

APS / Rates - Permanent
E-01345A-08-0172

Volume VI
8/28/2009



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1 BEFORE THE ARIZONA CORPORATION COMMISSION

2

3 IN THE MATTER OF THE)
 APPLICATION OF ARIZONA) DOCKET NO.
 4 PUBLIC SERVICE COMPANY FOR A) E-01345A-08-0172
 HEARING TO DETERMINE THE)
 5 FAIR VALUE OF THE UTILITY) PERMANENT
 PROPERTY OF THE COMPANY FOR)
 6 RATEMAKING PURPOSES, TO FIX A)
 JUST AND REASONABLE RATE OF)
 7 RETURN THEREON, TO APPROVE)
 RATE SCHEDULES DESIGNED TO)
 8 DEVELOP SUCH RETURN.) EVIDENTIARY
) HEARING

Arizona Corporation Commission
DOCKETED

AUG 31 2009

DOCKETED BY *[Signature]*

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11 At: Phoenix, Arizona

12 Date: August 28, 2009

13 Filed: August 31, 2009

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REPORTER'S TRANSCRIPT OF PROCEEDINGS

16

VOLUME VI

(Pages 1271 through 1456, inclusive.)

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1 BE IT REMEMBERED that the above-entitled and
2 numbered matter came on regularly to be heard before the
3 Arizona Corporation Commission, in Hearing Room 1 of said
4 Commission, 1200 West Washington Street, Phoenix, Arizona,
5 commencing at 9:05 a.m., on the 28th of August, 2009.

6

7 BEFORE: LYN A. FARMER, Chief Administrative Law Judge

8

9

10 Note: No roll call taken. The following is a list
11 of the parties of record.

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1 CALJ FARMER: Let's go ahead and go on the
2 record. Good morning. Welcome back.

3 A few housekeeping matters before we start with
4 the witnesses. Yesterday, we marked several exhibits for
5 Commissioner Mayes, 1, 2, 3, 4, and 5. Are there any
6 objections to their admission?

7 MR. CROCKETT: No objection.

8 MR. MUMAW: No, Your Honor.

9 CALJ FARMER: Hearing no objections, Mayes
10 Exhibits 1, 2, 3, 4, and 5 are admitted.

11 (Exhibits Mayes-1, Mayes-2, Mayes-3, Mayes-4, and
12 Mayes-5 were admitted into evidence.)

13 CALJ FARMER: And also, good news. Judge Nodes
14 has agreed to give us the hearing room for September 10
15 and 11. So we can start, and we'll talk about this a
16 little bit more later. But in addition to that, I think I
17 said the 14th and 18th before. We've got those two days,
18 too.

19 Are there any other procedural issues that we
20 need to talk about before we start with the next witness?

21 Hearing none, Mr. Hogan.

22 MR. HOGAN: Thank you, Your Honor. Western
23 Resource Advocates calls Dr. David Berry to the stand.

24

25

1 DAVID BERRY, Ph.D.,
2 called as a witness on behalf of Western Resource
3 Advocates, having been first duly sworn by the Certified
4 Reporter to speak the truth and nothing but the truth, was
5 examined and testified as follows:

6

7

DIRECT EXAMINATION

8

9 Q. (BY MR HOGAN) Would you state your name for the
10 record, please.

11

A. My name is David Berry.

12

Q. And it's Dr. Berry, correct?

13

A. Yes.

14

15

Q. On whose behalf are you providing testimony
today?

16

A. Western Resource Advocates.

17

18

Q. And what is your position with Western Resource
Advocates?

19

A. I'm a senior policy advisor.

20

21

Q. Did Western Resource Advocates file direct
testimony in connection with this matter last December?

22

A. Yes. Testimony was filed by Carolyn Stewart.

23

24

25

MR. HOGAN: Your Honor, I have to confess, I'm
not sure I've been paying attention. I've had that
testimony marked as Exhibit 1, WRA Exhibit 1.

1 CALJ FARMER: And the name was Carol Stewart?

2 MR. HOGAN: Carolyn Stewart.

3 CALJ FARMER: Carolyn. Thank you.

4 Q. (BY MR HOGAN) And just so the record is clear,
5 Dr. Berry, you did not provide testimony on behalf of WRA
6 last December?

7 A. That is correct.

8 Q. But you have provided testimony in support of the
9 settlement agreement?

10 A. Yes.

11 MR. HOGAN: And, Your Honor, that's been marked
12 for identification as WRA No. 2.

13 Q. (BY MR HOGAN) And so with regard to the
14 testimony that you did file in support of the settlement
15 agreement, you're adopting that testimony, that prefiled
16 written testimony, as your sworn testimony here today?

17 A. Yes.

18 Q. Dr. Berry, can you provide us with a brief
19 summary of your testimony in support of the settlement
20 agreement?

21 A. Yes. In my prefiled testimony, I covered
22 primarily issues related to renewable energy. The
23 settlement agreement does contain Section 15 dealing with
24 renewable energy commitments by APS. And my testimony is
25 in support of that section of the settlement agreement and

1 the entire settlement agreement.

2 Q. Well, that was very brief. We're going to go
3 real quick. Let me ask you a couple of other questions
4 that have arisen during the course of the proceedings.

5 You have been listening in to the proceedings,
6 correct?

7 A. Yes.

8 Q. You're aware that Chairman Mayes has expressed
9 some concerns about the level of obligation or commitment
10 contained in the agreement with respect to renewable
11 energy on the part of APS?

12 A. Yes, I have heard that discussion.

13 Q. Can you address those concerns generally, and
14 then I'll ask you some specific questions about it.

15 A. Certainly. In general, I believe that Section 15
16 does commit or obligate APS to pursue an additional
17 1,700,000 megawatt hours of renewable energy be put in
18 place by the year 2015. So that is the basic overview of
19 that section.

20 Q. Well, let me -- do you have the settlement
21 agreement with you there?

22 A. Yes.

23 Q. Let me have you turn to Section 15.1 of the
24 settlement agreement. There's been some discussion about
25 the language used in that provision, "best efforts."

1 A. Yes.

2 Q. Can you address from WRA's standpoint what that
3 terms conveys to you?

4 A. Yes, I can. When APS is to make its best
5 efforts, it is to undertake a diligent effort to fulfill
6 the obligations of Section 15.

7 Now, the term 'best efforts' recognizes that
8 there are uncertainties that may occur and that would
9 delay meeting the requirements in Section 15. For
10 example, a supplier with whom APS has entered into a
11 contract may experience delays in obtaining equipment or
12 in obtaining financing. Or APS under Section 15 is to
13 submit specific projects for Commission review; the
14 Commission may not approve them.

15 So any of those events could occur, and that's --
16 the term "best efforts" should take into account these
17 uncertainties and excuse APS from meeting the requirements
18 on the schedule indicated in the section.

19 Q. Now, with regard to getting past Section 15.1,
20 which uses the term "best efforts," the remaining
21 provisions of Section 15 discuss various other renewable
22 energy projects that APS is obligated to undertake,
23 correct?

24 A. Yes.

25 Q. And those are in-state wind, utility-scale

1 photovoltaic, and the schools projects as well, correct?

2 A. Yes. Plus there's a government institutes
3 project.

4 Q. And I think you may have already mentioned this,
5 but can you, with respect to those provisions, state your
6 understanding of what APS's level of obligation or
7 commitment is?

8 A. Well, for each of those, APS has to submit to the
9 Commission a project plan for the Commission to review,
10 and there's specific times when APS is supposed to submit
11 those projects or plans.

12 Q. Okay. Finally, Dr. Berry, there was some
13 discussion yesterday, I think it was yesterday, about the
14 possible sale of CO2 credits associated with renewable
15 resources. Do you recall that?

16 A. Yes.

17 Q. Do you have any comments about APS's ability to
18 sell CO2 credits from renewable resources?

19 A. Well, the Renewable Energy Standard contains
20 within it a provision dealing with specifically that kind
21 of sale, and I'll simply read it, or a summary of it.

22 Section 18.04.E states that -- and this is from
23 my prefiled testimony, Page 11, Footnote 11.

24 Section 18.04.E states that: If an affected
25 utility trades or sells environmental pollution reduction

1 credits or any other environmental attributes associated
2 with kilowatt hours produced by an eligible renewable
3 energy resource, the affected utility may not apply
4 renewable energy credits derived from those kilowatt hours
5 to satisfy the RES requirements.

6 What this means is if APS were to sell some of
7 those carbon dioxide credits, it would not be able to
8 count the associated kilowatt hours towards meeting its
9 Renewable Energy Standard requirements; therefore, I don't
10 think APS would be likely to be selling those carbon
11 dioxide allowances.

12 Q. Do you have anything else to add to your summary
13 and the testimony that you have provided?

14 A. No, I don't think so.

15 MR. HOGAN: Dr. Berry is available for cross-
16 examination.

17 CALJ FARMER: Thank you, Mr. Hogan. I do have a
18 question. On the 17th of August, WRA filed revised
19 exhibits. Are those in the -- did you substitute those
20 pages in your direct testimony or do we need --

21 MR. HOGAN: That's a good question, and I will
22 figure that out and take care of it.

23 CALJ FARMER: Okay, thank you.

24 Are there any objections to the testimony of
25 either Carolyn Stewart or David Berry? They were

1 prefiled.

2 MR. GRANT: None.

3 MR. MUMAW: No.

4 CALJ FARMER: We'll go ahead and admit those,
5 WRA-1 and 2.

6 (Exhibits WRA-1 and WRA-2 were admitted into
7 evidence.)

8 CALJ FARMER: Okay. Any questions from the
9 parties for this witness?

10 MR. MUMAW: Just a handful, Your Honor.

11 CALJ FARMER: Mr. Mumaw.

12

13 CROSS-EXAMINATION

14

15 Q. (BY MR. MUMAW) Good morning, Dr. Berry.

16 A. Good morning, Mr. Mumaw.

17 Q. Dr. Berry, am I correct in my memory that WRA was
18 also a signatory to the company's last settlement, which
19 was signed in 2004, and approved by the Commission in the
20 spring of 2005?

21 A. That is correct.

22 Q. Am I also correct that that settlement agreement
23 also contained a number of provisions concerning renewable
24 energy?

25 A. Yes, it did.

1 Q. First of all, would it be fair to state that they
2 were not as ambitious as those in this settlement?

3 A. That is correct. I believe that APS was
4 obligated to acquire about 100 megawatts.

5 Q. And lastly, Dr. Berry, are you aware of any
6 commitment made by the company in that 2004 settlement
7 with regard to renewable energy that they have not
8 fulfilled?

9 A. As far as I know, APS has fulfilled all of those
10 commitments and gone well beyond them.

11 Q. And Dr. Berry, would you have that same
12 expectation with regard to this settlement if it were
13 approved by the Commission?

14 A. Yes, I do.

15 MR. MUMAW: Thank you, Dr. Berry. I have nothing
16 further.

17 CALJ FARMER: Any other party have questions for
18 the witness?

19 Mr. Robertson.

20 MR. ROBERTSON: Thank you, Your Honor.

21

22 CROSS-EXAMINATION

23

24 Q. (BY MR. ROBERTSON) Good morning, Dr. Berry.

25 A. Good morning, Mr. Robertson.

1 Q. You and I, before this morning's hearing began,
2 had discussed one or two areas in which I wanted to pose
3 some questions to you. But listening to Mr. Hogan's
4 direct examination of you, there's another area that has
5 occurred to me and I'll address that first.

6 I think your testimony regarding your
7 understanding of the best efforts language as it appears
8 in Paragraph 15.1 of the settlement agreement is very,
9 very important, and I think it goes a long ways towards
10 addressing Chairman Mayes' concern about the extent and
11 the level of APS's commitment to implement the various
12 obligations set forth in Section 15 of the settlement
13 agreement. So I would like to ask you a couple of
14 questions to expand upon the context and background in
15 which you're testifying in that regard.

16 Could you briefly describe the nature and the
17 mission, if you will, of Western Resource Advocates as it
18 relates to this subject of renewables and the
19 organizations interested in that subject.

20 A. Western Resource Advocates works in the interior
21 west states of the United States. So we work in Arizona,
22 New Mexico, Nevada, Colorado, Utah, and Wyoming.

23 One of our programs is the energy program, and
24 one of its goals is to reduce emissions from power
25 generation such as carbon dioxide emissions, sulphur

1 dioxide emissions, and nitrogen oxide emissions, and so
2 forth. And renewable energy is one means to accomplish
3 that, as is energy efficiency.

4 Q. Now, against that background, Mr. Mumaw
5 established during his examination of you that you did
6 participate in previous APS settlement agreement
7 negotiations; is that correct?

8 A. Yes.

9 Q. And you were very active in the settlement
10 negotiations which resulted in the settlement agreement
11 currently before the Commission, were you not?

12 A. Yes. I participated in nearly every meeting,
13 usually in person.

14 Q. That's correct. You were in that regard
15 particularly involved with regard to the negotiations
16 surrounding what has become Section 15 of the settlement
17 agreement, weren't you?

18 A. Yes.

19 Q. Would you describe those negotiations as vigorous
20 and truly in the nature of arm's length?

21 A. Yes. In fact, many parties participated in
22 crafting Section 15 and were actively engaged in doing so.
23 And from WRA's perspective, we have no financial interest
24 in any of the projects that might be built under
25 Section 15.

1 Q. But I gather by the fact that you're testifying
2 in support of the settlement agreement today that the end
3 result of the negotiations, WRA was satisfied with the
4 substantive content of Section 15; is that correct?

5 A. Yes.

6 Q. Now, do you have a copy of the settlement
7 agreement in front of you?

8 A. Yes.

9 Q. Let me direct your attention to Paragraph 15.5.
10 And I would like to ask you a few questions, and I'm now
11 moving to the area that you and I discussed previously
12 this morning.

13 Earlier this week, Dr. Berry, during the course
14 of its Open Meeting, the Commission spent a good part of
15 the day discussing an Arizona Public Service Company
16 docket. The last six digits are 09-0263, or what is known
17 as the performance-based incentive or PBI docket.

18 And in that docket, at the end of the day, the
19 Commission adopted a Staff order with one amendment that's
20 not material to my question, that provides, among other
21 things, that it is therefore ordered that Arizona Public
22 Service Company can recover the cost of incentive payments
23 that are incurred to meet Arizona Public Service Company's
24 obligation for PBIs up to \$220 million for all PBIs
25 entered into through 2010, under the following conditions.

1 And then there were a few conditions that really, again, I
2 don't believe are pertinent to my question.

3 Let me ask you, to the extent you're in a
4 position to have an opinion, do you believe that the
5 Commission's order of earlier this week in the PBI docket
6 would have an impact on Paragraph 15.5 of the settlement
7 agreement?

8 A. I'm not intimately familiar with the docket that
9 you were describing, but 15.5 is fairly general in how APS
10 is to craft the schools program. So any specific
11 requirements that might have come in the docket that you
12 described probably wouldn't have any effect on how APS --
13 on how this settlement agreement is to be implemented
14 directly, but it may influence the way APS designs the
15 program to meet the requirements of 15.5.

16 Q. Let me ask you a follow-up question, again, to
17 the extent you're in a position to have an opinion.

18 During the course of the Open Meeting to which I
19 made reference earlier this week, there was a great deal
20 of discussion about the importance of federal stimulus
21 funds available under ARRA, or I believe it's the American
22 Recovery and Reinvestment Act, that are available through
23 the end of this year, and there was an expressed sense of
24 urgency to try to access those funds.

25 Now, as we look at Paragraph 15.5, this provides

1 that APS shall file the program or plans contemplated by
2 this paragraph within 120 days after the Commission's
3 order approving the settlement agreement, if the
4 settlement agreement is approved. In all likelihood, that
5 would suggest that will probably be sometime in 2010 as
6 opposed to 2009.

7 Against that background, in your opinion, would
8 the lack of availability of federal stimulus funds under
9 ARRA impact this particular paragraph and what is
10 contemplated?

11 A. I really don't know whether it would impact it or
12 not. The paragraph does indicate that school programs
13 executed with stimulus funding leveraging REST funds would
14 qualify toward the program goal. That doesn't require
15 that the stimulus funding would have to be available in
16 order to implement Section 15.5.

17 Q. Okay. One last question, Dr. Berry. Do you have
18 any thoughts you would like to offer at this time as to
19 the sort of programs or program considerations that you
20 believe APS should take into account as it is formulating
21 the new program that it would file pursuant to this
22 Paragraph 15.5?

23 A. I don't have any specific suggestions. The
24 paragraph does contain a sentence that says: In designing
25 the program, APS shall consider among its options a

1 request for proposal by developers to implement and
2 install solar energy systems on multiple schools.

3 The idea there was that APS would consider having
4 a small number of contractors, maybe even only one,
5 implement the entire program. And that might be a cost
6 effective way to do it, but it certainly doesn't require
7 them to do that.

8 MR. ROBERTSON: Dr. Berry, that's all I have.
9 Thank you.

10 CALJ FARMER: Okay. Does any other party have
11 questions for the witness?

12 MR. CROCKETT: No questions.

13 CALJ FARMER: I have a few from Chair Mayes for
14 you, and I believe Commissioner Pierce's office will be
15 bringing some questions down in a moment, too. So let's
16 start with questions from Chair Mayes.

17

18

EXAMINATION

19

20 Q. (BY CALJ FARMER) And some of these your counsel
21 may have asked you in your direct testimony, but I'm going
22 to go ahead and read them. And if you could provide your
23 best answer, I would appreciate it.

24 What is WRA's interpretation of the words, quote,
25 make its best efforts, in the settlement agreement

1 provisions -- after "efforts" was the close quotes -- in
2 the settlement agreement provisions calling for APS to
3 make its best efforts to procure 1.7 million megawatts of
4 renewable energy by 2015? Is the provision mandatory or
5 merely permissive?

6 A. My interpretation of the term "best efforts"
7 means that APS is to undertake a diligent effort to
8 fulfill the obligations set forth in Section 15. The
9 section does recognize that APS may encounter unforeseen
10 events which could make it -- which could delay meeting
11 the requirements of Section 15.1. And to that end,
12 Section 15.1 requires APS to submit reports to the
13 Commission on plans and progress if it does encounter any
14 difficulties, and then the Commission and APS can figure
15 out what to do at that time.

16 So to me, this is a mandatory requirement, but it
17 is also a realistic requirement that recognizes that we
18 cannot forecast with certainty everything that might
19 happen, and it allows for some latitude in dealing with
20 problems that might arise.

21 Q. Okay. Why shouldn't the Commission order APS to
22 reach this level, understanding that the company could
23 seek a waiver if it becomes impossible?

24 A. Well, I can't speak for APS, but I would think,
25 in general, if the Commission wanted to order APS to meet

1 the 1,700,000 megawatt goal, it would also have to include
2 in its order an effective way to identify and deal with
3 problems that might cause delays, and I indicated what
4 those problems might include. For example, the developer
5 with whom APS is contracted might experience delays in
6 acquiring equipment or might experience delays in
7 obtaining financing.

8 Q. And the next question from Chair Mayes: Given
9 the time frames laid out in Sections 15.2 and 15.3, isn't
10 it possible that the projects described therein would not
11 be voted on by the current Commission, and, therefore,
12 could be disapproved by another Commission?

13 A. I suppose it's possible. But it is possible that
14 a future Commission could change just about anything in
15 the settlement agreement.

16 Q. Okay. If so, then what could be done to allow
17 that the current Commission, which will be voting on this
18 rate increase proposal, also has an opportunity to vote on
19 these projects?

20 A. Well, short of going faster than the speed of
21 light, I suppose APS could file these plans and projects
22 more quickly, but I don't know whether that is possible.
23 APS would have to provide you with the information on how
24 quickly it could actually prepare the plans and implement
25 the projects.

1 Q. Okay. Next question. Do you believe Section
2 15.8 of the settlement agreement would require APS to meet
3 the REST in future years should for some reason the REST
4 be struck down?

5 A. It clearly requires APS to meet the obligations
6 such as the 1,700,000 megawatt hours through 2015. It's
7 not real clear whether APS would be required to meet the
8 RES requirements if the Goldwater Institute's position is
9 upheld and the Commission rules somehow are held to be
10 invalid.

11 Q. What do you interpret the word "commitment" to
12 mean?

13 A. Is the question pertaining to the commitment set
14 forth in Section 15, or is it a more general question?

15 Q. Well, she's referring to 15.8, and I see that
16 word is in there, so maybe in the context of 15.8.

17 A. Well, I think the commitment -- those commitments
18 are the specific goals, 1,700,000 megawatt hours by 2010,
19 and the specific projects which APS has identified, and
20 that APS will achieve those goals with the exceptions that
21 I indicated about events outside of their control, and
22 will submit each of the four projects that are identified
23 for the Commission's review.

24 It is mandatory on APS to do those things, but
25 Section 15.1 does recognize that there could be events

1 outside of APS's control that might delay the process.

2 Q. What do you believe the words, quote, APS
3 reiterates and renews its support for the REST rules, end
4 quote, means from a legal standpoint?

5 A. I shouldn't be giving any legal advice. I'm not
6 an attorney.

7 Q. Okay. Those are all of the questions from Chair
8 Mayes. I might have a few for myself, and I know
9 Commissioner Pierce's office is preparing some.

10 Do you have your testimony in front of you?

11 A. Yes, Your Honor.

12 Q. Okay. Typically, do renewable resources -- you
13 say on Line 22 that they typically have fixed or stable
14 costs.

15 A. What page are you on?

16 Q. I'm sorry. Page 2. Line 22 on Page 2 says:
17 Renewable resources typically have fixed or stable costs.

18 By that do you mean their O&M costs are fixed and
19 stable?

20 A. Well, let me explain that in two cases. In one
21 case, the utility may be purchasing energy from a
22 developer or project owner over a term of a contract, like
23 a 20- or 30-year contract. Those contracts typically
24 price the electricity with a schedule that is laid out in
25 the contract. It may have some escalation clauses in it

1 such as reflecting the rate of inflation. The escalation
2 may be specified, or it may be tied to an index like the
3 inflation rate. But for purchased power contracts of that
4 sort, the price is fixed, or it's stable, and is known
5 ahead of time.

6 If the utility were to own the project, then its
7 costs would be fixed or stable in the sense that nearly
8 all of the costs are the capital costs of the project.
9 Most of these technologies do not use a fuel that you have
10 to pay for. The only exception being some biomass where
11 you might have to gather wood from a forest, for example.
12 But for sunshine or wind, there's no fuel cost. So most
13 of the costs are fixed. There are some operating and
14 maintenance costs. And while those may fluctuate, they
15 are a small percentage of the total costs.

16 Q. Thank you. Turning to Page 3, that first
17 paragraph says: The agreement provides that APS obtain
18 about 10 percent of its, in bold, energy needs from
19 renewable resources by 2015. This is approximately double
20 the Renewable Energy Standard requirement that 5 percent
21 of retail sales, in bold, can be obtained from renewable
22 resources by 2015.

23 Can you explain to me why the agreement has a
24 percentage of energy needs and the RES requirement is on
25 retail sales, and what that difference is?

1 A. The settlement agreement speaks in terms of the
2 amount of megawatt hours APS is to acquire from renewable
3 resources. Now, we're going to compare that to two
4 possible other numbers. One would be the amount of energy
5 needs that APS has, and that would include retail sales
6 plus losses, and it may be defined even in a slightly
7 different way.

8 The reason I used energy needs at the beginning
9 of that paragraph is that the number I was comparing it to
10 is a number out of APS's resource plan, which is a number
11 that is a forecast of APS's energy sales plus losses. The
12 RES is framed in terms of a percentage of retail sales
13 without the losses.

14 Q. Okay.

15 A. I do not have a forecast of APS's retail sales
16 that I could have used to make this comparison more exact,
17 so this was as close as I could come.

18 Q. Thank you. Could you turn to Page 6 of your
19 testimony, please. On Line 23 to the end of the page, you
20 talk about an optional super-peak time-of-use rate for
21 residential, and then an optional critical peak pricing
22 program. Can you explain those programs and how they
23 would work?

24 A. I'll do my best. And you may get a more complete
25 answer out of APS's witnesses.

1 The super-peak program is a kind of time-of-use
2 rate, but it identifies a specific time period in the late
3 afternoon in the summer that is separate from -- well,
4 that is in addition to the regular on-peak time period.
5 So if the on-peak -- I don't remember exactly what APS's
6 on-peak time periods are, but it's a fairly long period
7 that runs through the afternoon into the evening.

8 APS tends to hit its peak demand in the late
9 afternoon to early evening. And under the super-peak
10 pricing rate, there would be a higher charge for
11 electricity consumption during the super-peak hours.
12 Then, during the rest of the on-peak period, there would
13 be the regular on-peak charge. And then during the
14 off-peak period, to make this tariff more -- or this rate
15 more attractive, the off-peak rate is a bit lower than it
16 would be under the regular time-of-use rate.

17 So it's a kind of time-of-use rate, but instead
18 of just on-peak and off-peak, it has three time periods:
19 Super-peak, the rest of the on-peak, and then off-peak,
20 and then it's also broken down by season.

21 The critical peak pricing rate, APS can call a
22 critical event during specified hours of the day during
23 the summer, and they have to alert the customer that there
24 will be a critical event the next day. And the customer
25 can and should reduce its consumption during those hours

1 in order to save money, because there's a very high charge
2 for consumption during the hours when the critical peak
3 event occurs. APS is restricted in the amount of critical
4 events that it can call during a year.

5 I think these would both be classified as demand
6 response type programs.

7 Q. Okay. Are these pilot programs, or do you know
8 whether they're open to all customers?

9 A. Well, there's a minimum number of customers that
10 APS is supposed to seek out. I think they were originally
11 represented as pilot programs. Whether APS would still
12 consider them to be pilots, I'm not sure.

13 Q. Can you explain to me what a feed-in tariff is?

14 A. Yes. A feed-in tariff is a standardized contract
15 for purchases of energy from specified types of renewable
16 resources. They're used, for example, in Germany and in
17 Spain where the government sets a rate that will be for
18 purchasing electricity from qualified renewable energy
19 resources. For example, the rate might be 20 cents per
20 kilowatt hour for all of the kilowatt hours produced and
21 sold back to the utility from a photovoltaic technology.

22 And this is a standardized contract so that an
23 individual customer doesn't have to negotiate a rate with
24 the utility. There is a prespecified rate that will apply
25 in all cases.

1 Q. And your recommendation about a feed-in pilot
2 program -- and I'm looking on Page 11 -- is that if the
3 Commission is interested in that, that APS should submit
4 something with its July 2010 RES implementation plan?

5 A. Yes. I think some thought needs to go into the
6 design of a feed-in tariff if the Commission desires to
7 pursue that type of an approach. You have to pick out
8 what customers it's going to apply to. You have to figure
9 out what the rate is going to be, and figuring that out is
10 fairly tricky.

11 There's an asymmetry of information here in that
12 the suppliers know what their costs are, but neither APS
13 nor the Commission knows what the costs are. And so
14 there's a danger that you would end up paying more than --
15 that the utility would pay a higher rate on the feed-in
16 tariff than it would have to to attract that level of
17 renewable energy resources.

18 So if the Commission wants APS to pursue a
19 feed-in tariff, I think we need to do so with some caution
20 and with a great deal of analysis, and the Commission
21 should consider it in a separate proceeding.

22 Q. Okay. Your revised Exhibit DB-2 --

23 CALJ FARMER: And Mr. Hogan, maybe we could just
24 have that marked, when you have a copy of it, WRA-3.

25 Q. (BY CALJ FARMER) -- could you explain to me what

1 the revision was between this one and the one that you
2 filed with your testimony?

3 A. Yes, Your Honor. In the first version, the
4 second footnote had some extraneous verbiage in it which I
5 have removed from the revised version. The numbers are
6 the same. The intent of the exhibit is the same. It's
7 just that one of the footnotes was incorrect.

8 Q. Thank you. I have some questions for you from
9 Commissioner Pierce.

10 Are you familiar with the Commission's Renewable
11 Energy Standard and Tariff rules?

12 A. Yes.

13 Q. Were you involved in the proceedings leading up
14 to the adoption of the REST rules?

15 A. Yes.

16 Q. Did some people and entities advocate for a
17 specific carve-out for wind and/or solar in connection
18 with the adoption of the REST rules?

19 A. I'm not sure. I don't recall whether anybody had
20 a specific proposal for wind or solar per se. The
21 discussions quickly focused on a carve-out for distributed
22 generation or distributed resources.

23 Q. When the REST rules were being formulated, did
24 APS advocate in opposition to specific renewable resource
25 carve-outs in preference of renewable resource neutrality?

1 A. I don't recall APS's position.

2 Q. Did the WRA advocate for renewable resource
3 neutrality?

4 A. No. We focused our efforts on central station
5 resources, recognizing that there were other parties who
6 were more -- who were very strongly interested in
7 distributed resources. And so we restricted our analysis
8 and presentations primarily to central station or
9 nondistributed types of resources.

10 Q. Did it advocate for carve-outs?

11 A. I don't think we advocated for them, but we
12 recognized that other parties were strongly in favor of
13 them. And in the interest of producing a mutually
14 acceptable result, we just did not enter into the
15 discussion of the carve-out. That's my recollection.

16 Q. Okay. Do you continue to hold the same position
17 in this case?

18 A. Well, we're taking the RES as a fait accompli and
19 that the utilities are supposed to abide by it. So we're
20 not advocating a change in the Renewable Energy Standard
21 through the settlement agreement.

22 Q. I think maybe the question might go to do you
23 hold the same position regarding carve-outs in this case?

24 A. Well, I guess the answer would be yes, because we
25 didn't have a specific position in the RES docket. We

1 could see that there was going to be -- that there was
2 strong interest in a carve-out for distributed resources,
3 and we did not in any way attempt to oppose that.

4 Q. Okay. Did you advocate that position during the
5 settlement negotiations?

6 A. The settlement negotiations dealt primarily with
7 APS's acquisition of additional resources above and beyond
8 the RES requirements. And there was no discussion that I
9 can recall off the top of my head about not meeting any --
10 not meeting the requirements of the RES with regard to
11 distributed resources. Clearly, APS is proposing some
12 additional distributed projects in the settlement
13 agreement.

14 Q. Would you agree that the Commission ultimately
15 adopted REST rules that are facially neutral between
16 renewable energy resources? For example, solar, wind,
17 biomass, biogas, geothermal.

18 A. Yes. It's up to the utility to select the mix of
19 resources that it would like to use to meet the
20 requirements of the RES. There's no requirement, for
21 example, that APS or anybody else obtain X amount of
22 geothermal resources, for instance.

23 Q. Do you remember what the Commission's rationale
24 was in explaining its decision in this regard?

25 A. I don't recall what the Commission's rationale

1 was, but the general rationale for not specifying specific
2 technologies is that -- well, there's several rationales.
3 One is the relative cost of them may change over time.
4 Secondly, some of them are commercially available today;
5 some technologies are not and would require early adopters
6 to pursue those technologies.

7 The utility might want to try to minimize its
8 costs, in which case they might have a very different mix
9 than a utility that wanted to include some emerging types
10 of resources. It's left up to the utilities to figure out
11 how to do that, and they're reviewed by the Commission.
12 We supported that very general type of an approach.

13 Q. Would you say that the settlement agreement is
14 consistent with the principle of renewable resource
15 neutrality that was encompassed in the Commission's REST
16 rules?

17 A. Yes. There was -- yes, the settlement agreement
18 does, in fact, incorporate several types of technologies,
19 and APS has acquired resources, geothermal, wind, biomass,
20 and solar technologies. So the settlement agreement
21 continues APS's policy of diversity of resources.

22 Q. Doesn't the settlement agreement require certain
23 types of resources to be used? Isn't that a carve-out?

24 A. No, that's not a carve-out. That was an attempt
25 to identify specific projects that APS and the other

1 parties thought were worth pursuing. And the specific
2 projects that are identified in the settlement agreement
3 are some solar projects for governmental institutions and
4 schools, an in-state wind project, and a photovoltaic
5 project.

6 I think it might be appropriate to try to put my
7 answer in some context with Exhibit DB-3, which is the pie
8 chart. And Mr. Hogan has extra copies of that, and he can
9 pass them out in case the parties don't have my testimony
10 handy.

11 I think you can see from the pie chart -- well,
12 I'll wait a moment for Mr. Hogan to pass them out.

13 CALJ FARMER: I think I have it.

14 MR. HOGAN: Do you have it, Your Honor?

15 CALJ FARMER: It's not in color, but yes, I do.

16 THE WITNESS: I'm sorry. We only had black and
17 white copies.

18 CALJ FARMER: That's okay.

19 THE WITNESS: The pie chart here shows what APS
20 is committing to through 2015. It shows the mix of
21 renewable resources that APS is intending -- has acquired
22 or is committed to acquire and will acquire. The total
23 amount of resources would amount to about 3,428,000
24 megawatt hours by 2015.

25 The slices of pie on the right are the resources

1 which APS had committed to by the end of 2008. The ones
2 on the left side of the chart are the ones that are to be
3 acquired or have been committed to after 2008. And you
4 can see there's quite a variety of resources there. There
5 is no specific carve-out for any particular technology.

6 APS has entered into contracts for two large
7 concentrated solar projects. Those are the Solana and the
8 Starwood projects. And very roughly, they would
9 constitute about half of the total amount that APS is
10 seeking.

11 APS has two large wind projects in place now,
12 Aragonne Mesa and High Lonesome Wind, about 190 megawatts.
13 In addition to that, they are seeking to acquire the
14 in-state wind energy project. There's some biomass
15 projects on there, Snowflake and Sexton. Snowflake is in
16 place. Sexton is under construction. There is a small
17 geothermal project, CE Turbo.

18 Then, we don't know the size of the central
19 station PV project or the in-state wind project or the
20 government programs project, but they will be in that
21 slice that's up in the upper left-hand corner. The
22 schools program is a distributed resource program, and
23 then there are a number of other smaller distributed
24 resources shown in the pie as well.

25 There's no specific carve-out for a specific

1 technology. APS has a diversity of technologies, but
2 clearly likes solar.

3 Q. (BY CALJ FARMER) All right. Moving on,
4 Commissioner Pierce says that he finds much to like and
5 much to dislike in the provisions in the settlement
6 agreement dealing with renewable energy. He thinks he
7 likes Paragraph 15.1 and 15.4, but is not sure about
8 Paragraphs 15.2 and 15.3, and he's intrigued by Paragraphs
9 15.5 and 15.6. So there's some questions that he has
10 about some of these paragraphs.

11 If you could go to paragraph 15.1. Paragraph
12 15.1 of the settlement agreement requires APS to make its
13 best efforts to acquire 1,700,000 MWh of new renewable
14 energy resources, does it not?

15 A. That is correct.

16 Q. Does Paragraph 15.1 dictate which renewable
17 resources APS will acquire to meet that goal?

18 A. It does not by itself specify which renewable
19 resources APS will acquire. If you recall back to the pie
20 chart, they've already acquired the Starwood or entered
21 into a contract with Starwood for a large solar energy
22 project, and that's a big chunk of the 1,700,000 megawatt
23 hours.

24 Q. In that regard, is Paragraph 15.1 consistent with
25 or inconsistent with the principle of renewable resource

1 neutrality embedded in the REST rules?

2 A. This paragraph does not specify any particular
3 technologies. The only constraint being that APS has
4 already entered into a contract with Starwood, so that
5 identifies one. We already know what one of the projects
6 will be prior to the settlement negotiations.

7 Q. So would you say it was consistent or
8 inconsistent?

9 A. Oh, it's quite consistent.

10 Q. Okay, thanks. All right. Paragraph 15.2. This
11 paragraph requires APS to issue a new request for proposal
12 for in-state wind generation, correct?

13 A. Yes.

14 Q. Is Paragraph 15.2 consistent with the principle
15 of renewable resource neutrality? And if so, how?

16 A. Well, APS has to propose some kind of a
17 technology and a project, and it has to identify what it
18 is. The settlement agreement does identify some specific
19 projects that will be part of APS's renewable energy
20 portfolio.

21 Looking back at the pie chart again, you can see
22 that whatever this project turns out to be, it will be a
23 relatively small portion of the total amount of renewable
24 resources that APS will have in place by 2015. So I don't
25 believe that in any way violates the neutrality, the

1 technological neutrality inherent in the RES. APS does
2 have to select specific projects. And once it has
3 selected them, there's the technology there. You can't
4 disguise it as something else.

5 Q. Is it better for the Commission to establish the
6 goal and then step back and let APS achieve the goal in a
7 manner that minimizes costs to ratepayers, or is it better
8 for the Commission to not only adopt the goal but command
9 and control provisions that prescribe exactly which
10 renewable resource acquisitions APS should make to achieve
11 the goal?

12 A. Well, neither one, but close to the first one. I
13 believe it is best for the Commission to specify the
14 overall goal and give the utility the responsibility and
15 authority to fulfill that goal in a reasonable way.

16 A reasonable way is not just trying to find the
17 lowest cost resources. Part of the overall policy of
18 seeking renewable resources is to commercialize emerging
19 technologies. And to do that, as APS has done, requires
20 being an early adopter of some of these technologies. The
21 concentrating solar power technologies with thermal
22 storage, I believe, fall in that category.

23 Companies like APS are leading the way by being
24 the early adopters. Those are not the least cost
25 resources they could have found, but over the long run it

1 is quite important to help get those technologies
2 commercialized because of their great promise, especially
3 due to the thermal storage capability of those projects
4 that increases their capacity factor and allows APS to
5 generate electricity when it needs it.

6 Q. Okay. Why is it in the public interest for the
7 Commission to approve a provision that specifically calls
8 for an in-state wind RFP, as opposed to allowing
9 competition from additional renewable resources, including
10 out-of-state wind resources?

11 A. Well, let's go back to the pie chart again. You
12 can see on that pie chart there are two large wind energy
13 projects that are located in New Mexico. So APS has
14 already done that.

15 The parties agreed that it would be desirable to
16 seek an in-state wind energy project and bring that to the
17 Commission for the Commission's review. That was a
18 specific technology that the parties agreed was a
19 technology that they wanted APS to seek to acquire.

20 And Arizona has some good wind resources up in
21 the northern part of the state, and I think that the
22 parties -- some of the parties, anyway, would like to try
23 to see if those resources could be developed.

24 Q. Is there a reason why in-state wind projects
25 cannot and should not be expected to compete in the larger

1 renewable arena?

2 A. It's obviously going to depend on the specifics
3 of the wind project. A site with a capacity factor of
4 around 35 percent would be pretty competitive. And
5 according to the Northern Arizona University study that
6 was done for APS a couple of years ago, there are such
7 sites within Arizona that could be developed. So I would
8 expect those would be competitive.

9 The other issue is one of transmission access.
10 And given the current constraints on transmission access
11 from New Mexico, some Arizona projects might again be
12 competitive. Looking out over the next 10 to 15 years,
13 there may be additional transmission capability coming in
14 from New Mexico that might make the New Mexico projects
15 even more competitive. But there may also be additional
16 transmission capability in Arizona to make the good
17 Arizona sites competitive as well.

18 So I would not assume off the top of one's head
19 that the Arizona site is inferior. It may very well be
20 cost competitive if its capacity factor is high enough.

21 Q. Assuming no other party objects, would WRA view
22 the removal of Paragraph 15.2 a material change? And if
23 so, why?

24 A. I haven't thought about whether removing that
25 would be a material change. I can't answer the question

1 right now.

2 Q. Are there any other parties that would likely
3 object to the removal of Paragraph 15.2 from the
4 settlement agreement? And if so, who are they, and what
5 would be their likely reasons for objecting?

6 A. I don't know whether any other party would regard
7 that as a material change. And under the terms of the
8 settlement agreement, we're not supposed to kiss and tell
9 here and say who opposed or didn't oppose a specific
10 provision, or how they wanted that provision crafted.

11 Q. Okay. Let's move to Paragraph 15.3. Is that
12 paragraph consistent with the principle of renewable
13 resource neutrality?

14 A. This is the paragraph pertaining to the utility-
15 scale photovoltaic generation project. It's a project
16 that APS has identified that it would like to pursue, and
17 it seems to me that is entirely consistent with the idea
18 of a neutrality among technologies.

19 As I indicate in my prefiled testimony, many
20 utilities are now acquiring large utility-scale
21 photovoltaic generation projects. Prices are coming down.
22 These projects have many good features in producing
23 electricity during the afternoon in the summer when the
24 utility's demand is high.

25 So we're beginning to see now projects that are

1 20, 30, 50, or even 60 megawatt size photovoltaic projects
2 throughout the world. APS apparently believes that this
3 technology at that scale would be useful to them, and I
4 think that's probably a good assessment.

5 Q. Okay. I think you might have answered the next
6 question, which is why is it in the public interest for
7 the Commission to approve a provision that specifically
8 calls for consideration of a utility-scale photovoltaic
9 generation project?

10 A. A utility-scale photovoltaic project will produce
11 electricity, most of its electricity during the afternoon
12 in the summer when APS needs it the most. This is a
13 technology that in a portfolio of technologies would help
14 APS meet its demand over the course of the day or over the
15 course of the year. It wouldn't produce electricity at
16 night, obviously, without storage, but it's part of a
17 portfolio. And the whole portfolio consists of a
18 diversity of technologies, which taken together can
19 produce and will produce electricity throughout the year,
20 throughout the day.

21 Q. Is there a reason why we need such a provision,
22 as opposed to allowing APS to bring a utility-scale
23 photovoltaic project to the Commission for consideration
24 when APS feels that such a project is the optimum resource
25 alternative?

1 A. Well, I suppose the settlement agreement could
2 have been written without identifying any specific
3 projects, but this gives the Commission some specificity
4 as to what APS has in mind over the coming months to meet
5 the overall goal that the parties have agreed to.

6 I think these specific projects give some
7 definition to what it is that the portfolio will look like
8 and help the Commission to understand the diversity of
9 technologies that APS is acquiring. They could have been
10 written generically, but then I suppose one could argue
11 that the Commission wouldn't be knowing what it was
12 buying.

13 Q. Okay. Assuming no other party objects, would WRA
14 view the removal of Paragraph 15.3 a material change? And
15 if so, why?

16 A. Well, I think it's important for APS to get some
17 experience with a large-scale photovoltaic generation
18 project. I don't know whether we would regard that as a
19 material change and fall on our swords, but it is an
20 important component of this settlement agreement to us.

21 Q. Are there other parties that would likely object
22 to the removal of that paragraph from the settlement
23 agreement? Do you know?

24 A. The same answer. I don't know how they would
25 feel, and I'm not at liberty to discuss what other parties

1 have expressed during the course of the negotiations.

2 Q. All right. Continuing with Commissioner Pierce's
3 questions. This goes to Paragraph 3.11.

4 What happened between the time that the parties
5 filed the term sheet and the time that the parties filed
6 the settlement agreement that changed the parties' mind
7 with respect to the issue of collecting all DSMAC costs
8 through a single source?

9 A. Well, we had further discussions on this issue,
10 and I guess -- I don't recall what was in the May 4
11 document, but apparently -- originally the parties were
12 thinking that all of the DSM costs would be recovered
13 through the adjustment clause, and we discussed it further
14 and decided to leave it the way it is.

15 Q. When you say leave it the way it is, do you mean
16 the way the rates are designed currently?

17 A. Yes, Your Honor, with the \$10 million in base
18 rates.

19 Q. In her July 1 testimony in support of the
20 settlement agreement, Amanda Ormond argues on behalf of
21 maintaining \$10 million in base rates for DSM. She argues
22 that splitting DSM costs between base rates and the DSM
23 adjustor enhances transparency.

24 Do you agree with her?

25 A. Yes, I do. And let me explain why I think that

1 position is correct. DSM is a mainstream resource just
2 like any other of APS's resources, gas-fired power plants,
3 coal-fired power plants, its distribution system, its
4 transmission system.

5 It seems to me that's just part of the total
6 portfolio of resources which APS uses to serve its
7 customers. And much of its costs ought to be treated in
8 exactly the same way as the Commission treats the charges
9 for power plants, distribution lines, transmission lines.
10 It's just all a bundled service.

11 Now, we do know that we cannot predict exactly
12 how much APS will spend on DSM in a given year. We know
13 they're going to spend a lot. So we do need an adjustment
14 clause to help come out with exactly the right amount of
15 cost recovery, just as we have an adjustment clause for
16 power supply. But there's power supply costs in base
17 rates, and so DSM costs should be treated the same way and
18 included in base rates.

19 With regard to the transparency issue, I think
20 it's most untransparent to simply report to the customers,
21 here is what the DSM costs are, and say nothing more. I
22 think if you're going to tell the customers, well, you're
23 paying \$2 a month for DSM, APS also ought to be telling
24 you, and here is what you got for it, here is how many
25 kilowatt hours we saved over the last year because of the

1 DSM programs. There's no information like that being
2 provided. It's just the costs.

3 Q. So you don't think it would be more transparent
4 if all DSM costs were collected from a single source?

5 A. Well, transparent would certainly not be the word
6 I would use to report the costs without also reporting the
7 benefits. And if -- so no, I can't agree that it's more
8 transparent, whatever that might actually mean.

9 The customers would have a clearer idea of what
10 they're paying for DSM, but they have no idea what they're
11 paying for nuclear power and no idea what they're paying
12 for coal generation. So I don't see that this adds
13 anything to consumers' understanding. If anything, it
14 just gives them some partial information that may mislead
15 them.

16 Q. Okay. Let's go to Paragraph 20.6. Continuing
17 with Commissioner Pierce's questions, this paragraph
18 requires APS to study the impact of its super-peak and
19 critical peak pricing on the energy mix, air emissions,
20 and energy use by program participants.

21 Is there any reason why the study should not
22 evaluate APS's entire demand response program on the
23 foregoing issues, including its new time-of-use rates for
24 schools approved in Paragraph 21.2?

25 A. In principle, I would not object to that. But I

1 think APS should also have an opportunity to say whether
2 it would like to expand the scope of the study.

3 CALJ FARMER: Okay. I'm going to hand out a
4 document that we'll mark as Pierce No. 1.

5 Let's go off the record.

6 (A recess was taken from 10:13 a.m. to 10:15 a.m.)

7 CALJ FARMER: Let's go ahead and go back on the
8 record. And we are getting some more copies for anyone
9 who would like a color copy.

10 Q. (BY CALJ FARMER) Continuing with Commissioner
11 Pierce's questions. In her June 9 letter to the parties
12 to the docket, Chairman Mayes asked if the REST rules
13 should be adopted by the settlement agreement.

14 Are you familiar with APS's 2009 REST
15 implementation plan that was adopted by the Commission?

16 A. Only vaguely. I have not looked at it recently,
17 Your Honor.

18 Q. Commissioner Pierce has prepared a chart -- that
19 we've marked as Pierce-1 -- that graphically summarizes
20 the major cost components of APS's 2009 implementation
21 plan.

22 The blue slice of pie, do you see that?

23 A. Yes, I do.

24 Q. It looks like the largest slice for someone that
25 doesn't have a color copy, correct?

1 A. That would be the slice that is eating the little
2 green slice.

3 Q. Okay. The blue slice of the pie depicts
4 85 percent of renewable energy that will come from
5 utility-scale projects. The light green slice represents
6 the 7.5 percent of renewable energy that will come from
7 commercial distributed generation. The dark green slice
8 represents the 7.5 percent that represents residential
9 distributed generation.

10 Have you had a chance to look at the slide?

11 A. Yes, I have, Your Honor.

12 Q. Do these numbers generally match your
13 understanding of APS's 2009 implementation plan?

14 A. In general, yes. I can't testify to the veracity
15 of the numbers, but one would expect that the central
16 station or nondistributed portion would be most of the
17 megawatt hours and that it would -- on a per megawatt hour
18 basis would cost the least, yes.

19 Q. Does anything jump out at you as you look at the
20 slide?

21 A. Well, what I just said. Most of the megawatt
22 hours come from the central station project. And on a per
23 megawatt hour basis, they are the least costly resource.
24 There's no surprise there. That's the way the RES was set
25 up.

1 Q. Your testimony in support of the settlement
2 agreement indicated that one of the reasons you support
3 renewable energy is because of reduced air emissions,
4 particularly carbon; is that correct?

5 A. Yes, it is.

6 Q. Do you believe that increasing our use of
7 renewable energy is important to address climate change?

8 A. Yes.

9 Q. Are you familiar with the term "opportunity
10 cost"?

11 A. Yes.

12 Q. Looking at the slide, what do you believe is the
13 opportunity cost of allocating \$57.6 million towards the
14 objective of obtaining 7.5 percent of the overall
15 renewable energy in 2009?

16 A. Well, this is a policy question for the
17 Commission. But the economics of it is that there's
18 \$57 million being spent, according to this diagram, on
19 residential distributed projects. One could reallocate
20 that entire amount to some other classes of projects and
21 get more megawatt hours for the same amount of money.

22 Q. Okay. I'm deviating from the questions.

23 I'm not familiar -- what does opportunity cost
24 mean? And did you answer the question of the opportunity
25 costs of allocating \$57.6 million for the objective of

1 obtaining a 7.5 percent of the renewable energy?

2 A. Yes, I did answer the question. And the
3 opportunity cost is what you give up by doing something
4 here. So if the Commission -- the Commission's policy is
5 to require a certain amount of resources to come from
6 residentially sited distributed projects, so in this case
7 \$57 million goes to pay for that.

8 If you reallocated that money to some other type
9 of project, you would be able to get more megawatt hours,
10 presumably, of renewable energy, but you would give up the
11 residential siting of those projects. The opportunity
12 cost idea is that what do you give up when you do
13 something? What was the alternative that has been
14 forgone, and what is its value?

15 Q. Okay. So would it be possible to double, triple,
16 or perhaps even quadruple the amount off emissions
17 reductions APS achieved in 2009 simply by reallocating a
18 portion of the funds currently allocated towards
19 residential DG?

20 A. Well, mathematically, yes. But as I indicated
21 previously, there's a policy decision here that the
22 Commission has made that deals with the advanced -- well,
23 that deals with the location of renewable resources.
24 There are some benefits of locating renewable resources on
25 customer-sited premises. And the Commission has reviewed

1 those benefits and is trying to push the market toward
2 greater adoption of customer-sited projects.

3 Q. Okay. Thank you. Continuing with Commissioner
4 Pierce's questions, turning to Paragraphs 15.5 and 15.6.

5 Do you have those?

6 A. Yes, I do.

7 Q. And the provisions relating to solar projects for
8 schools and public buildings, who will ultimately pay for
9 these projects?

10 A. Well, the cost is distributed among many parties,
11 but primarily -- let me back up. Let's take the schools
12 program as an example. The schools pay part of the costs,
13 APS's general body of ratepayers pays part of the costs,
14 and the general body of taxpayers pays a part of the costs
15 because there are tax incentives associated with these
16 projects. So there's a tax expenditure.

17 The customers clearly pay part of the costs. And
18 there's an incentive to be -- an unspecified incentive
19 that would be provided by APS, and that is paid for by the
20 general body of ratepayers. So there's at least -- there
21 are many parties who pay for these projects.

22 Q. Okay. The next question was: Would it be fair
23 to say that APS's ratepayers, including its residential
24 ratepayers, will be the ones who pay for these solar
25 projects?

1 A. No, that's not a correct interpretation at all.
2 The tax incentives are fairly important. And so if
3 somebody's taxes go down as a result of federal or state
4 government policy to subsidize solar energy, somebody
5 else's taxes are going to go up.

6 The schools, in the case of Paragraph 15.5, do
7 pay for part of the project. It's not free to them. It's
8 just that they don't pay up front but they pay over time.
9 And so who pays for that? Well, the schools pay for it,
10 and then ultimately residents of the school district pay
11 for it, and perhaps the state government contributes to
12 some of that indirectly.

13 So the costs are spread around. The costs do not
14 fall exclusively on APS's ratepayers. I don't even know
15 if the majority of the costs fall on APS's ratepayers. I
16 don't know what the mix is.

17 Q. So do you believe that those paragraphs are
18 unfair to residential ratepayers? In other words, is it
19 unfair to residential ratepayers to use REST surcharge
20 money collected from them to install solar systems on
21 schools and public buildings?

22 A. Well, I don't think you can say that a particular
23 customer dollar went for a particular project. Commercial
24 customers pay a REST surcharge as well. So the schools
25 are paying for this in their electric bills. And the

1 schools, through paragraph 15.5, would have a specific
2 program aimed at them. But I can't say that a specific
3 dollar from a specific customer is supporting a specific
4 project.

5 Q. Isn't it true that because schools and public
6 buildings are owned by all residential ratepayers, placing
7 distributed energy systems on them is perhaps the fairest
8 way to allocate residential surcharge money?

9 A. I don't understand the question. Would you ask
10 it again?

11 Q. Okay. I'll read exactly what it says.

12 In fact, isn't the opposite true? This was a
13 follow-up to the question before that said: Is it unfair
14 for residential ratepayers to use REST surcharge money
15 collected from them to install solar systems on schools
16 and public buildings. Why not?

17 In fact, isn't the opposite true, because schools
18 and public buildings are owned by all residential
19 ratepayers, placing distributed energy systems on them is
20 perhaps the fairest way to allocate residential surcharge
21 money? Everyone benefits when the schools' utility
22 expenses go down. Agree?

23 A. Well, I guess I don't have enough information to
24 agree or disagree. Clearly, it's beneficial for the state
25 of Arizona to be able to -- for schools to be able to

1 reduce their expenditures on power, or on anything else,
2 so that the monies can be used more directly for
3 instructional purposes. But I just don't have enough
4 facts to be able to say whether a particular outcome or
5 procedure is more or less fair than another one.

6 Q. Do you agree that everyone benefits when the
7 schools' utility expenses go down?

8 A. If one is looking solely at the cost borne by
9 schools, the answer would be yes.

10 Q. Continuing with the last few questions from
11 Commissioner Pierce.

12 In 2010, APS's distributed generation requirement
13 increases from 15 percent to 20 percent. Should the
14 Commission consider reserving the entire additional
15 5 percent DG requirement for school projects? If not, why
16 not?

17 A. Your Honor, I have done no analysis of that issue
18 and have no conclusions to offer.

19 Q. Is it something that the Commission should
20 consider?

21 A. As I said, I haven't thought about the issues, so
22 I don't -- I can't even answer that question. Clearly, if
23 the Commission wants to consider it, it will.

24 Q. Okay. With respect to the 50/50 split between
25 residential and commercial DG in the REST rules, is it

1 realistic to expect the residential and commercial DG
2 markets to develop at exactly the same pace year after
3 year?

4 A. Well, I haven't done an analysis of it to know
5 what would happen, but clearly both -- in general, both
6 are developing fairly rapidly. We're getting a lot more
7 installations in both residential and nonresidential
8 projects. Nonresidential projects tend to be bigger on a
9 project-by-project basis.

10 Q. Given the improbability of complete symmetry
11 between the residential and commercial DG markets, what is
12 the opportunity cost of strong enforcement of the 50/50
13 split?

14 A. Well, I can't answer the question very
15 specifically, but clearly there's a short-run and a
16 long-run aspect to the issue. In the short run, I suppose
17 you would -- if you concentrated most of the money on the
18 larger projects, you would get more kilowatts and kilowatt
19 hours. But there's the long-run issue, too, and that is
20 the development of distributed generation on residential
21 sites.

22 And if that's a Commission policy goal, then you
23 are going to go through a period of early adoption and
24 relatively high costs until that market becomes more
25 mature and large and can take advantage of economies of

1 scale, and can lower its costs through learning by doing
2 and technological improvements.

3 Q. Okay. Wouldn't such an approach by the
4 Commission delay the deployment and raise the costs of
5 distributed generation?

6 A. What is the "such an approach"?

7 Q. I think it's the strong enforcement of the 50/50
8 split.

9 A. It goes back into the issue of whether you're
10 looking short term or long term. If the Commission's
11 policy is to have distributed generation on residential
12 sites, then you're going to go through a period of early
13 adoption and relative high costs until those costs come
14 down, and until the industry matures to the point where it
15 can install projects more efficiently than it can do so
16 today.

17 Q. If the Commission were to adopt the REST rules in
18 this settlement agreement, would the Commission still
19 retain the ability to waive rules that it finds
20 counterproductive in the transition towards renewable
21 energy?

22 A. Well, you're asking me a legal question. About
23 the only answer I can give you is it depends on exactly
24 how the Commission would adopt the REST rules in the
25 settlement agreement order, because they're not in the

1 settlement agreement as it stands. But if you put them in
2 the settlement agreement, I guess it depends on how the
3 wording was crafted as to when the Commission could waive
4 the provisions it just incorporated.

5 Q. Okay. A few more questions. How would you
6 describe the renewable energy provisions in Paragraph 15?

7 A. I'm not sure I understand that question.

8 Q. Do you think that the provisions are ambitious?

9 A. In 15.1?

10 Q. I think it means the whole section of all of the
11 15 paragraphs.

12 A. It's relatively ambitious, yes.

13 Q. If you were to compare the costs associated with
14 Paragraphs 15.1, 2, 3, 4, 5, and 6, how would you rank
15 them in terms of cost? Which is the most expensive and
16 which is the least expensive?

17 A. Paragraphs 15.2 through 15.6? Well, wait a
18 minute.

19 Q. 15.1 through 6.

20 A. Well, 1 doesn't specify particular technologies.
21 And again, we have to keep in mind whether we're talking
22 today, whether we're just trying to look at short-run
23 costs as the cost of technologies as we buy them today, or
24 whether we're embarking on a program, one of whose
25 purposes is to encourage early adoption and encourage

1 emerging technologies to become commercialized,
2 encourages economies of scale and learning by doing, all
3 of which will reduce the costs. I think APS has a very
4 good mix of low cost resources today and emerging
5 technology resources.

6 This particular package, wind generation is a
7 relatively low cost technology. Again, it depends on the
8 capacity factor of the specific project, but the higher
9 capacity factors result in lower costs.

10 The photovoltaic projects, relatively expensive
11 today. Prices seem to be falling rather rapidly. And as
12 utilities begin to adopt these technologies on huge
13 scales, the costs ought to fall much more dramatically.

14 The distributed projects, it depends on how APS
15 delivers them as to how quickly the costs will fall and
16 what the costs will be on these specific programs.

17 As I indicated previously, if you just look at
18 the costs today and assume that APS's activities and other
19 utilities' activities have no effect on costs, then these
20 would be relatively expensive. But as we learn by
21 installing distributed projects, and as we increase the
22 economies of scale, and as we improve the technology over
23 time, those costs will fall. And those costs will not
24 fall as fast if nobody buys the technology to begin with.

25 Q. In the short-term, then, would you tell me which

1 is likely to be the most expensive and which is likely to
2 be the least expensive?

3 A. Expensive in -- with the distributed projects,
4 there's the utility's portion of the cost and the
5 customer's portion of the cost. And I'm not sure which of
6 those you're referring to, or whether it's both of those
7 together.

8 Q. I would put both of them together.

9 A. Okay. Well, let's take a look at one of my
10 exhibits, which is DB-4, which is a table which has the
11 costs, to the extent that we can estimate them, for
12 central station projects, and then I'll comment on
13 distributed projects.

14 If you look at Exhibit DB-4, you can see that
15 wind and geothermal and some biomass projects today are
16 among the most cost competitive resources APS or another
17 utility could acquire. They are cost competitive with any
18 conventional technology new project.

19 Photovoltaics, I don't have a very large database
20 to draw upon. Xcel Energy in Colorado is paying about
21 21 cents a kilowatt hour for an 8.8 megawatt project that
22 was put in place a couple of years ago. I suspect prices
23 have fallen and will continue to fall.

24 CSP projects are in the range of about \$140 to
25 \$163 a megawatt hour. Today, they are relatively

1 expensive. These technologies have great promise because
2 of their ability to store energy, and we would expect
3 costs to fall over the long-run.

4 So the cheapest ones today are wind, geothermal,
5 and some biomass. Then you go up to the utility-scale
6 photovoltaic and CSP projects.

7 Distributed projects would be, relatively
8 speaking, would tend to be at the higher end of that
9 range. Numbers I have seen on industrial-sized projects,
10 large PV projects, would be in the range of 21 cents a
11 kilowatt hour, and those are probably falling, too, as the
12 technology improves.

13 So today's prices, the distributed technologies
14 generally are among the more expensive ones. That's
15 probably not universally true. Daylighting is probably
16 pretty cheap. That's an eligible technology under the
17 rules. And solar hot water may be relatively inexpensive.

18 Q. Okay. Could you just rank them?

19 A. At today's prices?

20 Q. Correct. Just for today's prices.

21 A. The cheapest ones are wind, geothermal, and some
22 biomass. Those would be utility-scale projects. The next
23 cheapest ones, very generally speaking, would be utility-
24 scale solar projects, photovoltaic or CSP. And very
25 generally speaking, distributed photovoltaic projects

1 would be the most expensive today. Now, you could
2 probably find some exceptions, but that's the general
3 pattern.

4 Q. Thank you. Specifically, could you look at those
5 paragraphs, 15.1 through 15.6, and put those in order?

6 A. Well, 15.1 does not specify technologies, so I'm
7 not sure I can answer that one.

8 15.2, in-state wind, it depends on the capacity
9 factor of the project that APS picks. If it has a
10 capacity factor of around 35 percent, then it would
11 probably be the cheapest project.

12 Q. Okay. So that would probably be the number one?

13 A. That would probably be the least expensive today.

14 Q. And what would be -- come right after that as
15 being the least expensive?

16 A. Well, not having seen any bids on this, this is
17 just my educated guess, so you can take it for what it's
18 worth. I would expect that the utility-scale photovoltaic
19 project would probably be the next.

20 Q. And which paragraph is that?

21 A. That's 15.3.

22 Q. Okay.

23 A. And then we end up with the schools and
24 governmental institutions projects. Assuming that those
25 are photovoltaic projects on the order of 100 to 500 or

1 600 kilowatts each, those would be the most expensive of
2 this group.

3 Q. That's --

4 A. 15.5 and 15.6, the technologies would presumably
5 be the same.

6 But we also know that solar hot water and
7 daylighting are eligible technologies here. And to the
8 extent that those projects are included, the average cost
9 would go down. I don't know specifically what those would
10 cost, and I don't know what the mix would be.

11 Q. Okay. Last question. In a separate docket, APS
12 has asked the Commission to approve a new green tariff
13 rate. In that docket, APS has indicated that the premium
14 for renewable energy has declined from 1 cent per kWh to
15 .004 per kWh.

16 In light of this information, is it possible to
17 place a fixed number on the cost of the increased
18 renewable energy requirement in Paragraph 15.1?

19 A. Well, the information that APS used to calculate
20 the premium for the Green Power prices would be the same
21 kind of information that would be used to determine what
22 the costs are of a general mix of central station
23 projects. But the technologies that APS is using to
24 calculate the cost of the current Green Power rates is
25 probably a different mix than what we're going to have

1 five years from now.

2 APS is, I suspect, using wind and geothermal to
3 price its current Green Power premium, and we're going to
4 be adding CSP to that mix, as well as some others to.

5 Q. So what do you think would happen to the number?

6 A. Well, the number being the premium?

7 Q. Yes.

8 A. The premium depends on two things. It depends on
9 the cost of the renewable energy and it depends on the
10 cost of the conventional generation. Right now, natural
11 gas is fairly cheap. But two years from now or five years
12 from now, that may no longer be the case.

13 So the premium is to reflect the relative costs
14 of conventional generation and the mix of renewable
15 resources which APS is using to serve its Green Power
16 customers. That will change over time. That's why that
17 rate is supposed to change over time.

18 Q. So it's not possible to place a fixed number on
19 the costs of the increased renewable energy requirement in
20 that paragraph?

21 A. Well, it is possible to calculate what the cost
22 of the renewable energy would be. I thought you were
23 asking about the premium on the Green Power.

24 But if you're talking about the cost of renewable
25 energy, yes, it's possible to go through a calculation,

1 make assumptions about how many kilowatt hours APS is
2 going to get from each technology and assumptions about
3 what the costs of those are, and multiply them out and add
4 them up. I have not done that.

5 CALJ FARMER: Thank you. That concludes the
6 questions from the bench. Are there any additional
7 questions from any of the parties, or, Mr. Hogan, do you
8 have any redirect?

9 MR. HOGAN: No, Your Honor.

10 MR. MUMAW: I had just a few.

11 CALJ FARMER: Mr. Mumaw.

12 MR. MUMAW: Hopefully that won't cause you to
13 have any redirect.

14

15 CROSS-EXAMINATION

16

17 Q. (BY MR. MUMAW) Dr. Berry, just quickly, some of
18 the terminology that you have used in your testimony, I
19 think we need a brief explanation on the record.

20 What is daylighting?

21 A. Well, I'm not an expert on this. It's my
22 understanding that under the RES, use of -- it's use of
23 sunlight through some kind of special -- I don't know
24 quite what you call it -- penetrations in the roof with
25 reflectors on them to let sunlight in to light a building

1 during the day so they cut down on use of electricity for
2 lighting purposes. It's not a technology that I have any
3 hands-on experience with.

4 Q. Okay. And what does the term "early adopter"
5 mean?

6 A. If you think about how a technology is deployed
7 over time, a new technology is deployed, not everybody
8 rushes out to buy it as soon as you can make it available.
9 Early adopters are those customers who are the early --
10 among the first purchasers of a new technology or
11 technological improvement.

12 And over time, in general, if those technologies
13 work out, you will find that many other customers then
14 follow along them and also purchase the technology. You
15 can see that with just about anything that's been recently
16 introduced like cell phones. 20 years ago, very few
17 people had them. Those were the early adopters. And
18 today, everybody has them.

19 Q. Dr. Berry, for technology to advance, must there
20 be early adopters?

21 A. Yes. You need to have customers buy the
22 technology, the new technology. And as I indicated, not
23 everybody buys new technologies immediately. Some wait
24 for the technology to develop, for the costs to come down.
25 But there are companies or customers, very generally

1 speaking, who are willing to be early adopters to begin
2 the process of learning by doing and to begin the process
3 of creating economies of scale.

4 Q. Dr. Berry, in Section 15.3 of the settlement
5 agreement, there's the use of the adjective
6 "utility-size." In WRA's opinion, did they have any
7 particular size of plant in mind when they agreed to that
8 provision?

9 A. Well, our understanding was that this would be a
10 project of at least 10 megawatts, probably more on the
11 order of 30 to 50 megawatts. It could even be larger than
12 that.

13 Q. Do you have still a copy of Pierce Exhibit No. 1?

14 A. Yes, I do.

15 Q. Is it your understanding, Dr. Berry, that for the
16 company's incentive for commercial distributed generation,
17 that they essentially pay that incentive over time?

18 A. Yes. The larger customers tend, in general -- I
19 shouldn't say the larger customers. The larger projects,
20 in general, receive an incentive paid out over a number of
21 years, as opposed to the smaller projects which tend to
22 receive an upfront incentive.

23 Q. In fact, the residentials are all kind of
24 upfront, one-and-done incentives; is that correct?

25 A. That's my understanding of the current process.

1 Q. In the amount shown there for commercial, DG
2 would be just that year's payment for what might be a 10-
3 or 20-year contract, correct?

4 A. I'm not sure what Commissioner Pierce included in
5 his diagram. But if you were simply to look at one year
6 of APS's budget, then that budget would reflect one year's
7 worth of payments for a performance-based incentive, but
8 all of the payments for the projects that were put in and
9 paid for with the upfront incentive.

10 Q. There was, I believe earlier on, a question about
11 feed-in tariff. Do you recall that?

12 A. Well, I recall the discussion about feed-in
13 tariffs, yes.

14 Q. Do you have any familiarity with the experience
15 of other states with that mechanism?

16 A. I don't know the outcomes of them. I know some
17 other states have feed-in tariffs. As I indicated in my
18 prefiled testimony, there are feed-in tariffs in
19 California and a utility in Florida, but I don't know what
20 their experience has been with those.

21 Q. But you did indicate that there is a concern that
22 that sort of mechanism would result in overpaying -- my
23 word -- overpaying for renewable energy?

24 A. Yes. That is the major drawback with a feed-in
25 tariff. As indicated, there's an asymmetry of

1 information. Neither the Commission nor the utility knows
2 what the real cost of these projects is. And if we want
3 to attract large numbers of customers, you could pay a
4 lot. The payment under the feed-in tariff could be quite
5 high, but you may have been able to get the same amount of
6 generation for a lower cost, but there was -- with a
7 feed-in tariff, there's no way to discover that lower
8 cost.

9 MR. MUMAW: Thank you, Dr. Berry.

10 CALJ FARMER: Any further questions for this
11 witness?

12 Mr. Robertson.

13 MR. ROBERTSON: Yes. Thank you, Your Honor.

14

15 FURTHER CROSS-EXAMINATION

16

17 Q. (BY MR. ROBERTSON) Dr. Berry, with reference to
18 Exhibit DB-3, which is the pie chart attached to your
19 testimony, the first question, does it assume
20 implementation of the various renewable projects which are
21 the subject of Section 15 in the settlement agreement?

22 A. It assumes that APS will meet the requirements of
23 Section 15.1, which is the addition of 1,700,000 megawatt
24 hours to the amount that was already in place or committed
25 to as of the end of 2008.

1 The pie chart does have a slice for the school
2 solar program, because we know how many megawatt hours
3 that one is supposed to be. But we don't know the
4 megawatt hours for the other three programs, so they are
5 just part of that gray slice up at the top left corner.

6 Q. Let me be more specific and be sure I understand
7 you. Would the school solar program be the program which
8 is the subject of Paragraph 15.5?

9 A. The school solar program that's shown in the pie
10 chart is the school solar program that's in the settlement
11 agreement, yes.

12 Q. Okay. And to the left of that where we have the
13 dashed line box that says other renewable resources,
14 including central station PV, in-state wind, and
15 government program, would that include the programs which
16 are the subject of Paragraphs 15.2, 15.3, and 15.6 of the
17 settlement agreement?

18 A. Yes, but they would -- those three programs would
19 probably not encompass the entirety of that slice of the
20 pie.

21 MR. ROBERTSON: No. I understand that. That's
22 all I have. Thank you, Dr. Berry.

23 CALJ FARMER: Okay. Anything further for this
24 witness?

25 (No response.)

1 CALJ FARMER: Thank you, sir, for your testimony
2 today.

3 Let's take a break here and come back at 10 after
4 11:00.

5 (A recess was taken from 10:51 a.m. to 11:10 a.m.)

6 CALJ FARMER: Let's go back on the record.

7 Before we call the next witness, the previous
8 witness had a revised Exhibit DB-2, which was a summary of
9 APS renewable resources. Mr. Hogan will be providing a
10 copy to the court reporter, and we will mark that as
11 WRA-3.

12 Do any of the parties have any objections to its
13 admission?

14 MR. GRANT: None.

15 MR. MUMAW: No.

16 CALJ FARMER: Exhibit WRA-3 will be admitted.

17 (Exhibit WRA-3 was admitted into evidence.)

18 CALJ FARMER: What about any objections to Pierce
19 No. 1?

20 MR. CROCKETT: No.

21 MR. MUMAW: None.

22 CALJ FARMER: Hearing no objections, Pierce No. 1
23 is also admitted.

24 (Exhibit Pierce-1 was admitted into evidence.)

25 MR. HOGAN: Your Honor, with respect to WRA-3,

1 that will be both of the revised exhibits that I'll
2 provide to the court reporter.

3 CALJ FARMER: Okay, that's fine. Thank you.
4 Mr. Hogan, are you ready to call your next witness?

5 MR. HOGAN: Yes, Your Honor. Southwest Energy
6 Efficiency Project calls Jeff Schlegel.

7

8 JEFF SCHLEGEL,
9 called as a witness on behalf of Southwest Energy
10 Efficiency Project, having been first duly sworn by the
11 Certified Reporter to speak the truth and nothing but the
12 truth, was examined and testified as follows:

13

14

DIRECT EXAMINATION

15

16 Q. (BY MR HOGAN) Will you state your name, please.

17 A. My name is Jeff Schlegel. S-c-h-l-e-g-e-l.

18 Q. And you're here testifying on behalf of Southwest
19 Energy Efficiency Project?

20 A. That's correct. I'm testifying on behalf of
21 SWEEP, Southwest Energy Efficiency Project.

22 Q. And what is your position at SWEEP?

23 A. I am the Arizona representative for SWEEP.

24 CALJ FARMER: Could you move your microphone a
25 little closer to you, please? Thanks.

1 Q. (BY MR HOGAN) And I know it's in your testimony,
2 but why don't you just briefly tell us who SWEEP is and
3 what they do.

4 A. SWEEP is a public interest organization dedicated
5 to increasing energy efficiency in Arizona and six
6 southwest states.

7 Q. You provided direct testimony in connection with
8 this case back in December?

9 A. Yes, I did.

10 MR. HOGAN: And, Your Honor, I think we've had
11 that marked as SWEEP No. 1.

12 Q. (BY MR. HOGAN) And have you also provided
13 testimony, prefiled written testimony in support of the
14 settlement agreement?

15 A. Yes, I did.

16 MR. HOGAN: And, Your Honor, we've had that
17 marked as SWEEP No. 2.

18 Q. (BY MR. HOGAN) And you adopt the testimony that
19 you have filed previously in connection with this matter
20 as your sworn testimony here today?

21 A. Yes.

22 Q. Mr. Schlegel, I wonder if you could give us a
23 brief summary of your testimony in support of the
24 settlement agreement.

25 A. Yes, I can. I participated in the settlement

1 negotiations on behalf of SWEEP. SWEEP attended or was
2 represented in a majority of the meetings. We focused
3 primarily on the DSM and energy efficiency provisions,
4 those provisions covered in Section 14 of the agreement.

5 I recommend the Commission approve the settlement
6 agreement. In my testimony, I summarize the benefits of
7 increasing energy efficiency in the APS service territory,
8 and demonstrate that increasing energy efficiency is in
9 the public interest. I also address the DSM and energy
10 efficiency provisions of the agreement, and I provide
11 responses to Chair Mayes's questions in her June 9, 2009
12 letter on those issues.

13 The energy efficiency provisions in the
14 settlement agreement, one, set energy efficiency goals for
15 APS; two, they modify the existing performance incentive
16 to encourage APS to achieve or exceed those goals; three,
17 require APS to file an energy efficiency implementation
18 plan for the Commission's review and approval; four,
19 include several specific new or expanded programs or
20 program elements to help achieve the agreement's energy
21 efficiency goals; five, allow large commercial or large
22 industrial customers to self-direct DSM program funding
23 under specific parameters; and six, modify the company's
24 demand-side management adjustment clause to better match
25 program expenditures and cost recovery.

1 These provisions are a major step forward for
2 cost effective energy efficiency in Arizona and are in the
3 public interest. For example, the agreement sets energy
4 efficiency savings goals defined as annual energy savings
5 of 1 percent in 2010, 1.25 percent in 2011, and
6 1.5 percent in 2012, expressed as a percent of total
7 energy resources needed to meet retail load. This will
8 significantly increase the savings, the energy savings and
9 the cost savings that customers achieve and experience.

10 Also, there are several proposed new or expanded
11 DSM energy efficiency program enhancements and program
12 elements to help achieve the settlement agreement's goals,
13 and many of these new program enhancements are aimed at
14 increasing energy efficiency for schools, municipalities,
15 residential consumers, and low income customers.

16 Finally, I want to address the energy efficiency
17 implementation plan, both the plan itself and the timing
18 of it. APS filed details on the 2010 DSM energy
19 efficiency programs in the 2010 energy efficiency
20 implementation plan on July 15, 2009, for the Commission's
21 review and approval. That was filed in this docket. The
22 implementation plan provides substantially more
23 information on the 2010 programs, program elements and
24 program enhancements, as well as the savings, benefits,
25 and costs associated with those programs.

1 SWEEP will provide specific comments on the
2 details of the energy efficiency program enhancements and
3 program elements in its comments on the 2010
4 implementation plan. We have not submitted such comments
5 yet, but we do intend to submit such comments.

6 The settlement agreement states that Staff shall
7 review the 2010 implementation plan and provide its
8 recommendation to the Commission in sufficient time so
9 that the Commission may consider the implementation plan
10 at its November Open Meeting, November 2009 Open Meeting.

11 SWEEP and all signatories to the agreement urge
12 the Commission to take action on the implementation plan
13 on or before the date the Commission takes action on the
14 settlement agreement itself. The reason is simple.
15 Timely approval and implementation of the program
16 enhancements will ensure that the APS customers receive
17 the benefits of cost effective energy efficiency programs
18 in a timely manner, the benefits being reductions in
19 energy costs and energy usage.

20 That concludes my summary.

21 Q. Thank you. Let me ask you a couple other
22 questions. You were here for Dr. Berry's testimony,
23 correct?

24 A. Yes.

25 Q. And you heard questions posed by me and also

1 Commissioner Mayes about the company's level of commitment
2 to achievement of the objectives outlined and described in
3 the agreement, correct?

4 A. Yes. I heard those today, and I also listened in
5 to the opening statements and heard similar questions from
6 Chair Mayes at that time.

7 Q. Let me have you turn to the settlement agreement
8 for a second, Mr. Schlegel.

9 A. I have that.

10 Q. Specifically, Section 14.1 on Page 27. Do you
11 have that?

12 A. Yes, I do.

13 Q. That section states that energy efficiency goals
14 shall be established at the very beginning of that
15 section, right?

16 A. Yes.

17 Q. Now, I think Chairman Mayes brought this up
18 earlier. The agreement just establishes goals, correct?

19 A. That's correct.

20 Q. What is it -- well, tell me your view about the
21 level of commitment or obligation that the agreement
22 imposes on APS to achieve those goals.

23 A. I believe that APS is obligated to meet the
24 energy efficiency goals, specifically, to achieve the
25 levels of annual energy savings by year as set forth in

1 the agreement in Section 14.1.

2 Further, I believe and understand that APS is
3 committed to achieving those energy efficiency goals as
4 set forth in the agreement. In addition, APS is required
5 to file the energy efficiency implementation plan each
6 year for Commission approval. And the Commission has the
7 opportunity in its review of each of those plans to
8 further act on the specifics underlying the achievement of
9 those goals.

10 Q. So you're satisfied that absent the kind of
11 circumstances that Dr. Berry described, perhaps outside
12 the company's control, that there is a requirement to
13 achieve these goals in the settlement agreement and the
14 mechanism that it establishes for approval of the
15 implementation plans?

16 A. Yes, I'm satisfied. I believe there's a clear
17 obligation. I believe that there's clear provisions to
18 support that obligation. And the company has committed,
19 as a signatory to the agreement, to meeting the goals. So
20 I'm satisfied that they will be met.

21 Q. One other area, Mr. Schlegel, and it is
22 concerning the collection of certain DSM costs through
23 base rates, through the \$10 million reflected in base
24 rates. I think that's Section 3.11 of the settlement
25 agreement.

1 A. I have that.

2 Q. Which is on Page 14.

3 A. Yes.

4 Q. Can you explain for us the significance of this
5 provision to SWEEP?

6 A. The provision in 3.11 that addresses the
7 10 million of DSM costs recovered in base rates is an
8 important provision to SWEEP. It's an important provision
9 agreed to by all of the signatories to the agreement.

10 There were significant discussions amongst the
11 parties in the settlement negotiations. And after such
12 discussions, the signatories reached the agreement set
13 forth in the settlement agreement, which I support. The.

14 Signatories acknowledged discussion, and they
15 reached the agreement as set forth in the document.
16 Quote, the signatories agree that it's appropriate to
17 retain the 10 million in base rates and address this issue
18 in APS's next general rate case, unquote.

19 This is the agreement that all signatories
20 support as signatories to the agreement, and I expect that
21 all signatories will honor that agreement.

22 The issue itself was discussed in the prior APS
23 settlement as well. And in that settlement, after
24 significant discussion, the agreement reached was the
25 same, that that \$10 million of funding for DSM was

1 included in base rates. That's the agreement in the last
2 settlement agreement, and that's the agreement in this
3 settlement agreement.

4 The substance behind this is that there are many
5 resources to meet customer needs that are funded
6 ultimately by customers either entirely or significantly
7 through base rates. Energy efficiency, the least
8 expensive resource for customers, should also be
9 significantly funded in base rates and it should not be
10 singled out or ghettoized in any way.

11 If, for example, one's objective is disclosure,
12 then I suppose all resources could be disclosed more
13 directly on customer's bills. For example, the cost of
14 each new and existing resource, each power plant, each
15 transmission line, the gas costs, the coal costs, the
16 nuclear costs, those could all be disclosed.

17 However, under a principle of resource neutrality
18 and the general principle of fairness, it is certainly not
19 resource neutral, nor is it fair and nor is it transparent
20 to simply disclose the cost of DSM resources, while all
21 other significant portions of the cost of other resources
22 are included in base rates and not disclosed to customers.
23 It certainly is not transparent to report the cost of one
24 resource while not reporting the cost of other resources.
25 And as others have noted, it's not transparent to just

1 report DSM costs. One would also need to report DSM
2 benefits.

3 So in conclusion, it's an important provision
4 supported by all signatories. And again, I expect that
5 all signatories will honor that agreement.

6 MR. HOGAN: Thank you, Mr. Schlegel.

7 Mr. Schlegel is available for cross-examination.

8 CALJ FARMER: You want to move his exhibits?

9 MR. HOGAN: Yeah. Move SWEEP-1 and 2, Your
10 Honor.

11 CALJ FARMER: Both of those were prefiled and no
12 objections were received, so SWEEP-1 and 2 will be
13 admitted.

14 (Exhibits SWEEP-1 and SWEEP-2 were admitted into
15 evidence.)

16 CALJ FARMER: Are there questions for this
17 witness from the parties supporting the settlement
18 agreement?

19 Mr. Crockett.

20 MR. CROCKETT: Thank you, Your Honor. I do have
21 just one question to ask Mr. Schlegel.

22

23 CROSS-EXAMINATION

24

25 Q. (BY MR. CROCKETT) Mr. Schlegel, referring to

1 Paragraph 3.11 on Page 14 of the settlement agreement,
2 does SWEEP consider that to be a material provision of the
3 settlement agreement?

4 A. It is an important provision and a material
5 provision to us, yes.

6 Q. And is it your understanding that other parties
7 to the settlement agreement would also consider that to be
8 a material provision in the settlement agreement?

9 A. I cannot speak for other parties, but I would
10 assume that it would -- if the parties agreed to the
11 provision that they would -- that that was an important or
12 material provision to them as well.

13 Q. And it was the subject matter of the settlement
14 agreement, or considerable discussion, I think that you
15 had previously testified, among the parties concerning
16 that particular provision; is that correct?

17 A. I did. And it was a considerable discussion, and
18 this is the agreement that the parties reached.

19 Q. And so the settlement agreement does reflect that
20 agreement that was reached among the parties as a result
21 of those discussions?

22 A. Yes, it does.

23 MR. CROCKETT: Thank you, Mr. Schlegel.

24 That's all the questions that I have, Your Honor.

25 CALJ FARMER: Thank you.

1 Mr. Robertson.

2 MR. ROBERTSON: Thank you, Your Honor.

3

4

CROSS-EXAMINATION

5

6 Q. (BY MR. ROBERTSON) Good morning, Mr. Schlegel.

7 A. Good morning.

8 Q. How are you?

9 A. Fine.

10 Q. You indicated that you participated throughout
11 the settlement negotiations that resulted in the
12 settlement currently before the Commission, correct?

13 A. Yes, I did.

14 Q. You are also a veteran, if I may use that term,
15 of settlement negotiations in the two preceding APS rate
16 cases, are you not?

17 A. I am.

18 Q. And you're also a veteran of the settlement
19 agreement in the Tucson Electric Power rate case the
20 Commission approved late last year, correct?

21 A. Yes, I am.

22 Q. Let me ask you against that background, as a
23 veteran of settlement negotiations, would you characterize
24 the settlement negotiations which occurred in connection
25 with this settlement agreement, and not just in relation

1 to the subject of energy efficiency but with regard to
2 many of the subjects that are encompassed in the
3 agreement, as vigorous and spirited throughout?

4 A. Yes, it was certainly vigorous and spirited,
5 extensive. There were large numbers of meetings, very
6 long and thorough discussions. All of that would
7 characterize the settlement negotiations.

8 Q. And there were a number of parties involved in
9 those settlement negotiations throughout, correct?

10 A. That's correct.

11 Q. Would you also characterize the settlement
12 negotiations as being truly arm's length in nature among
13 the various parties?

14 A. My perception on that is that they were truly
15 arm's length. Certainly they were for SWEEP. We had no
16 direct financial interest in the outcome.

17 Q. And would you agree that the final content of the
18 settlement agreement in no way suggests a proposal that
19 was simply submitted by APS and the other parties simply
20 acquiesced in it?

21 A. Yes. I would agree with that statement.

22 Q. And finally, do you feel that from your
23 perspective, and based on your own personal knowledge of
24 the settlement negotiations, the settlement agreement
25 represents a balanced resolution of the many issues and

1 the many interests that were the subject of the settlement
2 negotiations?

3 A. Yes. This is a balanced agreement, a balanced
4 document, as represented in the agreement, between many,
5 many issues and many, many interests that were, you know,
6 discussed in the settlement negotiations, and therefore I
7 support it.

8 MR. ROBERTSON: That's all I had, Mr. Schlegel.
9 Thanks very much. Thank you, Your Honor.

10 CALJ FARMER: Thank you. Any other party have
11 questions for this witness?

12

13

EXAMINATION

14

15 Q. (BY CALJ FARMER) I do have some questions for
16 you, sir, from Chair Mayes.

17 Does SWEEP believe the demand response provisions
18 go far enough given the findings of the FERC demand
19 response study for Arizona?

20 A. In terms of the demand response in general, SWEEP
21 has supported demand response and increasing demand
22 response in Arizona. The demand response provisions that
23 are set forth in the settlement agreement I do think are
24 appropriate and are positive. We support those.

25 In terms of whether they go far enough, if

1 there -- there are other specific proposals that -- this
2 doesn't prevent APS or any other party from bringing
3 forward other specific proposals outside of the settlement
4 agreement for consideration at any time.

5 We consider the settlement agreement and the
6 demand response proposed in there to be what is agreed to
7 through the settlement agreement, subject to Commission
8 approval, would be adopted through the settlement
9 agreement. But that doesn't mean it's the only thing that
10 APS should consider for the next three years, or the only
11 thing that the Commission may be interested in.

12 So we support the demand response efforts --
13 excuse me -- the demand response provisions and the
14 efforts forthcoming that are in the agreement, but we
15 would also be willing to consider additional ones through
16 some other docket or mechanism, if the Commission so
17 desired.

18 Q. Would SWEEP support an amendment requiring APS to
19 do 300 additional megawatts of demand response?

20 A. I suppose that would depend on the nature of the
21 amendment. We would not be able to support it as part of
22 the settlement agreement clearly. We would not support it
23 as a revision to the settlement agreement. If the parties
24 reviewed that and saw it as beneficial and the parties
25 agreed, I guess people could decide what they wanted to do

1 with the settlement agreement.

2 In terms of a Commission decision, the Commission
3 is always able to order companies to undertake certain
4 actions. And SWEEP's position on that explicit proposal
5 would depend on the nature of the proposal. What type of
6 demand response; what benefits would it provide; what
7 would be the costs associated with that; how would the
8 costs be recovered.

9 So we would consider supporting such a proposal
10 once we had a chance to review it. But again, it would be
11 outside of the settlement agreement.

12 Q. Are the DSM targets outlined in the settlement
13 agreement merely goals, or are they mandatory? And if
14 they are only goals, why should the Commission view them
15 as ratepayer benefits?

16 A. I must admit to being somewhat confused by the
17 questions about goals. The goals and the language in the
18 settlement agreement, as I read it, I believe it is an
19 obligation on APS and that APS must -- is obligated to
20 meet the energy savings levels as set forth in the
21 document by year in that section.

22 So as I testified earlier in response to
23 questions from Mr. Hogan, I believe that the goals as set
24 forth in the agreement are obligations, that APS is
25 obligated to meet them, and that APS, from our perspective

1 and understanding, APS is committed to achieving those as
2 well.

3 Q. Okay. Why shouldn't we codify in any order in
4 this case the Commission's energy efficiency rulemaking?

5 A. The energy -- which energy efficiency rulemaking
6 is she referring to? Do you know? Is it the draft rules
7 from several years ago, or the energy efficiency standard
8 workshop process that's underway in parallel?

9 Q. I imagine she's talking about the workshops which
10 will result in some rulemaking, I believe.

11 A. Well, SWEEP has participated in other rulemakings
12 before the Commission on energy efficiency. And we tend
13 to think that generic dockets, rulemakings are the
14 appropriate place to address policies, rules, procedures,
15 for resources that bridge across many service territories
16 and many public service corporations.

17 In rate cases, we tend to focus more on specific
18 provisions, goals, specific programs that are appropriate
19 for that utility. So for us, the scope and focus of this
20 rate case were things that were appropriate and directed
21 towards APS and towards APS customers.

22 In the rulemaking dockets or in other generic
23 dockets, we tend to believe that the appropriate focus
24 there is on policies and rules and procedures that would
25 bridge across service territories. So we did not propose

1 or attempt to address broad statewide policies or
2 Commission-wide policies in this particular docket.

3 We did, though, try to represent, as you can see
4 in the goals, we tried to be reasonably consistent with
5 the discussions that were going on in other places and in
6 various rulemaking dockets with the discussions that were
7 going on here. An example of that is the goals. We
8 tried -- there were a lot of discussions about goals, and
9 we tried to have the goals that were discussed and agreed
10 to in the settlement agreement that applied directly and
11 only to APS to be similar to or consistent with the goals
12 that many of the parties were discussing in other dockets.
13 We made attempts to be reasonably consistent there, even
14 though that docket is ongoing.

15 Q. Please describe why having some level of DSM in
16 base rates is appropriate. Is this because you believe
17 that DSM and renewables should be increasingly treated as
18 other generation resources are? I think you've talked
19 about this some, but -- and also, do you view this as a
20 material provision in the settlement agreement?

21 A. I answered yes to the last question in terms of
22 this being important and a material provision. All
23 parties support it and agreed to it. I expect that all
24 parties will honor that agreement.

25 On the issue of why, I also testified to that a

1 little bit earlier, as you noted. I think it's a
2 combination of two reasons. One, we do think that DSM and
3 energy efficiency specifically should -- you know, those
4 resources are and they should be mainstream resources
5 within the consideration of the mix of resources that are
6 going to be used and funded to meet customer needs.

7 As such, to the extent that we fund mainstream
8 resources through base rates, whether they be conventional
9 power plants or other resources, then I think it's
10 appropriate to also fund DSM through base rates. That
11 seems to be, you know, a reasonable and consistent policy.

12 And as I noted earlier, if one wants to treat
13 resources fairly and in a neutral manner, then if other
14 resources get significant funding through base rates, then
15 DSM should as well as a mainstream resource.

16 Again, the other concern I have is sort of the
17 flip side of that. I don't want to ghettoize or single
18 out DSM. It doesn't seem reasonable to me to have the
19 least expensive and the most cost effective resource that
20 can meet customer needs to simply highlight on the
21 customer bill the total cost of DSM, while at the same
22 time we don't communicate the benefits in any way to
23 customers in terms of transparency and disclosure. Nor do
24 we disclose the costs associated with other resources,
25 which are much more expensive per unit of resource value

1 than DSM is.

2 So it's both a concern about DSM should be a
3 mainstream resource and should be treated fairly similar
4 to other resources, and a concern that we shouldn't single
5 out DSM for some special treatment, special highlighting,
6 under the guise of disclosure or transparency.

7 Q. Thank you. Those are all of Chair Mayes'
8 questions. I just have maybe one question for you on
9 Page 5 of your testimony.

10 A. Yes.

11 Q. One of the new programs in the settlement
12 agreement is the ability for large customers to
13 self-direct. Could you explain that program to me?

14 A. Yes. Self-direction -- well, first of all, the
15 program is described in a lot more detail in the agreement
16 itself, and then also in the implementation plan. Well,
17 actually, two parts in the agreement. In the body of the
18 agreement, and then there's an attachment that sets forth
19 some of the provisions that the parties negotiated and
20 agreed to. And it's also described in the implementation
21 plan that was filed by APS on July 15.

22 The self-direction provision itself -- I want to
23 make sure I get the numbers right -- allows a customer, in
24 this case a large industrial or a large commercial
25 customer that uses more than 40 million kilowatt hours per

1 year, it allows that customer, after they notify APS, to
2 take 85 percent of the DSM customer contribution that they
3 would make to the cost of the portfolio of DSM programs
4 and to reserve that funding for tracking purposes for the
5 customer's energy efficiency projects.

6 So a customer would say, I've got, you know, a
7 big retrofit project that I want to do six months from
8 now. I notify APS that I'm going to -- I've got a desire
9 to self-direct. I've got a project coming up, and I want
10 to take -- I essentially want to direct the funding that
11 I'm paying into the pool of funding to support the
12 portfolio, I want to direct my portion that I'm paying in
13 to that project. And in this case, 85 percent of what I
14 pay in would be dedicated to that project.

15 And then if the project is completed, it would be
16 funded by those revenues. If the project is not completed
17 within two years of the election date, when someone
18 elects -- a customer elects to do a self-directed project,
19 then the self-directed funds from the first calendar year
20 would not be available to the customer and would revert
21 back to the program account.

22 So it gives the customer an opportunity to elect,
23 to notify, to self-direct and spend the money on a
24 project, and to plan ahead to be able to do so. But if
25 for some reason the project doesn't go through, then the

1 money would revert back to the account.

2 This is a provision that's used commonly, SWEEP
3 and large commercial and industrial parties in other
4 states. For example, we have a similar provision in Utah
5 that we agreed to. This allows a customer who has
6 significant costs associated with DSM to take those costs
7 and dedicate them to a project in their own facilities,
8 which we support.

9 CALJ FARMER: Okay, thank you. I believe those
10 are the only questions from the bench.

11 Any additional questions for this witness?

12 MR. MUMAW: Your Honor, I just have a couple
13 based on the examination.

14

15 CROSS-EXAMINATION

16

17 Q. (BY MR. MUMAW) Mr. Schlegel, just to follow up
18 on the question that the Chief Administrative Law Judge
19 asked you, is kind of the theory behind self-direction
20 that for certain large industrial customers they might
21 possibly understand their own industrial processes better
22 than APS and be able to devise more targeted and hopefully
23 more efficient programs?

24 A. I don't know whether they understand better or
25 worse than some experts at APS, but I do know they would

1 like the ability to be able to direct it to their own
2 facilities and have that opportunity to do so, because the
3 costs can be significant at some of the large facilities.

4 Q. And let me ask you this, Mr. Schlegel. Do you
5 know whether there are 300 megawatts of additional cost
6 effective demand response available on the APS system?

7 A. I do not know.

8 Q. If in the course of consideration of either the
9 2010 energy efficiency implementation plan or subsequent
10 years' implementation plans, if there were such evidence,
11 could demand response be added to such plans?

12 A. The demand response, from my perspective, could
13 be added to the energy efficiency plans in subsequent
14 years.

15 The provision -- the settlement agreement
16 explicitly calls it an energy efficiency implementation
17 plan. But, in fact, in its implementation to date, for
18 example, in the July 15 implementation, there are sections
19 of the implementation plans that address demand response.
20 For example, the cost recovery mechanism for the demand
21 response programs is through the same DSM adjustment
22 clause as the energy efficiency programs.

23 And the sections of the implementation plan that
24 address the budget and the DSMAC, they address the demand
25 response -- the costs of demand response as well. So I

1 think the implementation plan could be a vehicle to
2 consider other demand-side resources, demand response, or
3 energy efficiency.

4 Q. But you would agree that should be done only when
5 there's evidence that such additional demand response was
6 cost effective for APS customers?

7 A. Yeah, that's correct. We would review any such
8 proposal and look at the costs and the savings, benefits.
9 And any such demand response proposal should be cost
10 effective before being adopted by the Commission.

11 MR. MUMAW: Thank you, Mr. Schlegel. I don't
12 have any further questions.

13 CALJ FARMER: Any further questions for the
14 witness?

15 Hearing none, thank you, sir, for your testimony
16 today.

17 It's getting close to the noon hour. Mr. Hogan,
18 you have two other witnesses, I believe. Were you
19 intending to call them this morning?

20 MR. HOGAN: No, Your Honor. Neither one of them
21 is here.

22 CALJ FARMER: Okay. Well, there's some people in
23 the room that I don't know so --

24 MR. HOGAN: Well, I haven't completely -- the one
25 who was here left, and I told him to come back later

1 today. But there are -- we had talked about kind of going
2 out of order here anyway. So Mr. Hoover and Ms. Ormond is
3 here as well, so whatever your preference is.

4 CALJ FARMER: I think -- why don't we take
5 Ms. Ormond. Is she here?

6 MS. ORMOND: Your Honor, I am. My attorney
7 stepped out.

8 CALJ FARMER: Let's just go off the record for a
9 moment.

10 (A brief off-the-record discussion ensued.)

11 CALJ FARMER: Back on the record.

12 We're ready for the witness now from IBEW.

13 MR. HASAKOVEC: Thank you, Your Honor. And we
14 thank you for the scheduling accommodation and all of the
15 parties. The IBEW Locals would call Sam Hoover at this
16 time.

17

18 SAMUEL ELLIOTT HOOVER,
19 called as a witness on behalf of IBEW, having been first
20 duly sworn by the Certified Reporter to speak the truth
21 and nothing but the truth, was examined and testified as
22 follows:

23

24

25

1 DIRECT EXAMINATION

2

3 Q. (BY MR. HASAKOVEC) Good morning.

4 A. Good morning.

5 Q. Please state your name.

6 A. Sam Hoover.

7 Q. On whose behalf are you here today?

8 A. IBEW Local 387.

9 Q. Do you have a position with Local 387?

10 A. Yes, sir.

11 Q. What is that position?

12 A. President.

13 Q. How long have you been in that position?

14 A. Going on six years now.

15 Q. Do you also work at APS?

16 A. Yes, sir.

17 Q. About how long have you worked there?

18 A. Going on 30 years.

19 Q. Do you also have a trade?

20 A. Yes. Journeyman lineman.

21 Q. And you work in that capacity at APS?

22 A. Yes.

23 Q. Mr. Hoover, have you filed prefiled testimony in
24 this case?

25 A. Yes.

1 Q. Does such prefiled testimony include the
2 testimony marked as IBEW-1 that was filed in this matter
3 on December 19, 2008?

4 A. Yes.

5 Q. Does such testimony also include testimony marked
6 as IBEW-2 that was filed in this matter on December 30,
7 2008?

8 A. Yes.

9 Q. And finally, does such testimony marked as --
10 include testimony marked as IBEW-3 that was filed in this
11 matter on June 30, 2009?

12 A. Yes.

13 Q. Do you have such testimony, those exhibits in
14 front of you?

15 A. Yes, I do.

16 Q. Okay. Does the prefiled testimony represent your
17 view on the matters discussed therein?

18 A. Yes.

19 Q. Do you have any additions, deletions, or
20 modifications to the prefiled testimony you have
21 submitted?

22 A. No, I do not.

23 Q. If you were asked the same questions here today,
24 would your answers change?

25 A. Yes, they -- no, they would not.

1 Q. And do you adopt your previously filed testimony?

2 A. Yes.

3 Q. Okay. Could you please briefly summarize your
4 testimony.

5 A. I, myself, as president of the Local 387 and its
6 2,000 members support the APS rate increase.

7 Q. And I take it the settlement agreement as well?

8 A. Yes, sir.

9 MR. HASAKOVEC: Your Honor, I move at this time
10 for admission of IBEW-1, 2, 3.

11 CALJ FARMER: All of those exhibits were prefiled
12 and no objections were received, so IBEW-1, 2, and 3 are
13 admitted.

14 (Exhibits IBEW-1, IBEW-2, and IBEW-3 were
15 admitted into evidence.)

16 MR. HASAKOVEC: Thank you, Your Honor.

17 Q. (BY MR. HASAKOVEC) Mr. Hoover, would you
18 characterize and briefly discuss the current state of IBEW
19 Local 387's relationship with APS?

20 A. We have a very good relationship with Arizona
21 Public Service company and a very unique relationship with
22 the company.

23 Q. Okay. What do you mean by that?

24 A. That we are continuously working together to
25 drive down costs and improve efficiencies, work methods

1 and practices throughout the bargaining unit.

2 Q. Mr. Hoover, what is your vision of where APS will
3 be in 25 to 50 years, and what role do you see the
4 unionized workforce having at that time?

5 A. I think that Arizona and Arizona Public Service
6 Company, along with this Commission, is going to be a
7 pioneer in developing new renewable technologies and also
8 a workforce, a workforce that is going to be required
9 to -- a core group to maintain the current system that we
10 currently have in place, and then also with new
11 technologies and renewables, we'll have to have a much
12 more educated, skilled, compensated workforce to meet
13 those needs whether we construct it, and also maintain it.

14 Q. Throughout these proceedings and the ones that
15 have preceded them, some constituencies have questioned
16 the overall efficiency of APS's operations, and in
17 particular its workforce. Can you provide the Commission
18 with your view on this topic?

19 A. Yes. Both company and union have continuously
20 worked towards improving our efficiencies, reducing the
21 amount of our crews, and not fill in jobs in these tough
22 economic times. We also have committees and groups that
23 collectively work together to improve our efficiencies.
24 And also, once we improve those efficiencies, then we
25 quickly implement them to inevitably reduce cost.

1 Q. Okay. Let's talk specifically for a second about
2 the number of employees at any given work site. Just
3 generally speaking, could you discuss that point?

4 A. Yes. When we're given orders to go out to do a
5 particular job, sometimes it's one job during the day, and
6 sometimes it's multiple jobs during the day. We are sent
7 out with appropriate manpower and equipment to go do the
8 various jobs throughout the day. It doesn't make sense
9 for us not to send that out when we go out to do these
10 jobs and then ferry people back and forth and drive up
11 fuel costs and wear and tear on vehicles and also on
12 manpower. So in the morning when our work orders are sent
13 out, we go out there with appropriate manpower and
14 equipment to meet the customers' needs.

15 Q. When you testified before this Commission on
16 December 17, 2008, you explained how APS had downsized its
17 workforce through severance packages. Do you remember
18 that?

19 A. Yes.

20 Q. While jointly agreed severance packages may still
21 be the preferred way to reduce a workforce as opposed to a
22 layoff of junior employees, please explain to the
23 Commission what happens when your most experienced workers
24 leave the company en masse?

25 A. If we lose too many experienced workers en masse,

1 it takes a long time to develop a person's knowledge and
2 skill set in the trade that we're trained. Then you start
3 dipping into your most junior people that the company's
4 investment is in those people's future to run this
5 company.

6 Once they complete their apprenticeship program,
7 they are then out in the field working in their skilled
8 trade positions, and it takes many years to learn the
9 techniques and the system out there in order to be a
10 proficient worker out there.

11 Q. And would you say it's fair to say that it takes
12 them time in order to learn the skills and to gain enough
13 experience to lead a crew?

14 A. Absolutely.

15 Q. I believe you mentioned that by trade you're a
16 journeyman lineman; is that right?

17 A. Yes.

18 Q. And you have worked during your career on high
19 voltage electricity. Is that fair to say?

20 A. Yes, sir.

21 Q. How about line extensions in particular?

22 A. Yes, sir.

23 Q. Okay. Have you done a significant amount of work
24 on line extensions?

25 A. Yes, sir.

1 Q. Would it be fair to say that you have worked on
2 hundreds of line extension projects?

3 A. That would be correct.

4 Q. Which aspects of such projects have you worked
5 on?

6 A. Worked from them all, from the customer to the
7 retail customer, into all aspects of the line extension.
8 So from A to Z, I have worked on them all.

9 Q. And specifically which aspects of the
10 installation have you done yourself?

11 A. All of them.

12 Q. Okay. What does it mean to be a journeyman in
13 terms of training and experience?

14 A. A journeyman is, is that we have to serve a
15 four-year apprenticeship, 8,000 hours' worth of on-the-job
16 training. So that means that along with a constituted
17 line crew that we have apprentices, based off their
18 various progression steps in their apprenticeship, working
19 with the crews, getting the proper techniques, knowledge,
20 skills, safety, along with the line crew. So they have to
21 work 8,000 hours of on-the-job training.

22 Q. And that's just to qualify. That's a minimum
23 threshold to become a journeyman, correct?

24 A. Correct.

25 Q. Is it fair to say that many journeymen out there

1 in the field have far greater experience than that?

2 A. Yes.

3 Q. Given your experience in dealing with such crews
4 that do line extension work, would it be fair to say
5 that -- could you here today express that you have
6 confidence in such crews?

7 A. Absolutely, especially when it comes to the
8 safety and reliability of that. Also, it's very critical
9 in our rural areas where -- Arizona Public Service
10 services the whole state of Arizona. We have designated
11 docks throughout the whole state. Those set crews, there
12 may be two crews, depending on the size of the community,
13 or there may be six crews. They do all of that. They
14 build, maintain, construct line extensions.

15 And it just makes sense to keep those crews
16 within those communities that they reside and live, rather
17 than have a central headquarters here in Phoenix and we
18 have to ferry equipment and men into those areas. Because
19 now it's costing revenue, plus it's taking a lot longer to
20 restore power to our customers, which is critical.

21 Q. Okay. And so it's fair to say that APS has yards
22 throughout the state for this purpose; is that right?

23 A. Yes, sir.

24 Q. How does the union feel about the possibility of
25 customers being able to use third-party contractors for

1 the construction of line extensions?

2 A. We preferably do it ourselves due to, like I
3 mentioned just before, the safety and reliability.

4 Q. Do you feel that the journeyman status for many
5 people in these crews is a useful feature of what APS's
6 employees can offer for such construction projects?

7 A. Absolutely. When APS sends a crew out there,
8 we're skilled, knowledgeable, and trained to build the
9 whole system. So you have knowledgeable, experienced
10 people out there building it from Point A to Point B, and
11 then energizing that system that now we have to maintain.

12 Q. And is it fair to say that any given crew has a
13 significant amount of experience doing precisely this,
14 repeatedly?

15 A. Yes.

16 Q. Could you just briefly comment on the safety
17 record for such crews constructing line extensions.

18 A. Best of my knowledge, impeccable safety record.

19 Q. Would you agree with the notion that when APS
20 performs the work, the utility foreman is charged with
21 ensuring that the work conforms to all governmental and
22 utility codes, ordinances, and standards, and inspection
23 is integrated into the construction process?

24 A. Yes, because we're all trained to meet the specs
25 and standards of the company. So yes.

1 Q. And also, I take it, in addition to the specs of
2 the company, just generally the ordinances and code that
3 might apply to that?

4 A. Correct.

5 Q. If applicants for line extensions were to elect
6 to have the work performed elsewhere, so that is a
7 third-party contractor performed the work, the utility
8 really would have no choice but to inspect the work to
9 ensure the public is protected from unsafe conditions that
10 could result from improperly installed facilities; isn't
11 that right?

12 A. Yes, sir.

13 Q. And APS would also want to ensure that ratepayers
14 are protected from the maintenance costs that would flow
15 from defectively installed facilities, right?

16 A. Yes, sir.

17 Q. If third-party contractors were to be allowed as
18 an option here for all customers, how would the inspection
19 process work?

20 A. The company would have to hire more inspectors, I
21 would imagine, to go out there and inspect this work.
22 It's not feasible for a company to hire one inspector to
23 go out and manage that one project. They've got multiple
24 job inspections that they have to go do. So that's an
25 additional cost.

1 When you have our crews doing it, you're sending
2 a three-man crew out there to build, construct the whole
3 thing. We're the inspector, we're the constructor, and
4 then we are also the maintainer of that system.

5 Q. Mr. Hoover, please explain to the Commission who
6 are the people who actually construct these line
7 extensions.

8 A. Local 387 members that are skilled, qualified,
9 competent and safe workers.

10 Q. Okay. Specifically, when it comes to line
11 extension work, where are they physically located?

12 A. If it's here in the Phoenix area, we've got docks
13 scattered throughout the Phoenix area. So the company
14 would send the closest crew or crews off that dock to
15 perform those line extensions.

16 Q. And if it's outside of Phoenix?

17 A. If it's outside Phoenix, it depends. In the
18 smaller communities, those set crews on that dock would go
19 do those.

20 Q. Are there crews that are wholly dedicated to
21 constructing line extensions?

22 A. No. Our crews do line extensions, we also do
23 maintenance, we also do storm restoration, and anything
24 else that is presented under our classification. As a
25 journeyman, you're skilled and trained in a very diverse

1 realm of what the company has to offer. So we cover the
2 gamut from A-to Z. So no, we don't have a designated
3 crew. We also use them for storm restoration,
4 emergencies, or anything else that comes up.

5 So no, we do not have just a designated crew that
6 sits around waiting to do a line extension.

7 Q. Okay. And in those situations, emergency power
8 restoration or picking up, you know, the pieces after an
9 extreme storm would take precedent, right? That would be
10 more important?

11 A. Absolutely. And customer restoration is key.

12 Q. And you believe it's important for APS to have
13 those folks out there to do that at any given time; is
14 that correct?

15 A. Absolutely. I take pride in what I do and I get
16 great satisfaction, and so do the rest of the members who
17 restore power. And you can see your end project as soon
18 as all of the customers' lights come back on.

19 MR. HASAKOVEC: Your Honor, that's it for my
20 questions at this time.

21 CALJ FARMER: Do any parties supporting the
22 agreement have questions for the witness?

23 MR. MUMAW: No, Your Honor. Thank you.

24 CALJ FARMER: Okay. Mr. Robertson.

25 MR. ROBERTSON: Thank you, Your Honor.

1 CROSS-EXAMINATION

2

3 Q. (BY MR. ROBERTSON) Good afternoon, Mr. Hoover.

4 A. Good afternoon.

5 Q. I have one question, perhaps two, and then an
6 analogy that I wanted to suggest to you listening to your
7 testimony.

8 In introducing yourself this afternoon, you
9 indicated you were testifying on behalf of IBEW Local 387,
10 correct?

11 A. Correct.

12 Q. But I notice looking at the signature page on the
13 settlement agreement that for IBEW it was executed on
14 behalf of Locals 387, 640, and 769.

15 So my question to you would be: Do you have any
16 reason to believe that Locals 640 and 769 would not share
17 your views with regard to the settlement agreement?

18 A. No. They would absolutely share my views.

19 Q. Okay. That's what I thought, but I wanted to
20 confirm that for the record.

21 The analogy I want to suggest for your
22 consideration was occasioned by your testimony describing
23 the joint vision and endeavor of IBEW and the company to
24 streamline your operations moving forward to better equip
25 yourself to deal with the future. I found that very

1 interesting.

2 And it took me down memory lane to 43 years ago
3 when I spent a year in the maritime industry in California
4 in labor relations. And at that time, Harry Bridges, the
5 president of the International Longshore and Warehouse
6 Union had the vision to agree to a collective bargaining
7 agreement that would automate the longshore industry. And
8 the purpose of that was to facilitate the introduction of
9 containers both for shipping from overseas and transport
10 by rail within the United States.

11 And Mr. Bridges felt at that time that it was in
12 the long-term best interests of the union and that the
13 union would actually prosper as a result of those
14 fundamental changes, and I see you nodding your head. We
15 know the end result. The Union has prospered in
16 containerization and it's now very much a fabric of this
17 country.

18 So its an analogy that immediately came to mind
19 as I listened to you. I wish you luck on that joint
20 vision. Thank you.

21 THE WITNESS: Thank you.

22 CALJ FARMER: Okay. Ms. Pecora, did you have
23 questions for this witness?

24 MS. WYLLIE-PECORA: Yes, I do, Your Honor. Just
25 two.

1 CROSS-EXAMINATION

2

3 Q. (BY MS. WYLLIE-PECORA) Hi, Mr. Hoover.

4 A. How are you doing?

5 Q. Just two questions. Would the Union like to see
6 more line extension orders to keep their members employed?

7 A. Right now we are at reduced staffing levels due
8 to the severe economic downturn. We have not filled a lot
9 of our positions to do our cost-cutting. So obviously,
10 when the growth comes back, then we would be looking to --
11 if we can't currently maintain those line extensions, then
12 we would either be looking at bidding and creating more
13 jobs within the company.

14 Q. Okay. And have there been or are there other
15 companies that can do the construction for APS to APS's
16 standards?

17 A. Yes. We have a list of bona fide contractors
18 that the company has approved that will do this.

19 Q. And that is available to anyone who wants to
20 apply for that?

21 A. To the best of my knowledge, correct.

22 MS. WYLLIE-PECORA: Okay. Thank you.

23 THE WITNESS: You're welcome.

24 CALJ FARMER: Okay. I have a few questions, sir.

25 These I'm going to read on behalf of Chair Mayes who is

1 not here today.

2

3

EXAMINATION

4

5 Q. (BY CALJ FARMER) Would IBEW still support the
6 settlement agreement if it were possible that none of the
7 renewable energy projects would be built, and what if only
8 some are built?

9 A. Well, I think it's to the best interests that we
10 explore these ideas to reduce the cost. And we would be
11 in support of any renewable energies, because it's
12 obviously going to give us an opportunity to maintain,
13 construct that type of work.

14 Q. What is IBEW's interpretation of the words "make
15 its best efforts," in the settlement agreement's provision
16 calling for APS to make its best efforts to procure
17 1.7 million megawatts of renewable energy in 2015? Do you
18 think that provision is mandatory?

19 A. I would say yes.

20 Q. And do you think the Commission should order APS
21 to reach this level, understanding that the company could
22 seek a waiver if it becomes impossible?

23 A. Yes, as long as it doesn't create an adverse or a
24 harsh reality for the company and put it in a financial
25 obligation that it cannot meet.

1 Q. Would the IBEW support an amendment that would
2 make the renewable energy provisions in the settlement
3 mandatory?

4 A. We would have to take that up for consideration.

5 CALJ FARMER: Those are all of the questions from
6 Chair Mayes, and I don't have any questions for you, sir.

7 Are there any other further questions from the
8 parties?

9 (No response.)

10 CALJ FARMER: All right. Well, thank you, sir,
11 for your testimony today.

12 THE WITNESS: Thank you very much.

13 CALJ FARMER: Let's go ahead and take our lunch
14 break here. We'll start up again at 1:30.

15 Mr. Hogan?

16 Oh, I had planned to have the witness Amanda
17 Ormond come on at 1:30.

18 MR. HASAKOVEC: Your Honor, I'm sorry. Just
19 whenever it's appropriate, we would request to be excused
20 from much of the rest of the proceedings at this point.

21 CALJ FARMER: That's fine. You don't have to be
22 here. If for some reason something comes up, if a
23 Commissioner has a question or something, we'll try to
24 contact you.

25 MR. HASAKOVEC: Thank you.

1 CALJ FARMER: Thank you.

2 Mr. Hogan.

3 MR. HOGAN: Yeah. Just for your information,
4 Your Honor, my remaining two witnesses I hope will be back
5 here at 2:00.

6 CALJ FARMER: All right. That sounds good.
7 We'll take our break and come back at 1:30.

8 (TIME NOTED: 12:15 p.m.

9 (Michele E. Balmer, Certified Reporter, was
10 excused from the proceedings.)

11 (A recess was taken.)

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1 (The afternoon session resumed at 1:35 p.m.,
2 reported by Colette E. Ross, Certified Reporter.)

3

4 CALJ FARMER: Let's go back on the record.
5 Before we begin with the next witness, I think we have a
6 scheduling issue that we need to discuss. So,
7 Mr. Mumaw.

8 MR. MUMAW: Thank you, Your Honor. As you know,
9 kind of the original thought had been that when we
10 concluded Ms. Ormond and the two remaining witnesses for
11 Mr. Hogan, that we would then kind of resume the
12 company's case. But, frankly, we have been kind of
13 informed that, even though she is not here today, that
14 the Chairman would like to personally ask questions
15 probably, certainly to Mr. Hatfield, and I suspect both
16 of those witnesses given the number of items that were
17 deferred to Ms. Lockwood. And rather than have their
18 testimony splattered over a couple of days of
19 transcript, we would prefer just to hold those two
20 witnesses back and present them when, frankly, the
21 Chairman and other Commissioners are available.

22 And therefore we would suggest that, should we
23 complete the three witnesses that I first discussed and
24 people feel there is too much time left today to reward
25 ourselves with an early day, we would present

1 Mr. Wontor, who is less likely to require being
2 recalled.

3 CALJ FARMER: Okay. Comments on that proposal?
4 Start with Staff.

5 MS. WAGNER: Your Honor, I don't have any
6 objection to that proposal at all. I do want to inquire
7 about scheduling Staff's out-of-town witnesses, however,
8 at some point today. It doesn't have to be now.

9 I guess I am concerned whether the four
10 remaining days of hearing that you have identified will
11 be enough days of hearing to get all the witnesses in.

12 CALJ FARMER: Okay. Well, as far as this
13 afternoon, we are not going to take any witnesses
14 besides the three that we have scheduled right now. I
15 don't know, since I had not notified the other
16 Commissioners that Mr. Wontor might be coming, I don't
17 feel comfortable putting him on the stand either. So we
18 will potentially get an early afternoon, well deserved,
19 I think, by everybody in the room. But we will talk a
20 little bit more about scheduling the witnesses when we
21 finish with the testimony.

22 MR. MUMAW: Your Honor, I certainly understand
23 that. And given that, when we resume we would go back
24 to the original announced order of Mr. Hatfield and then
25 Ms. Lockwood and Mr. Wontor, and Mr. Rumolo as the

1 cleanup.

2 CALJ FARMER: Okay. All right. Any other
3 procedural issues before we get on with witness?

4 (No response.)

5 CALJ FARMER: Okay. All right. Ready? Call
6 your witness, Mr. Fant.

7 MR. FANT: Thank you, Your Honor.

8 Your Honor, I presented two copies of a document
9 entitled direct testimony of Amanda Ormond on behalf of
10 the Interwest Energy Alliance dated July 1st, 2009 to
11 the court reporter. I would ask that be marked as
12 Interwest Exhibit 1.

13 CALJ FARMER: Okay. Go ahead. You may
14 continue.

15

16

AMANDA ORMOND,

17 a witness herein, having been first duly sworn by the
18 Certified Reporter to speak the truth and nothing but
19 the truth, was examined and testified as follows:

20

21

DIRECT EXAMINATION

22 BY MR. FANT:

23 Q. Would you please state your name for the record.

24 A. My name is Amanda Ormond.

25 Q. Could you state your background.

1 A. I am an energy policy consultant and have been
2 for the last eight years. I used to work for the
3 Arizona Department of Commerce and I was Energy Director
4 for the State for about seven. Prior to that I worked
5 for an environmental institutional consulting firm doing
6 water investigation, pollution investigation and
7 remediation.

8 Q. Thank you. Could you describe the interests of
9 Interwest Energy Alliance in this proceeding.

10 A. Interwest Energy Alliance is a (c)(6) trade
11 association that combines solar and wind developers and
12 manufacturers with nongovernmental organizations and
13 environmental groups.

14 Q. Thank you. Could you generally describe the
15 membership of Interwest for the Commission.

16 A. Sure. We have members as large as General
17 Electric and then small solar developers, large solar
18 developers. And the mission of Interwest is to support
19 clean energy policy in the six-state region, including
20 Arizona.

21 Q. Thank you. If you would, pick up a copy of
22 Exhibit 1, which is on the dais next to you there. Have
23 you read this document and is this your testimony and do
24 you adopt it as your testimony?

25 A. Yes.

1 Q. Thank you. Do you have any clarifications you
2 would like to make to this written testimony?

3 A. I do. On page 8, just a clarification, line 11,
4 the question is: Can you please address bullet eight of
5 Chairman Mayes' letter related to the adoption of the
6 REST rules in the settlement?

7 I make the statement that Interwest supports the
8 adoption of the REST rules in this settlement.

9 We didn't adopt the actual rules themselves and
10 I just wanted to clarify that we didn't adopt the rules.
11 We adopted an energy standard that relates to the rules.

12 Q. And support application of that standard?

13 A. Correct.

14 MR. FANT: Thank you. No further questions on
15 direct. Your Honor, turn the witness over for
16 cross-examination.

17 CALJ FARMER: Okay. Do you want to move that
18 exhibit? Do you want to move Exhibit 1?

19 MR. FANT: Yes. I move Exhibit 1 into the
20 record, Interwest Energy 1.

21 CALJ FARMER: There were no objections to that
22 prefiled testimony; therefore, it will be admitted.
23 Thank you.

24 (Exhibit No. Interwest 1 was admitted into
25 evidence.)

1 Do any of the parties in support of the
2 settlement agreement have questions for this witness?

3 MR. MUMAW: Just one or two, Your Honor.

4 CALJ FARMER: APS.

5

6

CROSS-EXAMINATION

7 BY MR. MUMAW:

8 Q. Good afternoon, Ms. Ormond.

9 A. Mr. Mumaw.

10 Q. Does Interwest Energy, among their members, are
11 there vendors or installers or both of, I guess what is
12 kind of generically called, rooftop solar?

13 A. Mr. Mumaw, there is one new member to Interwest
14 that does distributed generation. That's Sun Edison.
15 However, they don't concentrate on residential. They do
16 more commercial scale photovoltaic installations.

17 Q. So would it be fair to say if I was interested
18 in the workings of the residential rooftop solar
19 industry, you are kind of not the witness to ask those
20 questions?

21 A. Sir, that's correct. So if they are a new
22 member or their concerns have not been fully integrated
23 into the Interwest policy area, I am not a good expert
24 witness on that.

25 MR. MUMAW: Thank you. I have no further

1 questions.

2 CALJ FARMER: Any other parties with questions
3 for this witness?

4 (No response.)

5 CALJ FARMER: Ms. Pecora, did you have
6 questions?

7 MS. WYLLIE-PECORA: I do not.

8 CALJ FARMER: Thank you.

9

10 EXAMINATION

11 BY CALJ FARMER:

12 Q. There are a few questions from Chair Mayes.
13 So I will ask those to you. And then Commissioner
14 Pierce's office is going to be bringing some questions,
15 too.

16 What is your interpretation of the words make
17 its best efforts in the settlement agreement's provision
18 calling for APS to make its best efforts to procure
19 1.7 million megawatts of renewable energy by 2015? Is
20 the provision mandatory or merely permissive?

21 A. Your Honor, I look at this as those words
22 obligate Arizona Public Service Company to be able to
23 meet that statement that they should have 1.7 million
24 megawatt hours of renewable energy. However, as
25 Dr. Berry had mentioned earlier, there are always

1 circumstances in any provision that can cause a company,
2 any company, not be able to meet their contractual
3 obligation. So I do consider it mandatory, but with
4 market conditions that might override.

5 Q. Why shouldn't the Commission order APS to reach
6 this level, understanding that the company could seek a
7 waiver if it becomes impossible?

8 A. Your Honor, it is not part of the settlement
9 agreement that's on the table right now. And it would
10 depend on what the waiver process is.

11 Most of the projects that are listed in this
12 settlement agreement have to come before the Commission
13 at some time and there are provisions already in the
14 REST rules that require review by the Commission. So I
15 think that that would be almost double duty to require
16 that.

17 Q. Okay. Next question from Chair Mayes, do you
18 believe the demand response provisions go far enough
19 given the findings of the FERC demand response study for
20 Arizona?

21 A. I have not reviewed that study so I am not going
22 to comment on that.

23 Q. Okay. Would you support an amendment requiring
24 APS to do 300 additional megawatts of demand response?

25 A. Your Honor, in my testimony the only thing I

1 touch on is energy efficiency related to the funding
2 mechanism and base rates, the \$10 million in base rates,
3 so I am not qualified to answer that question, because I
4 haven't done the research to see if that type of energy
5 is available.

6 Q. Are the DSM targets outlined in the settlement
7 agreement merely goals or are they mandatory?

8 A. I will give you a similar answer to the question
9 on the renewable energy standard, that I believe that
10 they are set to provide firm guidance, firm policy
11 guidance to the company to achieve this level of
12 performance. But there are always possible mitigating
13 circumstances that could arise that would allow a
14 company not to meet those targets or obligations.

15 Q. Given the time frames laid out in sections 15.2
16 and 15.3, isn't it possible that the projects described
17 therein would not be voted on by the current Commission
18 and therefore could be disapproved by another
19 Commission?

20 A. I haven't looked at a timeline, but yes, I guess
21 that's possible.

22 Q. If so, what can be done to ensure that the
23 current Commission which will be voting on this rate
24 increase proposal also has an opportunity to vote on
25 these projects?

1 A. I don't think I have any suggestions on what
2 could be done.

3 Q. Do you believe that section 15.8 of the
4 settlement agreement would require APS to meet the RES
5 in future years should for some reason the REST rules be
6 struck down?

7 A. I believe that the -- the settlement as written,
8 if it was adopted, would require an energy amount that
9 exceeds the RES. I don't believe that the company is
10 held in this document to all the specifics that are in
11 the REST rules.

12 Q. What do you interpret the word commitments to
13 mean in this section?

14 A. 15 8?

15 Q. 15.8.

16 A. I guess another word I would say for commitment
17 is obligation. That's my interpretation.

18 Q. Okay. What do you believe the words APS
19 reiterates and renews its support for the REST rules, it
20 means from a legal standpoint?

21 A. Not being an attorney I would rather not offer
22 an opinion.

23 Q. Please elaborate on your view expressed in your
24 testimony that having some level of DSM, in fact an
25 increased level of DSM, in base rates is appropriate.

1 Is this because you believe that DSM and renewables
2 should be increasingly treated as other generation
3 resources are?

4 A. Yes. The way that we have developed clean
5 resources is that they have been specialty resources,
6 boutique resources almost if you will. As we move
7 forward in time, these resources are going to become
8 more mainstream and should be considered more
9 mainstream.

10 So we fund the majority of energy in terms of
11 base rates. When an asset is approved it is put in base
12 rates. I think it should be no different with renewable
13 energy and energy efficiencies when you know what the
14 costs are going to be.

15 The DSM adjuster, \$10 million, was in base rates
16 and I thought it was appropriate to leave it in base
17 rates because that's moving the direction that I think
18 Interwest and the company should be moving, because we
19 want to see these energy sources institutionalized in
20 regular ratemaking processes like coal, nuclear, natural
21 gas, or any other technology.

22 Q. Do you view this as a material provision in the
23 settlement agreement?

24 A. Yes, I think so.

25 Q. Okay. Thank you. That's all the questions from

1 Chairman Mayes.

2 Now, these questions are coming from
3 Commissioner Pierce. Are you familiar with the
4 Commission's renewable energy standard and tariff rules?

5 A. Yes.

6 Q. Were you involved in the proceedings leading up
7 to the adoption of the REST rules?

8 A. Yes.

9 Q. Did some people and entities advocate for a
10 specific carve out for wind and/or solar in connection
11 with the adoption of the REST rules?

12 A. No. In fact, I think my memory tells me that
13 during the adoption of the REST rules, the types of
14 technologies that were going to be considered were very,
15 very broad.

16 Q. When the REST rules were being formulated, did
17 APS advocate an opposition to specific renewable
18 resource carve outs in preference of resource, in
19 preference of renewable resource neutrality?

20 A. Your Honor, I don't remember them advocating
21 either for or against.

22 Q. Did Interwest Energy Alliance advocate for
23 renewable resource neutrality?

24 A. If you mean neutrality meaning all technology
25 should be able to lay in the REST rules, the answer is

1 yes.

2 Q. Okay. Did it advocate for carve outs?

3 A. The clients or the members of Interwest Energy
4 Alliance at that time did not include any distributed
5 generation and it included all utility sale generation,
6 so we stayed silent on that, whether a carve out should
7 be included or not.

8 Q. And do you continue to hold the same position in
9 this case?

10 A. I do.

11 Q. And that's, did you advocate that position
12 during the settlement negotiations?

13 A. I did.

14 Q. Do you agree that the Commission ultimately
15 adopted REST rules that are facially neutral between
16 renewable energy resources?

17 A. Could you define facially for me.

18 Q. I think that means that the rules did not show a
19 preference toward a specific kind of renewable energy
20 resource.

21 A. In that context, I would say yes.

22 Q. Do you remember what the Commission's rationale
23 was in explaining its decision in that regard?

24 A. In staying technology neutral?

25 Q. Yes.

1 A. During the proceedings of development of the RES
2 there were many parties involved that came forward with
3 all types of technology, some which were commercial,
4 some which weren't commercial. And I believe that part
5 of the rationale from the Commissioners at the time was
6 that we wanted -- we don't know who is going to be the
7 winners in the future. By limiting the type of
8 technologies that we are choosing, we are limiting who
9 can play in this arena and who cannot. The Commission
10 didn't feel like it should be picking technology winners
11 and losers.

12 I believe there was a provision in there where
13 technologies can come to be added to the REST. So I
14 believe that the thought at the time was broad is better
15 than narrow because we don't know how these technologies
16 are going to mature and how their cost profiles might
17 change.

18 Q. Would you say that the settlement agreement is
19 consistent with the principle of renewable resource
20 neutrality that was encompassed in the Commission's REST
21 rules?

22 A. Definitely.

23 Q. And we are going to go now to the specific
24 paragraphs. Do you have a copy of the settlement
25 agreement? Okay.

1 Paragraph 15.1 requires APS to make its best
2 efforts to acquire 1.7 megawatts of new renewable energy
3 resources, does it not?

4 A. 1.7 million megawatt hours, yes.

5 Q. Does 15.1 dictate which renewable resources APS
6 will acquire to meet that goal?

7 A. No.

8 Q. So is that paragraph consistent with the
9 principle of renewable resource neutrality embedded in
10 the REST rules?

11 A. I believe so.

12 Q. Paragraph 15.2 requires APS to issue a new
13 request for a proposal for in-state wind generation,
14 correct?

15 A. Yes.

16 Q. Is that paragraph consistent with the principle
17 of renewable resource neutrality?

18 A. I believe so. And let me explain a little bit
19 of why. The renewable energy standard sets an energy
20 goal that APS and the other regulated utilities have to
21 meet. It does not specify the type of technology that
22 it should use and it doesn't specify the methodology for
23 obtaining that technology except for in a competitive
24 process. And so APS and the other regulated utilities
25 have the flexibility to meet the REST energy standard in

1 ways that they believe is prudent for their customers.

2 Paragraph 15.2 and 15.3, and I think 15.5 and 6
3 and, yes, 6, all represent projects that will meet,
4 assuming it is approved and purchased, will meet the
5 renewable energy standard and help the company meet the
6 energy standard. So when I look at these paragraphs I
7 don't look at them as not being energy neutral. I look
8 at them as being different types of resources that the
9 company is going to buy.

10 We certainly want diversity in energy resources.
11 One of the reasons that we have spiking costs is because
12 we have a lot of natural gas and natural gas has gone
13 up. So the more variety of technology and application
14 of technology that we can put in our resource base for
15 utilities the better off we are going to be.

16 Q. Is it better for the Commission to establish the
17 goal, then step back and let APS achieve the goal in a
18 manner that minimizes costs to ratepayers, or is it
19 better for the Commission to not only adopt the goal but
20 command and control provisions that prescribe exactly
21 which renewable resource acquisitions APS should make to
22 achieve the goal?

23 A. In the REST rules, the Commission has adopted a
24 goal. The settlement that's before us is not, well, it
25 can't be viewed as command and control because it is the

1 parties that have brought forward this variety of
2 projects to be able to meet the REST, so yes.

3 Q. Okay. Are large amounts of dollars at stake
4 during the selection of which new renewable projects
5 will be built?

6 A. Yes. Well, large is a relative term, so let me
7 say that's a difficult question to answer without
8 knowing what large means or in reference to something
9 else.

10 Q. If the Commission begins to go down a path of
11 preselecting and narrowly prescribing which types of
12 renewable projects APS will entertain, will that serve
13 to increase or decrease the amount of lobbying the
14 Commissioners will likely receive from renewable project
15 developers?

16 A. Would you please repeat the question.

17 Q. This is, again this is a question from
18 Commissioner Pierce on 15.2.

19 If the Commission begins to go down the path of
20 preselecting and narrowly prescribing which types of
21 renewable projects APS will entertain, will that serve
22 to increase or decrease the amount of lobbying the
23 Commissioners will likely receive from renewable project
24 developers?

25 A. I think that's an impossible question to answer,

1 because on the one hand you could have more people
2 lobbying to have open technologies and other people
3 could be lobbying for the specific technologies. So I
4 don't think it is an answerable question.

5 Q. Why is it in the public interest for the
6 Commission to approve a provision that specifically
7 calls for an in-state RFP as opposed to allowing
8 competition from additional renewable resources,
9 including out-of-state wind resources?

10 A. Interwest Energy Alliance, in the renewable
11 energy standard and throughout just our policy advocacy,
12 has always advocated for transmission, for RFPs to be
13 open across state borders because we do feel it can
14 provide the best cost resource. But in procurement you
15 do want a variety of different assets.

16 And in the case of wind energy, the profile of
17 wind in New Mexico is significantly different than the
18 profile of wind in Arizona, meaning that the time that
19 the wind is blowing and energy will be developed is
20 different in New Mexico than in Arizona.

21 So from that standpoint, you have to look at
22 what are you trying to buy. There are cases where
23 Arizona wind blows more on peak or closer to the peak
24 than it does in New Mexico so it makes more sense. The
25 Arizona wind projects will be located in the state which

1 provides economic development dollars to the state.
2 They may have or they would have much less transmission
3 to have to pay for. So there is a variety of reasons
4 why the utility may want to do a targeted RFP and this
5 was one of the topics that we talked about and it seemed
6 to make sense from an overall resource choice
7 standpoint.

8 Q. Is there a reason why in-state wind projects
9 cannot and should not be expected to compete in the
10 larger renewable arena?

11 A. I find that question a little difficult to
12 answer. When you say larger renewable arena, does that
13 mean a multi-state RFP? Does that mean an RFP with two
14 states? I am just not sure.

15 Q. Well, why don't you just answer it based upon
16 what you possibly could, how you possibly could define
17 that larger renewable arena.

18 A. I guess when a utility wants to procure a type
19 of energy resource, whether it be renewable or coal or
20 whatever, you put together a list of criteria that you
21 want to meet. And so this is a criteria to see what an
22 in-state wind project in Arizona will bring.

23 Q. Does the Interwest Energy Alliance have any
24 members that stand to benefit by limiting the scope of
25 the RFP to in-state wind projects?

1 A. Your Honor, Interwest Energy Alliance has
2 members that develop projects throughout the United
3 States. It is possible that some of the Interwest
4 Energy Alliance members would be chosen or could be
5 project developers for a project chosen.

6 So strictly speaking the answer is yes, but
7 there is not any preferential treatment towards one
8 Interwest member over another.

9 Q. Will you please identify in a subsequent filing,
10 if needed, every member of Interwest Energy Alliance
11 that will likely participate in an in-state wind RFP if
12 paragraph 15.2 is approved.

13 A. The way that I would address that is I will
14 provide the Commission with every developer from
15 Interwest Energy Alliance that does wind energy. It is
16 not possible for me to know who might have projects or
17 might not or where they might be in the development
18 stage so I will provide a list of all the Interwest
19 members.

20 Q. Okay. Thank you. Assuming no other party
21 objects, would Interwest Energy Alliance view the
22 removal of paragraph 15.2 a material change? And if so,
23 why?

24 A. The way I will look at the settlement document
25 is that all the provisions make up the settlement, every

1 single one of them, so I would have to answer yes to
2 that.

3 Q. And do you think other parties would likely
4 object to the removal of that paragraph from the
5 settlement agreement?

6 A. I can't speak for any other party.

7 Q. I am sorry?

8 A. I can't speak for any other party.

9 Q. So you don't know whether anyone else would
10 consider that a material change?

11 A. That's correct, I do not know if anybody else
12 would consider that a material change.

13 Q. Okay. Let's move now to paragraph 15.3.
14 Commissioner Pierce has some questions on that
15 paragraph.

16 Is paragraph 15.3 consistent with the principle
17 of renewable resource neutrality?

18 A. Again, I believe yes, because this is one of
19 many different technologies that could have been chosen.
20 Photovoltaic, utility scale photovoltaic is not
21 something APS has a lot of experience in and I think it
22 is a good project because it will give them some
23 experience in developing that size project with that
24 type of technology in that type of application.

25 Q. Okay. That's probably the answer you would give

1 to why is it in the public interest for the Commission
2 to approve a provision that specifically calls for
3 consideration of a utility scale photovoltaic generation
4 project?

5 A. Yes. I would reference that last answer as well
6 as the fact we have seen a tremendous drop in the cost
7 of photovoltaic panels in the last year because of
8 silicon supply issues loosening up. So photovoltaics
9 are coming down very rapidly in cost. Deploying
10 projects that haven't been deployed before gives
11 operation experience to the utility and allows them to
12 see whether these technologies fit in what they have for
13 energy needs.

14 Q. Is there a reason why we need such a provision
15 as opposed to allowing APS to bring a utility scale
16 photovoltaic project to us for consideration when APS
17 feels that such a project is the optimum resource
18 alternative?

19 A. Sorry. Can you read the first part of the
20 question again.

21 Q. Is there a reason why we need such a provision
22 requiring APS to do it, as opposed to allowing APS to
23 bring the utility project to us for consideration?

24 A. I think it makes a good overall settlement,
25 because if we had come in and said here is the energy

1 amount that the parties think should be purchased by
2 APS, I think the Commission response might be, well,
3 wait a minute, what are you going to build. These
4 provisions, these specific projects give some definition
5 to what will be built in what time frame with what type
6 of technology, which I think should give folks
7 evaluating the settlement a little more comfort on what
8 could be the outcome of the settlement.

9 Q. Assuming no other party objects, would Interwest
10 Energy Alliance view the removal of paragraph 15.3 a
11 material change? And if so, why?

12 A. Since I said yes to 15.2, I think have to say
13 yes for 15.3. The why is this is a package agreement
14 and it was very carefully negotiated over a very long
15 period of time and all these provisions work together.

16 Q. Are there other parties that would likely object
17 to the removal of that paragraph from the settlement
18 agreement?

19 A. I don't know.

20 Q. Okay. Let's move to paragraph 20.6.
21 Commissioner Pierce states that this paragraph requires
22 APS to study the impact of its super peak and critical
23 peak pricing on the energy mix of air emissions and
24 energy use by program participants.

25 Is there any reason why the study should not

1 evaluate APS' entire demand response program on the
2 foregoing issues, including its new time of use rates
3 for schools approved in paragraph 21.2?

4 A. Your Honor, my testimony doesn't touch on this
5 subject at all so I am going to decline to make any
6 comment on it. I don't have any expertise in the area.

7 Q. In her June 9th letter to the parties to the
8 docket, Chairman Mayes asked if the REST rules should be
9 adopted by the settlement agreement. Are you familiar
10 with APS' 2009 REST implementation plan that was adopted
11 by the Commission?

12 A. Not intimately, no.

13 Q. Do you have a copy of Pierce Exhibit No. 1?

14 A. I do.

15 Q. That is a chart that graphically summarizes the
16 major cost components of APS' 2009 implementation plan.
17 The blue slice depicts the 85 percent of renewable
18 energy that will come from utility scale projects. The
19 light green slice represents the seven and a half
20 percent of renewable energy that will come from
21 commercial distributed generation and the dark green
22 slice represents the seven and a half percent that
23 represents residential distributed generation.

24 When APS filed its renewable implementation
25 plan, it includes a \$10.3 million budget for

1 administration and advertising costs associated with
2 distributed generation.

3 For your information, in preparing the chart,
4 Commissioner Pierce allocated \$2 million of the
5 administration costs to commercial DG and \$8.3 million
6 towards residential DG.

7 Please take a moment to look over the slide.

8 Have you had a chance review?

9 A. Waiting to see what the question is.

10 Q. What jumps out at you as you look at the slide?

11 A. That the energy that's provided by utility owned
12 and purchased renewable generation is the biggest
13 portion of the circle.

14 Q. Okay. Do the numbers generally match your
15 understanding of APS' 2009 implementation plan?

16 A. Your Honor, I haven't looked at the plan. I
17 haven't reviewed the numbers. I am happy to take from
18 Mr. Pierce that this is indeed correct for purposes of
19 these questions, but I haven't looked at the plan to
20 know if these are correct.

21 Q. Okay. Your testimony in the settlement
22 agreement indicated one of the reasons you support
23 renewable energy is because of the reduced air
24 emissions, particularly carbon, is that true?

25 A. I believe so.

1 Q. Okay. Do you believe that increasing our use of
2 renewable energy is important to address climate change?

3 A. Yes, I do.

4 Q. Are you familiar with the term opportunity
5 costs?

6 A. Yes, ma'am.

7 Q. Looking at the slide, what do you believe is the
8 opportunity cost of allocating the \$78.4 million in such
9 a way?

10 A. I would answer the question this way. This is a
11 snapshot in time. This is a one-year period to look at,
12 what are the costs of these technologies. We know that
13 providing a technology on a very small scale does not
14 take into account economies of scale so it is going to
15 be more expensive. If you buy, you know, a gallon of
16 gas versus 5 million gallons of gas, it is going to be
17 cheaper if you buy more. So what we see here is that it
18 is more expensive to do the distributed generation and
19 the residential generation.

20 If you take the same slide and push it out in
21 the future, what you may find is that those costs aren't
22 the same. You will find those costs aren't the same.

23 This chart doesn't take into account like
24 transmission lines. And if you are really looking at an
25 overall carbon footprint, you would have to look at what

1 is the transmission component that's embedded in the
2 utility owned generation and add those carbon components
3 in there.

4 So I think that from a carbon standpoint, you
5 could get more carbon reduction maybe today if you put
6 more towards utility owned generation. But you don't
7 know about that tomorrow or a year from now, five years
8 from now or 10 years from now. And since we haven't
9 done an analysis of what the carbon costs or what the
10 carbon output is from any of these sources, I think it
11 is difficult to say that one is better than the other at
12 this time.

13 Q. Would it be possible to double, triple or
14 perhaps even quadruple the amount of emission reductions
15 APS achieved in 2009 simply by reallocating a portion of
16 the funds currently allocated towards residential DG?

17 A. Your Honor, again, I don't know the answer to
18 that. And I think to answer that question, you would
19 have to do a full lifecycle cost on distributed energy
20 compared to utility owned generation.

21 Q. Okay. Turning --

22 A. Lifecycle carbon output. Sorry.

23 Q. Turning to paragraph 15.5 and 6 and the
24 provisions relating to solar projects for schools and
25 public buildings, who will ultimately pay for these

1 projects?

2 A. I believe that there is a number of parties that
3 are going to pay for these projects. This 15.5
4 references the ARRA funds, the reinvestment act funds,
5 the stimulus act funds. If stimulus funds are used,
6 then nationwide people will be paying for these school
7 programs. Certainly ratepayers paid for these programs.
8 The people that are in the districts that receive these
9 systems will pay for these programs. So there is a
10 variety of people that will contribute.

11 Q. Would it be fair to say that APS' ratepayers,
12 including its residential ratepayers, will be the ones
13 who pay for these solar projects?

14 A. The residential ratepayer, the commercial
15 ratepayers, the industrial ratepayers, they all pay for
16 these projects.

17 Q. Okay. Do you believe that paragraphs 15.5 and
18 15.6 are unfair to residential ratepayers? In other
19 words, is it unfair to residential ratepayers to use
20 REST surcharge money collected from them to install
21 solar systems on school and public buildings?

22 A. If the ratepayers get a benefit from the system,
23 then I don't believe it is unfair.

24 Q. So would you agree that because schools and
25 public buildings are owned by all residential

1 ratepayers, placing distributed energy systems on them
2 is perhaps the fairest way to allocate residential
3 surcharge money?

4 A. I wouldn't say that it is the fairest way. I
5 think it is one way to be fair.

6 Q. Okay. Would you agree that everyone benefits
7 when a school's utility expenses goes down?

8 A. Who is the everyone in the question?

9 Q. Well, it just says everyone. So I would think
10 that means --

11 A. All ratepayers?

12 Q. It doesn't say.

13 A. I don't know how to answer the question then.

14 Q. Well, you can answer it, do ratepayers benefit,
15 and then do, I guess, you know, nonratepayers benefit.

16 A. A variety of people would benefit when your
17 public facilities, schools and government buildings are
18 made more efficient.

19 Q. Okay. In 2010 APS' distributed generation
20 requirement increases from 15 percent to 20 percent.
21 Should the Commission consider reserving the entire
22 additional 5 percent DG requirement for school projects?
23 And if not, why not?

24 A. I would just answer that if that's the will of
25 the Commission, I think it is good to analyze different

1 options going forward in the REST rules, and if changes
2 are deemed to be beneficial then they should be made to
3 the REST rules.

4 Q. With respect to the 50/50 split between
5 residential and commercial DG in the REST rules, is it
6 realistic to expect the residential and commercial DG
7 markets to develop at exactly the same pace year after
8 year?

9 A. No, I don't believe it is reasonable to assume
10 that.

11 Q. Okay. Given the improbability of complete
12 symmetry between the residential and commercial DG
13 markets, what is the opportunity cost of a strong
14 enforcement of the 50/50 split?

15 A. When I think about the opportunity cost, I like
16 to look long term, because part of our whole reason to
17 do the REST and to ask the utilities and force the
18 utilities to use renewables is to move the market along
19 and mature the market. The residential PV market is not
20 as mature as the utility scale markets. But they will
21 never get there unless we put money into them and work
22 on them.

23 So I think the process set up now is reasonable
24 and will give gains in the future. Costs will be driven
25 down. Expertise will be learned. The grid will be made

1 more robust by being able to provide energy in load
2 pockets that are difficult to serve any other way.

3 Q. Does this approach delay the deployment and
4 raise the cost of distributed generation?

5 A. Does this approach a 50/50 split?

6 Q. Right.

7 A. I don't believe so.

8 Q. Would strong enforcement of that 50/50 split?

9 A. Sorry, read the first part of the question
10 again.

11 Q. Would the strong enforcement of the 50/50 split
12 delay deployment and raise the cost of distributed
13 generation?

14 A. I don't know.

15 Q. Okay. If the Commission were to adopt the REST
16 rules in this settlement agreement, would the Commission
17 still retain the ability to waive rules that it finds
18 counterproductive in the transition towards renewable
19 energy?

20 A. I guess that would depend on how they were
21 incorporated in this settlement and what provisions were
22 actually written into the settlement to allow a
23 provision to be waived.

24 Q. Thank you. That concludes the questions from
25 Commissioner Pierce. I will see if I have any for you.

1 On pages 6 and 7 you talk a little bit about
2 transmission for renewable energy resources. Can you
3 explain for me, just quickly summarize, what the
4 settlement agreement provides on that issue.

5 A. The settlement agreement provides that Arizona
6 Public Service Company will identify and move
7 expeditiously in planning and building and constructing
8 transmission lines that have been identified to support
9 renewable energy generation.

10 Q. You identified a chicken and egg problem. Do
11 you think that you have solved that problem in the
12 settlement agreement?

13 A. I think we have taken a step forward and
14 recognized that transmission has to start being planned
15 to one of the resource areas before there is actual
16 contracts let. And part of the biennial transmission
17 assessment process that this Commission requires has had
18 the utility take another really crucial test, which is
19 that I identify the areas, the resource zones, where
20 renewables are likely to be located to help inform the
21 transmission planning process. So this provision to me
22 couples nicely with the requirements of the biennial
23 transmission assessment.

24 CALJ FARMER: Thank you. Those are the
25 questions from the bench. Is there any redirect or

1 additional questions for this witness?

2 MR. FANT: Thank you, Your Honor. Just one
3 question on redirect.

4

5

REDIRECT EXAMINATION

6 BY MR. FANT:

7 Q. Let's go back to distributed energy systems at
8 schools. Are there benefits looking beyond the rate
9 question, whether it is 12 or 13 cents per kilowatt
10 hour, are there benefits to APS ratepayers installing DG
11 systems in schools?

12 A. As my testimony says, there is a whole
13 educational component. I mean we focus so much on costs
14 of systems and not the benefits. And if we want to see
15 a solar future then we have to educate our youth and
16 make them more familiar with photovoltaic systems. We
17 want them to be like cellphones where they are
18 everywhere and people are very comfortable with them and
19 used to using them.

20 By putting these systems on public buildings,
21 schools, government buildings, we raise awareness and we
22 can educate folks about how are they working, what are
23 they doing, how much are they costing, what benefits are
24 they providing.

25 So yes, there are lots of nonmonetary benefits

1 of doing distributed systems.

2 MR. FANT: Thank you, Your Honor. No further
3 redirect.

4 CALJ FARMER: Any further questions for the
5 witness?

6 MR. MUMAW: No, Your Honor.

7 CALJ FARMER: Thank you very much for your
8 testimony today.

9 THE WITNESS: Thank you.

10 CALJ FARMER: I believe we are ready for,
11 Mr. Hogan, your next witness.

12 MR. HOGAN: Arizona School Boards Association
13 calls Bob Rice.

14

15

ROBERT RICE,

16 a witness herein, having been first duly sworn by the
17 Certified Reporter to speak the truth and nothing but
18 the truth, was examined and testified as follows:

19

20

DIRECT EXAMINATION

21 BY MR. HOGAN:

22 Q. Would you state your name for the record,
23 please.

24 A. Robert Rice.

25 Q. And you are appearing today on behalf of the

1 Arizona School Boards Association?

2 A. That's correct.

3 Q. Do you have any position with the Arizona School
4 Boards Association?

5 A. Currently president of the organization.

6 Q. All right. Since this is the first time the
7 School Boards Association has appeared, it might be in
8 order to give a little bit of background about the
9 School Boards Association, how it is organized and how
10 in the world you become president of it. So why don't
11 you do that first.

12 A. Yes. The School Boards Association is an
13 association of school boards in the State of Arizona.
14 It is a federal network as well. We have a membership
15 driven organization of approximately 250 of these school
16 boards in Arizona. Probably 98, 99 percent of all
17 school boards are members of our association.

18 We are a 501(c)(3) nonprofit membership driven
19 in which the membership really determines the policies
20 and practices and procedures and our agendas. There are
21 approximately 1200 school board members throughout the
22 state that are comprised of school boards of Arizona and
23 representing about 1.2 or 1.1 million students.

24 We as a membership driven organization, we have,
25 if you will, volunteer leadership including a board of

1 directors from each county of the state and an executive
2 committee consisting of officers in the organization.

3 And then we have an executive director and paid staff.

4 Q. So you yourself are a member of a school board?

5 A. That's correct. I am a member of the Chandler
6 Unified School District.

7 Q. How long have you been a member of the Chandler
8 Unified District governing board?

9 A. About six and a half years.

10 Q. And when were you -- and so the membership
11 elected you president of the Arizona School Boards
12 Association?

13 A. That's correct.

14 Q. And you are not paid to do that job?

15 A. No.

16 Q. And you are not paid to be a governing board
17 member for Chandler Unified?

18 A. No, I am not.

19 Q. Okay. Are you paid for anything?

20 A. Not anymore.

21 Q. All right. You are retired?

22 A. I am retired.

23 Q. What did you do before you were retired, before
24 you retired, Mr. Rice?

25 A. I worked as an Intel manager for 23 years.

1 Q. Now, you have filed written testimony on behalf
2 of the School Boards Association supporting this
3 settlement agreement in this matter, correct?

4 A. Yes, I have.

5 MR. HOGAN: And, Your Honor, we have had that
6 marked as ASBA No. 1.

7 Q. (BY MR. HOGAN) And, Mr. Rice, do you adopt the
8 written testimony that you filed in support of the
9 settlement agreement as your sworn testimony here today?

10 A. Yes, I do.

11 Q. I wonder if you could briefly describe for us
12 why ASBA supports the settlement agreement.

13 A. ASBA believes that in the best interest of our
14 schools and our districts, certainly to help reduce our
15 costs, be able to be put more money into the class. So
16 the maintenance and operations costs, utilities in
17 particular, are a significant factor in those costs.
18 And what we can do to help reduce that will help the
19 schools provide more money for the classroom.

20 My district, for example, last year utilities or
21 the electricity was just, itself, was 3 percent of our
22 entire budget of a little over \$200 million, about
23 \$5.7 million. So even a small portion of that can help
24 pay for another teacher in the classroom.

25 So ASBA then as a result has worked towards

1 trying to become -- help school districts become more
2 cost effective, cost efficient in those areas outside
3 the classroom and inside the classroom. And as a result
4 we feel the settlement provides some good incentives for
5 schools to be able to become more cost effective,
6 reducing their utility demand. And as a result of
7 the -- it has become a larger portion of our costs over
8 the past few years, so this is a way to help reduce and
9 control those costs for the school districts.

10 MR. HOGAN: Your Honor, I move the admission of
11 ASBA-1.

12 CALJ FARMER: ASBA-1 was prefiled and no
13 objections were received, so it would be admitted.

14 (Exhibit No. ASBA-1 was admitted into evidence.)

15 MR. HOGAN: Thank you.

16 Mr. Rice is available for cross-examination.

17 CALJ FARMER: Thank you. Do any of the
18 supporting parties have questions for the witness?
19 Mr. Robertson.

20

21

CROSS-EXAMINATION

22 BY MR. ROBERTSON:

23 Q. Good afternoon, Mr. Rice.

24 A. Good afternoon.

25 Q. In some of the prefiled testimony in this

1 proceeding that has been filed by the Arizona Public
2 Service Company, one of their witnesses, Barbara
3 Lockwood, makes the following statement. And I am going
4 to read this as background to a few questions I might
5 want to ask you. This appears at page 8 of
6 Ms. Lockwood's testimony filed in support of the
7 settlement agreement, line 16 through 19:

8 Quote, APS has worked with schools in the
9 development of renewable resources through school
10 participation in the company's renewable energy
11 incentive programs. As well, schools have been bid into
12 the RFP processes for distributed renewable projects,
13 close quote.

14 Have you personally in your work with the school
15 board associations and with the Chandler district had
16 any familiarity with any of the APS distributed
17 renewable energy programs from schools?

18 A. No, I have not.

19 Q. Okay. Have you had an opportunity to review
20 those portions of the settlement agreement that would
21 relate to new programs for distributed energy for
22 schools?

23 A. Yes, I have.

24 Q. Having you look directly at paragraph 15.5 of
25 the settlement agreement, is it your understanding or

1 your impression that the new program that that provision
2 contemplates for on-site solar energy, including
3 photovoltaic, solar water heating and daylighting at
4 grades K through 12 for public, including charter,
5 schools would represent a benefit for the schools in
6 APS' service territory?

7 A. Yes, I believe it would be a benefit for the
8 schools.

9 MR. ROBERTSON: Okay. I believe that's all I
10 have, Mr. Rice. Thank you.

11 CALJ FARMER: Ms. Pecora, do you have questions
12 for the witness?

13 MS. WYLLIE-PECORA: I do not.

14 CALJ FARMER: Any other parties?

15 (No response.)
16

17 EXAMINATION

18 BY CALJ FARMER:

19 Q. I have some questions for you, sir. And these
20 questions are coming from Commissioner Pierce. And I am
21 going to be reading them to you on his behalf.

22 In paragraph 15.5, which requires APS to
23 establish a new program for on-site solar energy for
24 schools, is that fair or unfair to residential
25 ratepayers?

1 A. I don't know if I am in a position to say
2 whether it is fair or unfair. I think the schools of
3 Arizona will benefit. And as the school system benefits
4 all Arizonans will benefit in one fashion or another, be
5 it through better cost containment for school budgets,
6 providing more teachers in the classroom. So I think it
7 is an overall benefit for all Arizonans. But it is, I
8 guess, a judgment as to whether certain parties benefit
9 more than others so I am really not able to make that
10 judgment.

11 Q. Would you agree that, because schools are assets
12 of the residential community, installing solar projects
13 on them is perhaps the best way to distribute the
14 benefits to the widest swath of residential ratepayers?

15 A. Well, I think it is an excellent way to do that.
16 I don't know if I would say it is the best way, not
17 being an expert in all the different models and
18 techniques. But I think it clearly is a very positive
19 way to benefit both the schools and the general
20 population in Arizona.

21 Q. Thank you. How will paragraph 15.5 impact
22 school budgets?

23 A. It will allow schools to take the monies that
24 they do receive and, with more flexibility, putting them
25 more closer into the classrooms, more flexibility if

1 they don't, if schools don't have to pay as much in
2 terms of fixed costs like utilities or other costs.

3 Over the past few years there have been some
4 legislation that the school districts have had to deal
5 with the excess utilities legislation, where the amount
6 that was reimbursed by the state for utilities was fixed
7 at a certain point despite the growth continuing.
8 Larger and larger portions of the M and O budget were
9 consumed by you have to pay for utilities. And the
10 school districts were not, have not in the past couple
11 years been reimbursed for the total costs so that the
12 money had to flow from areas in the classroom to paying
13 more utility costs.

14 To the extent that we can help reduce that
15 utility demand in terms of the costs makes the school
16 districts then a little less sensitive to, you know,
17 rates, various things, so that we will benefit the
18 schools in that way.

19 In just talking, for example, to the people and
20 the administrators within my district, asking them if
21 there is a program that would allow a five-year payback
22 for some of these projects, would they be interested in
23 that, and pretty much they would be very interested in
24 that. They looked at it in the past and they said that
25 the current payouts, payout, the current payback being,

1 you know, some people judge 10 to 15 to 20 years is too
2 long for them to invest, or maybe ask the community to
3 invest through a bond. But brought into more like a
4 five-year payout, it becomes more feasible and something
5 we find more districts wanting to do.

6 Q. Are you familiar with APS' proposal in a
7 separate docket to free up an additional \$20 million for
8 school projects by classifying school projects as
9 residential under the REST rules?

10 A. I am somewhat familiar with that, yes.

11 Q. How does APS' proposal in that docket interact
12 with the provisions of paragraph 15.5?

13 A. I don't know if I, if I am the best person to
14 answer that. I think the issue of whether there are,
15 would be constraints on school projects because of the
16 current structure of the system, I think the schools and
17 the districts', you know, primary interest is being able
18 to do the projects. I think having the money to be able
19 to do that, you know, is important. How that happens, I
20 don't know that that's a major part of ASBA's direction
21 other than to try to make it available for the schools
22 as much as possible.

23 Q. Commissioner Pierce says he assumes that since
24 those school projects will receive ARRA funding they
25 would qualify towards satisfying 50,000 megawatts annual

1 energy discussed in paragraph 5.5. Is that correct?

2 A. I am not familiar with the ARRA funding so I
3 couldn't, I couldn't say.

4 Q. Okay. Mr. Hogan filed a letter on your behalf
5 in that separate matter which stated ASBA and AASBO
6 generally support APS' request to shift on a
7 one-time-only basis any unused funds that had been
8 allocated for 2009 for residential distributed energy to
9 public school distributed energy projects.

10 Commissioner Pierce says that he was surprised
11 by your statement that you support APS' proposal on a
12 one-time-only basis. And he asks: Is it your position
13 then that if the same facts present themselves in 2010
14 and APS has an excess \$20 million in the residential
15 budget and there are schools that want to proceed with
16 solar projects but who are crowded out by other
17 commercial DG projects, is it your position then that
18 you wouldn't want the Commission to consider allowing
19 some of the unused residential money to be used for the
20 school projects?

21 A. I think it is -- it would be hard to say a year
22 from now what our position would be. I think that
23 clearly when we stated that we generally support making
24 the funds available through indicated means, you know,
25 with a desire to make as much funding available to the

1 schools as possible for these projects, there are
2 several ways to make that funding possible.

3 We think, you know, at this point generally
4 reclassifying some of the money to be able to be made
5 available to the schools is something we would recommend
6 for this first year. For the second year beyond that I
7 think clearly we stated in the document that that
8 statement really left it open to be able to look next
9 year as to what would be the best recourse.

10 Certainly I think we, we want to have as much
11 funding as possible for the schools. There are
12 different ways to do it and situations change. So we
13 would like to be flexible in determining what our
14 recommendation would be following next year.

15 Q. Okay. Do you have any idea of how widely known
16 APS' request to make an additional \$20 million available
17 for funding school projects in school districts across
18 the state, how, do you have an idea how widely known
19 that that request is?

20 A. No, I do not.

21 Q. Commissioner Pierce says that the Commission
22 hasn't heard, for example, from school districts in
23 Flagstaff, Yuma, Bisbee and Douglas about APS' proposal.
24 And he is concerned they haven't heard about it. Do you
25 know if they know about the APS proposal?

1 A. I don't know if those specific school districts
2 know about that proposal. I know my school district is
3 aware of the proposal, and others. I couldn't name
4 them, but just in discussions with my superintendent, I
5 know that there is some knowledge, but I couldn't, I
6 couldn't verify to what extent the knowledge is.

7 Q. With respect to whether the Commission should
8 affirmatively state that this is a one-time deal,
9 Commissioner Pierce is concerned that the Commission is
10 only hearing from schools who have projects in the queue
11 for 2009.

12 Would you agree that it is fairly easy for
13 schools with projects in the queue to be processed in
14 2009 to agree to a stipulation that a similar transfer
15 of unused residential money towards school projects
16 should never happen again in the future?

17 A. I was following all the way up to the end of
18 that question.

19 Q. I think that basically for schools who have
20 projects already in the queue, it is easy for them to
21 say never again.

22 A. I don't know that, I don't know their attitude
23 would be that we have ours and so we don't care too much
24 about the other school districts. I don't think that's
25 the general attitude.

1 I think certainly the districts that have
2 projects that are ready to go would like to be able to
3 do them as soon as possible and have funding available.
4 So whether that came through one avenue or another, I
5 couldn't speak for them to say whether they prefer one
6 solution or another other than they would prefer to get
7 the projects moving.

8 I don't think that they also -- I can't really
9 speak for them but I would doubt that they would have
10 any feeling that, you know, we will get our projects and
11 we don't care about the other school districts. That's
12 typically not the way that the board members operate
13 throughout the state typically for education in general
14 and not as, not as focused on just their own district.

15 Q. Do you believe that such a stipulation, and by
16 that I mean a stipulation that a similar transfer should
17 never happen again, would be fair to schools that either
18 do not know about APS' proposal or that decide to
19 participate in 2010 or sometime in the future?

20 A. I don't know, having -- I don't have the
21 document in front of me. I don't believe it said that
22 the ASBA document said that that transfer would never
23 happen again. I believe the recommendations were a
24 one-time transfer for the next year, but that I don't
25 believe it said, you know, that's it.

1 Q. So would you agree that it would be wiser for
2 the Commission to wait to see what happens in 2010
3 before deciding to lock itself into a position that the
4 2009 transfer of funds was a one-time deal?

5 A. Well, I think the Commission, I would assume
6 they have the flexibility to decide to make a one-time
7 transfer if they wanted to and then continue that if
8 they wish or take another path in terms of funding the
9 projects. So I don't know that they would -- I am
10 assuming that that wouldn't -- making a decision now
11 isn't going to prevent them from making another decision
12 or a similar decision in the future concerning the
13 funding.

14 Q. So you would agree that if the same situation
15 were to arise in 2010 APS and the Commission could
16 consider the option of transferring unused residential
17 money to school projects at that time?

18 A. Given all the different variables, I mean that
19 certainly could be another consideration, could be a
20 consideration, yes.

21 Q. Okay. And that concludes Commissioner Pierce's
22 questions.

23 I noted in your testimony that you said that in
24 the past your organization has been challenged by
25 Commissioners to become more involved in rate

1 proceedings to advance the interests of Arizona public
2 schools and their governing boards. And with that
3 participation in the settlement agreement, you feel like
4 you have done that?

5 A. Yes. We think this has been a very positive
6 step for us, our organization and the school districts
7 of Arizona, to be more involved in the process, to have
8 a voice of the districts, you know, at the table when we
9 are working on settlement, as opposed to afterwards and
10 just providing some expert testimony in that regard. So
11 we feel that this has been a positive move for our
12 school districts, yes.

13 CALJ FARMER: Thank you for your participation
14 in this case, too.

15 Are there any further questions for this
16 witness?

17 (No response.)

18 CALJ FARMER: Okay. Thank you, sir, for your
19 testimony today.

20 Why don't we take a 10-minute break here. Then
21 we will come back with the next witness, and we will
22 have some discussion about scheduling.

23 (A recess ensued from 2:50 p.m. to 3:07 p.m.)

24 CALJ FARMER: Let's go ahead and go back on the
25 record.

1 Mr. Hogan, are you ready to call your next
2 witness?

3 MR. HOGAN: Yes, Your Honor. Arizona School
4 Boards Association and the Arizona Association of School
5 Business Officials calls Chuck Essigs. I guess I should
6 say call, not calls.

7

8 CHUCK ESSIGS,
9 a witness herein, having been first duly sworn by the
10 Certified Reporter to speak the truth and nothing but
11 the truth, was examined and testified as follows:

12

13 DIRECT EXAMINATION

14 BY MR. HOGAN:

15 Q. Would you state your name for the record,
16 please.

17 A. My name is Chuck Essigs.

18 Q. And you are appearing here today on behalf of
19 both the Arizona School Boards Association and the
20 Arizona Association of School Business Officials,
21 correct?

22 A. That's correct.

23 Q. You are, you currently occupy a position with --
24 and I am going to say AASBO, the school business
25 officials organization, so I don't have to keep

1 repeating it -- you currently occupy a position with
2 AASBO, correct?

3 A. That's correct.

4 Q. What is your position?

5 A. Director of government relations.

6 Q. And how long have you been in that position?

7 A. A little over five years.

8 Q. And prior to occupying that position, what did
9 you do?

10 A. I worked for the Mesa Unified School District
11 for approximately 18 years as the assistant
12 superintendent for business services.

13 Q. And you even worked in the Arizona legislature
14 at some point, correct?

15 A. I actually worked for the Department of
16 Education and I was assigned over to the legislature for
17 about 18 months one time.

18 Q. On school finance matters?

19 A. That's correct.

20 Q. Now, you submitted testimony on behalf of both
21 ASBA and AASBO last December in connection with this
22 matter, right?

23 A. That's correct.

24 MR. HOGAN: And, Your Honor, we have had that
25 marked as AASBO No. 1.

1 Q. (BY MR. HOGAN) And then in January you also
2 submitted testimony on behalf of those two
3 organizations, correct?

4 A. That's correct.

5 MR. HOGAN: And, Your Honor, we have had that
6 marked as AASBO-2.

7 Q. (BY MR. HOGAN) And then finally, Mr. Essigs,
8 you submitted testimony last month in support of the
9 settlement agreement on behalf of AASBO, correct?

10 A. That's correct.

11 MR. HOGAN: And, Your Honor, we have had that
12 marked as Exhibit or AASBO-3.

13 Q. (BY MR. HOGAN) But as you are testifying now,
14 you are testifying on behalf of both organizations,
15 correct?

16 A. That's correct.

17 Q. And we already heard from Mr. Rice expressing
18 ASBA's support for the settlement agreement.

19 First of all, before I ask you about AASBO's
20 view of the settlement agreement, maybe you could tell
21 us a little bit about AASBO and give us a little bit of
22 background with that organization.

23 A. AASBO, the Arizona Association of School
24 Business Officials, represents people who work in school
25 districts and generally in noneducational positions,

1 directors of transportation, director of maintenance,
2 finance people, assistant superintendents over business
3 services.

4 And we provide training to our members to keep
5 them current on current trends in education, current
6 laws, current legal requirements. We hold a number of
7 conferences during the year, and then during the
8 legislative session we try to keep our members updated
9 on what legislation is being proposed and how it would
10 impact school districts.

11 Q. Okay. And maybe you could give us a brief
12 summary or just describe for us generally why AASBO
13 supports the settlement agreement with APS and the other
14 parties.

15 A. The first thing I would like to comment on is
16 that we were encouraged by the Corporation Commission
17 members over the last few years to become more active in
18 this process, because we did come to testify in a number
19 of cases about the big influence that utility costs have
20 on schools. So that's one of the reasons we intervened.

21 Basically, as was stated by board member Rice,
22 utilities -- schools, probably 85 percent or more of
23 their operating budgets are salaries and benefits. The
24 major component that districts have been struggling with
25 over the last few years outside of their salary and

1 benefit issues are utility costs. They have been going
2 up drastically.

3 This current year the legislature cut funding
4 for utility monies for school districts by about
5 \$80 million. So not only are schools facing the costs
6 of utility increases, they are facing loss of monies to
7 help pay for those utility costs. So it is very
8 important to the districts.

9 And what districts need and what we like about
10 in the agreement is that it gives some predictability.
11 School districts will know over the next few years, to
12 the 2011, 2012 school years, if the Commission approves
13 this proposal, what the utility rates will be, and then
14 also the measures that are, increased energy efficiency
15 measures and renewable energy resources, that are going
16 to be provided to schools to help them, again, better
17 manage their utility costs.

18 And the third major component that we support is
19 a new rate that is being proposed that would be
20 established for school districts that would give them
21 incentives to shift their power usage away from some
22 peak periods of time, either during the day or during
23 the school year, which again will help the districts
24 manage their utilities.

25 MR. HOGAN: I don't think I have any other

1 questions, Your Honor. I think that concludes
2 Mr. Essigs' testimony.

3 I move the admission of AASBO-1, 2 and 3.

4 CALJ FARMER: Okay. Those exhibits were
5 prefiled and no objections have been made, so AASBO-1,
6 2, and 3 are admitted.

7 (Exhibits Nos. AASBO-1, AASBO-2, and AASBO-3
8 were admitted into evidence.)

9 MR. HOGAN: And Mr. Essigs is available for
10 cross-examination.

11 CALJ FARMER: Thank you. Do any parties who are
12 in support of the settlement agreement have questions
13 for this witness?

14 MR. MUMAW: No, Your Honor.

15 CALJ FARMER: Mr. Mumaw.

16 MR. GRANT: You said no? Tom, you don't have
17 any?

18 MR. MUMAW: I do not.

19 CALJ FARMER: Okay.

20 MR. GRANT: Judge Farmer, I do, just a couple.

21 CALJ FARMER: Okay, Mr. Grant.

22

23 CROSS-EXAMINATION

24 BY MR. GRANT:

25 Q. Mr. Essigs, good to see you again.

1 A. Good to see you.

2 Q. Mike Grant on behalf of Arizona Investment
3 Council. And I just wanted to go to that third point
4 that you made because I have been wondering through
5 this, actually through the negotiations on the
6 agreement, would you agree with me that generally over,
7 I am not even sure what time period to give you here,
8 but let's say the last 10, 15 years that the school year
9 has been moving more and more into the summer months?

10 A. It has moved where school starts earlier for two
11 reasons. One is a few years ago the state increased the
12 number of school days from 175 to 180. And, secondly, a
13 number of school districts have gone to alternative
14 calendars where they have a longer break in the fall, a
15 longer break in the spring. Some have actually gone to
16 200-day school year. So, yes, they have had, in order
17 to do that, they have moved the year up where many of
18 them start early in August.

19 Q. And I just wondered -- well, you outlined two or
20 three of the reasons why that's part of the educational
21 mission. I guess what I am wondering about, I hope
22 obviously these additional rates work for schools, but
23 does it put your -- does your educational mission or the
24 reason why you are lengthening the school year sort of
25 put you at odds with the ability to take advantage of

1 peak rates along these lines?

2 A. No. I think what -- certainly there is that,
3 there is that debate that goes on, what is the best
4 thing positively in education for the students and then
5 what is the impact on the utility rates.

6 What we like as school districts with this
7 proposal is that it will give school districts some
8 incentives to maybe provide a balance to still
9 accomplish their education objective, but by the same
10 token maybe adjust the length of the school day and
11 maybe start school a little bit later and have different
12 break schedules to help with the peak demand. But then
13 also by doing that it will help manage their costs.

14 I think it is, it is a nice tool for districts.
15 It is probably the same thing that homeowners have, that
16 incentive.

17 Q. And if nothing else, I suppose, it would also
18 open up the opportunity for flexibility among schools
19 and among school districts to experiment with different
20 models and different usage patterns and different
21 attendance habits and see what is possible, wouldn't
22 that be correct?

23 A. That would be correct.

24 MR. GRANT: Okay. Mr. Essigs, thank you very
25 much.

1 THE WITNESS: Thank you.

2 CALJ FARMER: Any other parties?

3 Mr. Robertson.

4

5

CROSS-EXAMINATION

6 BY MR. ROBERTSON:

7 Q. Good afternoon, Mr. Essigs.

8 A. Good afternoon.

9 Q. In response to one of Mr. Hogan's questions you
10 were enumerating the various benefits that you see under
11 the settlement agreement and you referred to
12 predictability. And as I listened to that response and
13 your response to Mr. Grant's last question, that
14 predictability appears to be in relation to rates and
15 rate design in terms of predictability in managing your
16 energy cost, is that correct?

17 A. That's correct.

18 Q. Do you have a copy of the settlement agreement
19 in front of you?

20 A. Yes, I do.

21 Q. Would you turn to section 15.5, which appears on
22 page 33 of the settlement agreement.

23 A. I am there.

24 Q. Could you describe what the potential benefits
25 of that particular provision would be for schools and

1 school officials as you understand it.

2 A. Again, you referenced 15.5?

3 Q. That's correct, sir.

4 A. It would, by investing dollars in activities
5 that would make schools more energy efficient, again,
6 that would help them manage. The rates are one thing
7 they can't control, but they can have some control over
8 their usage of power. And this 15.5 would give
9 districts improvements to their cooling and heating
10 systems and make them more energy efficient, which again
11 would help hopefully reduce its requirements for the
12 amount of electricity and/or -- that they would have to
13 use.

14 Q. Which in turn would free up those dollars that
15 are available to the schools for other purposes as well,
16 is that correct?

17 A. It would allow some of those dollars that might
18 normally have to go into the electric costs for the
19 district to be included in their direct instructional
20 programs to students.

21 Q. So as I understand the thrust of your testimony,
22 you believe there are several aspects of this settlement
23 agreement that would be beneficial for schools within
24 APS' service areas, is that correct?

25 A. That's correct.

1 MR. ROBERTSON: Very good. Thank you, sir.

2 CALJ FARMER: Thank you.

3 Ms. Pecora, do you have questions for the
4 witness?

5 MS. WYLLIE-PECORA: I do, Your Honor, just one.

6

7

CROSS-EXAMINATION

8 BY MS. WYLLIE-PECORA:

9 Q. In the event that this settlement agreement is
10 approved, is it your responsibility or part of your job
11 description to get all this information out to every
12 school in the service area?

13 A. Part of the mission of our organization is
14 training for the business officials in the schools. So
15 we would hope that others would help us with that effort
16 but that certainly would be a major responsibility that
17 we would take on.

18 MS. WYLLIE-PECORA: Okay. Thank you.

19

20

EXAMINATION

21 BY CALJ FARMER:

22 Q. Okay. I have some questions to ask you on
23 behalf of Commissioner Pierce. And I believe you were
24 sitting in the room when I asked these questions
25 previously. So they may be familiar to you. I asked

1 them to Mr. Rice, too.

2 A. Okay.

3 Q. Is paragraph 15.5, which requires APS to
4 establish a new program for on-site solar energy for
5 schools, unfair to residential ratepayers?

6 A. I don't believe I am qualified to speak about
7 what is fair or unfair to residential ratepayers. But
8 from the perspective of school districts, 15.5 is
9 something that would be of value to the school districts
10 in the state.

11 Q. Because schools are assets of the residential
12 community -- let me start over again.

13 Would you agree that, because schools are assets
14 of the residential community, installing solar projects
15 on them is perhaps the best way to distribute the
16 benefits to the widest swath of residential ratepayers?

17 A. I would disagree that the schools are an asset
18 of just the residential community. I think they are an
19 asset to the state. A good state educational system is
20 better to compete. So since I don't buy into that
21 premise, I probably can't answer the question.

22 Q. Okay. How will paragraph 15.5 impact school
23 budgets?

24 A. 15.5, as I mentioned earlier, will allow more
25 efficiencies in their usage of electricity, therefore,

1 will allow them to program dollars that might have had
2 to have been used for normal electric costs into other
3 areas of their budget.

4 Q. Are you familiar with APS' proposal in a
5 separate docket to free up an additional \$20 million for
6 school projects by classifying school projects as
7 residential under the REST rules?

8 A. Yes, I am.

9 Q. How does APS' proposal in that docket interact
10 with the provisions of paragraph 15.5?

11 A. I viewed them as a separate way for school
12 districts to enhance their alternative generation
13 systems by being able to have some of the dollars that
14 were not being used currently for residential programs
15 to be reprogrammed into a solar projects for school
16 districts. But I look at them as separate issues.

17 Q. Okay. Commissioner Pierce says that he assumes
18 that since those school projects will receive ARRA
19 funding they would qualify towards satisfying the 50,000
20 mWh of annual energy discussed in paragraph 15.5. Is
21 that correct?

22 A. It hasn't been finalized yet, but the Arizona
23 school facilities board is administering, I believe,
24 approximately \$20 million of ARRA monies for energy
25 efficiency programs in schools. And it is of interest

1 that they have programmed about 25 percent of those
2 dollars to be used for solar projects in small schools
3 in small school districts. So many of the school
4 districts that are in the APS coverage area would not be
5 eligible for those dollars because they are larger
6 districts with multiple schools.

7 So there will probably be some availability to
8 those ARRA monies but for most of the students who are
9 in the larger school districts the solar projects that
10 will be funded with the ARRA money will not be available
11 to those school districts.

12 Q. Mr. Hogan filed a letter in your behalf in that
13 separate matter which stated ASBA and AASBO generally
14 support APS' request to shift on a one-time-only basis
15 any unused funds that had been allocated for 2009 for
16 residential distributed energy to public school
17 distributed energy projects. Commissioner Pierce was
18 surprised by that statement that you support APS'
19 proposal on a one-time-only basis.

20 Is it your position then that if the same facts
21 present themselves in 2010 and APS has an excess
22 \$20 million in the residential budget and there are
23 schools that want to proceed with solar projects but who
24 are crowded out by other commercial DG projects that --
25 would it be your position that you wouldn't want the

1 Commission to consider allowing some of the unused
2 residential money to be used for school projects?

3 A. These are all complicated recommendations and it
4 is hard enough with available facts to analyze those.
5 So what we, what we are supporting at this point in
6 time, there are a number of school districts that have
7 identified projects, from what we are being told there
8 are dollars available that will not be used in the
9 residential area that could be used to fund those
10 projects. I would hope that in future years the
11 Corporation Commission would look at whatever the facts
12 are at that particular time, and we would do the same in
13 terms of determining what our recommendation might be.

14 Q. Okay. Do you have an idea of how widely known
15 APS' request is to make the additional \$20 million
16 available for funding school projects in school
17 districts across the state?

18 A. I have not surveyed or made any kind of a call
19 to school districts around the state. So I can't
20 testify to how much information districts may or may not
21 have.

22 Q. For example, Commissioner Pierce says the
23 Commission hasn't heard from schools in Flagstaff, Yuma,
24 Bisbee and Douglas about APS' proposal and he is
25 concerned that they haven't heard about it. Do you know

1 whether they know about APS' proposal?

2 A. I do not know which districts may or may not
3 know.

4 Q. With respect to whether the Commission should
5 affirmatively state that this is a one-time deal,
6 Commissioner Pierce is concerned that the Commission is
7 only hearing from schools who have projects in the queue
8 for 2009.

9 Would you agree that it is fairly easy for
10 schools with projects in the queue for 2009 to agree to
11 a stipulation that a similar transfer of unused
12 residential money towards school projects should never
13 happen again in the future?

14 A. Our testimony in our response was not to say
15 that that would never happen in the future. Again,
16 depending what facts might be in the future, it should
17 be looked at the facts at that time rather than
18 committing to never -- to continue to do something only
19 a certain way. I would think that you look at the
20 available facts and make a determination.

21 Q. So you would agree that it may not be fair for a
22 stipulation to that effect, because there may be schools
23 that don't know about the proposal or that decide to
24 participate in 2010 or some other time?

25 A. Since I don't know which, what districts know

1 and what they don't know. But, again, our testimony was
2 not that this would never happen again. There are a
3 number of districts that have projects and are ready to
4 go. And the districts that I have talked to about that
5 don't believe that they are shutting out other school
6 districts in the future in that availability. We are
7 just saying we have a project ready to go and we know
8 there are dollars available.

9 Q. So would you agree it would be wise for the
10 Commission to wait and see what happens in the 2010
11 before deciding to lock itself into a position that the
12 2009 transfer was a one-time deal?

13 A. I would probably leave that decision and that
14 consideration to the Commission members.

15 Q. So you agree if the same situation was to arise
16 in 2010 that exists today, the Commission and APS should
17 consider the option of transferring unused residential
18 money to school projects?

19 A. No. I would think that the Commission members
20 should look at the facts at that point in time and
21 decide what they think is best for school districts and
22 best for the state.

23 CALJ FARMER: That concludes Commissioner
24 Pierce's questions for you. I will see if I have any.

25 Okay. I don't think I do. Let me ask if there

1 is any redirect or additional questions for this
2 witness.

3 MR. HOGAN: No.

4 CALJ FARMER: All right.

5 MR. MUMAW: Nothing, Your Honor.

6 CALJ FARMER: Hearing none, thank you, sir, for
7 your testimony.

8 THE WITNESS: Thanks for the opportunity.

9 CALJ FARMER: Okay. That concludes the
10 witnesses. Let's go off the record and talk about
11 scheduling.

12 (An off-the-record discussion ensued.)

13 CALJ FARMER: Let's go back on the record. And
14 let the record reflect we have had a discussion
15 concerning scheduling and we have come up with some
16 dates certain for certain witnesses.

17 We are going to resume on September 10th with
18 Staff witness Radigan; APS witnesses Lockwood, Wontor
19 and Rumolo, who may extend over into the 11th. Date
20 certain for Ralph Smith for Staff is Friday,
21 September 11th.

22 Going to the 14th, we are going to begin at 9:00
23 with Ms. Pecora's witness Miller. Then we will go to
24 Staff's witness Lewis. And Staff has requested
25 telephonic testimony of that witness.

1 Does any party object to that?

2 THE GRANT: None.

3 MR. CROCKETT: None.

4 CALJ FARMER: Okay. Staff will make
5 arrangements. He will have to kind of be on standby,
6 depending how long Mr. Miller's testimony lasts.

7 And then after Lewis, we will go to RUCO's
8 witness Johnson and possibly RUCO's witness Ms. Jerich.
9 And date certain on the 18th of September for APS
10 witness Hatfield.

11 So one of the parties is going to check on the
12 availability of Ms. Zwick. And AIC's witness Yacquinto
13 will be either the 14th or the 15th, depending on how
14 scheduling, how we follow our schedule.

15 MR. GRANT: 14th or 18th?

16 CALJ FARMER: 18th, I am sorry, yes, 14th or
17 18th.

18 Okay. Is there anything else we need to put on
19 the record today?

20 (No response.)

21 CALJ FARMER: All right. We are scheduled to
22 resume on September 10th at 9:00 a.m. And I would
23 advise all the parties to monitor the Commission's open
24 meeting that's held on September 9th in case there is a
25 spill over onto the 10th.

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All right. See you then. Thank you.
(The hearing recessed at 3:48 p.m.)

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1 STATE OF ARIZONA)
) ss.
2 COUNTY OF MARICOPA)

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We, COLETTE E. ROSS, Certified Reporter No.
50658, and MICHELE E. BALMER, Certified Reporter No.
50489, for the State of Arizona, do hereby certify that
the foregoing printed pages constitute a full, true and
accurate transcript of the proceedings had in the
foregoing matter, all done to the best of my skill and
ability.

WITNESS my hand this 28th day of August, 2009.



COLETTE E. ROSS
Certified Reporter
Certificate No. 50658



MICHELE E. BALMER
Certified Reporter
Certificate No. 50489