitworth.

8 MR. WHITWORTH: Correct.

9 (WHEREUPON, the witness was duly
10 sworn.)

11 THE HEARING OFFICER: Mr. Rieser, this
12 is not the witness that was originally scheduled
13 to testify. Can you explain the situation, a
14 small form of where we're at, please?

15 MR. RIESER: Yes. Mr. Michael Many,
16 who is the vice president of environmental safety
17 and health for Ameren Services Company worked on
18 the testimony, presented the testimony, was
19 scheduled to be here but, due to a health issue,
20 was not able to -- has not been able to travel
21 over the last couple of days. So he was not able
22 to be here.

23 I will ask Mr. Whitworth, who
24 works under Mr. Many some questions that will, I

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1 hope, validate the testimony of Mr. Whitworth.

2 And then he'll be in a position to answer
3 questions on behalf of Mr. Many.

4 If there are things that go beyond
5 Mr. Whitworth's field, as we will find out,
6 Mr. Whitworth is more focused on actual
7 environmental compliance, not at the vice
8 president level, then we'll be prepared to
9 respond, submit responds in writing or some
10 mechanism that will get the question answered.

11 THE HEARING OFFICER: And you still
12 plan on introducing the testimony as Ameren's
13 number one?

14 MR. RIESER: I do, indeed.

15 STEVEN C. WHITWORTH
16 called as a witness herein, having been first duly
17 sworn, was examined and testified as follows:

18 DIRECT EXAMINATION

19 BY MR. RIESER:

20 Q. Mr. Whitworth, could you state your
21 name and your position with the company please?

22 A. My name is Steve Whitworth, and I am
23 supervising environmental scientist in the air
24 quality and operation support section for Ameren

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1 Services.

2 MR. RIESER: And what do your
3 responsibilities include?

4 MR. WHITWORTH: My responsibilities
5 include maintaining compliance obligations with
6 our operating companies, reviewing regulations,
7 dealing with reporting, permitting and
8 recordkeeping activities such as that.

9 Q. And would it be fair to say that one
10 of your jobs is making sure that the company
11 complies with the air pollution regulations?

12 A. Correct.

13 Q. And evaluating the -- both the
14 company's operations and potential air pollution
15 regulations in terms of what would have to be done
16 or not have to be done in order to comply?

17 A. That's correct.

18 MR. RIESER: Could we mark this as
19 Ameren Exhibit 1, or have you already done so?

20 THE HEARING OFFICER: I have done so.

21 (WHEREUPON, a certain document was
22 marked Ameren Exhibit
23 No. 1 for identification, as of
24 11/29/06.)

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1 BY MR. RIESER:

2 Q. I am going to show you what's been
3 marked as Ameren Exhibit 1, which is the testimony
4 of Mike Many. Did you participate in the
5 preparation of Ameren Exhibit 1?

6 A. Yes.

7 Q. Okay. And what did that participation
8 include?

9 A. The participation included the review
10 of some of the grafts as well as helping to fill in
11 some of the emissions background information, as
12 well, as some of the technical information.

13 Q. And have you reviewed Exhibit 1 since
14 it's been filed?

15 A. Yes.

16 Q. To the best of your knowledge, is it a
17 true and accurate statement of the company's
18 position on these issues?

19 A. Yes, it is.

20 Q. Is there a factual statement that
21 you've since identified that you believe may not be
22 quite accurate?

23 A. Yes. There's one minor revision on
24 Page 1 at the bottom where it refers to 19 steam

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1 generating units, technically that should be 21.
2 They counted Meredosia boilers 1, 2, 3 and 4, which
3 report to two electrical generating units as two
4 units, but they are actually four boilers and two
5 generating units. So that, technically, should be
6 21.

7 MR. RIESER: Then I move for the
8 admittance of Ameren Exhibit 1.

9 THE HEARING OFFICER: Any objections
10 to this?

11 MS. DOCTORS: No objection.

12 THE HEARING OFFICER: None. That will
13 be admitted. And, I take it, admitted, once
14 again, as if read into the record?

15 MR. RIESER: Correct.

16 (WHEREUPON, said document,
17 previously marked Ameren Exhibit
18 No. 1, for identification, was
19 offered and received in evidence.)

20 MR. RIESER: Mr. Whitworth does have a
21 very brief description of -- and summary of the
22 testimony that I'd like to present, just so the
23 Board and the people here can just hear the basic
24 positions.

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1 So, Steve, would you go ahead with
2 that?

3 MR. WHITWORTH: Certainly.

4 And I don't have a prepared
5 statement, but I do have just an outline of the
6 summary of the major points of the testimony. The
7 main goal of the testimony is to, at least,
8 advance the idea that advanced second-generation
9 over-fire air systems should be eligible for the
10 clean air acts, or the clean air set-aside
11 programs, and that cost-effective reductions that
12 meet the desired level of control in the program
13 objectives, such as NOX reductions, should be
14 eligible under the program.

15 Ameren has been recognized as a
16 performance leader in the -- especially with
17 Ameren Union Electric Company, Ameren UE, in
18 taking this technology to kind of an aggressive
19 stance to try to minimize NOX reductions without
20 the addition of add-on controls, such as SCR and
21 SNCR.

22 NOX reductions, typically, aren't
23 achieved by one single technology, it's typically,
24 what I would term, a suite of technologies where

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1 you may do several different programs, including
2 fuel choices, stage combustion and combustion
3 optimization, such as over-fire air systems,
4 tuning and combustion optimization, vans process
5 controls, such as neuromet-type systems, as well
6 as add-on controls, such as selective noncatalytic
7 reduction and selective catalytic reduction. And
8 we have proposed a minimum level of performance
9 for eligibility that would be equivalent to SNCR,
10 in our comments.

11 MR. RIESER: Thank you.

12 THE HEARING OFFICER: Any questions
13 for this witness?

14 MS. BUGEL: I have a few questions.

15 THE HEARING OFFICER: Ms. Bugel?

16 MS. BUGEL: Could you explain to me
17 how widely used are over-fired air systems?

18 MR. WHITWORTH: In our operating
19 company we have, I guess, a majority of the
20 coal-fired boilers in Missouri and Ameren UE
21 operations have some form of over-fire air system.
22 We have a couple units in Illinois that have such
23 systems. At least what we would term the basic or
24 initial over-fire air systems.

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1 MS. BUGEL: And do you know in
2 Illinois of the other EGUs, how widely used
3 over-fired air systems are at these other EGUs?

4 MR. WHITWORTH: No, I don't have
5 specific information on that.

6 MS. BUGEL: How long have over-fired
7 air systems been in existence and available,
8 commercially available technology?

9 MR. WHITWORTH: To my knowledge, our
10 Sioux, NUE Sioux plant was one of the first units
11 in the country to install and optimize over-fire
12 air systems. That was done in the kind of the
13 late '90s, early 2000 timeframe.

14 MS. BUGEL: Would -- backup a minute
15 here.

16 Page 2 of your testimony, please.
17 Do you -- is it correct that it states, "Ameren
18 supports the IEPA in establishing an innovative
19 approach to promote important energy and
20 environmental goals"?

21 MR. WHITWORTH: Yes.

22 MS. BUGEL: Would you characterize
23 over-fired air as innovative?

24 MR. WHITWORTH: Over-fire air, as we

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1 are proposing, is kind of a second generation or
2 advanced over-fire air system, yes I would
3 consider that innovative.

4 MS. BUGEL: Thank you. I have no
5 further questions.

6 MR. RAO: I have a follow-up to
7 Ms. Bugel's question.

8 You mentioned that you have two
9 units in Illinois which have this over-fired air
10 systems?

11 MR. WHITWORTH: Correct.

12 MR. RAO: And do you characterized
13 them as advanced OFA --

14 MR. WHITWORTH: No.

15 MR. RAO: -- or the first generation?

16 MR. WHITWORTH: No, I would
17 characterize them as being first generation.

18 MR. RAO: Okay. Thank you.

19 THE HEARING OFFICER: Mr. Harley?

20 MR. HARLEY: Also on Page 2 of the
21 testimony, Ameren indicates that it supports the
22 Illinois EPA in developing the clean air
23 set-asides; is that correct?

24 MR. WHITWORTH: To achieve the goals

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1 of the program, yes, it's optional.

2 MR. HARLEY: Does that include the
3 set-asides that have been proposed for renewable
4 energy?

5 MR. WHITWORTH: Categorically, I
6 guess. And overall, we've supported the -- I
7 guess the policy decision that EPA has made in
8 that regard.

9 MR. HARLEY: And does that then also
10 include the decision that Illinois EPA made
11 regarding setting aside credits for
12 energy-efficiency projects?

13 MR. WHITWORTH: I would say yes.

14 MR. HARLEY: Why is it that Ameren,
15 the second largest utility company in Illinois
16 supports setting aside credits to promote
17 renewable energy and energy efficiency projects?

18 MR. WHITWORTH: I can't answer
19 specifically, as far as the policy decision was
20 made. I'm not sure that our -- and my, I guess,
21 level of information, the decision wasn't
22 specifically to single out one area to CASA over
23 another area.

24 MR. RIESER: I'm afraid this is more

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1 of a upper level policy question that Mr. Many
2 would have been better suited to answer.

3 MR. HARLEY: Is it possible that
4 Mr. Many would be able to supplement his testimony
5 in answer to that question --

6 MR. RIESER: Certainly.

7 MR. HARLEY: -- as part of
8 (inaudible)?

9 MR. RIESER: Uh-huh.

10 MR. HARLEY: I would be very
11 interesting in knowing why it is that Ameren,
12 unlike some other utilities in Illinois has made
13 the decision to support CASA as it's been proposed
14 by the Illinois EPA.

15 MR. RIESER: We certainly can't speak
16 for other utilities, but we can speak for our own.

17 THE HEARING OFFICER: Mr. Bonebrake?

18 MR. BONEBRAKE: A clarification
19 regarding the -- I think you started that request
20 by asking for additional amended testimony and
21 then you referred to comments. So I didn't know
22 what you --

23 MR. HARLEY: Mr. Bonebrake is
24 absolutely correct. I was very ambiguous.

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1 Mr. Hearing Officer, I would ask
2 for your direction on this, whether or not it
3 would be appropriate for a question that Mr. Many
4 needs to address to --

5 THE HEARING OFFICER: I think public
6 comment would be appropriate, mainly of his
7 testimony, we can't cross-examine him this
8 morning.

9 MR. BONEBRAKE: That would be my
10 concern.

11 MS. BASSI: (Inaudible.)

12 THE HEARING OFFICER: We very well
13 could if somebody asks for it and the Board agrees
14 to do so. But I think, at this point, let's have
15 that be responded to as public comment; if that's
16 okay with Mr. Harley?

17 MR. HARLEY: That's perfectly
18 acceptable.

19 I just have two follow-up
20 questions. Under the proposed rule, Ameren would
21 have the option to initiate the renewable energy
22 project and receive an allocation of credits as a
23 part of that project; correct?

24 MR. WHITWORTH: That's correct.

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1 MR. HARLEY: Does Ameren intend to
2 initiate a renewable energy project?

3 MR. WHITWORTH: I don't have specific
4 information regarding any renewable energy
5 projects or anything on them.

6 MR. HARLEY: Is that something --

7 THE HEARING OFFICER: Excuse me. When
8 you speak in response to his questions, I hope you
9 will, inconsistently, try to also address the
10 court reporter.

11 MR. HARLEY: Is that something that
12 Mr. Many would be able to address, or is the
13 question just too speculative at this point?

14 MR. RIESER: I suspect it's
15 speculative, but I will be happy to direct it to
16 Mr. Many and get you a response one way or another
17 on that, well.

18 MR. HARLEY: And just for purposes of
19 the record, the second question, which I believe
20 also would need to be set aside for Mr. Many, is,
21 under the proposed rule, would Ameren have the
22 option to initiate an energy efficiency project?

23 MR. RIESER: Yeah, I think that was
24 answered. The question that wasn't -- which was

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1 yes, that's what the rule provides. But what
2 wasn't answered is whether they intend to, that's
3 what I understand.

4 MR. HARLEY: Just to be clear, this is
5 as to energy efficiency?

6 MR. RIESER: Right.

7 MR. HARLEY: So the two parts of the
8 question are first renewable energy and then
9 energy efficiency.

10 MR. RIESER: So just so I can clarify,
11 is the question that you want Mr. Many to respond
12 is actually two, is there an intention to initiate
13 a renewable energy project and is there an
14 intention to initiate energy efficiency projects
15 for which they will seek credits under this
16 program?

17 MR. HARLEY: That is exactly correct,
18 thank you.

19 Just -- I would like to return --
20 I'd like to get an answer on the record from the
21 witness to the energy efficiency -- general energy
22 efficiency question.

23 It was, could Ameren initiate an
24 energy efficiency project at its coal-fired power

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1 plants and receive an allocation credit under the
2 Rule?

3 MR. WHITWORTH: I guess my response to
4 that question would be that it depends on the
5 circumstances, and I know, for example, depending
6 on the operating company, a certain such as a
7 demand side management, that would be available to
8 maybe one of the regulated subsidiaries but not to
9 a generating subsidiary. So that the transfer of
10 those allowances, if they were earned on one
11 regulating subsidiary, wouldn't necessarily be
12 available to the generating company, those would
13 have to be purchased essentially at that market.

14 So there may not be a direct
15 benefit to the generating company with regard to
16 certain types of projects.

17 MR. HARLEY: Thank you.

18 THE HEARING OFFICER: Ms. Doctors?

19 MS. DOCTORS: Good morning, I have a
20 couple questions --

21 MR. WHITWORTH: Good morning.

22 MS. DOCTORS: -- with some subparts.

23 With regards to the OFA system, on
24 Page 2 of your testimony -- the Many testimony,

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1 excuse me -- you state, "Yet, OFA systems are a
2 valuable and cost effective source of NOX
3 reduction, and their use should be incurred by the
4 CASA program."

5 And on Page 5 Mr. Many states,
6 "Even advanced OFA systems have capital costs
7 substantially less than SNCR systems."

8 Wouldn't you agree that both of
9 these statements indicate that OFA systems are
10 cost effective and less expensive than the SCR and
11 SNCR?

12 MR. WHITWORTH: Yes.

13 MS. DOCTORS: Would you further agree
14 that OFA systems are much less expensive than SNCR
15 and SCR systems multiple times lower?

16 MR. WHITWORTH: I would say yes in the
17 case of SCR. In the case of SNCR, I don't have
18 specific information to -- you know, as far as the
19 order of magnitude of cost. So I have a qualified
20 yes.

21 I would anticipate that the costs
22 are closer together between an over-fire air
23 system and depending on the level of control and
24 the advanced controls that we are proposing with

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1 regard to an SNCR system.

2 MS. DOCTORS: Doesn't it make sense to
3 reduce the barriers, namely -- we had talk about
4 this earlier with the prior witness -- a huge cost
5 of installing a piece of control equipment versus
6 operating a piece of control equipment?

7 MR. WHITWORTH: Can you say that one
8 more time, please?

9 MS. DOCTORS: Doesn't it make sense to
10 reduce the barrier, namely the huge cost of
11 installing control equipment, to promote the
12 installation of control equipment?

13 MR. RIESER: Just so I understand the
14 question, are you asking whether it's a better
15 policy to have the allowances available solely for
16 large capital costs as opposed to smaller capital
17 costs?

18 MS. DOCTORS: Correct.

19 MS. BASSI: Could I ask a
20 clarification?

21 THE HEARING OFFICER: Can we let him
22 answer that or -- and then you can ask for your
23 clarification? Or is it --

24 MS. BASSI: Well, it goes, actually,

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1 to the Agency for the basis of the question.

2 THE HEARING OFFICER: Okay.

3 MS. BASSI: Is there something in the
4 Rule that establishes a cost baseline, that's in
5 the Rule, that is a trigger for all these
6 questions?

7 THE HEARING OFFICER: Hold on, hold on
8 just a second.

9 Mr. Whitworth, can you answer that
10 question?

11 MR. RIESER: Do you remember the
12 question?

13 THE HEARING OFFICER: Do you want to
14 rephrase the Ms. Doctor's question form
15 Mr. Whitworth one more time and then we'll get to
16 Ms. Bassi.

17 MS. BASSI: I'm sorry.

18 MR. RIESER: Well, my clarification of
19 the question, which I think Ms. Doctor has
20 accepted, was shouldn't there be a policy that
21 encourages large capital costs as opposed to
22 smaller capital costs within this CASA program?

23 MR. WHITWORTH: In responding to that
24 question, I would say that that's -- not

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1 necessarily. That I think the goal of the program
2 should be for NOX reduction. And that if you have
3 a leased -- less expensive equivalent technology,
4 that that should be under the program goal. That
5 would be consistent with the program goals.

6 THE HEARING OFFICER: Did you need a
7 follow-up on that, Ms. Bassi?

8 MS. BASSI: Well, except -- I just
9 wondered if there was something in the Rule that I
10 missed that had that provided that went to his
11 answer and to your questions that talked about all
12 this cost basis.

13 MS. DOCTORS: I'd just be on the
14 record and saying: At the first hearing, the
15 Agency did provide some testimony as to the
16 purposes of the CASA that was it was to provide
17 incentive for these large capital projects. And
18 they did not provide testimony saying that there
19 was a cutoff as to -- you know, between a large
20 capital cost and a small capital cost.

21 MS. BASSI: Well, if the testimony of
22 Kincaid and Ameren has raised an issue with the
23 Rule, that has triggered all these questions about
24 shouldn't policy be something or another, that the

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1 Agency is raising, perhaps there's a change that
2 needs to be made to the Rule to address the issues
3 that are raised, as opposed to trying to co-op
4 companies into adopting or agreeing or saying this
5 is what the State's policy is or should be, when
6 that policy is what the Agency wants it to be.

7 MR. KIM: I believe that the questions
8 that we've raised concerning policy considerations
9 that the witness had called in in response to
10 statements made in their prefiled testimony in
11 which they propose or they suggest -- you know, in
12 some cases called an alternative policy or
13 basically instead of doing this, the State should
14 do this. See we're simply asking them questions
15 based on those statements.

16 If they made no assertions for
17 what a different policy direction should be, we
18 wouldn't have any questions to ask. Because, as I
19 think as Ms. Doctors' stated, we've already
20 supplied a sufficient testimony in the first
21 hearing as to the basis of rationale for our
22 policy.

23 MS. BASSI: So basically, what you're
24 saying is there is a difference of opinion as to

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1 what the policy should be. And I don't understand
2 it.

3 MR. KIM: Which is a fair area for
4 questioning.

5 MS. BASSI: Well, I guess I was going
6 to say, I didn't think it was.

7 THE HEARING OFFICER: So are you
8 offering an objection to the line of questioning?
9 I just don't know what you're trying to achieve
10 here, Ms. Bassi.

11 MS. BASSI: I guess I am. And your
12 going to overrule it.

13 THE HEARING OFFICER: Probably, yes.

14 MS. BASSI: It's not my business
15 anyway, it's his business.

16 THE HEARING OFFICER: Well, this
17 doesn't seem like it's -- these issues were raised
18 in the pretrial testimony. I think the Agency has
19 every right to ask questions concerning the
20 assertions made to the testimony.

21 MS. BASSI: Well, I guess, to me, the
22 lines of questioning would be is this your policy
23 instead of should the policy be for more expensive
24 things.

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1 MR. KIM: Well, to respond --

2 MS. BASSI: That's all.

3 MR. KIM: For example, with
4 Mr. Saladino, he made certain statements that were
5 of a policy suggesting that we should go in a
6 different direction or that he believed that our
7 considerations were not valid. We asked about
8 what the basis for a statement was, and he said
9 well, we've got some calculations here. We didn't
10 know about that. Because had we not asked
11 questions on that point, we never would have known
12 that there was some independent assessment
13 performed by them that possibly, you know, led
14 them to believe we should go a different way. So
15 I think that's why these questions are fair game.

16 MS. BASSI: No -- and I agree with
17 that. What I'm objecting to is the question along
18 the line of isn't it better to have a policy that
19 subsidizes the capital cost of SCR, as opposed to
20 the capital cost over fire --

21 THE HEARING OFFICER: Let's see if
22 Mr. Rieser wants to join in your objection.

23 MR. RIESER: To be brutally frank, the
24 crux of the issue that we're presenting really

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1 does come down to a fundamental policy issue. As
2 I understood the Agency's testimony at the last
3 hearing, and I asked Mr. Ross a whole series of
4 questions on this, they have established a policy
5 that says, "We think that the CASA should be
6 limited for big ticket items."

7 And what we're saying,
8 essentially, is, as Mr. Many's testimony says, and
9 Mr. Whitworth is saying, that's fine except, if
10 you can get a better bang for a buck and at
11 smaller costs, why not allow that. And I don't
12 know how far we can get on exploring the bases for
13 these policy differences, it's -- from our
14 perspective it's, you know, Jeez, if you can get
15 for cheaper, then you get it cheaper and then
16 there's more allowances elsewhere.

17 But certainly it's a fair
18 discussion to have that I don't have a problem
19 with.

20 THE HEARING OFFICER: Ms. Doctors, do
21 you have any further questions?

22 MS. DOCTORS: Yes, I have --

23 MR. RAO: I have --

24 THE HEARING OFFICER: Mr. Rao?

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1 MR. RAO: There's been quite a bit of
2 exchange about the difference in cost between SCR
3 and the oil-fired air systems.

4 MR. RIESER: Uh-huh.

5 MR. RAO: Do you have any cost data
6 that you can submit to the record so we have some
7 numbers to compare?

8 MR. RIESER: We don't have any numbers
9 as we sit here. I think Mr. Whitworth can
10 provide, and certainly with respect to SCR, some
11 level of order of magnitude in response to that
12 question.

13 So, you know, Mr. Whitworth, why
14 don't you just provide a very basic idea of the
15 difference in capital costs between both the SCR
16 and the type of advanced OFA systems that we're
17 taking about.

18 MR. WHITWORTH: And as David
19 indicated, I don't have specific cost information.
20 I think from engineering and project design, we
21 can probably get some numbers that we can, you
22 know, compare in order of magnitude the
23 differences between SCR.

24 What, I guess, in general concept,

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1 an SCR is a large piece of equipment that has to
2 be built and suspended up outside the boiler
3 house, so you have a lot of, you know, structural
4 steel and ductwork and then catalyst is expensive
5 and operating systems and storage systems. So the
6 scope -- the overall scope of an over-fired air
7 system, which would be, you know, electronic
8 advance controls, some ductwork, dampers, those
9 sorts of things, on a scale of the amount of work
10 and equipment that would be included, there's a
11 difference there.

12 MR. RIESER: To put numbers on it, if
13 I could just follow up, isn't the normal termed
14 number that people throw around for an SCR around
15 \$85 million or \$100 million?

16 MR. WHITWORTH: It depends on the size
17 of the unit. But, yes, somewhere in that -- you
18 know, where for an over-fire system -- and I
19 hesitate to venture a guess as far as what that
20 would be.

21 MR. RAO: I was more interested in
22 OFA.

23 MR. WHITWORTH: I just as soon not
24 give you a guessed number when I don't have it

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1 readily available.

2 MR. RAO: Could it be possible for you
3 to provide it in the comments?

4 MR. WHITWORTH: Yes.

5 MR. RIESER: Certainly.

6 MS. DOCTORS: All right.

7 THE HEARING OFFICER: Mr. Johnson, do
8 you have something?

9 MR. JOHNSON: I just -- just to clear,
10 you're asking that the rule be amended to remove
11 the exclusion from CASA allowances for the OFAs
12 that you've characterized as advanced, rather --
13 you're not acting on some retroactive -- your
14 first generation OFA is to be covered under this.
15 But rather, the one specifically that was a 30
16 percent reduction, was that the bell weather
17 number you had in the --

18 MR. RIESER: That's what the proposal
19 called for. And as the testimony lays out, that
20 number was selected, both because it was within
21 the range of the IEPA expects the NCR to provide
22 and also represented the difference between sort
23 of, I can say, normal or first generation OFA and
24 the type of advanced OFA that we're discussing

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1 here.

2 MR. JOHNSON: Okay.

3 MR. RAO: Does Ameren have any plans
4 to install advanced OFA in the Illinois units?

5 MR. WHITWORTH: That's one of the
6 types of controls that we would be looking at,
7 yes.

8 THE HEARING OFFICER: Mr. Bonebrake?

9 MR. RAO: How many of the units do you
10 have plans for installing these systems?

11 MR. WHITWORTH: It depends on --

12 MR. RIESER: And that's true. And,
13 just offhand, I would think that there's, you
14 know, several units I can -- probably in the
15 neighborhood of, you know, three or four, likely,
16 just off the cuff.

17 THE HEARING OFFICER: Is that it?

18 MR. RAO: Yes.

19 THE HEARING OFFICER: Mr. Bonebrake?

20 MR. BONEBRAKE: (Inaudible.) I think
21 you just mentioned possibly installing three or
22 four second generation OFAs -- (inaudible.)

23 MR. WHITWORTH: Yeah, that's a
24 potential in the plan.

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1 MR. BONEBRAKE: And is that,
2 Mr. Whitworth, part of Ameren's strategy with
3 respect to compliance with the MPS program were
4 Ameren to opt into the MPS program?

5 MR. WHITWORTH: I don't know if it's
6 specifically included as part of the MPS, meaning
7 that the plans hasn't been, you know, totally
8 worked out. There's -- certainly those could be
9 included, but I'm not sure that they're laid out
10 in stone at this point in time.

11 MR. BONEBRAKE: The first generation
12 OFAs that you referred to, I think you said you
13 have first generation OFAs in a couple of Ameren
14 facilities in Illinois; is that correct?

15 MR. WHITWORTH: Correct.

16 MR. BONEBRAKE: Can you give us a
17 sense of the percentage reduction the first
18 generation OFA faces?

19 MR. WHITWORTH: I'm trying to remember
20 back exactly. The two units specifically I'm
21 referring to COFFEEN Units 1 and 2.

22 And from a percentage basis, I
23 think we're probably somewhere from a baseline
24 of -- I'm trying to do the math in my head, which

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1 is dangerous. I would say, probably, somewhere in
2 the neighborhood of a, you know, 20 percent
3 reduction.

4 MR. BONEBRAKE: 20 percent?

5 Would you view that 20 percent
6 reduction to be representative of first generation
7 OFAs coal-fired boilers, in general?

8 MR. WHITWORTH: From the limited
9 information that we have, you know, as I
10 mentioned, I don't have specific data or, like
11 Sioux was, the units at Sioux plant were kind of
12 the first ones out of the box and we go back and
13 identify some of that data specifically. But it's
14 kind of been a stage of developments over time
15 with the Sioux plant as being kind of the poster
16 child, if you will, for those types of systems.

17 On a cyclone boiler -- and the
18 reason I'm using Sioux as an example because
19 they're comparable units to COFFEEN units as to
20 being cyclone-fired boilers.

21 MR. BONEBRAKE: And is there a
22 difference in the expected level of NOX reduction
23 using the OFA or a cyclone versus pulverizing?

24 MR. WHITWORTH: Overall on a percent

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1 reduction basis, I don't think so. Your starting
2 points would be different.

3 MR. BONEBRAKE: And you're starting
4 point would be higher at which of those two types
5 of firing mechanisms?

6 MR. WHITWORTH: Higher at a cyclone
7 unit.

8 MR. BONEBRAKE: And are you aware of,
9 outside of the Ameren system in Illinois, how many
10 coal-fired generating facilities currently have
11 OFA?

12 MR. WHITWORTH: No, I think I answered
13 that question earlier, but I don't have specific
14 information about that.

15 MR. BONEBRAKE: And are you aware that
16 some do?

17 MR. WHITWORTH: Yes.

18 MR. BONEBRAKE: And the OFAs that are
19 currently installed in other generating unit
20 facilities would not be eligible for CASA
21 allowances; is that correct, under the proposal?

22 MR. WHITWORTH: Yes. I think
23 consistently they would be, both from the
24 effective date as well as the way the Rule is

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1 actually written.

2 MR. RIESER: Well --

3 MS. BASSI: Is that true for all of
4 the categories of CASA?

5 MR. RIESER: Let me ask. Are you
6 saying they're not included -- I just want to
7 clarify the question. Not included because they
8 don't meet the 30 percent number or because the
9 date of installation or what?

10 MR. BONEBRAKE: Well, I can ask that
11 in follow-up. For the historically installed OFA
12 systems, is it your testimony that they would not
13 be eligible under the pollution control CASA
14 category because of the date of the installation?

15 MR. WHITWORTH: That's my
16 understanding.

17 MS. BASSI: Okay. Would the advance
18 over-fire air systems that you're talking about be
19 eligible under any of the other CASA categories
20 besides the air pollution control equipment
21 upgrade category? You don't have an advance
22 system in Illinois, so the dates are not an issue.

23 MR. WHITWORTH: Right. The only other
24 one, and I don't know specifically if the -- or

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1 that they would be qualified, depending on timing,
2 with the earlier adopter if they weren't excluded.

3 MR. BONEBRAKE: Are you aware of any
4 other OFA system currently in use in Illinois that
5 achieves a 30 percent NOX reduction?

6 MR. WHITWORTH: Not specifically.

7 THE HEARING OFFICER: Ms. Doctors?

8 MS. DOCTORS: Isn't it true that
9 (inaudible) for SCR it would be the
10 nontangentially fired boilers?

11 MR. WHITWORTH: I think that -- and I
12 don't have specific information about SNCR
13 information in our system on a tangentially fired
14 boiler, because at this point in time, we do not
15 have any SNCR systems installed. My understanding
16 is that an advanced over-fire air system could be
17 as effective as an SNCR in pulverized --
18 tangentially fired pulverized coal units.

19 MS. DOCTORS: Do you have any studies
20 or any other information that would show this?

21 MR. WHITWORTH: We have some, I guess,
22 engineering design information that I don't have
23 with me, that's been made available to us by our
24 project engineering group for our -- you know

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1 under our system and analysis, essentially, at
2 potential levels of removal comparing the two
3 technologies.

4 MR. ROSS: Just a point of
5 clarification.

6 THE HEARING OFFICER: Mr. Ross?

7 MR. ROSS: Are you saying that for a
8 tangentially over fired boilers and advanced over
9 fired air can achieve the same level of reduction
10 as a SNCR?

11 MR. WHITWORTH: Yes.

12 MR. ROSS: Okay. And what are you
13 basing that on?

14 MR. WHITWORTH: I'm basing it on
15 engineering data and -- and one of the things that
16 we've done is we have used in the testimony and
17 example of Labadie and Rush Island plants in the
18 AmerenUE system, which are -- have advanced
19 over-fire air systems, as we have defined them,
20 and they're achieving emission rates that are
21 lower than you would typically see from a unit
22 that has SNCR.

23 MR. ROSS: And just to clarify again,
24 you're referring to not existing over-fired air

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1 but advanced over-fired air?

2 MR. WHITWORTH: That's correct. That
3 would include the additional control systems.

4 MR. RIESER: And if I can clarify
5 that? Excuse me. If I can get a -- I'm sorry,
6 Mr. Ross, if I can get a clarification in.

7 The advanced click OFA that he's
8 talking about at Labadie and Rush is existing, but
9 it's not first generation. You asked whether it
10 exists.

11 MR. ROSS: I've got it.

12 MR. RIESER: Okay. It is existing,
13 this isn't a theoretical study, there's hard data,
14 that's what's been the testimony.

15 And then I cut you off when you
16 asked another question.

17 MR. ROSS: Are there also existing
18 advancements in SNCRs that you're aware of?

19 MR. WHITWORTH: Not that I'm
20 specifically aware of.

21 MR. ROSS: Are you familiar with the
22 company fuel tech and the technology referred to
23 as NOX out?

24 MR. WHITWORTH: I've heard the term

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1 but I'm not -- I don't -- I don't have specific
2 technical information about the process.

3 MR. ROSS: Are you familiar with rich
4 reagent injection, also called RRI?

5 MR. WHITWORTH: Yes.

6 MR. ROSS: Isn't that technology used
7 in conjunction with SNCRs?

8 MR. WHITWORTH: Typically, it has
9 been, and there are differences between rich
10 reagent injection, RRI and SNCR, mainly related to
11 where the reagent is injected into the furnace.

12 MR. ROSS: And that technology, used
13 in conjunction with SNCRs, can enhance the NOX
14 reductions from SNCRs?

15 MR. WHITWORTH: Yes. And I'll qualify
16 my answer in that it would be considered -- or I
17 would consider that as being, again, a suite of
18 controls where you might have several different
19 control technologies that are working together to
20 achieve overall reductions, where you would
21 consider over-fire air, combustion optimization
22 rich reagent injection and SNCR could be
23 considered four different discrete technologies
24 that are being installed collectively to achieve

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1 overall NOX reductions.

2 MR. ROSS: Well, let's just say under
3 your characterization they employ that suite of
4 controls, that suite of controls could achieve NOX
5 reductions greater than advance over-fired air?

6 MR. WHITWORTH: That's correct.

7 MR. ROSS: Okay.

8 THE HEARING OFFICER: Mr. Harley, do
9 you have a follow up?

10 MR. HARLEY: In a situation where you
11 have the suites technologies and techniques which
12 are being used to reduce NOX, how will you
13 actually allocate percentage reduction which can
14 be designated to over-fired air systems as opposed
15 to other upgrades which you may be putting in
16 place at the facility?

17 MR. WHITWORTH: How would I do that
18 or...

19 MR. HARLEY: How can it be done?

20 MR. WHITWORTH: One way it could be
21 done is with the timing of the installations. So
22 if the equipment is installed at different times,
23 you would have a discrete -- you know, like I put
24 in A today and B tomorrow and measured the

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1 difference before I went to C and D.

2 And I think that's one of the
3 things we have proposed in the language was that
4 it would be potentially difficult to break out
5 individual projects so that you would combine the
6 overall effect from a series of qualifying
7 controls.

8 MR. HARLEY: So definitionally, how do
9 you -- if over-fired air second generation is
10 being designated as a system which meets a certain
11 numeric reduction in combination with suite of
12 other controls, how do you know whether or not a
13 second generation, first generation, third
14 generation?

15 MR. WHITWORTH: Well, I think we've
16 attempted to define what an advanced over-fire air
17 system would be. It could be an over-fired air
18 system coupled with advanced combustion controls
19 and would achieve that minimum level of control --
20 minimum level at the threshold value, if you will,
21 of 30 percent reduction.

22 MR. HARLEY: Is there -- would it be
23 possible to develop a more precise definition of
24 what constitutes second generation over-fired air

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1 system that is not based solely on achieving
2 numeric reduction? A technology description which
3 would distinguish second generation from first
4 generation?

5 MR. WHITWORTH: And I was -- I thought
6 we had tried to characterize that in the testimony
7 as far as what's -- how to characterize the
8 difference between what we view as, you know,
9 existing versus an advanced technology.

10 MR. HARLEY: You described in terms of
11 certain characteristics, but I'm wondering if it
12 would be possible to actually develop a definition
13 to be inserted into a rule?

14 MR. WHITWORTH: I suppose it's
15 possible, I don't have, you know, exact
16 information available right now as what I would
17 propose as a definition.

18 MR. HARLEY: Thank you.

19 THE HEARING OFFICER: Ms. Doctors?

20 MS. DOCTORS: You mentioned you've
21 already installed some of advanced over-fire air
22 systems in some of your other facilities. Can you
23 provide some data for the record on these
24 reductions? Do you have a study or something?

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1 Other than -- I mean, we have a
2 couple numbers here, but we don't have the
3 background information on how you got there.

4 MR. WHITWORTH: Okay. With regard to
5 a specific unit, I refer you to Attachment A of
6 the testimony, shows a graph over time for
7 individual units. And what you're asking for is
8 a -- maybe an example of a specific unit
9 demonstrating the reductions?

10 MS. DOCTORS: Yes. Yes, something,
11 that is -- this is just a general overview versus
12 what the actual --

13 MR. RIESER: I'm not sure I understand
14 what you're asking for. What's attached in A is
15 the NOX numbers year by year.

16 And anything we would provide come
17 down to these NOX reductions. Are you looking for
18 more specific NOX reductions or...

19 MS. DOCTORS: Where did you say more
20 specific and also what else -- what other NOX
21 systems or controls do you have on at this plant?
22 So how do we tell which of the NOX reductions are
23 from an over-fire air system and which are from
24 another system? Do you know any other system like

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1 -- that you might have installed at this plant?

2 MR. WHITWORTH: Well, I would say for
3 the examples, at least at Rush Island and Labadie
4 plants, those are, essentially, a result of the
5 advanced over-fire air technology.

6 MS. DOCTORS: So there's no other
7 technology installed at Rush Island or Labadie?

8 MR. WHITWORTH: I'm sorry, could you
9 ask that one more time?

10 MS. DOCTORS: Is there no other NOX
11 reduction technology installed at these two
12 plants?

13 MR. WHITWORTH: Such as SNCR, SCR?

14 MS. DOCTORS: Yes.

15 MR. WHITWORTH: Yes, that's correct.

16 MR. RIESER: Yes, it's correct that
17 there's no other SNCR installed.

18 MS. DOCTORS: Thank you. I mean, I've
19 got some more questions, if you would like to
20 follow up.

21 MR. HARLEY: I just wanted to -- while
22 we're on the graph, ask you a question about this.
23 You pointed to Rush Island and Labadie as being
24 examples of facilities which had achieved

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1 substantial NOX reduction through the use of over
2 fired-air; is that correct?

3 MR. WHITWORTH: Correct.

4 MR. HARLEY: When did you install an
5 advanced over-fire air system at Rush Island?

6 MR. WHITWORTH: I don't have the exact
7 date. I would have to get that for you.

8 MR. HARLEY: Do you know when you
9 installed the advanced over-fire air system at
10 Labadie?

11 MR. WHITWORTH: Same answer. I don't
12 have the exact dates available to me right now.

13 MR. HARLEY: Do you know whether or
14 not the advanced over-fire air systems were
15 installed within the past five years?

16 MR. WHITWORTH: Yes. Let me qualify
17 that. It may be -- I would say in -- when you say
18 exactly five years, I'm thinking that back in
19 2001. I qualify that answer that I'm not exactly
20 sure.

21 MR. HARLEY: In looking at the graph,
22 which is attached in Mr. Many's testimony, it
23 appears that the NOX emissions from both Labadie
24 and Rush Island have been relatively flat lined

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1 from, roughly, 1999 to the present. Do you agree
2 with that?

3 MR. WHITWORTH: Yes.

4 MR. HARLEY: And that the real
5 reductions in NOX occurred in the period for both
6 facilities 1994, 1995, 1996. Do you agree?

7 MR. WHITWORTH: Well, then if you look
8 at -- when you say "real reductions," I would
9 state that the reductions had continued beyond
10 that. The issue that you get into is it's the law
11 of diminishing returns.

12 The lower you get, the harder it
13 is to get the additional reductions. If you're
14 looking at an order of magnitude change, you know,
15 you could look at the slope of the curve, and yes,
16 there were a large reduction initially, but they
17 continued to reduce.

18 For example, you know, it's hard
19 to tell on the graph, that you've achieved from
20 the 1998 time frame down to the baseline an
21 additional 40, 50 percent reduction over that time
22 period.

23 MR. HARLEY: And do you believe that's
24 attributable to the second generation over-fired

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1 air system?

2 MR. WHITWORTH: Yes.

3 MR. HARLEY: Thank you.

4 THE HEARING OFFICER: Ms. Doctors?

5 MS. DOCTORS: Yes. I have a couple
6 more questions.

7 Isn't it true that if CASA
8 allowances are allocated to OFA, there's a greater
9 chance there will be fewer allowances available
10 for more costly and effective controls, such as
11 scrubbers, bag houses, NCRs and SNCRs?

12 MR. WHITWORTH: I guess the number of
13 eligible projects would mean that there are, you
14 know, more projects that would potentially be
15 eligible for the same number of CASA allowances.

16 MS. DOCTORS: Is that yes or no?

17 MR. WHITWORTH: Yes, generally.

18 MS. DOCTORS: And if there were fewer
19 allowances available for these that were costly,
20 and are less cost effective controls from the
21 CASA, it would be less of a cost offset provided
22 for by the CASA and therefore less of an incentive
23 provided for installation of these more costly
24 controls; true?

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1 MR. WHITWORTH: Long question. When
2 you say "less cost effective," I think that's -- I
3 wouldn't necessarily agree that they were less
4 cost effective.

5 MS. DOCTORS: Absent that, that these
6 are more closely controls, would there be less of
7 a cost offset provided by CASA and less incentive
8 for controls; true?

9 MR. WHITWORTH: You would be eligible
10 for -- you would potentially not receive as many
11 as CASA allowances for the project.

12 MS. DOCTORS: Therefore, isn't it
13 quite possible that allowing OFA systems to use
14 the CASA could result in few installations of more
15 costly and effective controls and thus fewer
16 reductions of emissions?

17 MR. WHITWORTH: Not necessarily. If
18 the technologies were equivalent -- for example,
19 if you could get the same level in reduction for a
20 less costly, there would be an economic incentive
21 to do that to achieve the same level of reduction.

22 MR. ROSS: Isn't that true for only
23 NOX emissions? Aren't the CASA pollution control
24 upgrade allowances also available for scrubbers

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1 and bag houses?

2 MR. WHITWORTH: That's correct.

3 MR. ROSS: So putting your answer in
4 context, you're only referring to NOX --

5 MR. WHITWORTH: Correct.

6 MR. ROSS: -- controls.

7 MR. WHITWORTH: That's correct.

8 MR. ROSS: And excluding SO2 controls,
9 such as scrubbers and particulate matter controls,
10 such as bag houses; correct?

11 MR. WHITWORTH: Correct.

12 MR. ROSS: Thank you.

13 MS. DOCTORS: Cap and trade programs
14 like the -- don't cap and trade programs, like the
15 proposed CAIR, already provide an incentive for
16 cost effective controls without any extra
17 allowances from the CASA?

18 MR. WHITWORTH: I guess there's always
19 an incentive with the -- the advantage of a cap
20 and trade program is that you can opt to put in
21 controls or by allowances and make that economic
22 decision. The other issue with that is you have
23 to plan to put on controls, so that would be, you
24 know, potentially somewhat of a risky -- to a

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1 certain extent, you need to make sure that ten
2 years down the road you're going to be able to
3 comply at your facility.

4 So the reality that you would
5 totally rely on cap and trade program is probably
6 not likely. But you would install controls in
7 addition to, you know, look at market for
8 available allowances, as well.

9 MS. DOCTORS: What was the cost
10 perfect ton of NOX relied on by -- excuse me.
11 What is the cost per ton of NOX controlled by OFA
12 Mr. Many based his testimony on?

13 MR. WHITWORTH: I don't have the exact
14 number with me.

15 MS. DOCTORS: Can you give me a
16 relative number?

17 MR. WHITWORTH: I really don't know
18 that relative.

19 MS. DOCTORS: Are you aware that the
20 USEPA's estimate -- of USEPA's estimate of \$120 to
21 \$430 per ton for base load and \$340 to \$540 for
22 cyclone units for OFA?

23 MR. WHITWORTH: I'm not specifically
24 aware of that. I would -- I guess we'd have to

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1 look at our data as it is in comparison, if that's
2 what you're asking me. You're asking me if I'm
3 aware of that -- those cost values?

4 MS. DOCTORS: Yeah, of USEPA's cost
5 values that was provided by the Agency in Table
6 5.2 -- 6.3, thank you.

7 MR. WHITWORTH: I'm aware that they
8 were in there, I haven't justified them.

9 MS. DOCTORS: Are you aware that --
10 and we have talked about this a little bit today,
11 that the SIPCALL allowances have not traded for
12 less than \$1,500 and on average sell for more than
13 \$2,000 per allowance?

14 MR. WHITWORTH: Can you ask that
15 again, I'm sorry?

16 MS. DOCTORS: Yes.

17 Are you aware that NOX SIPCALL
18 allowances have not traded for less than \$1,500
19 apiece and, on average, sell for more than \$2,000
20 per allowance?

21 MR. WHITWORTH: I think the actual --
22 there's been some recent market data this year
23 where the prices have been lower than that.

24 MS. DOCTORS: Do you have -- do you

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1 know how much lower?

2 MR. WHITWORTH: No, not exactly. But
3 I know that there was a -- and I don't track the
4 allowance application prices daily, but I know
5 there was a trend for lower market price for a
6 period of time this year.

7 I would also say that future
8 allowances for the annual program haven't -- you
9 know, prices haven't been traded because the
10 allowances aren't available. So we're basing it
11 on, you know, the existing ozone season program.

12 MS. DOCTORS: Okay. So let's just
13 take a hypothetical. So could we say that, from
14 the numbers that we kind of discussed here, that
15 if the cost to reduce one ton of NOX using an OFA
16 is a maximum \$540 and the cost of allowance at a
17 minimum \$1,500, it is more cost effective to
18 install OFA than to purchase allowances?

19 MR. WHITWORTH: Yes.

20 MS. DOCTORS: If the cost to control
21 NOX emissions is lower than the cost to purchase
22 allowances, wouldn't a trading program be enough
23 of an incentive to install this type of a control
24 to the OFA system?

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1 MR. WHITWORTH: Dependent on the
2 number of allowances that were needed and assuming
3 that the allowances would be available for
4 purchase.

5 MS. DOCTORS: Isn't this --

6 MS. BASSI: Can I follow up on the
7 cost of allowance thing? Kind of along the same
8 line as the Agency's questions.

9 Is it possible that the cost of
10 seasonal allowances now is more like \$750?

11 MR. WHITWORTH: Yes.

12 MS. BASSI: Thank you.

13 MS. DOCTORS: That was my last
14 question. Thank you.

15 THE HEARING OFFICER: Mr. Davis?

16 MR. DAVIS: If OFA cost per ton is
17 generally lower than the cost of allowance, is
18 there more need for incentive from the CASA to --
19 well, to incentivize the installation of OFA?

20 MR. RIESER: I'm going to object.
21 Because I think Rachel -- Ms. Doctors asked
22 exactly that question. It's answered.

23 MR. DAVIS: Okay. If the CASA were to
24 allow OFA further incentivizing, would you

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1 anticipate many more units installing OFA?

2 MR. WHITWORTH: There's potential for
3 that, but again, I think we had proposed some
4 minimum level of control or -- so you have to at
5 least have an equivalent level of control.

6 MR. DAVIS: But still --

7 MR. WHITWORTH: -- to another
8 category.

9 MR. DAVIS: But still it would be at a
10 very cost effective level?

11 MR. WHITWORTH: Yes.

12 MR. DAVIS: So it would be a very good
13 incentive to install OFA?

14 MR. WHITWORTH: Well, I guess the
15 overall goal would be for cost effective NOX
16 reductions.

17 MR. DAVIS: And if there were to be
18 many more units installing OFA, wouldn't that
19 further reduce the incentive?

20 MR. RIESER: Again, I think Ms.
21 Doctors has asked that. I didn't mean to cut you
22 off.

23 MR. DAVIS: Well, strictly in the
24 context of a difference between a cost of

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1 allowance and the cost per ton of an allowance
2 versus the cost of control with OFA.

3 MR. RIESER: Again, I think
4 Ms. Doctors has explored this issue pretty
5 thoroughly.

6 THE HEARING OFFICER: I think we're
7 treading over familiar ground, but if you can
8 answer that one question, let's not go too much of
9 a retread. You can answer that question.

10 MR. WHITWORTH: Can you ask it one
11 more time for me, please?

12 THE HEARING OFFICER: Why don't you
13 ask it again.

14 MR. DAVIS: Well, I didn't have it
15 written down. But with the cost of an allowance
16 versus the cost of control with OFA, and you --
17 we've been arguing about what the cost of an
18 allowance would be, can we agree that the cost of
19 an allowance will be greater than the cost per ton
20 of coal with OFA?

21 MR. WHITWORTH: I think it's
22 potentially likely based on what we know today.
23 But, you know, it would be speculative to try to
24 project what those costs may be in the future.

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1 MR. DAVIS: So you would anticipate
2 that OFA would be a popular means of control with
3 this trading program if the cost of control is
4 lower than the cost of allowance?

5 MR. WHITWORTH: Yes. I think if you
6 find it a cost effective means to control NOX,
7 that that -- that there would be an advantage to
8 try to find the best way to achieve the program
9 goals overall NOX reduction.

10 MR. DAVIS: So we might anticipate
11 many more units under CAIR installing OFA without
12 additional incentive?

13 MR. WHITWORTH: I think you're going
14 to -- I mean, from A practical standpoint, the
15 levels of controls that are required, the majority
16 of units are likely to install additional controls
17 in some form.

18 MR. DAVIS: Okay.

19 THE HEARING OFFICER: Anything
20 further? Mr. Bonebrake?

21 MR. BONEBRAKE: I had a couple
22 follow-ups. I think it would be easiest for me if
23 I asked him the context of Attachment B in
24 Mr. Many's testimony, which I think contains the

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1 proposed language.

2 And there's some redlining on
3 Attachment B, and I'm assuming that's the
4 additional proposed language by Ameren; is that
5 correct?

6 MR. WHITWORTH: Yes. Can you -- I
7 don't have the redline version. But you're
8 talking about the underlined version?

9 MR. BONEBRAKE: The underlined,
10 correct.

11 MR. WHITWORTH: Correct.

12 MR. BONEBRAKE: You were talking a
13 little bit before when you asked the question
14 about what is second generation OFA. And I think
15 you were saying it was a combination of the OFA
16 and combustion controls. Did I understand that
17 correctly?

18 MR. WHITWORTH: Correct.

19 MR. BONEBRAKE: Can you describe for
20 us what combustion controls you're referring to?

21 MR. WHITWORTH: We're talking about,
22 essentially, a process control system that would
23 optimize boiler performance as part of the
24 over-fire air system. And I think in the proposal

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1 we've termed that as -- it would include an
2 advanced computerized combustion control system.

3 MR. BONEBRAKE: Now, you also refer
4 in -- Ameren refers in the proposed language here,
5 phase NOX reduction strategy. And I think you may
6 have used that term earlier as well in your
7 testimony.

8 And can you describe for us what
9 is meant by the phrase phase NOX reduction
10 strategy?

11 MR. WHITWORTH: I guess a phase NOX
12 reduction strategy would be one where over a
13 period of time we would install controls to
14 achieve some end point.

15 MR. BONEBRAKE: Let's take a scenario
16 where a company has already installed an OFA. And
17 then, let's say, two years from now the company
18 were to install these combustion controls of the
19 tip that you've identified as part of the second
20 generation OFA.

21 In that scenario under your phased
22 NOX reduction strategy language, would that unit
23 that has the OFA installed combustion controls be
24 eligible for CASA allowances in this category?

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1 MR. WHITWORTH: I'm really not sure.

2 I don't think that's what we contemplated when we
3 drafted the language.

4 MS. BASSI: Does the language preclude
5 that?

6 MR. WHITWORTH: Right. I would think
7 that the whole level of -- the whole phase process
8 would have had begun after the applicability date.

9 MR. BONEBRAKE: So the language then
10 is drawing a distinction based upon the vintage of
11 the OFA installation?

12 MR. WHITWORTH: This language doesn't
13 specifically include the date the projects are
14 eligible, I think that's in another section in the
15 rule.

16 MR. BONEBRAKE: So is it true then
17 that Ameren's proposal would work to the advantage
18 of the company's that have not installed much OFA
19 but the disadvantage to companies have installed
20 OFA because of the vintage issue?

21 MR. WHITWORTH: I guess it would be
22 just like any of the other projects, the bright
23 line has been, you know, demarked in the
24 applicability. So if you have a project that you

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1 have already done, which numerous companies have
2 done, it wouldn't be eligible, it would have to be
3 a new project after that date.

4 MR. BONEBRAKE: From a NOX reduction
5 perspective, can you see with a reason to draw a
6 distinction between dates when OFA wasn't
7 installed by a company? So long as the OFA is
8 accompanied at some point by combustion controls.

9 MR. WHITWORTH: Let me make sure I
10 understand your question correctly. You're asking
11 me an opinion on whether or not I think the
12 January -- the July 1 date -- or whatever the date
13 in the rule is appropriate?

14 MR. BONEBRAKE: That wasn't quite the
15 question that I asked. But maybe you can answer
16 that and maybe that answer will even provide an
17 answer to the question I did ask by follow-up.

18 MR. WHITWORTH: Well, I guess my
19 initial response is that we are not commenting on
20 the dates of the projects and the rules. That
21 wasn't part of the testimony.

22 MR. BONEBRAKE: So is Ameren then
23 expressing a view, one way or another, regarding
24 the eligibility of existing OFA units --

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1 MR. WHITWORTH: No.

2 MR. BONEBRAKE: -- for the CASA?

3 MR. WHITWORTH: No.

4 MS. BASSI: Let me try to put what
5 Steve -- or Mr. Bonebrake is asking in a slightly
6 different way. Would an upgrade to an existing
7 over-fire air system -- first of all, can an
8 existing over-fire air system be upgraded to equal
9 an advanced over-fire air system, as you've
10 described it?

11 MR. WHITWORTH: I guess that would be
12 at the discretion of the Agency when they qualify
13 the projects.

14 MS. BASSI: No, I'm asking
15 engineering-wise, can an existing over-fire air
16 system be upgraded so that it becomes an advanced
17 over-fire air system?

18 MR. WHITWORTH: Certainly, I think
19 that's possible.

20 MS. BASSI: Okay. And I have a
21 question that's not related to this. Okay.

22 My other question is -- I believe
23 in the testimony it states that, "The reductions
24 of NOX from the advanced over-fire air system and

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1 the reductions of NOX from the SNCR system, are
2 approximately 30 percent, approximately the same."

3 MR. RIESER: Ms. Bassi, can you point
4 us to where you --

5 MS. BASSI: No. Just one second.

6 Page 6 at the bottom. It's the
7 last sentence that begins at the bottom of Page 6
8 and continues at the top of Page 7.

9 MR. RIESER: The 30 percent cut off?

10 MS. BASSI: Yeah.

11 MR. RIESER: Okay. Thank you.

12 What was the question?

13 MS. BASSI: The question is, is the
14 NOX reduction achieved by the advanced over-fire
15 air system and the NOX reduction achieved by an
16 SNCR approximately the same?

17 MR. WHITWORTH: The way we defined
18 this was we were making a demonstration that it
19 was equivalent, at least, to the range of expected
20 reductions.

21 MS. BASSI: Okay.

22 MR. WHITWORTH: Advanced over-fire to
23 SNCR.

24 MS. BASSI: Thank you.

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1 In the operation of an SNCR, is --
2 could you describe -- scratch that.

3 With an SNCR, is there a
4 possibility of emissions to the atmosphere of
5 ammonia?

6 MR. WHITWORTH: There is the
7 potential, I guess, for that.

8 MS. BASSI: Is this -- and perhaps I'm
9 thinking of something else -- is this called
10 ammonia slip?

11 MR. WHITWORTH: We characterize it as
12 any emissions beyond the level of control could be
13 characterized as slip.

14 MS. BASSI: Okay.

15 MR. WHITWORTH: The reagent is not
16 totally used up by the process, I think is what
17 you're referring to.

18 MS. BASSI: With SNCR, is there some
19 kind of -- is there some kind of a product that
20 has to be disposed of or some kind of a waste
21 product that has to be disposed of, other than
22 what comes out of the stack?

23 MR. WHITWORTH: Not to my knowledge,
24 beyond what you formally would have as far as

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1 flash and other material.

2 MS. BASSI: With SNCR, do you have to
3 have a quantity of ammonia on-site?

4 MR. WHITWORTH: Or some other reagent
5 that would provide that. In UREA, for example,
6 and I take it, this solution of UREA typically is
7 used.

8 MS. BASSI: Okay. Do you have to have
9 any of that kind of stuff around for over-fire air
10 systems?

11 MR. WHITWORTH: No.

12 MS. BASSI: And so, is the benefit to
13 the environment, if you prepare an over-fire air
14 system and an SNCR system, perhaps the over-fire
15 air system advanced for fire air system provide a
16 greater benefit to the environment?

17 MR. WHITWORTH: There's that
18 potential.

19 MS. BASSI: Thank you.

20 THE HEARING OFFICER: Anything further
21 for this witness?

22 MS. DOCTORS: The Agency doesn't have
23 any more questions.

24 THE HEARING OFFICER: All right.

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1 Thank you, sir.

2 (WHEREUPON, the witness was
3 excused.)

4 THE HEARING OFFICER: So off the
5 record for a second.

6 (WHEREUPON, a recess was had.)

7 (WHEREUPON, a certain document was
8 marked Kubert Exhibit
9 No. 1 for identification, as of
10 11/29/06.)

11 THE HEARING OFFICER: We are back on
12 the record after a short recess and are going to
13 proceed with testimony of Charles Kubert.

14 Ms. Bugel, he is your witness. Do
15 you have anything before we swear him in that you
16 want to say?

17 MS. BUGEL: Well, I would just like to
18 point out again that we do have amended testimony.
19 It was filed yesterday. And I brought copies
20 today for everyone.

21 MR. KUBERT: And it's relevant. The
22 amendments are relevant.

23 MS. BUGEL: We will go over the
24 corrections with Mr. Kubert after he is sworn in.

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1 THE HEARING OFFICER: Let's swear him
2 in. Would you swear him in, please?

3 (WHEREUPON, the witness was duly
4 sworn.)

5 THE HEARING OFFICER: Ms. Bugel, do
6 you want to pass those out now, or do you want to
7 go over --

8 MS. BUGEL: I can pass these out now
9 and just ask Mr. Kubert a couple of initial
10 questions.

11 CHARLES KUBERT,
12 called as a witness herein, having been first duly
13 sworn, was examined and testified as follows:

14 DIRECT EXAMINATION

15 BY MS. BUGEL:

16 Q. Can you please state your name for the
17 record and spell it.

18 A. Charles Kubert, K-U-B-E-R-T.

19 Q. And did you prepare testimony for this
20 hearing today?

21 A. I did.

22 Q. And did you prepare amended
23 testimony --

24 A. I did.

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1 Q. -- subsequent to your initial
2 testimony?

3 A. I did.

4 Q. And, Mr. Kubert, what changes did you
5 make from your initial testimony to your amended
6 testimony?

7 A. The amendments are primarily in
8 calculations for the allowances that we're
9 requesting on the renewable side, not the energy
10 efficiency side. These changes were made for two
11 reasons: Number one, in reviewing the initial
12 testimony, I realize that there had been a cell
13 reference that was incorrect, which initially was
14 overstating the allowances that we were requesting
15 for renewables.

16 At the same time, we elected -- or
17 I elected to increase the percentage of renewables
18 that we were basing the allowances on to be
19 consistent with the governor's energy plan that was
20 made -- submitted in August of this year versus the
21 original governor's sustainable energy plan that was
22 submitted in February 2005.

23 Q. And the effect of this was to change
24 the percentage that your testimony recommends

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1 increasing the clean air set-aside to?

2 A. It actually represented an adjustment
3 slightly downward from the original testimony.

4 Q. Okay.

5 A. But above the 12 percent that IEPA had
6 requested.

7 Q. And the request now stands at what
8 percentage?

9 A. At 13.6 -- 13 percent for clean
10 renewables, .6 percent for the other category of
11 renewables and 1.8 percent for energy efficiency.

12 Q. Totaling?

13 A. 15.4 percent.

14 Q. And in the original testimony, what
15 was the percentage?

16 A. I believe it was 17 percent.

17 MS. BUGEL: I would like now to move
18 for the admission of the amended testimony of
19 Charles Kubert as if read.

20 THE HEARING OFFICER: Any objections
21 to that?

22 MR. BONEBRAKE: No objections, subject
23 to cross on the amendments themselves.

24 THE HEARING OFFICER: It will be

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1 admitted as if read.

2 (WHEREUPON, said document,
3 previously marked Kubert Exhibit
4 No. 1, for identification, was
5 offered and received in evidence.)

6 BY MS. BUGEL:

7 Q. And could you, please, just summarize
8 your testimony so that everyone is familiar with it
9 today?

10 A. Yeah, the purpose of my testimony was
11 to lay out the important role that both renewable
12 energy and energy efficiency can play, both in
13 Illinois and in the context of the set-aside
14 allowances. I was, number one, describing both the
15 environmental and economic benefits of renewable
16 energy and energy efficiency, the tremendous
17 potential of those in the state of Illinois.

18 And then finally, trying to make
19 the set-aside allowances consistent with the policy
20 goals and policy targets that the current
21 administration -- both the current administration
22 had set forth as well as the actual potential in the
23 state of Illinois.

24 Q. And just one other question: Did you

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1 have any corrections to the amended testimony that
2 we are submitting?

3 A. In addition to actually changing the
4 percentages and the allowance numbers, there is a
5 correction to the testimony that was just
6 distributed, on the second-to-last page prior to the
7 exhibits, there's a reference in the second -- in
8 the first full paragraph, the 9.886 allowances that
9 should be 9,886 allowances.

10 MR. JOHNSON: Say that again?

11 BY THE WITNESS:

12 A. In the second to last page of text in
13 the testimony in the first paragraph, there's a
14 reference to wind generation being allocated 9.886
15 allowances, but the period should be a comma.

16 MS. BUGEL: I think we are prepared
17 for cross now. We have no further questions.

18 THE HEARING OFFICER: Do we have any
19 questions for this witness?

20 MR. BONEBRAKE: We do. I don't know
21 if others do, as well.

22 THE HEARING OFFICER: Mr. Bonebrake?

23 MR. BONEBRAKE: Hello, Mr. Kubert, my
24 name is Steve Bonebrake.

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1 MR. KUBERT: Uh-huh.

2 MR. BONEBRAKE: First, I wanted to ask
3 you just a little bit bout your background. Your
4 addressing various types of potential energy
5 projects, and I'm interested, specifically, in
6 your background pertaining to those kinds of
7 projects.

8 So let me first say, have you had
9 any actual construction experience with respect to
10 wind projects or landfill gas projects?

11 MR. KUBERT: I've been an advisor.
12 I've not had direct construction experience on
13 wind projects, I have been an advisor to a number
14 of wind projects.

15 Q. And when you say "advisor" --

16 A. Primarily on the financing and
17 permitting side.

18 Q. So you have not had to deal with the
19 technical difficulties associated with those kind of
20 projects to the extent they arise in connection to
21 construction?

22 A. With the actual construction and
23 technical challenges of construction, no.

24 Q. Have you had any experience in

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1 connection with the purchase or leasing of
2 commercial properties, such as those that would be
3 required for placement of a new wind
4 generation (inaudible).

5 A. No. Again, primarily, from a policy
6 analysis perspective and from an advisory
7 perspective.

8 Q. And have you had any experience
9 identifying where current transmission lines exist
10 or would be required to be constructed in order to
11 make useful electricity generated by a wind
12 generator?

13 A. Yes.

14 Q. Could you describe that experience for
15 us?

16 A. The experience has primarily been in
17 my involvement with a midwest transmission group
18 called Wind on the Wires, which does fairly
19 extensive analyses of the available wind -- of the
20 available jet transmission capacity relative to the
21 available wind resources and where upgrades have
22 been needed.

23 Q. Is it true that for any given wind
24 project, it might be necessary, for instance, to run

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1 new transmission lines to the wind generator in
2 order to make the generation useful?

3 A. Depending on the location, yes.

4 Q. Now, at Page 2 -- and I think your
5 testimony doesn't have page numbers, so we'll
6 probably have to work together to figure out where
7 sometimes I'm asking you a question. But on Page 2
8 of your amended testimony, I believe there's some
9 discussion of wind generation?

10 A. Yep.

11 Q. And in that discussion you talk about
12 Class 4 and 3+ lands?

13 A. Yes.

14 Q. Can you describe what those lands --
15 what those designations mean?

16 A. The National Renewable Energy
17 Laboratory and most wind developers and wind
18 monitoring organizations, characterize lands based
19 on the average wind speeds crossing across those
20 points of land. And these are fairly detailed
21 assessments based on the topography of the land.
22 Three plus -- given -- at current technologies, land
23 that is -- and current electricity rates, land that
24 is rated as 3+ or Class 4 -- and I believe that 3+

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1 or lands with wind speeds, on the average I think of
2 about 13 miles an hour, are considered economically
3 developable. And this again excludes lands that are
4 already, sort of, built up or urbanized. So this
5 is, essentially, available land area.

6 MS. BASSI: I have a follow-up on
7 that. You said that the classification of the
8 lands is 4 and 3+ is based on an average wind
9 speed. Does the sustainability or the length of
10 time that the wind is sustained have anything to
11 do with the classification of the land?

12 MR. KUPERT: This is an average wind
13 speed.

14 MS. BASSI: So you could have -- you
15 could have long periods where there's no wind or
16 very low wind?

17 MR. KUPERT: That's correct. But
18 generally -- just in sort of -- elaborating on
19 this, wind turbines are rated based on the
20 capacity factor. Typically modern wind turbines
21 will begin to turn at reasonably low wind speeds
22 and will begin to generate electricity at wind
23 speeds over -- at anything over five or six miles
24 an hour.

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1 MR. RAO: A follow-up question.

2 If there is not enough wind to
3 turn the turbine, will these wind turbines use any
4 electrical energy to keep it going?

5 MR. KUBERT: No. They use nominal
6 amounts of electricity energy just for the
7 computer controls.

8 MR. RAO: Okay.

9 MR. BONEBRAKE: And during periods of
10 time then when winds in an area are below five or
11 six miles per hour, then you would expect the wind
12 generator to be producing no electricity?

13 MR. KUBERT: That's correct.

14 MR. BONEBRAKE: So during those
15 periods of time, other sources of electricity
16 would need to be filling whatever the gap is that
17 would be left by that absence of wind generation?

18 MR. KUBERT: Yeah. I mean, as you
19 know, electricity is a commodity, there are
20 hundreds of sources of generation throughout the
21 midwest region. And because wind is not
22 technically dispatchable, but because wind is
23 predictable, these other sources of generation can
24 come online or back down as energy from these

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1 generating facilities is anticipated.

2 MR. BONEBRAKE: Now, I think you
3 mentioned that 3+ plus class area is
4 representative of an average wind of around
5 13 miles per hour; is that correct?

6 MR. KUBERT: That's my recollection,
7 yes.

8 MR. BONEBRAKE: Would the Class 4 area
9 then be higher or lower average wind speed?

10 MR. KUBERT: Higher wind speeds.

11 MR. BONEBRAKE: And, I'm assuming --
12 are there numbers above 4?

13 MR. KUBERT: The classification goes
14 as high as 6. Some of the richest wind resources,
15 for example, in the Dakotas, are in the 5 range.
16 Anything at about 6 is, essentially, unusable
17 because the sustained wind speeds are too high for
18 the equipment.

19 MR. BONEBRAKE: So five is kind of
20 your optimal designation?

21 MR. KUBERT: Correct. Five is
22 your -- well, it just depends.

23 I mean, from a pure generation
24 perspective, 5 is certainly better than 4. But

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1 you've got to take into account the availability
2 of transmission, as well.

3 And that's why 3+ and 4 in a
4 densely populated area can be as valuable as 5 in
5 an area like the Dakotas.

6 MR. BONEBRAKE: And based upon your
7 testimony then, is it correct in the state of
8 Illinois currently there is 107 megawatts -- wind
9 capacity?

10 A. Currently, yes.

11 Q. And you identify the figure of 9,000
12 megawatts of potential wind generation in the state
13 of Illinois; is that correct?

14 A. Yes.

15 Q. And does that mean that there are
16 Class 4, 3+ lands that -- well, let me back up.

17 How did you determine the 9,000
18 megawatt number?

19 A. The 9,000 megawatt number has been
20 done by -- was done by the National Renewable Energy
21 Lab, which is a laboratory that's contracted to the
22 Department of Energy, that's involved in an array of
23 renewable energy, analysis, planning and research
24 activity. The 9,000 megawatts was based on the

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1 average wind's height of about 50 or 60 meters. And
2 it was done through a combination -- I don't know
3 their complete methodology, but it was a combination
4 of direct observation and modeling.

5 They believe -- I had some
6 conversations with them earlier this week -- they
7 believe that that 9,000 megawatt number is extremely
8 conservative. For example, they recently did a
9 similar wind study for the state of Indiana, which
10 we don't consider to be a particularly windy state
11 either, and their current estimates for the state of
12 Indiana, based on an 80 meter -- I think it's an
13 80 meter hub height for these turbines, is 40,000
14 megawatt potential. So four fold of what this data
15 shows for Illinois.

16 MS. BASSI: How many acres of land in
17 Illinois support this Class 4 and 3+ category?

18 MR. KUBERT: The figure that we have
19 here is slightly over one percent of Illinois'
20 land area. I don't really recall what that is.

21 MS. BASSI: Okay. One percent?

22 And where is that one percent
23 located, like in a corridor, is it scattered or --

24 MR. KUBERT: It's scattered in what I

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1 would consider it to be sort of microclimates,
2 where you've got a combination of not only higher
3 wind speeds, but you've got slightly raised
4 ridges. So that the wind could, essentially,
5 funnel up the ridge and the turbines can catch
6 that wind.

7 Some of the areas with the ripest
8 development opportunities include the LaSalle,
9 Peru area along the Illinois River as well as just
10 southeast of Bloomington in McLean County.

11 MS. BASSI: Not connected to a river?

12 MR. KUBERT: It has nothing to do with
13 rivers themselves.

14 MS. BASSI: What about on top of the
15 buildings in Chicago?

16 MR. KUBERT: You can't really do that,
17 because you can't -- the wind turbines -- modern
18 wind turbine technologies are over 300 feet high.
19 And you can't really put up -- obviously, you
20 could put up -- and there's been discussion of
21 putting up very small turbines on these towers --
22 on these buildings. But in terms of material and
23 energy generation, you can't really do it.

24 There's also been some discussion

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1 of off shore wind, as well, but that's not
2 included in this data.

3 MS. BASSI: "Off shore," meaning in
4 Lake Michigan?

5 MR. KUBERT: In Lake Michigan.

6 MR. BONEBRAKE: So the concept behind
7 the 9,000 megawatts was that the central
8 generation, assuming full utilization of all 3+
9 and 4 class areas in the state?

10 MR. KUBERT: Correct.

11 MR. BONEBRAKE: And that is a
12 potential?

13 MR. KUBERT: But that is also -- I'm
14 trying to recall the methodology. That also is
15 constrained by availability of transmission lines,
16 as well.

17 MR. BONEBRAKE: That was going to be
18 another question I was going to ask.

19 So you think that constraint is
20 built into --

21 MR. KUBERT: I think -- I'm not sure
22 exactly. I can look into them. I'm not exactly
23 sure what the constraint was, but I think it was
24 built in there.

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1 Not necessarily reflecting
2 available capacity of those lines, but simply the
3 existence of those lines.

4 MR. BONEBRAKE: And I guess it would
5 be true then based upon our earlier discussion,
6 that at any given time this potential -- even if
7 this 9,000 megawatts completely constructed during
8 periods when we have little or no wind in the
9 state, we could have zero generation from all that
10 wind generation?

11 MR. KUBERT: It's highly unlikely that
12 at any given point in time, none of these -- there
13 would be no wind anywhere in the state. I mean,
14 there may be, you know, rare periods where you
15 got, you know, atmospheric conditions where the
16 state is essentially still, but that's pretty
17 unlikely.

18 MS. BASSI: But doesn't the wind have
19 to be where the windmill is? I mean, you could
20 have -- obviously, you're going to have wind in
21 the state, but if the --

22 MR. KUBERT: But again, because
23 these -- because wind generation is, by
24 definition, distributed generation, it's scatter

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1 at multiple sites around the state. You might
2 have wind, for example, in McLean County on a day
3 when you have no wind near Bloomington. Or less
4 than adequate wind to get the turbines running.

5 THE HEARING OFFICER: Ms. Bugel?

6 MS. BUGEL: I'd like to just ask a
7 follow-up question.

8 Mr. Kubert, why is wind power
9 generation still economically feasible in the face
10 of time periods when the wind doesn't blow?

11 MR. KUBERT: For two reasons. One is
12 that, built into the economic model for wind is
13 essentially a capacity factor that reflects the
14 fact that you're not rung these units at 90 or 100
15 percent utilization.

16 But, typically, in Illinois you
17 might be seeing somewhere in the range of 25 to 35
18 percent utilization. Number two, because wind --
19 the cost of wind generation is essentially all
20 capital cost, it's all initial capital costs and
21 there are no fuel costs, wind particularly
22 is -- you essentially have zero fuel costs and
23 wind is -- you know, particularly in an era of
24 rising volatile fossil fuel costs, wind becomes

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1 very cost competitive.

2 MS. BUGEL: And can you explain to me
3 though, does wind tend to supply base load power
4 or does it supply sort of peaking power?

5 MR. KUBERT: Again, it could be -- it
6 could be either. It's -- the wind is -- on a
7 day-to-day period, is predictable and therefore
8 relatively dispatchable. So to the extent that
9 both base load units can be backed down in
10 anticipation of wind coming online, it could
11 provide -- it could provide base load power. It
12 could also provide intermediate power in terms of
13 avoiding the need to turn on gas lamps.

14 MS. BUGEL: Does it -- so we don't
15 face a situation where the lights go off if the
16 wind doesn't blow for the reason that it is used
17 complimentary with plants that are dispatchable in
18 a different manner?

19 MR. KUBERT: Exactly.

20 MS. BUGEL: Thank you.

21 MR. BONEBRAKE: When we consider the
22 difference between 107 megawatts of installed
23 capacity potential for 9,000 megawatts?

24 MR. KUBERT: Uh-huh.

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1 MR. BONEBRAKE: Would you anticipate
2 that new wind generation projects would
3 necessarily entail the acquisition of either
4 ownership or lease rights with respect to
5 properties in the Class 3+ corridors?

6 MR. KUBERT: What a wind developer
7 typically does is sign a long-term lease with the
8 owners of that land for the right to put up -- to
9 erect turbines on that land. Now, they're not
10 actually leasing the entire parcel of land that
11 the project is located on, but they're
12 essentially -- because the footprint of these wind
13 projects is relatively small, relative to the land
14 area in which the projects are on, sort of the
15 classic -- the typical example is that actually
16 the wind turbine would sit only on a quarter acre
17 of land, even though it may be sweeping land from
18 a much greater area than -- it does not -- if this
19 is where your question is going, it does not
20 require taking land out of production agriculture,
21 or taking very much land out of production
22 agriculture. It's complimentary with existing use
23 of uses available.

24 MR. BONEBRAKE: My question was really

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1 only directed as to whether that would be a
2 necessary step for the construction, you have to
3 get the property rights?

4 MR. KUBERT: You have to get the
5 rights to access and put these turbines up on the
6 property.

7 MR. BONEBRAKE: And in your
8 experience, have wind projects run into
9 difficulties regarding, siting, permitting or
10 construction?

11 MR. KUBERT: Occasionally.

12 MR. BONEBRAKE: Can you describe the
13 kind of reasons why those difficulties have arisen
14 in your experience?

15 MR. KUBERT: Well, the reasons -- it
16 really depends on the state. Part of the reasons
17 I think begin -- because this is a new technology
18 and a new use of the land and landscape, there
19 are -- a lot of county boards and zoning
20 organizations are sort of come to grips with wind
21 in Illinois.

22 They've already done this in other
23 states, such as Iowa and Minnesota, so there are
24 standards for permitting and zoning and in some

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1 cases for taxing of these projects. In
2 addition -- and as the projects begin to develop
3 and as both developers and counties get more
4 familiar with the project and get more familiar
5 with how they look, those objections begin to go
6 away.

7 The other source of objections is
8 occasionally sort of a turbine envy issue, where
9 land owners for whom land with turbines are
10 located -- for who the turbines are not located,
11 are irritated at the turbines being located on
12 adjacent property where that second landowner is
13 getting revenue and they are not. This, again,
14 the developers are addressing and also giving
15 revenue to the land owners on the adjacent
16 properties, essentially for their cooperation of
17 the project.

18 MS. BASSI: Is there not also
19 opposition from environmental groups on occasion?

20 MR. KUBERT: The -- occasionally.
21 Some of the early opposition from environmental
22 groups has been associated -- was associated with
23 poor siting and older technology turbines,
24 primarily in California, involving avian impact

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1 with the turbines.

2 MS. BASSI: Wasn't there such an
3 opposition to a project on the Illinois River,
4 perhaps, in the LaSalle, Peru corridor area?

5 MR. KUBERT: Not that I am aware of.

6 Our organization has always been
7 supportive of these projects if they are sited
8 properly. And particularly with the new
9 technology, turbines turn more slowly. And the
10 projects are sited more sensibly to avoid the
11 avian impact.

12 In addition, these projects all go
13 through extensive siting review from state
14 agencies, both from an archeological and on the
15 natural resources side.

16 MR. BONEBRAKE: Have there also been
17 objections based upon radar interference at the
18 facilities?

19 MR. KUBERT: These were some
20 objections that were raised, I'm thinking, largely
21 for political reasons for the Department of
22 Defense earlier this year. And it was sort of an
23 objection to wind turbines in general, not
24 specifically in Illinois.

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1 And I don't -- I believe that that
2 has largely been resolved in the favor of the wind
3 developers.

4 MR. BONEBRAKE: Can you point us to
5 any particular document that that issue has been
6 resolved.

7 MR. KUBERT: I can't -- right I
8 couldn't. After this I could.

9 MS. BUGEL: Can I interrupt for a
10 minute and suggest that we will attempt to answer
11 that question and file the document as a
12 supplemental comment?

13 THE HEARING OFFICER: That would be
14 helpful.

15 MR. KUBERT: Again, there's been --
16 wind generation continues to be the fastest source
17 of new power generation -- fastest growing source
18 of new power generation in the world. And these
19 issues are sort of issues that -- even though
20 there are over 9,000 megawatts installed wind
21 capacities in the country, these are issues that
22 have just sort of come up in the last year.

23 They've had plenty of time in
24 previous years to raise these but they've elected

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1 not to, which makes one suspect of the real issue.

2 MR. BONEBRAKE: At the bottom second
3 page of your testimony, you talk a little bit
4 about the economic benefits associated with
5 construction of a single 100 megawatt wind farm?

6 MR. KUBERT: Yes, sir.

7 MR. BONEBRAKE: Just out of curiosity,
8 do you know what the comparable economic benefits
9 would be associated with construction of a 100
10 megawatt fossil fuel generation source?

11 MR. KUBERT: I can't quote the
12 numbers. There have been some studies done,
13 again, by the National Renewable Energy Lab,
14 which -- and also by the Unit of Concerned
15 Scientists, which directly compare the economic
16 benefits of wind versus the economic benefits of
17 either coal or natural gas. In both cases they've
18 shown wind to be favorable, from both a job and
19 overall economic development.

20 MR. BONEBRAKE: And what particular
21 report or reports are you referring to.

22 MR. KUBERT: Again, I will get you the
23 references after the testimony.

24 MS. BUGEL: We will file those as

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1 comments, as well.

2 MR. RAO: Just on a follow-up, on
3 Page 2 in the first paragraph, you mention that
4 the levelized cost, that is the capital plus the
5 operating cost of wind energy, is competitive on a
6 per kilowatt basis with new coal generation and
7 significantly less expensive than new combined
8 cycle natural gas-fired generation.

9 MR. KUBERT: Yes.

10 MR. RAO: What's the basis of this
11 statement? Is it based on some cost analysis done
12 by this National Renewable Energy Lab?

13 MR. KUBERT: A number of people have
14 done these studies. The National Renewable Energy
15 Lab has done them, the American Wind Energy
16 Association has done them. We've gotten data from
17 actual projects. And in many cases, public
18 utility testimony filed before public utility
19 commissions in a number of states, they've shown
20 this to be the case. When choosing -- when doing
21 least cost planning, they've elected to choose
22 wind over other generation -- new generation
23 sources.

24 MR. RAO: Would it be possible to

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1 submit some examples of data you just mentioned --

2 MR. KUBERT: Yes.

3 MR. RAO: -- along with cost data?

4 MR. KUBERT: Yes.

5 MS. BASSI: What do you anticipate

6 would be the average annual revenues of a

7 100 megawatt wind farm?

8 MR. KUBERT: We could do the math in

9 our head, but a typical wind project in Illinois

10 would generate about 2,800 megawatt hours per

11 turbine per year. If you assumed, say, a 45 or

12 \$50 price for that power, and then you add in the

13 additional \$20 per megawatt hour per reduction tax

14 credit -- but you're looking at strictly cash

15 revenue or?

16 MS. BASSI: Yeah.

17 MR. KUBERT: On a cash revenue, you

18 could say save 2,800 times the wholesale price of

19 electricity times 100.

20 MS. BASSI: About \$196,000?

21 MR. KUBERT: Per turbine.

22 MS. BASSI: Per turbine?

23 How do windmills, in terms of

24 costs of construction or the cost of the windmill

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1 compare to the cost of an SCR, which we heard
2 today is around \$85 million dollars?

3 MR. KUBERT: I -- a current generation
4 wind turbine, again, then the prices are somewhat
5 volatile because of both rising steel prices and
6 inconsistent policies in this country, which
7 created occasionally turbine scarcity, but a
8 current wind turbine right now is 1.5 and \$1.8
9 million per megawatt installed capacity.

10 MS. BASSI: 1.5 per 1.8 per megawatt?

11 MR. KUBERT: Perfect megawatt of
12 installed capacity.

13 MR. ROSS: To clarify: I've heard you
14 say twice now SCRs cost \$85 million. At Kincaid
15 they -- it was \$85 million for two SCRs. So if
16 you split that in half, it would be 42 and a half
17 million apiece.

18 MS. DOCTORS: That's a clarification,
19 I guess testimony --

20 MR. BONEBRAKE: I guess that was
21 testimony as opposed to a question?

22 MR. ROSS: There's been a mistake made
23 twice.

24 THE HEARING OFFICER: Duly noted.

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1 MR. KUBERT: The cost of wind
2 generation -- the capital costs have been as low
3 in recent years is \$1.2 million per megawatt of
4 installed capacity. And the trend in these
5 turbines is that they're getting larger and
6 larger.

7 The initial set of commercial wind
8 generation were as small as 100 to 200 kilowatts
9 in capacity. As recently as three years ago, the
10 standard was 1.65.

11 Now the standard size is getting
12 closer to two and a half megawatts per turbine.
13 As those costs -- as those sizes go up, the
14 installed cost per megawatt of capacity actually
15 goes down. And I might add that the generation
16 efficiency goes up because they are higher units,
17 they're able to capture wind at higher elevations.

18 MS. BASSI: How does that affect a
19 farmer who sprays his crops --

20 MR. KUBERT: It has no impact at all.

21 MS. BASSI: -- with an airplane?

22 MR. KUBERT: I don't think there's any
23 air crop dusting in Illinois that I'm aware of.

24 MS. BASSI: Yes, there is, in McLean

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1 County.

2 MR. KUBERT: I don't know.

3 MS. BASSI: Yeah.

4 MR. KUBERT: I don't know. My guess
5 is this is --

6 MS. BUGEL: Testimony coming from --

7 MS. BASSI: I'll withdraw it.

8 MR. BONEBRAKE: Mr. Kubert, my next
9 question for you pertains to the landfill gas
10 discussion of your testimony. And I believe
11 that's on Page 4.

12 I stand corrected, Ms. Bassi has a
13 question on the last discussion first.

14 MR. KUBERT: Okay.

15 MS. BASSI: I'm sorry.

16 What is corn stover?

17 MR. KUBERT: Corn stover is the
18 nongrade portion of corn, so --

19 MS. BASSI: So it's the stalks?

20 MR. KUBERT: The stalks on the leaves.

21 MS. BASSI: What is the value to the
22 farmers in terms of revenues or profits of switch
23 grass and corn stover compared to mass market
24 crops, such as corn and soybeans.

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1 MR. KUBERT: Well, let me switch.

2 This is an interesting discussion because it's
3 also involved in the discussion of cellulosic
4 ethanol that is going on, as a replacement for
5 grain-based ethanol.

6 The stover itself is actually kind
7 of a bonus for farmers. Because they're -- right
8 now that has sort of nominal fertilizer value to
9 them. But it largely has no value.

10 By harvesting the stover,
11 estimates are that farmers can get an additional
12 \$10 per acre of revenue from corn fields. And
13 that's actually a fairly significant -- that's
14 about a 10 percent bump up in their annual income
15 per acre.

16 I mean, switchgrass -- again, it's
17 a function of what the market price of switch
18 grass would be for -- either for cellulosic
19 ethanol or for use in a coal-firing application.
20 Some of the models that I've done have suggested
21 that switchgrass would have to be -- at a price of
22 the farmer of \$50 per dry ton, they could make
23 money with that.

24 MS. BASSI: Would farmers have to

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1 change their farming practices in order to harvest
2 the stover?

3 MR. KUBERT: Yes. There have been
4 sort of two models -- and this is sort of a --
5 your question is getting fairly far from the issue
6 of renewals in relationship to allowances. And
7 it's stretching, kind of, my agronomic knowledge.

8 But there are sort of two methods.
9 The preferred method is what is considered a
10 one-pass harvest, where a combine, essentially,
11 would be engineered to do both -- capture both the
12 grain and the stover in a single pass, cutting
13 on -- both on the cost and the impact of rolling
14 over the fields. That technology is currently
15 being developed by an engineering unit at
16 John Deer.

17 MS. BASSI: If I may, all of this
18 impacts the environment. And so, even though
19 we're talking about the availability of these
20 products for allowances and so forth, there still
21 is the cost benefit and the impact on the
22 environment that comes to these.

23 MS. BUGEL: I'm actually going to
24 object, that's testimony again. Is there a

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1 question there?

2 MS. BASSI: No, I don't think this is
3 testimony. I think that the --

4 MS. BUGEL: Stating that this impacts
5 the environment is testimony. We will just --

6 MS. BASSI: It's foundation for a
7 question.

8 THE HEARING OFFICER: We'll take it as
9 foundation and not trying to prove the truth of
10 the matter that (inaudible).

11 MS. BASSI: Would these changes then
12 that you were talking about, the -- perhaps the
13 additional passes to harvest the corn stover,
14 result in greater use of fuels and so forth for
15 the farmer?

16 MR. KUBERT: Again, that's what the
17 preferred method is, it's a single-pass method.
18 Because it is from -- energy costs are extremely
19 important to farmers, these costs have obviously
20 skyrocketed for them. The single path method is
21 the one that makes the most economic sense.

22 The other issue is that, in most
23 of the studies that have been done on corn stover
24 harvesting, there's considered to be a sustainable

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1 level of stover removal. Stover is important,
2 both for soil stabilization and for the carbon
3 value in the stover itself.

4 So, in most cases, the analysis
5 estimates that no more than 50 percent of the
6 stover would be removed from a grain field.

7 MS. BASSI: Has the Environmental Law
8 and Policy Center investigated the willingness of
9 Illinois farmers to produce switchgrass?

10 MR. KUBERT: Indirectly. Through a
11 number of conferences that I have attended and
12 studies that I've read.

13 Again, the willingness of
14 farmers -- there's two sources of switchgrass.
15 One is on existing conversation reserve lands,
16 where the land is already, basically, in
17 switchgrass or other perineal grasses. And what
18 you would, essentially, be doing is allowing
19 through some -- the rules changes are already
20 there, but you would essentially be allowing
21 farmers to go onto those conversation reserve
22 lands and harvest them, which would, essentially,
23 give them an additional stream of revenue from
24 that land, in addition to the conservation reserve

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1 payments that they're already getting from the
2 Department of Agriculture.

3 In terms of taking existing grain
4 land and putting it into switchgrass -- again,
5 this is going to be a function of their market
6 developing for those crops. Depending on a whole
7 stream of federal farm policies that would incent
8 farmers to convert to perennial grasses from
9 grain, as well as the market price of those
10 grasses, that would be what would drive farmers to
11 switch.

12 MS. BASSI: Okay. And one last
13 question on this point: Do you have an estimate
14 of how many dry tons of switchgrass a farmer could
15 harvest from an acre?

16 MR. KUBERT: At a minimum six tons,
17 and depending on the strain of grasses, as high as
18 ten or 12 tons per acre.

19 MS. BASSI: Thank you.

20 MR. KUBERT: Dry tons.

21 MR. BONEBRAKE: Onto landfill gas
22 discussion --

23 MR. KUBERT: Yep.

24 MR. BONEBRAKE: On Page 4.

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1 MR. KUBERT: Uh-huh.

2 MR. BONEBRAKE: I think you identify
3 23 existing landfill gas energy projects with the
4 total capacity of 130 megawatts of electricity; is
5 that correct?

6 MR. KUBERT: Yes.

7 MR. BONEBRAKE: And I'm assuming that
8 the projects that you're discussing of captured
9 landfill gas and then that gas is combusted in
10 some fashion to generate electricity; is that
11 correct?

12 MR. WHITMORE: Correct.

13 MR. BONEBRAKE: And is that gas sold
14 by the landfills to third parties for energy
15 generation?

16 MR. KUBERT: Yeah. Typically the
17 landfill gas to energy operator is not the same as
18 the actual landfill gas operator.

19 MR. BONEBRAKE: Now, you identify an
20 additional 20 landfills, which might be candidates
21 for capturing and selling landfill gas; is that
22 correct?

23 MR. KUBERT: Yes.

24 MR. BONEBRAKE: And would you expect

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1 the total potential capacity of those additional
2 20 landfills to be less than 130 megawatts?

3 MR. KUBERT: Yes.

4 MR. BONEBRAKE: Do you know if there
5 is a limitation in the proposed rule regarding the
6 percentage of renewable fuels, biomass and
7 landfill gas, for instance, that must be combusted
8 on an annual heat input basis in order to be
9 eligible for CASA allowance?

10 MR. KUBERT: I'm not aware of it, no.

11 MS. BASSI: I have a couple more and
12 landfills, sorry.

13 What are the byproducts of burning
14 landfill gas to generate electricity?

15 MR. KUBERT: The byproducts would be
16 the emissions from taking, essentially, the
17 cleaned up methane and running it through a
18 generator.

19 MS. BASSI: Would those be different
20 byproducts than if the landfill gas was flared?
21 It's hard to say.

22 MR. KUBERT: I don't know.

23 MS. BASSI: Okay.

24 MR. KUBERT: I don't know.

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1 MS. BASSI: Okay.

2 MR. BONEBRAKE: The next question for
3 you pertains to Page 5 of your testimony, the
4 energy efficiency section.

5 MR. KUBERT: Yes, sir.

6 MR. BONEBRAKE: And it's the sentence
7 that is fourth in that paragraph that reads,
8 "Studies have demonstrated that enough energy
9 efficiency can be 'procured,' at under 2.5 c/kwh
10 (well under the cost of generating and delivering
11 coal-fired electricity) to level electricity
12 demand."

13 In that statement, what do you
14 mean by level of electricity demand?

15 MR. KUBERT: To -- basically, if
16 projected demand was, say, one or one and a half
17 or two percent a year in growth, there is enough
18 energy efficiency -- enough economically
19 achievable energy potential to essentially, if it
20 was all fully implemented, to, essentially, level
21 demand from current levels of electricity
22 generation -- or electricity demand in the state.
23 So if we're currently demanding 100 million
24 megawatt hours of electricity a year, by fully

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1 achieving the economically achievable energy
2 efficiency potential, you would continue to have
3 demand not in excess of 100 million megawatt hours
4 per year.

5 MR. BONEBRAKE: And do you know what
6 predictions have been made regarding whether and
7 to what extent demand for electricity will
8 increase in the state of Illinois in the future?

9 MR. KUBERT: Yes.

10 MR. BONEBRAKE: Will you describe what
11 you know about that?

12 MR. KUBERT: Well, the projections
13 have been somewhere between one and a half to two
14 percent a year going forward.

15 MR. BONEBRAKE: On a compounding
16 basis?

17 MR. KUBERT: Yes.

18 MR. BONEBRAKE: And that suggests then
19 that even if we instituted fully all the energy
20 efficiency projects that you're referring to here
21 would need to maintain a current level of
22 generation?

23 MR. KUBERT: At this price. At the
24 two and a half cent per kilowatt.

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1 That's not to say -- I mean,
2 there's a difference -- there's a number of ways
3 to measure energy efficiency potential. There's
4 economically feasible, there's technically
5 feasible and there's, sort of, commercially
6 feasible.

7 MR. BONEBRAKE: I wanted to turn your
8 attention next to Page 6. And you've got a
9 discussion here of something you're referring to
10 as the governor's plan?

11 MR. KUBERT: Yes.

12 MR. BONEBRAKE: And there's a sentence
13 that refers to on August 22, 2006, the governor
14 unveiled this energy independence plan. Do you
15 see that?

16 MR. KUBERT: Yes.

17 MR. BONEBRAKE: Is that plan in
18 writing?

19 MR. KUBERT: It is.

20 MR. BONEBRAKE: And did you attach a
21 copy to your testimony?

22 MR. KUBERT: I could -- I did not, but
23 I can get it to you.

24 MR. BONEBRAKE: Is it in the form of a

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1 press release?

2 MR. KUBERT: It's in the form of a
3 press release and a Power Point presentation.

4 MS. BUGEL: We will provide those.

5 MR. BONEBRAKE: And this press release
6 is three or four pages?

7 MR. KUBERT: Yeah. The Power Point
8 presentation is probably more useful because the
9 press release focuses more on the bio fuel side of
10 this plan than on the electricity side.

11 MR. BONEBRAKE: Does this plan then
12 set forth various proposals and goals?

13 MR. KUBERT: Yes.

14 MR. BONEBRAKE: And is it your
15 understanding that this plan does not have the
16 force of law?

17 MR. KUBERT: The plan does not yet
18 have the force of law. But the plan represents a
19 reasonable target that both the governor and clean
20 energy advocates and a number of groups have
21 basically said has been a reasonable target and a
22 positive policy goal for the state.

23 MR. BONEBRAKE: Footnote 11 on that
24 page, Page 6, the first of something called the

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1 RPS?

2 MR. KUBERT: Uh-huh.

3 MR. BONEBRAKE: And I wasn't sure what
4 that refers to.

5 MR. KUBERT: RPS stands for renewable
6 portfolio standard. And it, essentially, is a
7 goal with the force of law that requires investor
8 owned utilities in the state to procure or
9 generate a certain percentage of their power mix
10 for renewable sources by a certain date.

11 MS. BASSI: What do you mean by
12 utilities?

13 MR. KUBERT: Investor owned
14 distribution utilities.

15 MS. BASSI: Like Commonwealth Edison?

16 MR. KUBERT: Yes.

17 MS. BASSI: Okay. And would you
18 repeat what you said just a minute ago? Who does
19 the -- who does that standard apply to, the
20 utilities or the power generators?

21 MR. KUBERT: Because of the
22 deregulated nature of Illinois' power markets, the
23 responsibility to fulfill that ultimately falls
24 upon the utilities.

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1 MS. BASSI: Thank you.

2 MR. RAO: I just have a follow-up.

3 So does the state have RPS
4 standards -- enforceable RPS right now?

5 MR. KUBERT: The state currently has a
6 legacy renewable energy goal from the prior --
7 from the prior administration. There have been a
8 number of bills set forth and hearings held before
9 the Illinois Commerce Commission to put into
10 place, through law, a renewable portfolio standard
11 as exists in about 22 other states. For a
12 variety -- it's been somewhat of a political saga
13 over the last couple of years, but currently that
14 is not in place.

15 MR. RAO: So --

16 MR. KUBERT: So we anticipate -- we
17 certainly anticipate it being so, within a
18 reasonable time frame -- within the time frame of
19 this -- these allowances.

20 MR. RAO: So when you say on Page 7 of
21 your testimony that the governor's energy
22 efficiency portfolio standard would require
23 utility (inaudible) energy savings equal to
24 25 percent of the projected annual demand growth

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1 by 2015 --

2 MR. KUBERT: Yes.

3 MR. RAO: Is that a target or is that
4 a requirement?

5 MR. KUBERT: That would also be --
6 that is, optionally, also a requirement that would
7 be passed through legislation.

8 MR. RAO: But it's not being passed
9 through yet?

10 MR. KUBERT: No.

11 MR. BONEBRAKE: Just to clarify, as of
12 today it is a goal that is not a legal
13 requirement?

14 MR. KUBERT: The energy efficiency
15 standard is not a goal or a legal requirement as
16 of today. It is a policy initiative that is yet
17 to be had.

18 And I would further that it's a
19 relatively modest -- because we've talked about
20 the ability to economically deliver energy
21 efficiency equal to 100 percent of projected
22 demand growth and the policy target seeks,
23 essentially, a nominal ten up to 25 percent of
24 demand growth, I think it's a fairly achievable

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1 and fairly low bar to capture. It's a pretty
2 conservative bar.

3 MS. BASSI: Are the utilities who
4 are -- whose goal it is to fulfill this RPS,
5 limited to purchasing the electricity that's
6 generated by energy efficiency or renewable
7 energy, from Illinois sources? In other words,
8 could they purchase this from Wisconsin?

9 MR. KUBERT: That, again, is a point
10 of negotiation in the process of passing the
11 legislation. The preference is for
12 Illinois-generated electricity.

13 Does it necessarily have to be
14 100 percent Illinois-generated electricity, that
15 has to be negotiated.

16 MS. BASSI: And if it's not available
17 what happens?

18 MR. KUBERT: If it's not available --
19 the way in which renewable portfolio standards are
20 fulfilled in states that don't have adequate
21 instate requirements is through the purchase of
22 what are termed renewable energy credits. Which
23 represent renewable energy attributes, energy
24 projects from other states, from neighboring

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1 states.

2 MR. BONEBRAKE: I think in a prior
3 answer you said that we expect at some point the
4 ICC to pass renewable energy regulations.

5 MR. KUBERT: It would either be
6 through the ICC or through the general assembly.

7 MR. BONEBRAKE: Who is the royal "we"
8 in your testimony?

9 MR. KUBERT: We being -- well, we
10 certainly being the administration, we being the
11 clean energy advocates in the state. And we, in
12 essence, being a number of the investor and
13 utilities themselves who essentially had an
14 agreement about a year and a half ago to support
15 an ICC order supporting a renewable portfolio.

16 MS. BASSI: Who is the administration?

17 MR. KUBERT: The Blagojevich
18 administration.

19 MR. BONEBRAKE: I asked some questions
20 for you pertaining to some of the numbers on
21 Page 7, and I think some of those numbers have
22 changed now with the amendments, as I understand
23 it. And I'm looking at the -- I guess, it's the
24 first full paragraph in the section entitled

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1 Consistency with the Governor's plan, in the last
2 sentence. And you're referring there in your
3 initial testimony to an increase of 12 to 17
4 percent and you now have modified that from 12 to
5 15.4 percent?

6 MR. KUBERT: Again, this is -- go
7 ahead.

8 MR. BONEBRAKE: Is that correct?

9 MR. KUBERT: Yes.

10 MR. BONEBRAKE: So currently you
11 believe the 15.4 percent number is accurate?

12 MR. KUBERT: Yes.

13 MR. BONEBRAKE: And it's your
14 testimony that what should be adopted is a RE/EE
15 set-aside of 15.4 percent initially and then
16 increasing on an annual basis by 1 percent to cap
17 out at some point at 20 percent?

18 MR. KUBERT: Yes.

19 MR. BONEBRAKE: So essentially then
20 would that result in a combined CASA and -- a
21 set-aside in the state of Illinois of 38 percent?

22 MR. KUBERT: I guess, yes. I don't
23 know the 18 percent you're referring to.

24 MR. BONEBRAKE: Well, is there

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1 currently a 25 percent CASA set-aside under the
2 proposal?

3 MR. KUBERT: You're asking me?

4 MR. BONEBRAKE: I'm asking you.

5 MR. KUBERT: I don't know.

6 MR. BONEBRAKE: So you don't know
7 whether there is a -- there are additional
8 existing source set-asides under Illinois proposal
9 that is in addition to the RE/EE set-asides of
10 12 percent?

11 MR. KUBERT: Well, I know that there
12 are the set-asides for innovative technologies as
13 well as the set-asides for -- that were discussed
14 in the previous testimony.

15 MR. BONEBRAKE: But you don't know the
16 total extent of the proposed existing for
17 set-asides.

18 MR. KUBERT: I know the total number
19 of allowances.

20 MR. BONEBRAKE: When you say "the
21 total number of allowance" -- when you say total
22 number of allowance, is that --

23 MR. KUBERT: The CAIR allowances.

24 MR. BONEBRAKE: Those are --

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1 MR. KUBERT: I was brought in as an
2 expert witness to discuss -- to focus primarily on
3 the renewable energy and energy efficiency
4 set-aside. I am less familiar -- because of other
5 job responsibilities, I am less familiar with the
6 overall package that's been (inaudible).

7 MR. BONEBRAKE: I understand that.
8 And I hope you understand that I'm trying to view
9 the Rule as a whole, include the entire impact of
10 the CASA which includes but is not limited to your
11 original supplement. That's why I'm asking you
12 the questions that I am.

13 MR. KUBERT: Okay.

14 MR. BONEBRAKE: Were you aware that
15 the Illinois Environmental Protection Agency had
16 an entity by the name of ICF to perform an
17 economic analysis with respect to the impact of
18 its proposed CASA?

19 MR. KUBERT: No.

20 MR. BONEBRAKE: Have you done any
21 economic analysis of the economic impact on
22 existing electric generating units of increasing
23 the CASA by eight percent, which would be the
24 increase in the RE/EE of eight percent that you're

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1 suggesting?

2 MR. KUBERT: No, I haven't.

3 MR. BONEBRAKE: Do you know if it's a
4 statutory requirement in this state to consider
5 the economic impact of rules in connection with
6 their promulgations?

7 MR. KUBERT: I don't know that it is,
8 but I'm assuming -- presuming that it probably is.

9 MR. BONEBRAKE: Are you familiar with
10 what other states have proposed or have adopted in
11 connection with EE/RE set-asides in CAIR
12 implementations?

13 MR. KUBERT: In the testimony that I
14 read from the IEPA, it seems that the range has
15 been from -- the USEPA recommendations have been
16 somewhere between ten and 15 percent. I don't
17 know what other states have done.

18 MR. BONEBRAKE: The only basis for
19 that testimony is what you read in the IEPA
20 document?

21 MR. KUBERT: Correct.

22 MR. BONEBRAKE: Would that have been
23 in the TSD?

24 MR. KUBERT: The what?

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1 MR. BONEBRAKE: The Technical Support
2 Document?

3 MR. KUBERT: I don't recall where I
4 read it.

5 MR. BONEBRAKE: But you have no
6 independent knowledge beyond what you read in
7 the --

8 MR. KUBERT: I have no independent
9 knowledge of how other states (inaudible.) And,
10 obviously, it's going to vary on the individual
11 states renewable energy potential, as well.

12 MR. BONEBRAKE: I did have a question
13 for you, and I wasn't fully understanding some of
14 your calculations. So perhaps you can describe
15 for us how you calculated 15.4 percent, which is
16 the number, as opposed to 17 percent which was
17 your original testimony?

18 MR. KUBERT: Sure. If you go to --
19 and again, I make apologies for any sort of
20 initial spreadsheet errors that led to the initial
21 17 percent level.

22 If you go to Exhibit 1, what I'm
23 essentially doing is using the formula that IPA
24 has proposed of two pounds per megawatt hour

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1 divided by 2,000, the allowances for zero emission
2 renewals and point five pounds per megawatt hours
3 divided by 2,000 for nonzero emission renewables.
4 If you go to the second box on Exhibit 1, the
5 total RPS megawatt hour requirements is
6 essentially taking our existing bundled
7 electricity demand in Illinois in 2005 delivered
8 by investor-run utilities.

9 "Bundled customers" meaning energy
10 plus distribution. Grossing that up by two
11 percent a year on a compounded basis to 2015, and
12 then applying a ten percent renewable portfolio
13 standard against that and then making it an
14 educated assumption of the share of each of that
15 RPS requirements that would be wind or other zero
16 emission sources versus bio mass.

17 And although many -- much of the
18 legislation has been introduced called for a 75
19 percent carve out for wind, my assumption is the
20 market force will lead it to be 85 percent or
21 higher, simply due to the economic competitiveness
22 of wind versus other sources. I then take that
23 that those megawatt -- and I'm then taking the
24 megawatt hours required and applying that by the

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1 allowance factor per megawatt hour and coming up
2 with the total amount of allowances required.

3 MR. BONEBRAKE: In your Exhibit 1
4 where you have MW required, that's a required
5 amount of installed capacity --

6 MR. KUBERT: Correct.

7 MR. BONEBRAKE: -- in order to
8 generate that --

9 MR. KUBERT: Based on an assumed
10 30 percent capacity factor. And I would comment
11 also further that on the bottom of the side, the
12 megawatts required, that could be either
13 stand-alone megawatts or a combination of
14 stand-alone and coal-fired units. So it might be,
15 essentially, a share of an existing coal-fired
16 unit.

17 MR. BONEBRAKE: And do you know
18 whether or not the 221 megawatts that you
19 indicated required for bio mass, whether the
20 generating units that generated that level of
21 electricity would have to combust at least
22 50 percent on an annual heat input basis of bio
23 mass in order to be eligible for a CASA allowance?

24 MR. KUBERT: That's why -- that fact

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1 slipped my mind, but that's why these would
2 essentially be either -- would primarily be either
3 stand-alone bio mass facilities or landfill gas
4 facilities. And that's another reason why I'm
5 keeping the number relatively small. I think the
6 wind share would probably actually be higher,
7 which would actually increase the number of
8 allowances required.

9 MR. BONEBRAKE: Are there any
10 stand-alone bio mass generating facilities
11 currently in the state?

12 MR. KUBERT: Not that I'm aware of,
13 other than the landfill gas facility.

14 MR. BONEBRAKE: And I take from your
15 Exhibit 1, as well, that you're assuming that
16 there would be 3,762 megawatts of installed wind
17 capacity?

18 MR. KUBERT: Yes. The market is going
19 to go there regardless. But with an RPS, that's
20 essentially what would be needed to meet the RPS.

21 MR. BONEBRAKE: Let me turn back to
22 Page 7 of your testimony.

23 MR. KUBERT: Uh-huh.

24 MR. BONEBRAKE: In the paragraph that

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1 starts, "While IEPA's proposed rule" --

2 MR. KUBERT: Yes.

3 MR. BONEBRAKE: The last sentence,
4 "Utility are to meet the eight percent target."

5 What is the source of the
6 eight percent target?

7 MR. KUBERT: Are you looking at the
8 new testimony or the old testimony?

9 MR. BONEBRAKE: I'm looking at the
10 old, so did you change that number?

11 MR. KUBERT: That number has been
12 changed on the new testimony. The eight percent
13 target was the original governor's sustainable
14 energy plan.

15 In February of 2005, it formed the
16 original basis for the Illinois Commerce
17 Commission discussions on the RPS. The
18 ten percent target -- and the eight percent target
19 was based on, essentially, a 2012 achievement
20 date.

21 The ten percent target that's in
22 the governor's revised energy plan issued in
23 August of this year, puts that number out, it's
24 ten percent by 2015. And the ten percent target

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1 is probably more consistent renewable portfolio
2 standards in other states.

3 MR. BONEBRAKE: Do you know, is the
4 Federal CAIR Rule, was it adopted to specifically
5 address renewable energy issues?

6 MR. KUBERT: It wasn't. But my
7 understanding is that the set-aside allowances
8 were intended to, in part, to further policies
9 that would support clean energy development. To
10 further whatever policies the state chose, but, in
11 particular, prefer the clean energy development in
12 the states.

13 MR. BONEBRAKE: Wasn't the driving
14 factor behind the adoption of Federal CAIR, in
15 reality, the regulations of a couple of particular
16 rules?

17 MR. KUBERT: I'm not familiar enough
18 with the rules to tell you that, but...

19 MR. BONEBRAKE: Well, isn't the thrust
20 of the proposed Illinois CAIR Rule the regulation
21 of nitrogen oxides and sulphur dioxides?

22 MR. KUBERT: Yes.

23 MR. BONEBRAKE: And wouldn't you
24 expect that to the extent the State eventually

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1 takes the view that as a matter of law it wants to
2 impose renewable energy requirements that
3 additional regulations, such as by the IC would be
4 adopted in different forms?

5 MR. KUBERT: I think these -- yeah,
6 but -- my belief is that both the set-aside
7 allowances and other legislation, such as an RPS,
8 are complimentary to one another and both further
9 the same goal.

10 THE HEARING OFFICER: Yes.

11 MS. BUGEL: Just a follow-up question.

12 Mr. Kubert, how does renewable
13 energy and energy efficiency foster goals of
14 reducing pollutants such as sulphur dioxide and
15 nitrogen oxide?

16 MR. KUBERT: They fostered those goals
17 because when the renewable energy project -- the
18 generation and renewable project -- the generation
19 and renewable energy projects essentially allows
20 the utilities to back down the use of fossil fuel
21 generated electricity and allows the regional
22 transmission organization to essentially request
23 that the fossil fuel generation units back down at
24 the times in which the renewable generation is

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1 online.

2 MS. BUGEL: Is it correct then to say
3 that demand --

4 MR. KUBERT: Therefore reducing
5 emissions from those plants.

6 MS. BUGEL: Demand for electricity
7 that is met with renewable energy is therefore not
8 met with fossil fuels that are higher in
9 pollutants?

10 MR. KUBERT: Exactly. It's
11 one-for-one inverse relationship.

12 THE HEARING OFFICER: We have a
13 question from Ms. Doctors.

14 MS. DOCTORS: I guess, is it your
15 testimony then that the Illinois Environmental
16 Protection Agency is not the body that's
17 responsible for implementing the renewable
18 portfolio standards of the governor's energy plan?

19 MR. KUBERT: No, it is not.

20 MS. DOCTORS: The Illinois EPS is
21 not --

22 MR. KUBERT: No.

23 MS. DOCTORS: -- responsible for doing
24 the implementation?

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1 MR. KUBERT: No.

2 MS. DOCTORS: And isn't it also your
3 testimony that there have to be other regulatory
4 adoptions in order to implement the governor's
5 plan?

6 MR. KUBERT: Yes.

7 THE HEARING OFFICER: Ms. Bassi?

8 MS. BASSI: Are you aware of projects
9 that would use up 9,150 allowances?

10 MR. KUBERT: Currently?

11 MS. BASSI: Uh-huh.

12 MR. KUBERT: No. But there are
13 currently over 2,000 megawatts of projects under
14 some stage of development in Illinois.

15 But the passage of renewable
16 portfolio standards would accelerate the
17 development. There are -- the wind developers
18 have combed the state and have identified
19 developable wind resources that, in any
20 understanding, would be in excess of that number.

21 MS. BASSI: Would they equal 15,246
22 allowances?

23 MR. KUBERT: I can't do the math in
24 head that quickly.

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1 MS. BASSI: Okay.

2 And I had a couple questions on
3 the solar photo voltaics that -- is that right?
4 Could you explain how solar energy, if you will,
5 can be used to replace peak units?

6 MR. KUBERT: Solar energy is actually
7 a perfect displacement for peak units. When you
8 look at a state -- when you look at Illinois on a
9 day like today, the solar PV, the photo voltaic
10 energy generation is relatively limited. However,
11 there is a direct correlation between when solar
12 panels peak in terms of their output and the times
13 at which peak units are on. These are typically
14 hot July and August afternoons when every
15 generation unit in the region is online.

16 MS. BASSI: And what is the nature of
17 the pollution from the manufacturer of solar PV
18 units? You mentioned this in your testimony that
19 there was some, Page 5.

20 THE HEARING OFFICER: Let's take a
21 brief recess here, we have to change court
22 reporters at 1:00.

23 MS. BASSI: This is my last question.

24 MR. KUBERT: It's the same --

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1 THE HEARING OFFICER: Are we back on
2 the record?

3 THE COURT REPORTER: Yes.

4 THE HEARING OFFICER: Okay.

5 MR. KUBERT: It's fairly nominal, but
6 it's the same, essentially manufactured -- it's
7 the same pollution that's required in the use of
8 production of silicone wafer, essentially. So
9 it's electricity and water.

10 MS. BASSI: Okay.

11 MR. KUBERT: Use of water.

12 THE HEARING OFFICER: Any other
13 further questions?

14 MS. DOCTORS: I just have the one.

15 And is it your opinion that the
16 Agency's inclusion of the CASA and its CAIR
17 proposal supports the governor's energy plan?

18 MR. KUBERT: Yes.

19 THE HEARING OFFICER: Anything else?

20 MS. BUGEL: I have one question.

21 Could you elaborate on your yes?
22 What is your view -- what's your view of the
23 Agency's proposal as it stands?

24 MR. KUBERT: I think the 12 percent

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1 target is along the right lines. I think it's
2 directly complimentary and supportive of policies,
3 goals and clean energy targets in the state. And
4 the Agency should be complimented on the
5 12 percent carve out that they've already made.

6 THE HEARING OFFICER: I see nothing
7 further.

8 Thank you, sir, very much for your
9 time.

10 MR. KUBERT: Uh-huh.

11 (WHEREUPON, the witness was
12 excused.)

13 THE HEARING OFFICER: Taking a brief
14 off-the-record break here.

15 (WHEREUPON, a recess was had.)

16 THE HEARING OFFICER: We are back on
17 the record and have completed the testimony that
18 we intended to get done today, with the testimony
19 of Charles Kubert. We had some questions that we
20 wanted to ask of the Agency; Mr. Bonebrake, I
21 think you did, as well as Mr. Reiser. Ms. Bassi
22 has some questions as well, but we're going to
23 address that in a -- You want me to say how we're
24 going to address that?

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1 MS. BASSI: I will turn my questions
2 into a response to the Agency's motion to amend,
3 and I will file it as soon as possible.

4 THE HEARING OFFICER: And then we are
5 going to give -- The Agency leave to reply is
6 hereby granted as of now to reply to your
7 response, and they'll have seven days from when
8 they get your response -- excuse me -- seven days
9 from when your response is filed with the Board,
10 to file a reply with the Board.

11 MR. KIM: We ask that, as a courtesy,
12 we get -- it's always happened before, but that we
13 receive a copy of the filing.

14 THE HEARING OFFICER: We've also had
15 an off-the-record discussion, and the transcript
16 will be completed and delivered to the Board by
17 December 4th, 2006. And the public comment period
18 will end on December 22nd, 2006. I'll put out a
19 hearing officer order to that effect as well.

20 But we do have some additional
21 questions, so let's get going with those.
22 Mr. Bonebrake or Mr. Reiser, do you have a
23 preference in terms of order?

24 MR. BONEBRAKE: Just a clarification.

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1 Before, when you were referring to the
2 public-comment period, you were referring to the
3 public-comment period with respect to this
4 particular hearing?

5 THE HEARING OFFICER: Correct.

6 MR. BONEBRAKE: Mr. Reiser, if you
7 would like to go first, I would certainly be more
8 than happy if you went first.

9 MR. REISER: It makes no difference to
10 me, but I'm happy.

11 David Reiser, R-E-I-S-E-R, from
12 the law firm of McGuire Woods on behalf of Ameren.

13 The first question is, in the
14 definition of project sponsor, which is
15 page 9 of my draft -- I don't know if that helps
16 any -- it's been --

17 MR. JOHNSON: Of the amended rules?

18 MR. REISER: Of the amended rules.
19 I'm sorry.

20 Project sponsor is limited to
21 certain people, and then it says, unless another
22 person or entity is designated by a written
23 agreement as the project sponsor for the purpose
24 of applying for NOx allowances, et cetera. I

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1 guess the question is, written agreement between
2 whom or with whom?

3 MS. DOCTORS: All right. It's noted.
4 The Agency will respond and comment.

5 THE HEARING OFFICER: And just for the
6 record, the copy that we have, that's on page 10,
7 line No. 432.

8 MR. REISER: On page -- excuse me --
9 Section 225 and 320, which describes the permit
10 requirements, there's been added language where
11 the Agency says that an owner/operator is required
12 to submit any supplemental information that the
13 Agency determines is necessary in order to review
14 a CAIR permit application and issue a CAIR permit.
15 My question is, how is that person going to know
16 of the Agency's request and what the timing of
17 that's going to be in terms of the whole process?

18 MS. DOCTORS: Your question is noted.

19 MR. REISER: In (a)(2), again,
20 Section 320, it says each CAIR permit will be
21 issued pursuant to Section 39 or 39.5 of the Act.
22 And I guess the question is, which of those will
23 be issued pursuant to, because each of those
24 carries different procedural requirements and

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1 appeals.

2 MS. DOCTORS: It's noted.

3 MR. REISER: In 225.405(b), it says
4 the units that meet the requirements set forth in
5 (b)(1) and (b)(3) and (4) will not be CAIR NOx
6 units, and units that meet the requirements of
7 (b)(2) and (b)(5) will be CAIR NOx units. I was
8 trying to get a handle of what that means.

9 MS. DOCTORS: We'll provide further
10 explanation.

11 MR. REISER: I'll note for the record
12 the same question about supplemental information
13 and CAIR permits being issued to Section 39 and
14 now -- and 39.5 is in 225.420.

15 In 225.455(b), there was some
16 modifications of the language in (b) with respect
17 to the comment that was made at the first hearing
18 as to the Agency not being authorized to make
19 noncompliance findings. And there is language in
20 the motion to amend that talked about changes
21 being made here in response to that, yet the
22 language is still prefaced about the project
23 sponsor of the source -- NOx source that is out of
24 compliance with the subpart for a given period.

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1 And there's no discussion of how that
2 determination will be made, how the person will be
3 advised that somebody believes they're out of
4 compliance, how that will be determined.

5 MS. DOCTORS: We'll provide further
6 explanation on how that works.

7 MR. REISER: And that was all I had.

8 MR. BONEBRAKE: I had just a couple of
9 follow-up questions, and I think they are on the
10 section that Mr. Reiser left off, and that's
11 225.450, Subsection A. There is a reference there
12 that has been added to a system for measuring
13 gross electrical output. And my question -- first
14 question in this subsection is, what is meant by
15 the term "system," and is the Agency intending to
16 capture within that term both hardware and
17 software and other types of activities such as
18 calculations from other data points? In other
19 words, is the term "system" limited to hardware?
20 Does it extend beyond hardware to various ways in
21 which gross output might be determined or
22 calculated?

23 MS. DOCTORS: We'll provide that
24 explanation.

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1 MR. BONEBRAKE: In 450(c)(1), there is
2 a reference in the second line to "if available."
3 And the rule, as I read it, has been amended to
4 make clear that the electric generators have an
5 option of submitting, for the initial allocation
6 period, either gross electric output or heat input
7 information. And my question is whether that
8 phrase in (c)(1), by referring to "if available,"
9 is intended to mean that even if an electric
10 generator elects the input, for purposes of the
11 allocations, it must nonetheless submit gross
12 output data.

13 MS. DOCTORS: That's correct.

14 MR. BONEBRAKE: I also had a question
15 on 225.460(d), Subpart (d)(2). It states that
16 projects required to meet emission standards or
17 technology requirements under State or Federal law
18 or regulation -- and it goes on from there. And
19 my question for the Agency is, how will it
20 determine whether a project or projects is
21 required to meet standards or technology
22 requirements under State or Federal law or
23 regulation?

24 MS. DOCTORS: We will address this in

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1 our comments.

2 MR. BONEBRAKE: That's it.

3 MS. DOCTORS: Thank you for your
4 comments.

5 THE HEARING OFFICER: Anything else on
6 the motion to amend, Mr. Reiser?

7 MR. REISER: No.

8 THE HEARING OFFICER: As we said, we
9 will address -- Ms. Bassi will have a response
10 that will be filed sometime soon, and the Agency
11 will have seven days to file a reply to that
12 response addressing any concerns. The transcript
13 will be ready on December 4th. Any other matters
14 that need to be addressed at this time?

15 Okay. Let me just say that if
16 anyone has any questions about this rulemaking,
17 you know I can be reached at (217) 278-3111. You
18 can e-mail me at knittlej@ipcb.state.il.us. And,
19 of course, copies of the transcript will be
20 available shortly after December 4th on the
21 Board's website at www.ipcb.state.il.us. It will
22 be there along with previous court orders and
23 hearing officer orders along with all the
24 pleadings.

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1 And I would like to thank everyone
2 for participating today and yesterday, and thanks
3 for your time.

4 (Which were all the proceedings
5 had in the above-entitled
6 hearing.)

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1 STATE OF ILLINOIS)

2) SS.

3 COUNTY OF COOK)

4

5 We, Sharon Berkery and Kathy O'Donnell,
6 being first duly sworn, Certified Shorthand
7 Reporters of the State of Illinois, do hereby
8 certify that we reported in shorthand the
9 proceedings had at the hearing aforesaid, and that
10 the foregoing is a true, complete, and correct
11 transcript of the proceedings of said hearing as
12 appears from our stenographic notes so taken and
13 transcribed under our personal direction.

14

15

16 Sharon Berkery
17 Certified Shorthand Reporter
18 C.S.R. No. 084-004327

19

20

21

22 Kathy O'Donnell
23 Certified Shorthand Reporter
24 C.S.R. No. 084-004466

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