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BEFORE THE ARIZONA CORPORATION COMMISSION

SUMMER 2009 ENERGY PREPAREDNESS ) DOCKET NO.  
 ) E-00000F-07-0199  
 ) **SPECIAL OPEN MEETING**

RECEIVED  
2009 APR - 8 1 A 9:54  
AZ CORP COMMISSION  
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At: Phoenix, Arizona

Date: March 24, 2009

Filed: **APR 08 2009**

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Arizona Corporation Commission  
**DOCKETED**

APR - 8 2009

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**ARIZONA REPORTING SERVICES, INC.**

Court Reporting  
Suite 502  
2200 North Central Avenue  
Phoenix, Arizona 85004-1481

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1                   BE IT REMEMBERED that a Special Open Meeting  
2 was held at the Arizona Corporation Commission, 1200 West  
3 Washington, Phoenix, Arizona, commencing at 10:00 a.m. on  
4 the 24th day of March, 2009.

5

6 BEFORE:           KRISTIN K. MAYES, Chairman  
                  GARY PIERCE, Commissioner  
7                   SANDRA D. KENNEDY, Commissioner

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Certified Reporter  
Certificate No. 50489

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1 CHMN. MAYES: Let's go ahead and get underway.  
2 This is the 2009 Summer Preparedness Meeting, with a bit  
3 of an addendum. We're also going to discuss with our  
4 utilities this year efforts that they are making to pull  
5 down federal stimulus money for the state of Arizona and  
6 for our consumers, and what steps this Commission needs to  
7 take to help make sure that that happens.

8 So I see that -- a couple of quick housekeeping  
9 items. Unfortunately, like the Winter Preparedness  
10 Meeting, we did not receive these briefings, with the  
11 exception of SRP, ahead of time. So, you know, in all of  
12 the six years prior to this, we have received these a  
13 couple of days in advance so that the Commissioners could  
14 look at them, and it would be very helpful to this  
15 Commissioner if we could stay on that pattern so that the  
16 Commissioners can be prepared before we come in here. I  
17 don't know why the utilities seem to have decided to stop  
18 honoring that, but if you could do that in the future.

19 And then we have very, very thick presentations  
20 from the utilities, which I certainly appreciate. I  
21 appreciate the thoroughness. But we have a lot to talk  
22 about today, including the federal stimulus piece, which  
23 is, I think, of paramount interest to the Commissioners  
24 this year and right now. So if we could try to move  
25 through the presentations with thoroughness but also

1 expeditiously, that would be great.

2 Commissioner Pierce.

3 COM. PIERCE: Sure. I wanted to apologize for  
4 being a little late. As you know, I was over speaking  
5 with the president and the speaker, and we did talk about  
6 the utility revolving fund. And I would encourage those  
7 who want to educate legislators on just, in fact, when  
8 that's raided, that's essentially a tax on ratepayers  
9 because they're getting nothing now for it in that user  
10 fee, so to speak. So I -- and the speaker understands  
11 that. He says, I appreciate that we wouldn't push that  
12 legally and try to make that a Prop 108, for those who  
13 understand what that is, which would take a two-thirds  
14 vote of them to actually sweep that fund.

15 But he became real aware of it. I was there  
16 speaking on budget with them and others, and I'll be doing  
17 that later this afternoon, so expeditiously is good.  
18 Thank you, Madam Chair.

19 CHMN. MAYES: And I will be joining you for some  
20 of those meetings.

21 Why don't we go ahead and start with APS, and  
22 then I assume we'll move to either SRP or TEP, but go  
23 ahead.

24 MR. SMITH: Okay. Chairman Mayes, Commissioners,  
25 thank you very much. I am Bob Smith, the Director of

1 Energy Delivery, Asset Management and Planning at APS. To  
2 my right is Mr. Tom Carlson, the Director of Fuels, and to  
3 his right is Tom Glock, Director of Operations, and then I  
4 think you all know Jeff Guldner.

5 First of all, thank you for giving us the  
6 opportunity to come and share with you the preparations  
7 that APS has made for summer operations for being able to  
8 reliably serve our customers' load this summer. It's  
9 always a challenging season for APS with the heat of the  
10 summer.

11 I was told the right arrow advances the screen.  
12 CHMN. MAYES: Did you not get a clicker? There  
13 you go.

14 MR. SMITH: Here we go. Okay.

15 I will be covering the system improvements that  
16 we've made to the APS system and our planned maintenance  
17 activities and the emergency preparedness. Mr. Carlson  
18 will be covering the fuel and purchased power, and Tom  
19 Glock will cover loads and resources, the transmission  
20 system adequacy for the summer contingency planning, and  
21 then I'll give you some brief conclusions.

22 A little bit on my background. I have a master's  
23 degree in electrical engineering from New Mexico State  
24 University. I am a registered professional engineer in the  
25 state of Arizona. I've spent 23 years in the electrical

1 power industry, all with APS, and in the areas of  
2 planning, operations, and maintenance.

3           Currently, as the director of asset management  
4 and planning, I'm responsible for the health and  
5 reliability of all APS's existing assets and future assets  
6 from our plans. And I'm also responsible for all of the  
7 wires planning, both the high voltage transmission  
8 planning and the distribution planning.

9           Okay. I'm sure you have all seen this slide.  
10 This is a picture of the APS service territory. The  
11 yellow is the areas within the state that APS serves:  
12 11 counties, about 35,000 square miles in our CC&N area,  
13 roughly 1.1 million customers, 411 substations, around  
14 28,000 distribution line miles, a little over 5,000  
15 transmission line miles, and that's 69,000 or 69kV and  
16 above, and 54 generation units.

17           What I want to do here is walk through a very  
18 simplified general schematic of a power system so you get  
19 a feel for the elements of the power system. And Chairman  
20 Mayes, based on your comment earlier, if you would like us  
21 to move faster at any time, please just indicate.

22           This example is from what we refer to as a base  
23 load generator, one of the large base load units, and you  
24 see an example of that. Then, the transmission system  
25 from a remote power plant is a very, very high voltage,

1 500,000 or 500kV, or 345kV. That high voltage allows us  
2 to transmit more power more efficiently and results in  
3 lower losses. Typically, we'll use these voltages for  
4 lines 50 to 100, 200 miles from the remote stations to the  
5 load centers.

6           Then you have a bulk power station that  
7 transforms the power from the extra high voltage down to  
8 the local transmission voltage of 230,000 volts. This is  
9 an example of a bulk power substation out in the northwest  
10 part of the Valley, Westwing. Then, the internal 230  
11 within the Valley, you can see double circuit 230kV with  
12 subtransmission underbuild. The typical transmission  
13 substation, the 230 transformers to the 69kV, and then the  
14 local subtransmission or 69kV circuits. And finally, the  
15 distribution circuits.

16           One thing I would like to point out, and this is  
17 an example of a padmount transformer for the  
18 distribution -- the actual service transformer. All of  
19 the network from the distribution substation on up to the  
20 higher voltage and the power plants are what we call  
21 networks, so there's more than one source into any  
22 one piece of equipment. So if you lose a piece of  
23 equipment in the power reroutes, then the customers don't  
24 see any issues.

25           A lot of the system on the distribution is what

1 we refer to as a radial or single source. So if you have  
2 a problem on the distribution system out to the customers,  
3 you need to find a different source of power or fix the  
4 problem to get those customers back in service. The more  
5 important loads, hospitals, buildings downtown, office  
6 buildings, we do have networks on the distribution system.

7           The additions to the system this year you can see  
8 in the 2009 column, and also what we actually added in  
9 2008. Distribution substation MVA, 717 last year, and  
10 we'll be adding 119 MVA this year. To give you some idea  
11 of the size, 717 MVA would roughly be one of the Navajo  
12 power plants, or would power on the order of 170- to  
13 180,000 homes.

14           The transmission substation MVA added last year  
15 was 5,000 -- or I'm sorry -- 508 MVA, and this year we're  
16 adding 854 MVA. And I'll show you a slide of where that  
17 is located in just a minute.

18           Transmission line miles new -- and these were all  
19 69kV additions -- last year 17 miles, and this year we're  
20 adding 52 miles. Most of that is associated with some new  
21 substations that you'll see on a future slide. And we  
22 rebuilt 10 miles of subtransmission lines last year, and  
23 have 42 miles in the plan this year.

24           CHMN. MAYES: Mr. Smith, the decline in the  
25 distribution lines would probably be the result of a

1 decline in growth in Arizona?

2 MR. SMITH: That is true, yes. We have deferred  
3 several of those projects from last year to this year, and  
4 so some of this year's projects were deferred to 2010.  
5 Just a decline in the load growth.

6 CHMN. MAYES: Okay.

7 MR. SMITH: I want to run through our existing  
8 transmission system. And this is a schematic of the  
9 transmission lines that APS either owns or operates, or  
10 lines that are in paths of a combination of lines we own  
11 or operate. The red is the highest voltage, the 500kV,  
12 the green is the 345kV, the blue is the 230kV, and then  
13 the black is the 115.

14 So you can see that the 500 and 345 are the  
15 longer distance lines throughout the state. We do have a  
16 230 system here in the Valley that's not shown here, and  
17 then a 230 system up in the northern part of Arizona and  
18 then southern Arizona.

19 A little bit of history and background on the  
20 transmission system. In the late '60s and early '70s, the  
21 Four Corners and Cholla power plants were built and the  
22 associated transmission lines for those power plants, a  
23 500 line that goes from the Four Corners area over into  
24 California for Edison's share of Four Corners, and then  
25 the 345kV system into the Phoenix area for APS's share of

1 Four Corners and Cholla, and then later a 500 line down  
2 into southern Arizona as additional units were built at  
3 the Cholla power plant.

4 Later, in the late '70s, the Navajo power plant  
5 went into service with the associated transmission into  
6 southern Nevada and then down into the Westwing  
7 substation. There are two 500kV lines that go from Navajo  
8 into Westwing.

9 Later, in the '80s, Palo Verde was built. And  
10 then in 2000-2001, approximately 6,000 megawatts of  
11 combined cycle gas-fired generation developed out near the  
12 Palo Verde Hub. And the associated transmission system  
13 with that generation are four lines into the Valley area,  
14 two 500kV lines from Palo Verde to Westwing, the 500kV  
15 line going into Kyrene, and more recently in 2002, I  
16 believe, we built the line into Rudd. And then there were  
17 two lines that go west into California, the Devers line,  
18 and the line that stops in Yuma that provides a lot of the  
19 service in the Yuma area, North Gila, and then goes on  
20 into southern California, eventually into the San Diego  
21 area.

22 CHMN. MAYES: Mr. Smith, could we talk about the  
23 North Gila-2 line? I know that APS had planned to build a  
24 second North Gila line but has pushed that off as part of  
25 the pushoff of your capital expenditures. And I'm

1 concerned about that decision because it seems to me it  
2 could delay or stunt the growth of solar energy,  
3 large-scale solar energy projects in Arizona, because some  
4 of those projects could either hook into the North Gila  
5 line or hook into a potential Devers line.

6 As you know, we haven't resolved the Devers  
7 issue, but that North Gila line seemed to me held a lot of  
8 promise for delivering renewable energy both to Phoenix  
9 and to California. So can you speak to that?

10 MR. SMITH: Yes, Chairman Mayes, Commissioners.  
11 We do look at that line as a potential to deliver  
12 renewable energy back into the Phoenix area for APS. And  
13 even though we have deferred the line two years because we  
14 don't need the line for the load growth in Yuma like we  
15 were originally using the line for, we still look at that  
16 line as an important part of our future and an important  
17 way to access renewables.

18 If you recall, we have partners in that line:  
19 SRP, IID, as well as Mohawk Irrigation District. And we  
20 will certainly, at each meeting that we have several times  
21 a year on an annual basis, reevaluate the proper timing  
22 for that line. And one of the things that we'll be doing  
23 is watching the development of the renewable market.

24 CHMN. MAYES: Okay. Well, that gets us into the  
25 chicken-and-egg problem, of course. But is that being

1 looked at -- and Mr. Guldner, feel free to jump in here at  
2 any point. But is that being looked at as part of our BTA  
3 Renewable Energy Transmission Task Force efforts? Is the  
4 RTTF task force that we set up here at the Commission  
5 looking at the North Gila Line 2 as a possible line that  
6 could be identified by APS as one of its three top  
7 renewable energy lines?

8 MR. SMITH: Chairman Mayes, Commissioners, yes, I  
9 believe it is. One of the other things I might point  
10 out -- and this might address some of your chicken-and-egg  
11 dilemma -- is even though we're deferring the in-service  
12 date of the line, we did get the permit for the line, and  
13 we are pursuing not only the individual permits needed  
14 with the various entities, but also procurement of the  
15 right-of-way.

16 And I think that's probably an important thing  
17 that we need to consider doing in the future in these  
18 transmission projects to facilitate the development of  
19 renewables, because a lot of the issue, especially when it  
20 takes long distance transmission to access renewables, you  
21 can have a six- to eight-year transmission project,  
22 whereas the renewable may be able to develop in, say, a  
23 two-year time frame. But most of that eight years is  
24 getting the permit, the land, procuring the rights-of-way.  
25 You can build a lot in two years.

1           So that's where we're strategically trying to  
2 position ourselves is so, for whatever reason we decide to  
3 advance the line back into an earlier date, we can get  
4 there by already having the permit and the rights-of-ways.

5           CHMN. MAYES: Okay. Because it seems to me --  
6 and, Mr. Guldner, last question on this issue. But it  
7 seems to me, unlike other renewable energy transmission  
8 lines, this one has not only access to renewables, but  
9 also base load power. And so it would seem to me that  
10 would make it even more economical for a utility company  
11 and its customers.

12           MR. GULDNER: Chairman Mayes and Commissioners,  
13 I'll mention as we talk through some of the smart grid  
14 funding, there's some potential opportunities here also  
15 that we're exploring.

16           One thing maybe to point out in supplementing  
17 those remarks is that we have got an existing transmission  
18 line out there that's subject to interconnection, and we  
19 have some interconnection requests on that.

20           CHMN. MAYES: Is that space? Is that ATC?

21           MR. GULDNER: Depending on how the interconnection  
22 works, you could -- if you had a party I think that was --  
23 and, Bob, you have to help me on this -- but if you have a  
24 party who is interconnecting that, primarily the flows on  
25 that line are from Palo Verde into California. And if you

1 had somebody who wanted to interconnect and deliver energy  
2 back at Palo Verde, I think there's probably something  
3 that you could do on the system to accommodate that.

4 MR. SMITH: Yeah, there's some ATC from the  
5 western part of the state into the Palo Verde Hub. The  
6 issue, I think, would be, for an Arizona entity that  
7 wanted to build that, is capacity on into Phoenix from  
8 Palo Verde.

9 MR. GULDNER: Yeah.

10 CHMN. MAYES: Oh, I see.

11 MR. SMITH: You have to continue to develop the  
12 Palo Verde east path.

13 CHMN. MAYES: And is there ATC into California on  
14 that line?

15 MR. SMITH: California works in more of an hourly  
16 market, so they don't really sell firm transmission on a  
17 long-term basis. Now, whether that --

18 CHMN. MAYES: Is that a no?

19 MR. SMITH: You know, I think what it is is if  
20 you're willing to pay enough money to get rights to sell  
21 it into California, you can, but you don't know what that  
22 is going to cost.

23 CHMN. MAYES: Another reason why we don't want  
24 CAL-ISO controlling our power lines. But anyway, that's  
25 another issue.

1           MR. GULDNER: Chairman Mayes, just to clarify  
2 that, too, I think San Diego there was a -- San Diego is  
3 one of the participants in that line. As they designate  
4 the resources that serve their system, it's possible, if  
5 they got a renewable resource on the line, they could  
6 essentially sell off or do something else with the  
7 resource at Palo Verde, and then take delivery of the  
8 renewable energy on the transmission that they were  
9 previously using to deliver Palo Verde or other Arizona  
10 resources. So there are ways, if you're trying to get  
11 that energy into California, somebody could probably do  
12 it.

13           CHMN. MAYES: All right. Thank you. Sorry for  
14 the interruption.

15           MR. SMITH: The last transmission line I wanted  
16 to mention here is the Mead/Phoenix line. And the  
17 interesting thing about this line -- it was developed in  
18 the late '90s -- is it really wasn't affiliated with any  
19 specific base load resource. So it was looked at as a  
20 marketing opportunity to move energy back and forth  
21 between southern Nevada and the central Arizona area.

22           These are the major transmission additions that  
23 we will put in service for 2009. The Sugarloaf substation  
24 is a 500 to 69kV transformation, and it will be  
25 interconnected into the existing Coronado to Cholla 500kV

1 line, which is operated by Salt River Project. And then  
2 there will be a number of 69kV lines that will be built  
3 out of this new substation to reinforce the existing 69kV  
4 transmission that APS has from Cholla into the Snowflake/  
5 Show Low area. So this is basically to reinforce  
6 continuing load growth in Show Low and Snowflake, and it  
7 will also facilitate some wind and biomass generation. So  
8 this interconnection was included in the interconnection  
9 studies for that renewable generation. The transformer  
10 will have a capacity of 240 MVA.

11           The second project is the Dugas 500 to 69kV  
12 project, and it will be a reinforcement for the Verde  
13 Valley area. And it's a very similar project in that  
14 we'll be interconnected into one of the existing Navajo  
15 lines, so a 500kV line. We'll have a 500 to 230 -- or a  
16 69kV transformer, and we will build some new  
17 subtransmission lines into the existing subtransmission  
18 network in the Verde Valley area. And again, this is for  
19 local load growth in that area.

20           And then, finally, in the southern part of  
21 Arizona, to reinforce the system around Casa Grande, we're  
22 going to build a new Milligan 230 to 69kV substation. The  
23 transformer there will be rated 188 MVA, and that will be  
24 serving some increased load growth in that area.

25           As far as our planned reliability activities, I

1 think you saw a similar pie chart last year of the  
2 percentage of our generation fleet that has gone through a  
3 scheduled maintenance cycle in the past year, and then the  
4 rest of that will be in future cycles. All the generation  
5 goes through maintenance at least once every three years.

6 As far as the transmission and distribution  
7 maintenance and monitoring, we continue to assess and  
8 replace the bushings, which are the insulators where the  
9 connections come into both transformers and circuit  
10 breakers. There's a specific type of bushing that we've  
11 been replacing over time. We also do a lot of proactive  
12 testing of this equipment to determine the health of these  
13 bushings, and have found a lot of bad bushings that we  
14 replaced before it actually failed.

15 This is part of our continuing maintenance  
16 optimization project whereby we do testing and scheduled  
17 maintenance in advance, and we're able to target our  
18 spending on the maintenance more proactively as opposed to  
19 having to repair equipment once it's failed.

20 Online monitoring, we currently have 132 of the  
21 dissolved gas in oil monitors that we're going to be  
22 installing 20 more this year.

23 The TOAN analysis software allows the realtime  
24 information to be brought in from the field, from the  
25 transformers out in the field, and the software will go

1 through some algorithms to determine if there's an issue  
2 that needs to be addressed near term.

3 And finally, our annual line inspections, all of  
4 the lines on the system undergo safety inspections on an  
5 annual basis. And we're currently 40 percent complete  
6 with that work.

7 Vegetation management, we continue to focus our  
8 vegetation management to provide safe, reliable power, and  
9 in doing so to also reduce the wildfire risk. So we  
10 believe these things go hand in hand.

11 As far as wildfire planning, we take part in the  
12 Wildfire Academy in Prescott. We have ongoing  
13 relationships, which we continue to maintain and improve  
14 with the Forest Service, and we're continually monitoring  
15 the conditions. We have onsite incident command presence  
16 when there are fires.

17 As far as the transmission corridor clearing,  
18 last year, in 2008, we completed 441 miles of corridors of  
19 transmission 115kV and above, and this year the remainder  
20 of our EHV lines are scheduled for completion.

21 Our subtransmission and distribution vegetation  
22 management is on track. And one of the things that we  
23 have added over the last year is what we refer to as our  
24 GIS Lidar project. And it is a technology that allows a  
25 helicopter, with some very sophisticated cameras and laser

1 equipment, to actually do a survey of a right-of-way, and  
2 it's really accomplishing three things. It's determining  
3 the clearance of the line from vegetation, or anything  
4 else for that matter. It's allowing us to get a good  
5 visual inventory of our equipment through very, very high  
6 resolution photography. And it also allows us through the  
7 global positioning system in the helicopter to add the  
8 equipment into a geographical information system database,  
9 or GIS database, if you will.

10 CHMN. MAYES: Mr. Smith, if I could stop you  
11 here. When did you acquire Lidar? I mean, it's a -- it  
12 seems like a very helpful tool, and one that might have  
13 been used by APS, for instance, to prevent the need for  
14 the destruction of thousands of saguaros along its Navajo  
15 power line, which apparently occurred and which I, as you  
16 know, have been very concerned about and upset about. I  
17 think other Commissioners are not happy about that  
18 situation and would like to see it changed. You have  
19 changed or are looking at changing your policy, as I  
20 understand.

21 But when did you acquire this laser radar system?  
22 And if you acquired it, as I understand last year, why  
23 wasn't it used to prevent the need for the destruction of  
24 those saguaros?

25 MR. SMITH: The Lidar actually is a contract that

1 we have with an outside vendor that has the helicopter  
2 that we underwent a pilot project with during 2008. Most  
3 of the flying was performed, I believe, in the last six  
4 months of the year.

5 CHMN. MAYES: Of 2008?

6 MR. SMITH: Of 2008, correct.

7 CHMN. MAYES: Before you destroyed the saguaros?

8 MR. SMITH: It was in 2008, correct.

9 CHMN. MAYES: I mean, when did you start mulching  
10 the saguaros along your Navajo line?

11 MR. SMITH: We have been clearing the right-of-  
12 ways of our transmission lines for several years now. On  
13 the Navajo corridor -- well, all of our corridors, we put  
14 together a corridor management plan with all of the  
15 agencies involved, the Forest Services, the landowners,  
16 the land managers, the communities. And we have been  
17 doing that for a number of years in my understanding.

18 And we did -- when we -- go ahead.

19 CHMN. MAYES: When did you -- just when did you  
20 start clearing, which is, frankly, a nice word for what  
21 you actually did, which was to destroy the saguaros.

22 When did you start clearing the Navajo line?  
23 What month in 2008?

24 MR. SMITH: I don't know exactly what month we  
25 started clearing.

1 CHMN. MAYES: Okay. We're going to stop until we  
2 get that answer. Mr. Froetscher.

3 MR. FROETSCHER: Good morning, Chairman. Dan  
4 Froetscher, energy delivery.

5 I'm not sure I really want to address this issue,  
6 but the corridor management plan on the Navajo to Westwing  
7 500 line was completed in October of '08, and our work  
8 began shortly thereafter.

9 CHMN. MAYES: Okay. When did you have Lidar in  
10 your hands?

11 MR. FROETSCHER: Lidar, as Mr. Smith indicated,  
12 we, from a piloting standpoint, had that technology in  
13 place prior to October of '08. We were experimenting with  
14 it.

15 There's a couple of phases to Lidar technology.  
16 You fly, you acquire the data, and then the data then has  
17 to be manipulated, managed, sorted, filtered, those kinds  
18 of things, which is not a short process. It's not as  
19 though immediately after flight you have the results.

20 When the issue surrounding our work with saguaros  
21 surfaced, in part because of the attention that you gave  
22 us on it, we took that flight data for that line -- the  
23 flight had already occurred -- and asked our vendor to  
24 expedite the processing of that data so that we could get  
25 the saguaro results for the last 15 miles of line that

1 Mr. Guldner and I visited with you on a couple of weeks  
2 ago.

3 CHMN. MAYES: Why didn't anybody at the company  
4 think that it would be a good idea to use that data to  
5 prevent the need for the mulching of thousands of saguaros  
6 along that power line?

7 MR. FROETSCHER: Commissioner, I don't have an  
8 answer for that that will resonate very well, other than  
9 to tell you that the October 2008 corridor plan was the  
10 result of six, eight, nine months of work from our  
11 vegetation management folks with the various state and  
12 federal agencies along the line route.

13 And while that group knew -- meaning our  
14 vegetation management group -- knew Lidar technology was  
15 being introduced and piloted, they at the same time in  
16 parallel had been working with those agencies and those  
17 landowner groups on the corridor management plan with a  
18 more typical clear-cut approach to that particular  
19 corridor.

20 CHMN. MAYES: Did the company intend to use Lidar  
21 for the purposes for which it's now being used after the  
22 U2 video came to light and several Commissioners expressed  
23 their concern?

24 MR. FROETSCHER: It was the company's intent with  
25 the successful proving of Lidar technology to use it for

1 the three areas that Bob Smith mentioned: Establishing  
2 clearances between vegetation and other obstacles to our  
3 power lines; to provide photography of towers and  
4 structures from a line control standpoint; and to document  
5 from a GPS standpoint the location of all of our towers.

6 CHMN. MAYES: So the answer is not necessarily so.

7 MR. FROETSCHER: No. The answer is, is once we  
8 were convinced that Lidar would deliver as promised, that  
9 we would use it for those three main areas of our  
10 business.

11 CHMN. MAYES: To prevent the need to destroy all  
12 of those saguaros?

13 MR. FROETSCHER: Yes, Chairman.

14 CHMN. MAYES: And then, Dan, I appreciate your  
15 candor. Maybe it's because you're from -- you spent so  
16 much time in Prescott. But I appreciate your candor.

17 MR. FROETSCHER: I appreciate that, although this  
18 is painful.

19 CHMN. MAYES: I know, but necessary. Painful but  
20 necessary. And I do want to put all of the utilities on  
21 notice that I'm going to ask them about their saguaro  
22 policies, because I understand there's some differences.

23 So it's my understanding -- I obtained the  
24 document that SRP presented to their board a couple of  
25 weeks ago on their saguaro management policies, and it's

1 my understanding that SRP doesn't destroy saguaros. They  
2 top them or they chop their arms off. That doesn't seem  
3 very sensitive either, but perhaps it could be better than  
4 destroying them entirely. So I guess I'm trying to  
5 understand the difference between these two utilities'  
6 policies with regard to saguaros. SRP says they have  
7 never destroyed a saguaro entirely, and APS clearly does.

8 So do you know -- have you looked at SRP's way of  
9 dealing with this issue?

10 MR. FROETSCHER: We have, or at least I'm aware  
11 that SRP has done some topping of saguaros as part of  
12 their vegetation management practices in the past.

13 When we look at a corridor, one of our principal  
14 areas of interest is in dealing with the underlying  
15 landowner or agency and what their preferences are. And,  
16 quite frankly, a number of state and federal agencies  
17 would prefer that the saguaros be removed rather than  
18 topped.

19 And so, for example, on the line in question that  
20 you presented your questions about, the Tonto National  
21 Forest and the Agua Fria National Monument, both the  
22 underlying agencies with whom we were working preferred  
23 that we completely remove the saguaros rather than top  
24 them in some aborted fashion.

25 CHMN. MAYES: Because it serves as a firebreak of

1 some kind?

2 MR. FROETSCHER: It serves as a firebreak. I  
3 believe there's a general belief in the vegetation  
4 community that topping saguaros is not good for the  
5 long-term health of the species and that the saguaro will  
6 eventually die anyway, and that there's some value in  
7 taking the nutrient content of a saguaro and spreading it.

8 CHMN. MAYES: Okay. Thank you. And I'll ask SRP  
9 about its experience as well. Sorry for that. Thank you,  
10 Mr. Smith. I appreciate that.

11 MR. SMITH: Very good.

12 We have emergency equipment that we can use for  
13 the summer during problems that we have. We have mobile  
14 transformers. We have emergency towers, which we refer to  
15 as our Lindsey towers. We have a mobile generator, and  
16 new this year is our mobile command center.

17 This is a picture of one of our mobile  
18 transformers. You can see it is ready to roll. The  
19 transformer is in the middle of the trailer, and then on  
20 either side you have the breaker that would protect from  
21 the high side and the low side. So you have all of the  
22 equipment you need here to make a connection to, for  
23 example, a subtransmission line and a distribution feeder.  
24 These could be deployed into most of the locations  
25 throughout our system within the time frame of maybe 8 to

1 12 hours.

2           This is a picture of the set of Lindsey towers.  
3 You can see they are free standing. They're kept in place  
4 by a number of guys, and there's apparatus that is hung  
5 between the two towers that the three phases of the  
6 transmission line would be put up. So if we were to lose  
7 one of our lattice towers, this is what we would use to  
8 replace it.

9           This is a picture of our mobile generator. This  
10 would be used to establish service very quickly in  
11 emergency to, say, our hospitals, network customers. And  
12 the trailer just has the associated cabling used to hook  
13 that up.

14           And then new this year is our mobile command  
15 center that we could use to basically establish  
16 communication to the APS systems if we needed to get to  
17 some of our design software or the materials, and also  
18 communicate with all of the various APS operating centers.  
19 This mobile command center could be deployed by a number  
20 of trucks throughout our fleet. And I might point out  
21 that the majority of this was paid for with Homeland  
22 Security funds.

23           Our emergency preparedness with the governmental  
24 entities, we were part of the week-long Coyote Crisis  
25 drill that took place earlier in the month. It did

1 include some examples of the need for APS to rotate feeder  
2 outages, so we had equipment that was simulated as causing  
3 a load curtailment need. And the local emergency  
4 managers, with the state, county, and local governments,  
5 were able to see on line which feeders were being rotated.

6 We continue to certify our management in the  
7 National Incident Management System, and we have first  
8 response training for our troublemen or maintenance folks  
9 that might be the first people to come on site in an  
10 emergency, and they do in-house training.

11 We continue to work with the fire department and  
12 communicate facility layouts. This year we identified all  
13 of our electrical vaults that they might need to know that  
14 there would be special requirements in terms of fighting  
15 any kind of fires that might be in that equipment. And in  
16 May, we will schedule meetings with all of the state,  
17 county, and local emergency managers to coordinate plans  
18 for any problems that we have this summer.

19 So in summary, we have the infrastructure in  
20 place that we need to meet our customers' needs this  
21 summer. Our maintenance efforts are on track. We  
22 continue to coordinate and integrate our efforts with all  
23 of the emergency planners, and we have our internal  
24 emergency plans, training, and equipment in place.

25 With that, I would be happy to answer any

1 questions that you might have, or go ahead and turn it  
2 over to Mr. Carlson for the fuels.

3 CHMN. MAYES: One quick question. Going back to  
4 the saguaro issue, you presented to me a letter in  
5 response to my letter, Mr. Smith, describing the new  
6 policy that you would like to put in place to deal with  
7 the saguaros. And under that policy, you will be saving a  
8 significant number of saguaros. By my count, I think  
9 almost two-thirds of the saguaros that you would have  
10 mulched under your old policy.

11 But is that a policy that you intend to put in  
12 place for all of your power lines, and are you looking at  
13 SRP's policy right now as a possible alternative to  
14 destroying saguaros?

15 MR. SMITH: I believe our plans are to use this  
16 new plan on all of our corridors.

17 CHMN. MAYES: What is the timeline -- for either  
18 you or Mr. Guldner -- for beginning your clearance on the  
19 Navajo line? Again, I know you stopped clearing after the  
20 U2 video came out, and the Republic wrote its story, and I  
21 wrote my letter.

22 When are you going to start again on that  
23 project?

24 MR. GULDNER: Chairman Mayes, Commissioners, we  
25 have suspended clearing of the saguaro on that line. We

1 have continued with other clearing activities. There are  
2 saguaro right now that are in -- when we get into the  
3 summer conditions and the lines are more heavily loaded,  
4 we have saguaro that would already be in a clearance  
5 violation, so we need to resume those activities soon.  
6 The plan is to get going as soon as we got sort of comfort  
7 from the Commission that our approach was satisfactory.

8 CHMN. MAYES: Okay. Well, as you know, I put  
9 this issue on our staff meeting agenda for tomorrow so  
10 that all of the Commissioners can discuss it. But my  
11 comfort level is going to be determined in some part by  
12 what I hear from SRP about their policy.

13 MR. FROETSCHER: Chairman, the plan that we  
14 discussed with you will be a part of our future corridor  
15 plans for line clearing in the low desert areas, including  
16 the saguaro areas.

17 CHMN. MAYES: Thank you, Mr. Froetscher. I  
18 appreciate it.

19 Commissioner Kennedy.

20 Dan, come on back. Commissioner Kennedy has a  
21 question.

22 COM. KENNEDY: I'm sorry. Your name again?

23 MR. FROETSCHER: It's Daniel.

24 COM. KENNEDY: Okay. Daniel, I know you  
25 discussed the plan with her, but I would like to hear what

1 the plan is.

2 MR. FROETSCHER: I would be happy to share that  
3 with you. I'll defer a couple of minutes here?

4 CHMN. MAYES: Sure. Absolutely.

5 MR. FROETSCHER: Commissioner, we employed the  
6 Lidar technology, as I described earlier, on an expedited  
7 basis to process the data for the balance of this line.  
8 This is the Navajo to Westwing 500kV line, and we have  
9 about 15 miles of line clearing activity left to  
10 undertake.

11 The results of that Lidar technology indicated  
12 that there were approximately 2,700 saguaros within that  
13 remaining 15 miles of line, and that approximately 120 of  
14 them represent a potential clearance or flashover hazard  
15 when that power line is at maximum rating as modelled via  
16 its load carrying capacity.

17 In addition, there are different OSHA working  
18 clearances, depending upon whether one is a qualified  
19 electrical worker or not.

20 And in simple terms, we felt as though preserving  
21 at least a 22-foot clearance between any vegetation and  
22 the maximum line sag under fully-loaded conditions is the  
23 most prudent way to move forward and provide for the  
24 transmission line reliability that the clearing is  
25 intended to provide to ensure the safety of our workers,

1 and yet to try to be as sensitive to the saguaro species  
2 as we possibly could.

3           So we briefed Chairman Mayes on this a couple of  
4 weeks ago. In essence, there are, I believe, roughly 580  
5 to 600 of those 2,700 saguaros that would still need to be  
6 removed. About 800 or 900 -- don't quote me to these  
7 exact numbers, I'm going from memory -- that we will be  
8 transplanting, moving out of the immediate underneath the  
9 wireline corridor to the perimeters of the right-of-way.  
10 And the balance of the saguaros we believe represent  
11 little reliability risk and can be left in place.

12           COM. KENNEDY: Thank you.

13           CHMN. MAYES: Thank you.

14           MR. FROETSCHER: Thank you.

15           CHMN. MAYES: Mr. Carlson.

16           MR. CARLSON: Good morning, Chairman Mayes.

17 Commissioner Pierce, Commissioner Kennedy.

18           I'm Tom Carlson, Director of Fuels with APS. And  
19 as my job title suggests, I manage the procurement and  
20 negotiation of all fuel contracts with the company, with  
21 the exception of the uranium contract at Palo Verde.

22           I've been with the company 21 years. I have a  
23 bachelor's degree in biology and chemistry, of all things,  
24 from the University of South Dakota, a long way from  
25 Arizona.

1 CHMN. MAYES: Yes, but do you have a pharmacy  
2 degree like Mr. Smith?

3 MR. CARLSON: I do not. I didn't get that far in  
4 college.

5 CHMN. MAYES: Okay.

6 MR. CARLSON: What I thought I would do this  
7 year, since we have a new Commissioner with us, I thought  
8 I would kind of go through some of the basics of where our  
9 power plants are located in reference to you going  
10 forward. Some of this is going to be redundant, but I'll  
11 zip through this as quick as I can. Not too quick. I  
12 tend to talk fast, so I'll try to slow down.

13 We ought to start out with Palo Verde when we  
14 talk about our power plants. The nuclear power plant is  
15 located about an hour west of Phoenix along I-10. APS  
16 manages that power plant, and we have a partial share of  
17 the capacity. It uses uranium as a source of fuel for  
18 generating electricity.

19 We also have coal plants. We have a base load  
20 coal plant -- I'll explain base load a little later on in  
21 my presentation -- at Four Corners just southwest of  
22 Farmington, New Mexico, 2,000 megawatts of coal-fired  
23 generation there. We also manage a coal plant near the  
24 big city of Joseph City, Arizona, right along I-40, the  
25 Cholla power plant. APS manages four units there. We own

1 three. PacifiCorp has the rights to the capacity in the  
2 fourth unit.

3 We also get output from the Navajo power plant,  
4 which is a unit -- a power plant that SRP operates on our  
5 behalf. We have partial ownership in that. That's also a  
6 coal-fired base load power plant right outside the city of  
7 Page. And then we have a number of gas-fired power plants  
8 that are either intermediate or peaking in nature,  
9 depending on the load requirements of the day.

10 In the Phoenix area, we have the West Phoenix  
11 power plant located just down the street, literally, here  
12 at 43rd Avenue and Van Buren.

13 The Sundance power plant, which is one of our  
14 newer power plants, located near Coolidge, Arizona. The  
15 Redhawk power plant, which is our largest gas-fired power  
16 plant, located near Palo Verde west of the city. And, of  
17 course, the Ocotillo power plant, which is right next to  
18 ASU in Tempe. These are all gas-fired power plants.

19 We also have additional plants outside the  
20 Phoenix area. The Saguaro power plant is a gas-fired  
21 plant halfway between here and Tucson, closer to the city  
22 of Marana. We have some generating facilities in the Yuma  
23 area called the Yucca power plant. And then we have one  
24 small fuel oil, diesel fuel oil, 21 megawatt generator  
25 near Douglas, which is there primarily for voltage support

1 in the summer.

2           Going back to the discussion about the type of  
3 units we dispatch with, we have -- we call it a dispatch  
4 curve here that shows the order of dispatch economically  
5 that we utilize for the system.

6           And this is a typical summer day, or would be a  
7 peak summer day of the summer in 2009. We have an  
8 expected peak of 7,254 megawatts. And based on economics  
9 or contract obligations, we will dispatch renewables and  
10 base-load facilities first. And then the intermediate  
11 units, which is the Redhawk unit and the West Phoenix 5  
12 unit, will typically go on next. Again, due to the  
13 economics, they would be dispatched next.

14           And then we have certain units, the smaller gas  
15 turbines that are considered peaking units, that run four  
16 to six hours a day. They're the more expensive units to  
17 operate, and they're dispatched just during peak hours.

18           I thought it would also be appropriate this year  
19 to kind of talk about our energy mix. We've always had a  
20 diversified mix of fuel for APS over the years, and we  
21 have had a couple of changes in the last several years.  
22 Typically, we're nuclear, natural gas, and coal. We also  
23 get now some growth with renewables and energy efficiency  
24 energy as well. Predominant use, though, remains with the  
25 large three: Coal, natural gas, and nuclear.

1 CHMN. MAYES: Mr. Carlson, if I could stop here.  
2 Mr. Guldner, these questions might be for you.

3 If Congress passes, as I expect they will, a  
4 national renewable energy standard that would look  
5 something like 25 percent by 2025, which is what I'm  
6 hearing, but also 20 percent by 2020, will APS be able to  
7 meet that, and what are you doing to plan for that likely  
8 reality?

9 MR. GULDNER: Chairman Mayes, Commissioners, as  
10 you know, I think we're already engaged in procurement  
11 activities for additional renewable resources. We've got  
12 an RFP that's outstanding today. We do have an  
13 acquisition that we're still working on, working on  
14 securing funding, that's a large base load -- not quite  
15 base load, but sort of base load solar facility.

16 And so I think, first of all, what would happen,  
17 we are engaged in the market. It's important for us that  
18 we stay engaged in the market and that we are recognized  
19 as a player in that market.

20 If you see that kind of action at Congress, I  
21 think you'll see two things. One, our procurement  
22 activities, of course, would pick up, and then also I  
23 think you would see development activities that would  
24 likely pick up as well on the developer side.

25 CHMN. MAYES: And does -- so APS believes that it

1 will be able to meet 25 percent by 2020 or 2025?

2 MR. GULDNER: If the federal standards pass, the  
3 20 percent by 2025, then we'll do everything we can to  
4 meet it.

5 CHMN. MAYES: Do you believe that you can?

6 MR. GULDNER: I think we can. I think if you --  
7 I think you'll have to see things happen like, for  
8 example, the market respond. You're going to have to see  
9 more projects develop. You're going to have to see more  
10 development of transmission lines.

11 CHMN. MAYES: And if that happens, would APS be  
12 more willing or more interested in actually building some  
13 of these projects, or partnering with solar developers to  
14 build large-scale solar or wind projects?

15 MR. GULDNER: I think that that would be a likely  
16 component. As you know, if you purchase all of your  
17 output, there's some -- there's different financial  
18 repercussions with whether you purchase or whether you  
19 self-build. Certainly I think that some on the utility  
20 side, some folks would say it's good to have some control  
21 in your own hands of those projects. We don't have  
22 in-house right now expertise in building solar power  
23 plants.

24 We're purchasing a purchased power agreement with  
25 Solana. That's our first large purchase. I think if you

1 see significantly more development, the issue of utility  
2 ownership versus just purchased power agreements is going  
3 to be discussed, I'm sure. There are procurement  
4 guidelines right now that the Commission has that push us  
5 more into purchased power today. And again, that may be  
6 something that changes as a result of additional  
7 legislation or additional changes to an RES requirement.

8 CHMN. MAYES: You mean the self-build moratorium?

9 MR. GULDNER: The self-build moratorium, but then  
10 also the procurement best practices, if they apply to  
11 these resources.

12 CHMN. MAYES: I think that's something that we  
13 may need to look at. But I think what you said was very  
14 interesting, which is if the standard is raised to  
15 25 percent, that would likely drive the creation of more  
16 renewable energy projects in the state of Arizona. And  
17 whether you're buying from those projects or helping to  
18 build them, there will be more volume in the state of  
19 Arizona, and certainly California if they decide to go to  
20 33 percent already.

21 Quickly, again for either Mr. Smith or  
22 Mr. Guldner, I'm very interested -- if you go back to the  
23 last -- the peak load slide. You mentioned, Mr. Smith,  
24 that the most expensive power that APS buys or builds  
25 is -- or I'm sorry. Mr. Carlson. I'm sorry.

1 MR. CARLSON: That's okay. You're in the  
2 ballpark.

3 CHMN. MAYES: I'm sorry -- is, of course, you  
4 know, your natural gas peaking plants or natural gas  
5 peaking power.

6 And one of the, I think, most important reports  
7 that APS has done in the last five years was submitted to  
8 the Commission -- it was ordered by the Commission in  
9 January 2009, this year, called distributed renewable  
10 energy operating impacts and valuation study.

11 And one of the results of that study or  
12 recommendation is that -- recommendations is that as we  
13 continue to build distributed solar in Arizona,  
14 residential and commercial rooftops, we need to have a  
15 better sense -- in order to maximize the value of those  
16 solar rooftops, we need to have a better sense of where  
17 the load is going to be, where the actual electricity  
18 demands are going to be within a given city.

19 And I'm just going to read a couple of lines from  
20 it, Page 3 dash -- Chapter 3-13 states that: Distribution  
21 projects can only be deferred if solar DE, distributed  
22 energy, is strategically located to reduce peak loads in  
23 the specific project region.

24 And we see here, you know, your peak load demands  
25 on a macro level. It seems to me that in order to do

1 that, we need to do some kind of solar mapping in the  
2 state of Arizona to determine where the best locations for  
3 solar are in the state of Arizona, and then the city of  
4 Phoenix, city of Flagstaff, Prescott, Tucson, and how  
5 consumers -- and in order to help consumers themselves  
6 decide whether they want to put solar on their rooftops.  
7 This has been done in San Francisco. There's a fabulous  
8 solar map that was produced for San Francisco by CMH2  
9 Hill, I think.

10 MR. GULDNER: CH2M.

11 CHMN. MAYES: CH2M, the global engineering  
12 company, which I'm very interested in seeing if we can do  
13 that in the state of Arizona.

14 So what are we doing to move down the path toward  
15 solar mapping, which is really something that APS  
16 itself -- which is really something that was recommended  
17 to APS in this distributed generation report ordered by  
18 the Commission?

19 Mr. Dinkel, I see you coming to the table.

20 MR. DINKEL: Yes. Chairman Mayes, Commissioners,  
21 Patrick Dinkel with Arizona Public Service, and partly  
22 responsible for renewables.

23 As you are clearly aware, that study identified  
24 the value of distributed renewables, particularly solar,  
25 on both our high voltage and low voltage system. And it

1 did identify that the real value is more specifically on  
2 the distribution side, not really on the generation or  
3 transmission. In other words, it doesn't allow us to  
4 avoid anywhere in the near term any additional generation  
5 or transmission facilities.

6 We'll continue to look at the best way. As you  
7 know, we've done a number of studies to look at how we can  
8 most best deploy renewables, locate renewables. So we'll  
9 be looking at other options. We're certainly open to  
10 considering that. I've got to tell you, I just haven't  
11 fully scoped out what that sort of mapping would look like  
12 and the best way to do it. So I am certainly open to  
13 considering that. I just simply -- we haven't had, just  
14 getting that study done, really the time to evaluate the  
15 best way to approach that.

16 CHMN. MAYES: Well, have you looked at what they  
17 did in San Francisco, and apparently they're now doing it  
18 in Salt Lake City, Los Angeles County, San Diego, maybe  
19 somewhere in the northwest? Have you seen the CH2M -- did  
20 I say that right -- map that was created for the City of  
21 San Francisco, which was really just a stunning product.

22 MR. DINKEL: And Chairman, we just have not had a  
23 chance to really assess what value that would have.  
24 There's clearly some -- there's a lot of good work being  
25 done right now in various areas. We've tried to be very

1 careful with the money that you have allowed us to use for  
2 implementation and research. And so I just can't speak  
3 today to the best way to approach that sort of study, but  
4 we'll certainly be evaluating that sort of option.

5 CHMN. MAYES: And, you know, I think the  
6 Commission should look at potentially funding such a map,  
7 because I think it's important for both consumers and for  
8 the company.

9 And just one last thing on this issue. Page 3-14  
10 says, quote -- you know, and you're looking at \$64 million  
11 in potential capital expenditure pushoffs or CAPEX savings  
12 by the year 2025 from distributed generation solar. I  
13 think, if I'm reading this correctly, 64,860,000. That's  
14 just in CAPEX savings. That doesn't count the fuel  
15 savings, that doesn't count the line loss savings, that  
16 doesn't count the deferred transmission savings. That's  
17 just CAPEX.

18 And it says: To achieve these savings, APS must  
19 first identify areas of potential growth in peak loads  
20 coincident with sufficient solar generation to influence  
21 future upgrades, and then deploy the solar DE, distributed  
22 energy, in those areas well in advance of CAPEX  
23 requirements.

24 So that's why I think doing this kind of solar  
25 mapping would help you find out what the best areas are in

1 Phoenix and the rest of Arizona to deploy solar, and then  
2 this Commission probably, long after I'm gone, I think  
3 should look at maybe -- not after I'm gone -- but should  
4 look at maybe maximizing or sweetening the incentives for  
5 consumers to adopt solar in those subdivisions, those  
6 areas of the city where you need it to be able to make  
7 these CAPEX savings.

8 MR. DINKEL: Chairman, if I could, I agree with  
9 you. And I will tell you, the discussions that I've had  
10 with a number of the APS people here today from a planning  
11 perspective, is we believe that the best way to do this is  
12 in an integrated fashion and to do it on a proactive  
13 basis. So it is, obviously, at the transmission level, at  
14 the subtransmission level.

15 And the best way to evaluate this -- and you saw  
16 the study, that the impact on established communities is  
17 minimal from a capacity perspective. So the way to do it  
18 isn't -- is going to take more than just citing a  
19 vocation. It's going to be an integrated planning effort.

20 And I will tell you that we have an understanding  
21 within APS that we need to do that work across our various  
22 planning functions. And I can tell you that we've had  
23 full support working through transmission and distribution  
24 planning, now under the leadership of Mr. Smith, as well  
25 as the resource planning under Mr. Albert. So we

1 understand the importance and the need to work across our  
2 groups and are working on that.

3 CHMN. MAYES: Well, from this Commissioner's  
4 standpoint, I would be interested in seeing a plan from  
5 APS and the other utilities regarding solar mapping in the  
6 state of Arizona, how it could be utilized by utilities  
7 and by consumers, and to have that plan ready for the  
8 Commissioners before we address your next renewable energy  
9 implementation plans for possible consideration as part of  
10 those plans.

11 MR. DINKEL: If I could, Chairman, it strikes me  
12 that in the implementation plan would be a good spot to do  
13 that. Is that --

14 CHMN. MAYES: I'm sorry, Pat. What?

15 MR. DINKEL: As part of the implementation plan,  
16 as you know, we have a listing of implementation -- of  
17 studies and things we would like to do. It strikes me  
18 that's a good opportunity.

19 CHMN. MAYES: Yeah.

20 MR. DINKEL: Okay.

21 CHMN. MAYES: Me, too.

22 Okay, Mr. Carlson.

23 Oh, Commissioner Kennedy has a question.

24 COM. KENNEDY: Oh, no. My question is for  
25 Mr. Carlson.

1 CHMN. MAYES: Okay. Go ahead.

2 COM. KENNEDY: Thank you, Madam Chairman.

3 Mr. Carlson, I'm looking at Slide No. 29, and  
4 your energy efficiency is at 2 percent. That's a small  
5 part of your mix.

6 My first question is: Why is that? And number  
7 two: Why can't we use -- or why can't you use energy  
8 efficiency as a bridge to renewables?

9 And maybe this is not the place or the time. How  
10 much money do you spend on energy efficiency?

11 MR. CARLSON: Commissioner Kennedy, I can answer  
12 part of that question just from a mathematical  
13 perspective. If you look at the sheer volume of energy  
14 that's produced from nuclear, coal or natural gas, that's  
15 a large volume that we utilize every year.

16 The energy efficiency program that is starting  
17 out, and that's the green energy, the light bulbs, and  
18 while that's moving forward, it's got a long way to go to  
19 impact the overall percentage of the energy mix. We're  
20 moving forward in that regard, but you have got to -- we  
21 burn a lot of coal, a lot of natural gas, and utilize a  
22 lot of nuclear fuel for our load. Eventually, it's going  
23 to improve over time.

24 MR. GULDNER: Commissioner Kennedy, if I can  
25 expand on what Tom mentioned, one of the changes -- one of

1 the things that we wanted to do in this presentation is  
2 really to reflect energy efficiency as a resource. In  
3 prior presentations, what you would have seen is it would  
4 have just been left off the slide, and we would have just  
5 shown energy generated resources as opposed to the energy  
6 saved from energy efficiency.

7 And so this represents a start. It goes back to,  
8 I believe, 2005 levels. And we do expect that percentage  
9 to grow. That's one of the things that, obviously, we  
10 discuss in the energy efficiency workshop process. What  
11 we wanted to do here is just get it on the plate so it  
12 shows up like a resource. Because internally at the  
13 company, that's one of the things that we see as  
14 important. You have got to think about energy efficiency  
15 as a resource option, not just as a, "we're going to save  
16 it and then we have other resource options to choose  
17 from."

18 COM. KENNEDY: Thank you, Madam Chairman. I'm  
19 glad to hear that. Thank you.

20 CHMN. MAYES: Thank you.

21 Mr. Carlson.

22 MR. CARLSON: Going back to Palo Verde, a quick  
23 overview of the contracts we have in place for the summer,  
24 this summer. Palo Verde fuel is sourced through multiple  
25 suppliers, and we have contracts in place of -- firm

1 contracts in place for 100 percent of our needs this  
2 summer. In fact, we have it in place through 2011, so  
3 we're in really good shape at Palo Verde.

4 CHMN. MAYES: Well, then, it's a good thing that  
5 you're about to get out of Category 4, isn't it?

6 MR. CARLSON: It is a good thing, yes. I agree  
7 with that.

8 CHMN. MAYES: We just got a letter today from the  
9 NRC, which I understand is going to be addressed tonight  
10 at the meeting at Palo Verde, which announces that APS has  
11 finally climbed out of the cellar of nuclear power plants  
12 and has been returned to health by the company. Which is  
13 a good thing for the state's consumers, because every time  
14 Palo Verde has an outage, it costs Arizonans money. And  
15 this is a power plant that Arizonans paid for, and they  
16 deserve to have it running at full throttle. So I'm  
17 pleased that Palo Verde has climbed out of Category 4, and  
18 is now, apparently, about to go to Category 1.

19 I guess my one question for APS is how does the  
20 company -- what is the company doing to ensure that Palo  
21 Verde stays in Category 4 and doesn't slip, doesn't slip  
22 back down the hill?

23 MR. GULDNER: Chairman Mayes, Commissioners, I  
24 think one of the important parts of the NRC's analysis  
25 when it -- I think we're waiting for tonight to get the

1 official word -- but when it does the analysis of whether  
2 you move from Column 4 to Column 1, is they're looking for  
3 that consistency. My understanding is they would not move  
4 the company from Column 4 to Column 1 without having some  
5 comfort that the company has a plan and a process and a  
6 culture in place that's going to maintain that level.

7           And so that is certainly something that  
8 Mr. Edington has been focused on. He's not just, "Let's  
9 try to get out of Column 4 and solve it," but how do we  
10 make long-term improvements at the plant. I think that's  
11 what the NRC has recognized as being successful.

12           CHMN. MAYES: Okay. Just real quickly, the  
13 letter from the NRC that we received this morning states  
14 that PVNGS, Palo Verde Nuclear Generating Station,  
15 Units 1, 2, and 3, will be transitioned to Column 1.

16           Do you know what they mean by that? Is there  
17 some transitioning period where you won't be in Column 1,  
18 or is this something that happens -- if they announce this  
19 formally tonight, that happens today?

20           MR. GULDNER: Chairman Mayes, Commissioners, I  
21 believe that the transition just means we're going to move  
22 from one column to the other. I will put a call in to one  
23 of our nuclear folks and see if I can get that you answer  
24 before the end of the meeting.

25           CHMN. MAYES: And for ratepayers, what does this

1 mean for ratepayers?

2 MR. GULDNER: Well, there were some added  
3 inspection fees that were our responsibility during the  
4 inspection. What happens when you move to Column 4 is  
5 you're under a more rigorous inspection process by the  
6 NRC. So they have more inspectors on site, they have more  
7 inspectors and more inspections that are coming out, and  
8 so we pay for that. So that obligation to pay for the  
9 additional inspection will go away, I presume. But I  
10 think in terms of long-term, healthy performance of the  
11 plant, that's beneficial to ratepayers.

12 CHMN. MAYES: For instance, because, you know,  
13 the credit rating -- the bond ratings agencies perhaps  
14 will pull off a little bit and not threaten to downgrade  
15 you based on the performance of Palo Verde. That would be  
16 one way, correct, Mr. Guldner?

17 MR. GULDNER: Chairman Mayes, Commissioners, that  
18 had been -- I think some of the bond rating agencies had  
19 mentioned that in some of their discussions as being a  
20 negative impact that they were looking at. That certainly  
21 takes that, I think, off the table.

22 CHMN. MAYES: And when Palo Verde is not  
23 experiencing multiple outages, that means that ratepayers  
24 aren't having to pay for that additional purchased power  
25 cost, correct?

1 MR. GULDNER: Chairman Mayes, Commissioners,  
2 obviously, there are outages at all of the power plants.  
3 As you reduce the number of unplanned outages, you reduce  
4 the cost of replacement power, and so that tends to reduce  
5 the cost to customers.

6 CHMN. MAYES: Thank you.

7 MR. CARLSON: Moving on to Four Corners, the Four  
8 Corners power plant is a mine-mouth operation, meaning  
9 that the coal is mined right next to the power plant at  
10 Four Corners. We have a contract in place with BHP that  
11 actually runs through 2016, not 2015. That's a typo on  
12 this particular page. And we have a -- they have a  
13 contract obligation in general to provide 60 days of  
14 inventory available on the site at all times. So we've  
15 added the supply of coal at that power plant.

16 The Cholla power plant near Joseph City, we have,  
17 again, adequate coal for this year. That coal is railed  
18 in from some mines in New Mexico, about 130 miles away in  
19 Grants, New Mexico, and we talk about a mine here called  
20 the El Segundo mine just outside of Grants. Our expected  
21 inventory for the summer will be between 45 and 60 days of  
22 supply in the ground at the Cholla power plant.

23 Regarding natural gas pipelines, we're pleased to  
24 announce that earlier this year, actually last month, we  
25 began taking gas off the Transwestern pipeline at the

1 Redhawk power plant on February 26. And, in fact, the  
2 Redhawk power plant has been using Transwestern gas for  
3 some time after that particular date.

4 As you can see from the map, the two pipelines  
5 source natural gas from the San Juan Basin or the Permian  
6 Basins in New Mexico and Texas, and a little bit from  
7 Oklahoma in a location called the Anadarko Basin. The  
8 blue line is the El Paso line, the red line is the  
9 Transwestern line.

10 One little, again, ticky-tack problem with this  
11 particular slide, you talk about LNG, which is liquified  
12 natural gas, there is potential for LNG some day to flow  
13 into Arizona. That particular facility is located south  
14 of Tijuana, and not near Rocky Point as is depicted on the  
15 map here.

16 CHMN. MAYES: Commissioner Kennedy.

17 COM. KENNEDY: Madam Chairman, I'm sorry.

18 Mr. Carlson, are you going to speak to the disposal of the  
19 coal ash?

20 MR. CARLSON: Somebody in the company will speak  
21 to that, that's correct.

22 CHMN. MAYES: Thank you.

23 MR. CARLSON: Mr. Guldner has volunteered to do  
24 that.

25 COM. KENNEDY: Okay.

1 MR. CARLSON: Regarding the natural gas  
2 transportation contracts that we have in place, these are  
3 firm contracts, firm capacity on both pipelines, and we  
4 have ample capacity to meet our needs, our peak needs  
5 through 2009.

6 Again, I mentioned Transwestern is operational.  
7 The El Paso pipeline does interconnect with all of our  
8 power plants. We have redundancy of supply at both  
9 Redhawk and Sundance.

10 The North Baja pipeline, we've been talking about  
11 that pipeline for a number of years. Commissioner  
12 Kennedy, that's a new lateral that's being built hopefully  
13 into the Yuma market from a pipeline in northern Mexico.  
14 That particular pipeline has had a history of delays.  
15 We're in a delay mode again, unfortunately. It will not  
16 be ready until July, at the earliest, of this year. So we  
17 have some issues regarding that particular pipeline.

18 Most of the issues are on the U.S. side. The  
19 actual pipeline is built in Mexico, of all things. It's  
20 permitting on the U.S. side that's delayed the process.

21 CHMN. MAYES: Which state? Oh, I don't even need  
22 to ask that, do I?

23 MR. CARLSON: Do you want me to tell you which  
24 bureau is involved in this?

25 CHMN. MAYES: So it's California and the federal

1 government?

2 MR. CARLSON: It's the Bureau of Reclamation,  
3 Chairman Mayes. They have not issued the permits. The  
4 right-of-way goes along the Colorado River just south of  
5 the power plant to the power plant itself. And the  
6 right-of-way hasn't been granted by the bureau due to  
7 permitting issues. The line is built in Mexico, the line  
8 that stops at the river, the pipeline. So we're working  
9 on it.

10 And in terms of natural gas supply, we contract  
11 with various companies to buy gas in the basins, the  
12 Conoco's, the Amoco's, and companies like that, and they  
13 flow that gas to our power plants. We have ample supply  
14 of gas in our contract for the summer. We buy a little  
15 bit of spot gas every day to help meet our load  
16 requirements from time to time. And again, there's more  
17 than enough gas available this summer to meet all of our  
18 needs.

19 Natural gas storage. I think since I started  
20 this four years ago, Chairman Mayes and I have been  
21 talking about storage every year. Just a quick update on  
22 where we stand with the natural gas storage. There have  
23 been two projects of late that we've been looking at in  
24 the Eloy area, a project that was hopefully developed by  
25 El Paso Natural Gas that is no longer functional, and it's

1 called the Arizona Gas Storage Project. And APS had been  
2 working with them for a number of years to try to develop  
3 that particular project. They had an open season this  
4 winter. We were the only company that bid on that  
5 capacity in the storage project. And as the result of  
6 lack of interest, more than anything else, they have  
7 discontinued that project.

8           There was another project that hopefully can get  
9 off the ground in the same general area in Eloy. We have  
10 submitted a letter of interest and are working on partner  
11 agreements with this particular developer. This  
12 particular storage site does interconnect with both  
13 pipelines, which is very advantageous to APS and other  
14 shippers in Arizona.

15           I think we all understand the issue with the  
16 brine disposal and the uncertainty of that going forward.  
17 If they can resolve that issue in an environmentally  
18 friendly manner, that storage facility will be ready in  
19 2013.

20           COM. KENNEDY: Madam Chairman, Mr. Carlson, I  
21 heard you say that the reason that the project -- the Eloy  
22 project with El Paso was really not --

23           MR. CARLSON: Do you want me to give you some  
24 background on that project? What happened was that that  
25 particular project did not involve the disposal of brine

1 underground. So they opted to develop a project that  
2 included evaporative ponds above ground, which increased  
3 the costs dramatically of that particular project. That  
4 was, in their mind, their only alternative.

5           When they went out for an open season, the  
6 economics became fairly evident for all potential shippers  
7 and users. It was difficult, at least from what I've  
8 heard, for companies to bid on that capacity.

9           We submitted a bid with some wrinkles to it,  
10 which they did not accept, and since that point they have  
11 discontinued that project all together.

12           COM. KENNEDY: Okay. Madam Chairman, I guess --  
13 I hear you, Mr. Carlson, but that's not the reason that I  
14 heard that the project was just kind of put on hold, they  
15 weren't interested -- your words -- anymore. I guess they  
16 discovered that they could not dispose of the brine by  
17 reentering it.

18           MR. CARLSON: Well, let me go down that path and  
19 try to clarify that for you a little bit, Commissioner  
20 Kennedy. The optimal way economically to develop a  
21 storage site is to dispose of the brine underground. And  
22 I'm going to speak for El Paso here, and hopefully I won't  
23 speak out of context here. They did not choose to go down  
24 that path of doing that due to some environmental  
25 limitations and restrictions. They chose the option of

1 trying to build aboveground evaporative storage ponds, of  
2 which they would evaporate the salt in this pond and  
3 dispose of that salt in a landfill. The economics of that  
4 are significantly higher in cost than an underground  
5 disposal opportunity.

6 The company went forward with the plan, submitted  
7 an open season, provided us a cost structure. For a lot  
8 of companies it was prohibitive. And therefore, the  
9 project, for that purpose primarily, because of the -- I  
10 mean, if shippers would have been agreeable to pay that  
11 particular cost, that project would have gone forward.

12 COM. KENNEDY: Thank you.

13 MR. CARLSON: There wasn't any interest.

14 COM. KENNEDY: Thank you, Madam Chairman,  
15 Mr. Carlson, for clearing that up.

16 CHMN. MAYES: Commissioner Pierce.

17 COM. PIERCE: Yes. To follow up again on this,  
18 as I understand it, geologically there was an issue. I  
19 mean, they had the traditional issue with ADEQ that -- and  
20 there's a bill working it's way through the legislature to  
21 cure that in the future.

22 But in this particular site, it got beyond that  
23 and the geology wasn't good for this; isn't that correct?

24 MR. CARLSON: Commissioner Pierce, in El Paso's  
25 words, that's their issue. I think if you talk to the

1 other developer, they have a different view of that  
2 particular issue and believe there is a location where  
3 they can dispose of that brine.

4 COM. PIERCE: So really, if they can actually  
5 dispose of the brine underground, then it's probably going  
6 to be economically feasible for them. And so then when  
7 they go out to bid, there's apt to be more interest than  
8 just APS, a qualified bid from APS.

9 MR. CARLSON: Commissioner Pierce, that's our  
10 view, that's correct. We find it economical if they can  
11 dispose of it underground.

12 COM. PIERCE: Thank you.

13 MR. CARLSON: I jumped ahead a little bit here.  
14 I didn't mean to push the button. But we're talking about  
15 renewable resources now, and I'll talk about this  
16 schematic and where these facilities are located.

17 The Aragonne Mesa is a wind turbine project  
18 located in Santa Rosa, New Mexico, just to the east and  
19 southeast of Albuquerque. It's a 90-megawatt wind farm.

20 We take renewable energy from a geothermal  
21 project near the Salton Sea, 10 megawatts every year.  
22 It's been in place now for a couple of years.

23 That is a solar project at the Prescott Airport,  
24 2.9 megawatts, that we use energy from.

25 In addition, we have our STAR facility at the

1 Ocotillo power plant in Tempe, just under 2 megawatts of  
2 solar energy.

3 The Saguaro power plant also has a small  
4 photovoltaic operation there, about 1 megawatt.

5 And then, of course, we have a contract in place  
6 for biomass energy near the town of Snowflake, about 14.5  
7 megawatts of capacity from the biomass project.

8 In addition to those particular projects that are  
9 on line today providing us energy, we have two projects  
10 that are pending that hopefully will be available this  
11 summer. One is the Glendale landfill gas project, about a  
12 3 megawatt project in one of the landfills in Glendale.  
13 And then there's another wind project scheduled to be on  
14 line sometime this summer, a 100 megawatt wind farm near  
15 the town of Mountainair, New Mexico, which is almost due  
16 south of Albuquerque.

17 CHMN. MAYES: Mr. Carlson, you know what? I  
18 don't want to rehash my concern with you about your  
19 decision to purchase so much out-of-state wind, but let's  
20 talk about that a little bit.

21 What are you doing to rectify what I see as an  
22 unfortunate situation in which APS is sending a lot of  
23 ratepayer dollars to our neighboring states for renewable  
24 energy projects instead of building them here in Arizona?

25 MR. CARLSON: I'm going to defer.

1 CHMN. MAYES: I see, you know, a total of 17.5  
2 megawatts that you have actually bought or built in  
3 Arizona in the last -- well, since I have been a  
4 Commissioner, and 200 megawatts that you have purchased in  
5 other states since I have been a Commissioner.

6 I don't like that. I understand your reasons for  
7 it, but I think it's a very narrow attitude you have  
8 adopted and doesn't include the benefits of building these  
9 projects in Arizona from a jobs and economic development  
10 standpoint, as well as addressing our environmental needs  
11 in Arizona.

12 So Mr. Dinkel, can you provide some happy news  
13 for us today on this front?

14 MR. DINKEL: Unfortunately, Chairman, I can't  
15 tell you what I know you want to hear, which is we have  
16 contracts for something that you have been asking for.

17 What I will tell you, as you know, our priorities  
18 are to get the best resources for the lowest cost for our  
19 customers. We do have a number of initiatives, though,  
20 that we think entertain the variety of options that we  
21 think is important.

22 As you know, we have a distributed RFP that is  
23 out that is designed to really bring in more creativity on  
24 the distributed front to allow some of the players to,  
25 one, get a longer term commitment that -- if they can pull

1 together a number of projects. So we think that's a good,  
2 creative way of allowing the market players to be creative  
3 and get the commitments that they need to bring projects  
4 to the table. Obviously, those are all local projects  
5 within our service territory.

6 Also, consistent with the Commission's decision  
7 in our last renewable implementation plan, are rolling out  
8 a small generator RFP. That one goes out very shortly.  
9 We announced that a month or so ago. As I mentioned, that  
10 was approved by the Commission in our last implementation  
11 plan. That is designed to stimulate some of those more  
12 local but utility-scaled projects that bring in some of  
13 the local benefits.

14 As we indicated in our press release on that, we  
15 are acknowledging -- or I should say taking into account  
16 in that solicitation the local benefits, or I should say  
17 that we're requiring the developers to identify the  
18 benefits of those to the project.

19 So, for instance, we intend to have about a  
20 five-point -- not a scale, but five points that we're  
21 asking them to respond to. So, for instance, we're asking  
22 them to show the local support that they have engaged from  
23 either an educational or development perspective. So  
24 we're really asking them to be partners with local  
25 communities.

1           Just as we look at those benefits in the  
2 large-scale projects, obviously, to your dissatisfaction,  
3 the economics have prohibited us from taking those local  
4 projects, but we do look for those on a large scale, and  
5 we are looking at those smaller projects that can provide  
6 those benefits.

7           CHMN. MAYES: Why couldn't you do the same thing  
8 for large-scale projects? When you have your RFPs out for  
9 100 megawatts or 200 megawatts, why couldn't you assign a  
10 value to having those projects in the state? I mean,  
11 that's what has been missing from APS's approach, and  
12 frankly, SRP's too. They don't do any better job on this  
13 issue than you do.

14           MR. DINKEL: Chairman, we have been providing or  
15 identifying the value associated with that. We have not  
16 been quantifying that financially. What has happened in  
17 these larger projects, everything going back to the  
18 original ones, Salton Sea, for instance, and those, the  
19 economics are so radically different in the past from the  
20 in-state projects to the out-of-state projects that while  
21 we did identify that there were jobs associated with these  
22 and there are other benefits, the dramatic financial  
23 impact for our customers we felt like prohibited us from  
24 taking those more expensive projects.

25           So really, what we're trying to do with the small

1 projects is really not different than that we've done in  
2 the large projects. We are still not looking at putting a  
3 financial label or an amount on these benefits, but what  
4 we are doing is trying to identify a specific solicitation  
5 that can help bring these smaller projects out of the fore  
6 and make them a reality.

7 CHMN. MAYES: I mean, if that were really -- if  
8 APS really adhered to that policy 100 percent, we never  
9 would have built or approved Solana. Well, put it this  
10 way. You wouldn't have brought Solana to us, because the  
11 economics of Solana are not nearly as good as the  
12 economics of Salton Sea and the high mountain -- or Molton  
13 Mountain or -- the Santa Rosa, those two projects, right?

14 MR. DINKEL: Yes. Well, Chairman, the decision  
15 on Solana, our decision to bring that to the Commission  
16 was about a broad portfolio analysis, as you know. So we  
17 didn't have a large-scale solar project in our portfolio  
18 and nothing in the plans.

19 We felt like there was value because, if you look  
20 forward, as we have shown in our resource planning  
21 filings, if you look forward to the future needs of the  
22 state, we believe that solar is an absolute requirement  
23 for us to have the diverse portfolio that we need. So we  
24 felt like it was imperative for us to move forward with a  
25 large-scale solar project. We felt like the economics in

1 Solana was reasonable enough to justify moving forward at  
2 this time. So it was not a matter of jobs or economics.  
3 It was a matter of diversifying our profile.

4 CHMN. MAYES: Okay. Commissioner Pierce.

5 COM. PIERCE: Sure. Thank you, Madam Chair.

6 So you put a value on reliability, I guess. A  
7 value on covering downside risk, I suspect, in going  
8 forward with solar.

9 I agree with the company, frankly, that I want to  
10 see the best bang for the buck. I think ratepayers want  
11 renewable energy, and they're not necessarily concerned  
12 about the economic development. I think the economic  
13 development works for us. I believe in interstate  
14 commerce, because I'm hopeful we develop solar and export  
15 it. I don't suspect that we're going to export a lot of  
16 wind. We don't have the capacity near transmission lines  
17 here that I think that New Mexico seems to enjoy, but ours  
18 is more solar.

19 So I look forward to being able to export, have  
20 the infrastructure, invest in Arizona, and the taxes  
21 associated with that in Arizona, but not on the backs of  
22 our ratepayers. I think it needs to be balanced. And to  
23 the extent that we can afford to put more and more -- as  
24 technology improves and it is more affordable, that yes,  
25 that's when the economics meet -- the economics to the

1 ratepayer meet the economic development component. And so  
2 I think there's a time that will occur, but I don't see it  
3 being in wind. And if we're going to have wind, if you  
4 feel like that's something that we have to do from a  
5 diversification standpoint, or the fact that it's cheaper,  
6 then that's what we ought to do.

7           So we have a variance, probably, of opinions, but  
8 I know that unless we change our rules, and I don't see us  
9 doing that, then I think you need to stay on the course  
10 that you're on. Thank you.

11           CHMN. MAYES: Commissioner Kennedy.

12           COM. KENNEDY: Well, Madam Chairman, thank you.  
13 I would like to chime in also on it. I agree with the  
14 Chairman wholeheartedly. It is not cost effective to our  
15 customers to do projects outside of Arizona. Doing  
16 projects here in Arizona, whether it's hiring Arizonans to  
17 build the projects and employ Arizonans after the projects  
18 have been completed, builds our economy. And I'm going  
19 to -- I have just harped on that for over a year now. It  
20 is very important to build these projects here in Arizona  
21 to move our economy.

22           Actually, I was a little bit surprised to see  
23 that 90 megawatts of wind in New Mexico, I mean, on the  
24 backs of our ratepayers. It's unconscionable. Thank you.

25           MR. DINKEL: If I could, Chairman, Commissioner

1 Kennedy, Commissioner Pierce, just one additional comment.  
2 We continue to leave all options on the table. We do look  
3 at job impacts and emissions impacts of the various  
4 technologies. A lot is evolving here. In other words, it  
5 evolves from a developer perspective, from a commodities  
6 perspective, from a vendor perspective.

7           A wind project like the ones we're talking about  
8 in New Mexico, the turbines are not manufactured  
9 regionally. There's only a couple of places in the  
10 country, and others in the world, where they're  
11 manufactured. So turbines isn't an issue in state or out  
12 of state. The large cranes are not an issue in state or  
13 out of state. Most of the kind of higher-end technology  
14 jobs are not a question in state or out of state. They're  
15 going to bring those from someplace else.

16           Once it's operational, you're talking about a  
17 couple, literally twos, threes kind of number of jobs in  
18 these wind projects. So they don't have -- the impact is  
19 really on the people leasing the land. So you're talking  
20 about one, two, maybe three landowners. So wind doesn't  
21 have a big economic impact. I'll be happy to communicate  
22 that as we look forward.

23           Solar is different. Solar, you have more  
24 opportunity there. But we also look at biomass, biogas,  
25 geothermal. We're continuing to look at those and we'll

1 certainly be conscious of the economic impact.

2 We do understand our obligation is to our  
3 ratepayers. We don't have a legislative responsibility.  
4 We have a utility. So we try to be mindful of our role  
5 there as well.

6 COM. KENNEDY: Well, Madam Chairman, I guess I  
7 wouldn't be here if Arizonans didn't want solar energy. I  
8 think they spoke very loudly and very clearly for  
9 renewable energy.

10 I have actually tried to get my hands on one of  
11 your solicitations, and it has been very, very difficult,  
12 very difficult. I'm not sure why, and I have asked on  
13 numerous occasions. I won't say whom I've asked, but I've  
14 asked.

15 I'm just really hoping that because Arizona is  
16 crying now, I think that companies are willing to move to  
17 Arizona to build wind turbines. It's going to take, I  
18 know, the legislature to participate in making changes for  
19 tax credits, but I think that it's going to depend on you  
20 and other companies to say, hey, let's do this here, and  
21 let's find a company who is willing to come here, or it's  
22 your interest to get them here. That's just my thought.

23 MR. DINKEL: If I could Chairman, Commissioner,  
24 I'll be happy to provide you the information that you  
25 would like on the solicitation.

1 COM. KENNEDY: Thank you.

2 CHMN. MAYES: Commissioner Pierce.

3 COM. PIERCE: Yes, thank you, Madam Chairman.

4 I apologize, but I just can't let it lie. I'm  
5 just very hopeful that California does not share the  
6 protectionist philosophy that perhaps some of us have,  
7 because our whole point in trying to encourage  
8 concentrated solar facilities, and we're hearing more and  
9 more people, and the fact that we're looking at  
10 distribution lines to accommodate that, is because we know  
11 that that is a bread-and-butter issue for us in economic  
12 development. It is an economic development issue for us  
13 in this state, being able to export power.

14 And even to the extent that we do, if we had a  
15 great deal of wind in this state and it made sense and we  
16 were arguing, "Why aren't we doing wind? We have a lot of  
17 wind in this state," but how much do we actually put on  
18 the backs of our ratepayers, we would be looking to export  
19 it just as New Mexico is looking to export it.

20 So I guess my point is that it has to be  
21 economically feasible, and we have to look to export it in  
22 order to really have an economic development tool, because  
23 we can't put it all on the ratepayers at the cost any time  
24 soon. So if we're going to move forward and move forward  
25 fast, we're going to look to export power. Thank you,

1 Madam Chair.

2 CHMN. MAYES: Well, just to cap this off, I don't  
3 think it's being protectionist to ask our utilities to  
4 rebalance this issue. I'm not suggesting that we ban  
5 out-of-state purchases. We've never done that.

6 But when you look at this, you know, any person  
7 who cares about the economic development of Arizona would  
8 say, "Hmm, why are we doing so much out-of-state renewable  
9 energy?"

10 And actually, I want to amend something I said  
11 earlier about SRP. I'm thankful that they did sign a wind  
12 project in northeastern Arizona. And I'll ask them -- I'm  
13 sure they'll present on when that is going to be in  
14 service. But they obviously found a way to make it happen  
15 in a way that was cost effective for their consumers.

16 So I'm not suggesting that we ban out-of-state  
17 purchases. I am asking our utilities to have a more  
18 balanced approach to these projects. And I think they  
19 were willing to do that with Solana, and I just hope that  
20 they do it with future renewable energy purchases.

21 As for -- and, you know, I hope we don't get to  
22 the point where this Commission has to assume authority  
23 over approving contracts, individual contracts. We've not  
24 done that in the past. But if I continue to see the  
25 utilities, especially APS, sign huge renewable energy

1 projects out of state, then I'm going to start calling for  
2 contract-by-contract approval of renewable energy projects  
3 so that the Commissioners can decide as a group whether  
4 this is the right policy for the state of Arizona.

5 I don't know what the full Commission would say  
6 about that, but that's what I'm hoping to see happen. I  
7 don't think we need to go down the road of approving  
8 individual contracts like they do in other states, but  
9 it's not a balanced situation.

10 So Mr. Carlson.

11 MR. CARLSON: Thank you, Ms. Chairman.

12 Two more slides on renewables since we're on the  
13 subject. We've had this slide since 2006. We update it  
14 every year. It shows our growth in Central Station  
15 renewable energy. In 2008, we procured 593 gigawatt  
16 hours, and project 645 gigawatt hours for 2009. Again,  
17 continuous growth since 2006.

18 And the last slide, again, this is a slide we  
19 have every year that talks about the growth in the DE. At  
20 the end of 2008, we had installed 2,412 photovoltaic,  
21 primarily, units in the system, and paid out \$9.1 million  
22 in incentives and about \$12 million in commitments to pay  
23 out as well. Again, these are primarily photovoltaic DE  
24 systems that are in the APS territory.

25 CHMN. MAYES: Mr. Carlson, can you just go back

1 real quick? You have seen a 60 percent increase in  
2 requests for solar rooftops, or requests for your rebate  
3 in your solar rooftop program?

4 MR. CARLSON: That's been an increase over 2007  
5 numbers, that's correct.

6 CHMN. MAYES: All right. And I know APS is still  
7 worried about meeting the very aggressive targets that we  
8 have, but my view has always been, hey, you know,  
9 60 percent increase, that shows that the people are  
10 interested in doing solar rooftops. So let's be glad for  
11 that and keep working hard to meet the standard,  
12 understanding that the standard is really aggressive.  
13 Thank you.

14 MR. CARLSON: You're welcome.

15 And now I'll turn it over to Mr. Glock.

16 MR. GLOCK: Thanks, Tom.

17 Chairman Mayes, Commissioners, my name is Tom  
18 Glock. I am the Director of Operations for Arizona Public  
19 Service. I have been with them for 27 years, seven of  
20 them at Yucca power plant operating there, and 20 years in  
21 power operations here in Phoenix. I'm just an operator.

22 I also have a degree, for whatever that is worth.  
23 It's not a law degree, no. You don't have to worry about  
24 that. It is from the University of Arizona. I kind of  
25 follow along in Bob Smith's trail; it's in microbiology.

1 And I also follow Mr. Carlson in my minor is in chemistry.  
2 Why I'm in operations in electric, fate. I'm just lucky,  
3 I guess.

4 Here is -- this slide depicts our diversification  
5 in generation. I'm the numbers guy, so I'll tell you kind  
6 of how it's really going to stack up this summer. We have  
7 1,146 megawatts of nuclear; 1,750 in coal; combined cycle  
8 natural gas generation, we have a total of 1,900  
9 megawatts; gas oil, the peaking units, combustion turbines  
10 and steam, we have 1,467; and solar we have 3. We have a  
11 total of 6,266 APS-owned generation to serve our load.

12 Renewable resources, Tom went over all of these.  
13 What is important out of this is the nameplate capacity  
14 versus the coincidental peak for wind. We actually peak  
15 on this generation, so we take a conservative route and we  
16 plan and expect to see 44 megawatts at peak hour of our  
17 renewable resources.

18 So if we add this all up, we've got existing  
19 generation of 6,266. We have long-term contracts, and  
20 these are with PacifiCorp, Salt River Project, the  
21 contingent and territorial, the reliability request for  
22 proposal purchases, market contract and renewables. That  
23 totals up to over 2,000 megawatts. And then short-term  
24 market contracts -- those are your seasonal contracts,  
25 enough to get you over the peak based on what your load

1 forecast is -- of 192. We have a total of 8,460 megawatts  
2 of total resources ready for this summer in place.

3 So now we have taken our resources and compared  
4 it to our forecast. In 2007, we had a forecast of 7,121  
5 megawatts. We hit an actual of 7,144. Last year we had a  
6 forecast of 7,202 megawatts. We had an actual of 7,026.

7 The question would be why. When we do our  
8 forecasts for looking at the load, we put out a 113-degree  
9 day and run -- and with the traditional relative humidity  
10 at that time, that can be right in the monsoon time, so we  
11 put that into the mix. Last year we did not have a real  
12 hot, long heat wave, so it came under.

13 Then, for this year, again we're forecasting  
14 113 degrees. We have got a 7,254 megawatt forecast at  
15 peak.

16 CHMN. MAYES: Mr. Glock, well, these are the  
17 money slides, as we say. In summer and winter  
18 preparedness, these are the ones that are probably the  
19 most important.

20 Probably better, I guess, certainly from the  
21 standpoint of providing service, to overforecast than to  
22 underforecast. We've had some underforecasting in the  
23 past.

24 But what happens from the standpoint of, you  
25 know, what you're having to spend to purchase that power?

1 Are there any negative effects for ratepayers associated  
2 with underforecasting the load?

3 MR. GLOCK: Actually, from a pure operations  
4 perspective, as long as you're not overdoing it on that,  
5 it's better to overforecast and be under. Because what  
6 you really avoid are your combustion turbines, your  
7 peaking units, because your purchased power will be more  
8 economical than those. So really, at this perspective, I  
9 think we're really close to the ballpark. I think our  
10 forecasts are pretty close to what is most economical for  
11 us on this realm.

12 What I would like to point out, which also really  
13 helps and kind of addresses Commissioner Kennedy's  
14 question on energy efficiency, our forecasts include,  
15 which means reduce by that 2 percent, which means  
16 Mr. Smith doesn't go and plan and work on building  
17 resources to be able to meet that. So it's an all  
18 inclusive. I think the term Mr. Dinkel used was it's an  
19 integrated process to be able to look at that.

20 CHMN. MAYES: Okay. And then could the fact that  
21 you -- the actual turned out to be less than the forecast,  
22 did that have anything to do with the slowdown in growth  
23 and conservation by folks who might be using less  
24 electricity because of their economic situation?

25 MR. GLOCK: This was -- last summer, that might

1 have been really on the front cusp of our economic  
2 downturn, so there could be a part of that. I could see  
3 more indication -- of the 250, roughly 250 megawatt  
4 downside on that load, I can more out of a historical  
5 basis look at it as roughly 70 megawatts, what I  
6 anticipate and what I'm forecasting day-to-day,  
7 70 megawatts per degree of temperature.

8           So we peaked at 110 degrees. Three degrees would  
9 give you a pretty ballpark. So it's a little bit more  
10 than that, so I think there was probably a beginning of  
11 economic downturn, but not a lot. I don't think there was  
12 a big impact at that point. More to do with the weather.

13           CHMN. MAYES: Okay.

14           MR. GLOCK: Okay. Here we have the overall plan  
15 for the entire APS system. We have the 8,460 megawatt  
16 worth of resources and our 7,254 megawatt forecasted peak.  
17 It leaves us a margin of 17 percent. Industry average is  
18 in that 16 to 18 percent. It's a good planning margin.

19           What you need that margin for, again, you know,  
20 being the conservative operator that I am, is for what I  
21 don't know. And what I don't know is where is the load  
22 forecast going to be? Extreme weather is one way, or  
23 another is economic changes, that's why the forecasts have  
24 come down; multiple generator outages, you know, so I'm  
25 not having to go into panic mode and really pay the high

1 dollar for replacement power, or transmission outages for  
2 the same reason.

3           APS and SRP are very highly networked, connected.  
4 We've got lots of interconnections between the two  
5 companies. So when we look at the metro Phoenix area, the  
6 Phoenix valley, we combine our resources really to figure  
7 out how we're going to be able to maximize the use. What  
8 is the maximum load serving capability we together have to  
9 serve the metropolitan Phoenix load.

10           So in 2008, we've had 13,000 megawatts worth of  
11 load serving capability. What I mean by maximum load  
12 serving capability, that includes your transmission  
13 capability of anything that you import, plus the local  
14 generation that's in that valley itself. For us, it would  
15 be the West Phoenix power plant, the Ocotillo power plant.  
16 The Salt River, it's Agua Fria and San Tan and Kyrene. So  
17 all of those resources combined, both generation and  
18 transmission in the Phoenix valley, can meet this load  
19 requirement.

20           So in 2008, we had 13,000 maximum capability. We  
21 had an actual of 11,168 megawatts. We had a forecast of  
22 11,744. This year, for 2009, we still have -- we have not  
23 put any additional transmission capability into the system  
24 at this point. We have still 13,000 megawatts worth of  
25 load serving capability, and our combined forecast for the

1 Valley is 11,622. You'll notice that's a little bit down.

2 The Yuma area. Again, not to pick on Yuma or  
3 leave any of the other metropolitan areas out, but I have  
4 a soft spot for Yuma. It's my home. But with Yuma, what  
5 we really want to be able to show you here is when you  
6 have a combination of both transmission and generation.  
7 And the Yucca power plant does provide that resource along  
8 with the transmission that goes to Yucca, versus towns  
9 like Prescott and Flagstaff that are transmission  
10 dependent solely.

11 So in 2007, we had a forecast of 409 megawatts  
12 and an actual of 413. It went the other way. 2008, we  
13 had a forecast of 425 and an actual of 4,003. And again,  
14 in Yuma, what we didn't experience was the temperature.  
15 We really -- it's a matter of scale. As we did with the  
16 13,000 with -- or the 11,600, 700 for the Phoenix area,  
17 with 400 those temperature changes make a pretty good size  
18 difference.

19 So the forecast for this year in Yuma for 2009 is  
20 431 megawatts, so we should be in pretty good shape there  
21 based on what our maximum load serving capability is. For  
22 2008, we had 565. And that was a pretty good increase  
23 over the last year, because we had two additional peaking  
24 units built in Yuma.

25 What we had was a forecast of 425 and actual of

1 403. This year we still have the 565 megawatts of maximum  
2 load serving capability, and a slight increase in load of  
3 431. We have a margin of 134 megawatts. Planning  
4 criteria is 97.

5 A question might be is where does really the  
6 planning criteria kind of come in? You need to kind of  
7 balance how long it's going to take to actually put a  
8 resource in if you get -- start squeezing the margin down  
9 too tight. It takes usually a couple of years to put in  
10 generation, and certainly a good five, if not longer, to  
11 get transmission facilities in. So that why we're trying  
12 to make sure you have got a little bit of buffer in there  
13 to make it.

14 CHMN. MAYES: Commissioner Kennedy.

15 COM. KENNEDY: Madam Chairman, I'm sorry.

16 Mr. Glock, back on Slide 47, your forecast for  
17 2007 was 409 megawatts, but your actual was 413. Were  
18 there any outages? And maybe I'm not -- because this is  
19 just -- on this slide you're just talking about the peak  
20 load?

21 MR. GLOCK: Correct. There's the forecast, which  
22 for all practical purposes that's the guess of what we  
23 think it's going to be, and the actual is the actual load  
24 that we achieved at that point.

25 COM. KENNEDY: Okay. Then what I'm missing is --

1 okay. The forecast for -- okay. Get me to the top of  
2 this 2007 -- I don't know what I would call it. How do I  
3 get to the top of this?

4 CHMN. MAYES: If I could, I think what  
5 Commissioner Kennedy is asking is what happened in 2007  
6 that the forecast was -- that you underforecasted the  
7 actual peak load on the peak day, right? Is that what  
8 happened?

9 MR. GLOCK: In 2007, that was hot, and we had a  
10 real hot spell of 117 to 118 in Yuma over a five- or  
11 six-day period. So we exceeded the forecast.

12 COM. KENNEDY: Okay. At some point I'll have to  
13 do a little one-on-one with you.

14 MR. GLOCK: Certainly. No problem at all.

15 COM. KENNEDY: Okay.

16 MR. GLOCK: Anything else with that?

17 CHMN. MAYES: And I think that, Mr. Glock, if  
18 you're done with this area, let me -- why don't we take  
19 a -- I would like to take a 10-minute break so that  
20 Michele's fingers don't fall off.

21 And we'll come back, and I think, you know, we're  
22 really going to fly through the next slides. We've got a  
23 lot of terrain to cover, and we need to do it before we  
24 lose our quorum at 2:00, because Commissioner Pierce has a  
25 couple of meetings that he's got to go to at the

1 legislature on our budget. So I know that's a lot that  
2 we're going to have to cover. In 10 minutes we'll come  
3 back, and we're going to plow all of the way through.

4 (A recess was taken from 11:55 a.m. to 12:06 p.m.)

5 CHMN. MAYES: Let's come back to order. I think  
6 what we'll do -- actually, could we quickly go through the  
7 rest of Mr. Glock's slides, and then what I would like to  
8 do is clear out the table and have one representative from  
9 each of the utilities come and talk about the stimulus  
10 package, and then we'll go back to SRP and TEP to talk  
11 through the rest of their slides on summer preparedness.

12 So, Mr. Glock, if you could go through  
13 contingency planning.

14 MR. GLOCK: Very good. I have three sides left,  
15 so we'll make it quick.

16 CHMN. MAYES: Okay.

17 MR. GLOCK: Contingency planning. As an  
18 operator, that's always been an important role. What we  
19 have in place are backup center testing. We have a  
20 completely alternate site for our control center in case  
21 we have any issues with our primary site, so we do that.  
22 We're doing that, actually, May 1st through the 3rd.  
23 We'll spend an entire weekend really operating out of that  
24 alternate site. So we really test it out well there.

25 Regional black start drills, we do that every

1 Wednesday, and we're in the middle of doing that right  
2 now. We do that for five weeks, that way we can ensure we  
3 have rotating -- we have people that are on 7 by 24 hours,  
4 so they're rotating shifts. That way we ensure each  
5 operator gets a chance to go through that drill and  
6 training so we're not missing anybody.

7           And we do that regionally, so the Salt River  
8 operators, the Tucson operators, the Western Area Power  
9 Authority operators, along with Colorado, New Mexico, and  
10 our WECC, Western Electricity Coordinating Council  
11 reliability coordination center, which really direct those  
12 kind of operations, they do that. We exercise our  
13 curtailment tools, which we had a chance to actually do a  
14 desktop drill during the Coyote Crisis.

15           Summer studies, which include the fire dangers,  
16 so when we lose our -- if we have to use our right-of-ways  
17 as firebreaks, do back burns, things like that, we have to  
18 take lines out of service during those periods of time, we  
19 know what our system can handle and how to prepare for  
20 those.

21           Transmission path operations, we're a key path  
22 operator through the whole western United States, so we  
23 make sure that all of the operators are very keenly aware  
24 of any line outages, what the impacts are, and how to  
25 mitigate those.

1           And then emergency operations training, that is a  
2 requirement by the North American Electric Reliability  
3 coordination for operator certification, 35 hours' worth  
4 of emergency operating training per year. So we're doing  
5 that.

6           Statewide operations, the Arizona state  
7 utilities, the four that really work in the metro area,  
8 APS, Tucson, and WAPA, Salt River, we basically band  
9 together and figure out how do we best coordinate  
10 day-to-day operating information. So we put basically an  
11 operating procedure together. We start May 15. Not that  
12 we don't do it at any other time during operations, but  
13 May 15 kind of puts us in the summer mode of making sure  
14 we're communicating regularly, and we start Monday.

15           We include any of our fire command information  
16 that any of the entities will have their people in and we  
17 have a conference call. And what we talk about on those  
18 conference calls is we get -- you get the operations  
19 people together and you update your facts at 7:00 in the  
20 morning. At 9:00 we hold the call and we review what is  
21 really going on that day. What your generation outages  
22 are; what your transmission outages are; what the weather  
23 forecast is; what the load forecast is; and any fire  
24 dangers that might be going on; current issues to make  
25 sure that everybody is up to date, who is doing what, and

1 how they could impact each other.

2 Then, at 10:00, once we've shared all of that  
3 information, you go back with your own internal people and  
4 share that information amongst the operating engineers so  
5 you know what is going on around the state.

6 CHMN. MAYES: All right.

7 MR. GLOCK: So conclusions, APS is well prepared.  
8 We've got the generation, we have the transmission, and  
9 and we have the distribution capability to deliver the  
10 power. And we've got plans in place to handle  
11 contingencies, which is the role of an operator.

12 CHMN. MAYES: Okay. Thank you, Mr. Glock, thank  
13 you APS, and interesting presentation. And interesting  
14 also that it looks like your load forecast is going to  
15 decline for the first time since I've been a Commissioner.  
16 Every year it's been sort of an upgrade projection. So  
17 that is an interesting new wrinkle in development, and I  
18 suspect that it's mostly weather related, but also there's  
19 some effects from this awful economy that we're  
20 experiencing in there as well.

21 So thank you, Mr. Glock, Mr. Carlson, Mr. Smith.

22 And now if we could have Mr. Guldner, Ms. Barr,  
23 and Mr. Heyman from TEP come up, Ms. Barr from SRP, Jeff  
24 Guldner from APS, come and sit here at the table and  
25 present to the Commission on efforts by your utilities to

1 pull down federal stimulus money for the benefit of  
2 Arizona ratepayers.

3 Mr. Guldner.

4 MR. GULDNER: Chairman Mayes, since we're moving  
5 people up to the table, do you want me to cover fly ash  
6 for the company?

7 CHMN. MAYES: Yeah. Why don't we do that right  
8 after we do stimulus, if that's okay with Commissioner  
9 Kennedy. Okay. We'll do that right after stimulus.

10 Mr. Guldner, do you want to go first? And if  
11 you're comfortable there at the table, that's fine.

12 MR. GULDNER: Sure.

13 CHMN. MAYES: Mr. Heyman and Ms. Barr, if you can  
14 sit there at the table, that would be great.

15 Jeff, why don't you -- can you send that mic down  
16 to Ray, and then pull that one over for yourself.

17 MR. GULDNER: I'll try.

18 CHMN. MAYES: Oh, never mind. Sorry.

19 MR. GULDNER: Chairman Mayes, Commissioners, I'm  
20 going to -- we put a presentation together to talk through  
21 what we're doing at APS, and I think also then to talk  
22 about what the other utilities in the state are doing to  
23 prepare for the funding on energy-related programs that we  
24 see coming from the stimulus bill, or the, I guess, more  
25 official word, the American Recovery and Reinvestment Act

1 of 2009.

2           So on the first slide I just wanted to ground us  
3 with what we see as the broad dollar amounts that are  
4 coming in the various energy-related programs from the  
5 federal stimulus bill. Before I go through these, just to  
6 give you a flavor of what we're doing, is we've looked  
7 through and we've been talking pretty regularly to the  
8 electric utilities in the state, and have been talking  
9 pretty regularly, about how we approach this.

10           Because in some ways this is an interesting  
11 process, because there's going to be some competition  
12 certainly for funds that are coming from DOE on grants.  
13 And part of the strategy that we think you need to employ  
14 to be effective is how you partner and show you're  
15 partnering. That seems to be a very favorable theme in  
16 Washington, and we think there's great benefit from  
17 bringing projects to the federal government, to the extent  
18 that projects require federal approval, that show a  
19 partnership not just with the utilities, but also with the  
20 regulators and the legislature, and that that will help us  
21 be successful in obtaining some of those funds.

22           The first three bullets on this slide are really  
23 funds that are in the category of energy efficiency and  
24 renewable energy development. And you see 3.1 billion  
25 across the country going to state energy programs. And

1 we'll talk about each of these separately, but these are  
2 just the funding categories. 3.2 billion for energy  
3 efficiency and conservation programs. 5 billion for  
4 weatherization assistance, which is a huge increase over  
5 what has historically been spent on weatherization in our  
6 country.

7 In the next category, which is loan guarantee, so  
8 this is a different animal, not block grants but loan  
9 guarantees for renewable energy and transmission projects,  
10 about 6 million.

11 4.5 billion for smart grid investments. There's  
12 a tremendous buzz right now in the industry, and there has  
13 been growing for the last few years, around this concept  
14 of smart grid. And, in fact, the FERC in its last public  
15 meeting last week issued a smart grid policy statement,  
16 and they're seeking comments from the industry on things  
17 that the FERC intends to pursue in streamlining smart grid  
18 investment on the transmission system.

19 There is most relevant to us \$3.25 billion in  
20 additional borrowing authority. I'm sorry, yeah. Did I  
21 get that right? The \$3.25 billion in additional borrowing  
22 authority for the federal power marketing administrations.  
23 For us, that's Western Area Power Administration. There's  
24 some detail around how they're going to spend that, but  
25 for WAPA that's a significant funding increase and will

1 potentially enable a significant number of projects to be  
2 developed by Western.

3           There's also 3.4 billion being deployed for  
4 fossil energy research. These are things like carbon  
5 capture and sequestration, CO2-related research. And  
6 again, these are being done kind of widely around the  
7 country.

8           I didn't put up in here, but there's also  
9 2.5 billion in additional Department of Energy support for  
10 what is called the EERE, the Energy Efficiency and  
11 Renewable Energy Office's applied research development and  
12 deployment activities. So these are essentially R&D-type  
13 projects that are funded through DOE grants. They've  
14 earmarked out of that 2.5 billion, 800 million to biomass  
15 projects and 400 million to geothermal. So it's  
16 supplementing an existing DOE program and expanding it.  
17 It's a little bit different animal than some of the other  
18 items that are identified, but it's something that's also  
19 out there.

20           CHMN. MAYES: Mr. Guldner, before you move on, I  
21 appreciate that breakdown of the various pots of money  
22 that are available for use by Arizona utilities and their  
23 customers.

24           But you said something that I wholeheartedly  
25 agree with, which is our utilities need to be working

1 together to maximize the ability of the state of Arizona  
2 to bring some of these dollars for the benefit of our  
3 consumers. We have a huge opportunity here to utilize --  
4 to tap those federal stimulus monies and build solar  
5 projects, bring energy efficiency to our state, and build  
6 new transmission lines for renewable energy, but it's not  
7 going to happen if our utilities aren't working together.  
8 So I appreciate the fact that you're doing that.

9           How are you doing that, and can you be specific?  
10 How are you working together to -- are you submitting  
11 joint bids? Are you planning to submit joint smart grid  
12 and transmission and solar energy projects going forward?

13           MR. GULDNER: Chairman Mayes, Commissioners, I'll  
14 obviously let the other folks talk. Part of it is, I'll  
15 say, process related, that we're staying in touch. We  
16 started weekly phone calls to coordinate what the  
17 activities are.

18           One of the challenges that we're facing, and  
19 you'll see it in some upcoming slides, is we're still  
20 waiting on guidance on a number of these programs, which  
21 makes it kind of hard to earmark some of the stuff that  
22 you want to pursue right away. As that guidance becomes  
23 available, then that will give us more opportunity to sit  
24 down and coordinate.

25           I think that we know that each of us probably has

1 some projects that are -- more projects that are our own  
2 projects that we will be submitting for funding, but we  
3 also see the history, at least in Arizona, on our  
4 transmission system when you look at the number of jointly  
5 owned lines. You know, we talked earlier about Palo Verde  
6 North Gila-2 as a line that's there's a number of  
7 participants that we already have a history of cooperation  
8 that's not necessarily the same around the country, and  
9 that we can take advantage of that and submit some joint  
10 applications.

11 So as we think of -- it's both a coordination  
12 exercise to make sure that we know what we're each doing,  
13 and we do that now through a more structured -- they're  
14 not just telephone calls, but meetings and telephone  
15 calls.

16 But then also as we get into the application  
17 writing, it's trying to identify what priorities we have  
18 and probably submitting joint applications. I don't think  
19 it's just the utilities that joint applications we'll  
20 submit. The support of the state and the Commission and  
21 other interested stakeholders is something we see as  
22 important to make these successful.

23 CHMN. MAYES: And that goes to my next question,  
24 which is -- you know, I think it's going to be hugely  
25 important for this Commission to show our total support

1 for these projects. And, you know, make no mistake,  
2 there's no ambivalence here on whether we want to bring  
3 federal stimulus money for use on energy projects in  
4 Arizona. And I think that we need to send a clear and  
5 unified signal to the federal agencies that we do want  
6 this money in the state of Arizona.

7 So you will be asking for letters of support from  
8 the Commission for whatever projects you come up with?

9 MR. GULDNER: That's correct, Chairman, yes.

10 CHMN. MAYES: Okay. Ms. Barr, Mr. Heyman?

11 MS. BARR: Absolutely.

12 CHMN. MAYES: And could you each speak to this  
13 issue of cooperation and how you see that working going  
14 forward?

15 MS. BARR: Madam Chairman, Commissioners, Jeff  
16 did describe the process, and it is early. Jeff is going  
17 to go through the remainder of his presentation here, but  
18 the guidance has just come out for the state energy  
19 programs, and that's the first big chunk of money that's  
20 going to go directly to the states. We're still waiting  
21 for guidance on a number of these other programs.

22 So SRP started looking at this really carefully  
23 in December. We retained a consultant who routinely works  
24 with these agencies on getting grants, and his suggestion  
25 to us was, you know, go through and cull all of your

1 possible projects, and so we looked at our inventories of  
2 those projects. And you mentioned the downturn, and so a  
3 number of projects that had been certificated and  
4 permitted, we were pulling crews off of those. So those  
5 seemed like good candidates to us.

6 CHMN. MAYES: Shovel ready, right?

7 MS. BARR: Shovel ready.

8 We then put together a very long list. He said,  
9 "Thank you very much for that long list. How about  
10 cutting that down just a tad?" And so we went from that  
11 number to about 20 different projects. In our most recent  
12 call he said, you know, six seems like a good number. So  
13 we've culled it down some more, and we can talk a little  
14 bit more about some of those projects.

15 We have been engaged in a lot of communication  
16 about projects that we had jointly certificated and  
17 permitted and that would be really good candidates for  
18 stimulus money. And so our pledge, I believe, is to  
19 continue to work together, to wait for that guidance to  
20 come out to make sure that the projects we have identified  
21 will meet the qualifications, and then we'll move forward  
22 with it.

23 CHMN. MAYES: Are you speaking, Ms. Barr, in  
24 terms of transmission and/or --

25 MS. BARR: Yes.

1 CHMN. MAYES: Okay. Because I don't know of any  
2 other solar plants that we have certificated.

3 MS. BARR: Right. No, it would be -- I think the  
4 joint applications will probably be limited to  
5 transmission lines.

6 CHMN. MAYES: Why? I mean, why couldn't you  
7 make -- is there money available for large-scale solar  
8 projects?

9 MS. BARR: There is money available for  
10 large-scale solar, but it's not very much, and that's one  
11 of the conversations we've been having with DOE. Jeff  
12 talked about this earmarking of 800 million for biomass  
13 and 400 million for geothermal. That doesn't leave a lot  
14 of money left in that pot for solar.

15 So we have been talking to DOE and encouraging  
16 them to look for new funding sources, because the solar  
17 facilities, the large concentrated solar facilities are  
18 expensive and folks could use some assistance with those.

19 And then, Ray, did you want to add something?

20 MR. HEYMAN: Sure.

21 Chairman, Commissioners, Ray Heyman. I agree  
22 with the statements that Mr. Guldner and Ms. Barr have  
23 made regarding our cooperation. We have been meeting for  
24 quite some time. We have met frequently. And because it  
25 is early in the process, there are certain things that

1 we've had to do individually and certain things that we  
2 could come together on, and we are looking at projects  
3 that we can do in the future.

4           You know, one of the easy ones that came to my  
5 mind was this WESTCARB project that we have, which is a  
6 joint study that has been already funded by DOE. The next  
7 step, to take that to the next level, is dealing with  
8 carbon sequestration, for example, would be for the three  
9 of us to apply to get some federal stimulus money to  
10 continue with the funding on that. And that's an example  
11 that's a nonconstruction, whether it be a power plant or a  
12 transmission line, where there might be some money  
13 available.

14           The process that we went through with TEP and UNS  
15 Gas and UNS Electric was similar to that that Kelly had  
16 mentioned where we had all of the officers take the  
17 stimulus program that had been divided up by a consultant  
18 and go from a top-down through the organization and say,  
19 which of these projects would be on your wish list? And  
20 then when we got that, we had to narrow it down to which  
21 would be realistic. And then from that, which ones do we  
22 think we could really apply for, and which are high  
23 potential. And just coincidentally, our list that we  
24 culled down to is about 18 to 20 as well now.

25           The next step that we're going to do is assign

1 particular people in the company to be responsible for  
2 shepherding that through. And as the rules and the  
3 regulations are promulgated, then we'll be making the  
4 applications. But we're doing things individually that  
5 may not be appropriate because of the territory where  
6 we're in, and we're also looking at things to partner with  
7 the other utilities.

8 CHMN. MAYES: Are those lists something that  
9 could be -- understanding that there may be sensitive  
10 projects that you feel like they're competitive and you  
11 may not be able to provide it to the Commission, but can  
12 that be provided to the Commission?

13 And then the second part of my question is, I'm  
14 wondering whether we should create a website to track the  
15 efforts of our utilities to try to bring down this federal  
16 stimulus money, either here at the Commission or a website  
17 that would be jointly created by our utilities. What do  
18 you think about that?

19 MR. GULDNER: I think on just the latter point  
20 first, one of the important things that President Obama  
21 made clear in the stimulus package was to have  
22 transparency in the process. And so, for example, you go  
23 to the governor's website right now, you have got one site  
24 that has all of the stimulus-related information. And  
25 they've kind of directed the agencies that are

1 implementing this to have a one-stop website where that  
2 information is available.

3           So I think that if the Commission or the  
4 utilities put together a site, that would certainly be  
5 consistent with the spirit of that.

6           CHMN. MAYES: I thought so, too. And the  
7 thing -- I mean, I certainly think what the governor has  
8 done is terrific. I just think that we ought to break  
9 this out so that Arizonans can track what we're doing here  
10 at the Commission and what our utilities are doing.

11           And I think that will help all of us because, you  
12 know, to the degree that we can energize Arizonans -- no  
13 pun intended -- to argue on behalf of these projects as  
14 well, it increases our chances of achieving some of this  
15 funding. I don't know. Anyway, that's something for the  
16 Commissioners to talk about. I just wanted to raise it  
17 today.

18           MR. GULDNER: And I think that in terms of  
19 providing project information, there are certainly some  
20 that are more potentially on the confidential side.  
21 There's others that I don't think that would be an issue.  
22 I'm sure we could provide it to the Commission. And I  
23 know there are resources internally at the Commission that  
24 are focusing on this that we'll make sure we coordinate  
25 with and provide that information so that you can see what

1 we're thinking about.

2 CHMN. MAYES: Okay. Sorry for the interruption,  
3 Mr. Heyman.

4 MR. HEYMAN: Chairman, Commissioner, one thing  
5 that I would like to compliment the Commission on is we've  
6 been looking for point people that we can work through.  
7 Because it's so nebulous right now, we're trying to figure  
8 out how do you get to the pot of gold that everyone is  
9 after at the same time.

10 The kind of mental image that I had in my mind is  
11 when you go to a pond sometimes and you throw a piece of  
12 bread in the water, and all of a sudden all of these fish  
13 come from all over the place and tear the thing apart and  
14 then they're gone, and you just hope that your fish got a  
15 big piece of it.

16 But I understand that Mr. Olea has been  
17 designated by the Commission as a point person on that.  
18 And if that is the case, we're glad to hear that and we  
19 will certainly work with him. Mr. Arwood has also been  
20 identified, and he's somebody that we want to get people  
21 together in the same room so that we understand what the  
22 process is that we should follow. Because we don't want  
23 to be last in line because we're filing the wrong  
24 application to the wrong office, and finding out that  
25 somebody has done it the right way and has beat us out of

1 money.

2 CHMN. MAYES: Okay.

3 MS. BARR: Can I add one other item that you  
4 could help us with, I think, and that is working with the  
5 governor's office. I know that many of you have had  
6 conversations with them already.

7 They are poised to get, as Jeff is going to talk  
8 about, a big slug of money. And they have, I think, some  
9 significant resource issues in terms of trying to figure  
10 out how to get the money out the door. So we would  
11 welcome your participation in those meetings with the  
12 governor's office as well.

13 CHMN. MAYES: Yeah. And to that point, I think  
14 that multiple Commissioners have been working on this  
15 issue, and we totally agree amongst ourselves about one  
16 thing, which is we are really hoping that Governor Brewer  
17 will carve out some of the money listed on this slide,  
18 will carve out some of the money for coming to Arizona for  
19 the existing utility-based energy efficiency and renewable  
20 energy programs.

21 Because, you know, unless we do that, Arizona  
22 consumers aren't going to directly benefit from this  
23 money. And we've got positive feedback from the  
24 governor's office about possibly sending some of that  
25 money to the existing energy efficiency programs at our

1 state's utilities that are governed by this Commission,  
2 and I think that's a really good sign. We have a huge  
3 opportunity here to benefit Arizona ratepayers with this  
4 money if it's done right.

5 MR. GULDNER: And that's exactly what we wanted  
6 to highlight on this slide. There's \$171 million  
7 potentially allocable to the state of Arizona. It is my  
8 understanding that the governor sent -- yesterday was the  
9 due date -- the certification to the Department of Energy.  
10 I haven't seen a copy of it yet. I looked this morning,  
11 and it wasn't out.

12 That's not, however, the big application. The  
13 second step to this is in May on May 12. The governor has  
14 to submit a plan, which is a more detailed plan, which  
15 explains where the money is going to be allocated or how  
16 it's going to be used. So that out of the three  
17 sub-buckets in this category, 55 million in state energy  
18 programs is the area I think we believe there's the  
19 opportunity to have the governor allocate some of that to  
20 matching utility projects.

21 Our goal with that, and I think it indicated in  
22 the letter to the Commission, this could complement some  
23 of our existing energy efficiency programs, depending on  
24 the amount that's allocated. And we certainly would want  
25 to work with the Commission and the other stakeholders to

1 see what folks believe is the most appropriate way to  
2 spend this. I wouldn't rule out new programs. I wouldn't  
3 rule out potentially distributed energy grants. A lot of  
4 it is going to depend on what is in kind of the next  
5 couple of months as we work towards the May 12 plan.

6           And there may be some clarifications and some  
7 work we'll need to do with the Commission on some of our  
8 existing programs just to make sure that we can use that  
9 funding and that we don't have any unintended consequences  
10 from program limitations or other guidelines that were put  
11 into place prior to the stimulus bill being passed. So  
12 that's the area where we see some direct matching funds  
13 potentially coming from the utilities.

14           The second bucket, however, presents an equal  
15 challenge. This is block grants that are coming primarily  
16 towards municipalities, cities, and counties. And what we  
17 see as the challenge here is making sure that we're  
18 working with our communities so that they understand what  
19 program options are available through us. What we don't  
20 want to see is money come to a city or county that's then  
21 used to fund something that we already have an existing  
22 program that we could have used. And so we want to make  
23 sure that they can leverage and that we're working with  
24 cities and counties so that they can leverage the use of  
25 that funding.

1 I think it's still a little nebulous as to how  
2 that's actually going to work once the funding is  
3 deployed, but to us the challenge there is engaging with  
4 the communities. We have a strong team of folks who are  
5 in touch with, and most of the communities are key account  
6 customers of the company, and so we'll be working pretty  
7 closely with them.

8 So even though it's not direct funding to the  
9 utility, we see at least a significant role for the  
10 utility in helping to ensure that that money is spent  
11 wisely and helping shape that.

12 CHMN. MAYES: Yeah, I agree. I think it's  
13 interesting -- it's going to be interesting to see how the  
14 cities and counties spend this money. It seems to me  
15 that -- well, I hope they don't take the easy route, which  
16 is just to plow it into county and city buildings.

17 You know, I hope they'll consider, you know,  
18 creating funds that can be used in conjunction with our  
19 existing energy efficiency and solar programs that would  
20 then be available to actual residents and actual small  
21 businesses. I think that's the way to go about doing  
22 this, rather than probably the easy way which is to, if  
23 you're a city or a town, say, well, I'm just going to  
24 weatherize all of my buildings, or I'm going to put solar  
25 on all of my buildings.

1           And so you're talking to them about those types  
2 of options?

3           MR. GULDNER: We're talking to them. We're trying  
4 to figure out how we best engage with them.

5           I think the other thing, Chairman Mayes and  
6 Commissioners, is this is a great messaging opportunity  
7 for things like distributed energy and renewable energy.  
8 And so if some of that funding is allocated to, you know,  
9 some -- if they can do some rooftop solar installations,  
10 there's an opportunity for a municipality to create a  
11 theme around the concept that can help carry messages that  
12 we've been trying to promote as well.

13           So again, it's complementary to a lot of the  
14 programs that we're doing, and we see this as a big  
15 challenge, getting out with the communities and try to  
16 help them spend the money wisely.

17           Equally challenging just in terms of a magnitude  
18 standpoint is going to be weatherization. I think that  
19 the funding level for weatherization in the state has been  
20 about \$2 million, not including the utility funding. We  
21 have some funds that we use through our energy efficiency  
22 programs approved by the Commission for weatherization,  
23 but there is direct funding that goes to the community  
24 action agencies that's not anywhere near this magnitude.  
25 And so you're going to be throwing a significant amount of

1 money at agencies. And the potential -- because now the  
2 homes can go up to \$6,500 in weatherization per home,  
3 that's some huge amounts of weatherization in our state.

4 And so again, this is going to be a coordination  
5 effort as we work -- you know, we have some nominal amount  
6 of weatherization funding in our approved DSM program, but  
7 it's also now getting with the community action agencies  
8 and helping them. We work pretty closely with them, but  
9 helping them spend this money.

10 CHMN. MAYES: Do we have enough contractors and  
11 eligible contractors and businesses that do weatherization  
12 to spend \$57 million this year in Arizona on  
13 weatherization?

14 MR. GULDNER: I don't think -- maybe one of you  
15 will know -- I don't think it's all in one year. It's  
16 over three years.

17 From a stimulus standpoint, I think one of the  
18 policy advantages of that particular policy is that you  
19 have got, because of the economic downturn, you do have a  
20 number of trade workers, skilled workers who are not doing  
21 anything right now who are kind of waiting for the  
22 recovery, and so I think we have the labor pool. This is  
23 probably one of the areas where if it can be corralled and  
24 if it can be marshalled appropriately, you could really  
25 use that money to help grab that workforce that right now

1 isn't engaged in building new homes and putting them to  
2 work on weatherization.

3 CHMN. MAYES: Ms. Barr, did you have something?

4 MS. BARR: I was just going to add that that is  
5 indeed the case, Jeff. There's a lot of construction  
6 crews and opportunity there in terms of mobilizing them to  
7 work in this regard.

8 There are going to have to be some training, some  
9 job training exercises to get those folks trained so they  
10 understand the types of weatherization and what is  
11 necessary in order to make those changes at the homes.

12 CHMN. MAYES: Who does that?

13 MS. BARR: Good question. I would assume that's  
14 the local community action groups who are doing the  
15 weatherization programs today. But as Jeff said, there is  
16 that \$2 million level, and then we have the 57 million.  
17 So there is just a huge mobilization of the workforce.

18 MR. HEYMAN: Chairman, Commissioner, there is a  
19 provision in the recovery act for the Office of Job Corps  
20 to get \$250 million to train people in renewable or energy  
21 efficiency. And what I don't know is how that filters  
22 into Arizona and what the timing is, but they're  
23 anticipating that people are going to have to be trained  
24 and that there would be some money put toward that.

25 CHMN. MAYES: Mr. Heyman, you said the Office of

1 Job Corps?

2 MR. HEYMAN: Yeah.

3 CHMN. MAYES: And how much? \$250 million?

4 MR. HEYMAN: \$250 million.

5 CHMN. MAYES: Okay. Can someone research that  
6 for us and find out how that money is going to come into  
7 Arizona, and how we can make sure that it is available to  
8 the construction workforce that we'll be using, utilizing  
9 for the weatherization? Okay.

10 MR. GULDNER: So on smart grid, there is  
11 4.5 billion in grant money available for smart grid  
12 projects. This is going to be a competitive process to  
13 receive grants. The grant would be up to 50 percent of  
14 project costs, that much we know.

15 The challenge here right now is what is the DOE  
16 going to define as smart grid, and that's been a challenge  
17 in our industry for a while. If you ask 10 people what  
18 smart grid is, you'll probably get 10 answers. I wrote  
19 down there's a new FERC-speak term called common semantic  
20 framework, which was scattered throughout the FERC policy  
21 statement on smart grid, but it's one of the things that  
22 they're going to pursue right away as how do you get it.  
23 It's a generally agreed upon meaning.

24 And so what they want to do is -- if you think  
25 about smart grid as a -- as our electric system as a

1 system of systems, one of the challenges when you have a  
2 system of systems is how do you communicate between those  
3 systems. And so one of the things that FERC identified in  
4 its policy statement is we need to agree first on what  
5 they call a common semantic framework, which is let's get  
6 protocols and standards so that the systems can all talk  
7 to each other more broadly than they can today.

8 Fair amount of interaction today, but I think  
9 what FERC wants to see is now it's just not going to be  
10 utilities talking to each other. You're going to have  
11 plug-in electric hybrid vehicles, you're going to have  
12 electric storage technologies potentially develop, and as  
13 each of those features of a smart grid comes on line,  
14 there has to be some interoperability or communication  
15 capability between them.

16 So we are waiting to see what the DOE is going to  
17 define as eligible smart grid projects. Pending that, we  
18 have not wanted to limit ourselves to any particular  
19 potential project.

20 We have some ideas on projects that we want to  
21 move forward with. They range from a pilot that we're  
22 still developing internally that would look at, on a  
23 small-scale distribution system kind of scope, how we use  
24 distributed automation; how smart meters can support  
25 automated distribution systems; what role distributed

1 energy -- if we saturate a feeder, what role can  
2 distributed energy play.

3           If you now have bidirectional flows instead of  
4 just radial flows on a system, how do you handle that  
5 bidirectional flow or like energy coming back to a  
6 distribution substation and then back onto the grid.  
7 There's, again, a project we're working on internally that  
8 we may seek funding on with that. But we also don't want  
9 to rule out projects like North Gila and seeing if there  
10 are potential opportunities in some of the other  
11 transmission projects we have to put smart grid features  
12 on and submit it for some of this funding.

13           CHMN. MAYES: I don't know, you may have just  
14 said it, Jeff, and I may have missed it. But is this an  
15 area where the utilities see some opportunity for  
16 cooperation? I mean, you know, you have got APS and SRP  
17 serving side by side in Phoenix and a lot of connectivity  
18 between all three utilities.

19           MR. GULDNER: Absolutely. And again, as you  
20 look, I think what is helpful now is FERC coming out with  
21 that statement on the transmission side, where we're more  
22 interconnected on our distribution side, is there is some  
23 guidance coming out from the federal government now about  
24 what they're seeing as smart grid issues, and so it will  
25 help us focus on opportunities that we have to develop

1 some projects together.

2 CHMN. MAYES: And jointly submit them.

3 MR. GULDNER: Jointly.

4 CHMN. MAYES: Do we have any idea of when DOE is  
5 going to put out the guidance?

6 MR. GULDNER: Soon. I've heard this week, so I  
7 would give it the next couple of weeks we expect to see --  
8 I'm sorry. I didn't mean that pejoratively.

9 CHMN. MAYES: No, no.

10 MR. GULDNER: The next couple of weeks I expect  
11 we'll see some guidance from DOE.

12 CHMN. MAYES: Okay. And then from there is it  
13 important for the utilities to move with alacrity to get  
14 these bids and these proposals in to DOE? Can you talk to  
15 that issue?

16 MR. GULDNER: I think there will be. One is you  
17 want to have a -- there's some pre-steps you have to do.  
18 There's some DOE qualifications that you need to get. A  
19 number -- I can't remember what it's called, but you have  
20 to get like a participant number from DOE. We've done  
21 that. And so we've done all of the pre-work that we can  
22 do.

23 The challenge will be, then, as they define what  
24 the guidance is, you definitely want to move in quickly,  
25 but I think you also want to move in with a well-prepared

1 package. And there will be some prioritization as to --  
2 you know, there may be two waves of applications that you  
3 do. But I do think we're going to want to move quickly  
4 and gather support from the Commission and other  
5 municipalities and folks like that that can help support  
6 the application with DOE.

7 Then you've got to go up to DOE and start talking  
8 to them, I think, face to face. That's one of the things  
9 that we think is important is going out there and showing  
10 them what our capabilities are and what we intend to do  
11 with it.

12 CHMN. MAYES: Okay. Do you agree?

13 MS. BARR: I don't have anything to add to what  
14 Jeff said. I think moving quickly is important, and I  
15 think that's one of the commitments that we have is as  
16 soon as we get that guidance -- I think what we're doing  
17 right now is identifying all of the possible projects, and  
18 I think all of the three utilities have done that. When  
19 we get the guidance, we'll know which of those are  
20 appropriate, and then I think we'll have to make a fairly  
21 quick decision as to whether or not we jointly apply and  
22 then do it.

23 CHMN. MAYES: Okay.

24 MR. HEYMAN: Chairman, Commissioners, I think  
25 it's fair to say, too, each of the utilities have kind of

1 been snooping around, calling up WAPA and saying, "You're  
2 getting all of this money. Where do you think it's going?"  
3 "DOE, is any of the money coming here?"

4 So we're trying to get as much covert  
5 intelligence as we can on what people are thinking, and  
6 we're not just sitting around waiting for that to happen.  
7 And as is normally the case, some of the information is  
8 probably accurate and some of it's not. At least we're  
9 trying.

10 CHMN. MAYES: Who would have ever thought we  
11 would be trying to get intel from WAPA, but they have  
12 become a very important player in all of this. I mean,  
13 we're going to get to the transmission next, so --

14 MR. GULDNER: This slide is the 6 billion of loan  
15 guarantees, so this is not grant money. This is loan  
16 guarantees that would -- effectively, it does a couple of  
17 things. For a utility, it lowers the cost of capital for  
18 the project because you can borrow money. APS, we just  
19 borrowed at eight and three-quarters. Federal debt is  
20 probably three and three-quarters. So to the extent that  
21 you can use some of this to support a transmission  
22 project, for example, that may help the economics of the  
23 project.

24 CHMN. MAYES: You know, excuse my lack of  
25 knowledge on this issue of what a loan guarantee really

1 is, but is that what it is? I mean, is this a backstop on  
2 debt that you're getting through the capital markets? Is  
3 it a loan from the federal government? Is it a low  
4 interest loan? I mean, what is that exactly if you were  
5 to do this? What does it mean?

6 MR. GULDNER: I think this is actually a loan  
7 from the federal government at federal rates, but I would  
8 have to check with our finance folks and let you know.

9 MR. HEYMAN: At their rate.

10 CHMN. MAYES: It's a loan provided at their rate  
11 by the federal government or --

12 MR. GULDNER: Hold on just a second.

13 MR. DINKEL: Chairman, Commissioners, it can  
14 be -- the loan guarantee program can be administered a  
15 couple of different ways. There's some current rules in  
16 place. There's a whole lot that's not known about the new  
17 ones yet.

18 But depending upon the amount of debt that you're  
19 going to have in the project, it may need to be issued  
20 potentially by the federal government, or it may be  
21 institutional debt that's guaranteed by the federal  
22 government. So depending on how it's defined when it's in  
23 place, whether it's government issued or whether it's  
24 private with a federal guarantee, can affect those rates  
25 that Jeff was referring to. But nevertheless, it could be

1 either way depending on how it's administered.

2 CHMN. MAYES: Okay.

3 MR. GULDNER: Hold on just a second. One  
4 important piece with this that I just highlight is that  
5 this is also -- there are potential direct benefits to the  
6 utilities and our customers, and there's also benefits to  
7 our partners like Abengoa and other developers where they  
8 could take advantage of this loan guarantee to help them  
9 finance projects. And so that, obviously, we see as  
10 benefiting us as well, even though it's an indirect  
11 benefit.

12 CHMN. MAYES: And it's my understanding they are  
13 looking at this. Yeah, I believe they are. Mr. Dinkel,  
14 is that correct?

15 MR. DINKEL: Yes, absolutely they are, and  
16 they're relying on the components of this to get the  
17 projects moving forward.

18 CHMN. MAYES: Okay. In the absence of functional  
19 capital markets, this may become very important for  
20 projects like Solana. Go ahead.

21 MR. GULDNER: So like the prior slide, we are  
22 still waiting for specific DOE guidance. There is some --  
23 there's been a program similar to this that was in place  
24 today. I heard Secretary Chu speaking about it. They had  
25 like a 1,000-page application, and surprisingly no one had

1 submitted for funding under this prior program. And he's  
2 committed to reduce the application and speed up the  
3 process, which I think has the industry looking at this as  
4 a more viable option.

5 CHMN. MAYES: So they've already -- DOE has  
6 already laid this out?

7 MR. GULDNER: They have. There was a loan  
8 guarantee program. And I don't know the details on it,  
9 but there was a similar loan guarantee program, not nearly  
10 this size, but a similar loan guarantee program that DOE  
11 had in place prior to the stimulus bill. And again, as I  
12 think DOE looked back at this, they said, well, why has no  
13 one used it? And then they realized that they could  
14 streamline it, and that might encourage people to seek  
15 that funding.

16 So we are waiting on the guidance. We don't want  
17 to rule anything out. The challenge here is that projects  
18 need to commence construction by September of 2011.

19 CHMN. MAYES: I'm going to ask you something a  
20 little bit provocative, Mr. Guldner. As you know, we've  
21 had a lot of trouble coming to terms with Southern  
22 California Edison about the Devers line. While they've  
23 made some progress in agreeing to some terms that the  
24 state of Arizona would like and our utilities would like,  
25 including bidirectional rights on that line, they continue

1 to -- California has not yet addressed our concerns about  
2 CAL-ISO control on the line.

3 Have our utilities thought about whether we could  
4 build that portion of the Devers line in Arizona, our  
5 utilities build the Devers portion of the line, in a way  
6 that would benefit Arizona ratepayers and facilitate the  
7 development of solar energy and keep CAL-ISO out of  
8 Arizona?

9 MR. GULDNER: The --

10 CHMN. MAYES: Using this money, using any of the  
11 federal stimulus money?

12 MR. GULDNER: I think the better approach -- one  
13 of the things when we talked to Southern California Edison  
14 about this option and the concept that was -- that we had  
15 discussed and I think was in their report to the  
16 Commission, was the concept that because we don't know  
17 where renewable plants are going to develop. We have  
18 areas along the North Gila line which we already own.  
19 There's certainly areas along the Devers/Palo Verde No. 1  
20 line or where Devers/Palo Verde-2 would be that could  
21 facilitate renewable generation to serve Phoenix. There's  
22 other projects that we've got around the periphery of  
23 Phoenix that could support renewable development.

24 The challenge is that you don't know where the  
25 projects are going to come in. And so one of the issues

1 as we talked about this option concept was that would  
2 allow Arizona stakeholders, when the time was appropriate,  
3 so when you have that bid come in and you took a project  
4 from a developer, they were going to do the  
5 interconnection and you needed to have the capacity, that  
6 you could then exercise the option, spend the money, buy  
7 into the line.

8           We weren't talking about getting the line for  
9 free, but we could then buy in at the depreciated book  
10 value of the line, and that that would be the best way to  
11 protect our customers, rather than going out and paying  
12 for it now without knowing whether a project is going to  
13 come in there or going to come in North Gila, or, frankly,  
14 whether it could interconnect in Devers/Palo Verde-1,  
15 deliver to Phoenix, because, again, the flows are  
16 predominantly from the east to the west on that line, and  
17 save us from having to do that interconnection.

18           And so the notion of the option was we didn't see  
19 a resource planning justification at this time that would  
20 support buying into the line. And so while the loan  
21 guarantee could reduce your cost of capital to do that,  
22 I'm not sure it would change the resource planning  
23 justification for doing it.

24           There may be a better option with Western if  
25 there's a desire to have a third party or have somebody

1 come in and construct the line in Arizona to address the  
2 CAL-ISO border issue. There's potential you could have  
3 some other participant, WAPA or somebody else, that could  
4 support that and take 50 percent ownership.

5 My understanding of the ISO issue is that the  
6 CAL-ISO wants to see 50 percent or probably just over  
7 50 percent ownership by Arizona participants in order to  
8 end at midpoint or Blythe, one of the California  
9 substations. And so the challenge is how do you get that  
10 50 percent ownership? Is that a down-the-road thing, or  
11 is that something that you try to do now at the time of  
12 the construction?

13 CHMN. MAYES: Okay. Anyone want to add to that?

14 I mean, have there been discussions with WAPA  
15 about building that portion of the line as a renewable  
16 energy transmission line?

17 MS. BARR: Chairman Mayes, Commissioners, we  
18 agree that this idea is worthy of exploration. We think  
19 this is the right thing to do. I think we've had some  
20 very preliminary conversations after the idea was  
21 presented to us with some folks at WAPA to say, you know,  
22 is this something that you all would consider?

23 It's really early in the WAPA process. They,  
24 too, are just developing their guidance. You're hearing a  
25 constant refrain here. They're in the process of

1 preparing the guidance for how they're going to spend the  
2 money, and then they'll look at the second phase of  
3 identifying the projects. So I think that it's certainly  
4 something worthy of exploration.

5 I think the other thing that WAPA -- we're hoping  
6 WAPA will do with this money is take a look at their  
7 existing system and make upgrades to their existing  
8 system. I think you could get a lot more power flowing if  
9 you made those upgrades.

10 CHMN. MAYES: So when you raised this idea of  
11 having WAPA build Devers-2, they didn't kick you out of  
12 the room?

13 MS. BARR: No. It was very early, and they, of  
14 course, couldn't make any decisions at this point. We  
15 were just floating the idea.

16 CHMN. MAYES: Okay. And I certainly -- you know,  
17 this is the big problem with Devers-2, which is our  
18 utilities have continued to say that there is not a need  
19 for the line. On the other hand, we know there's a  
20 tremendous amount of solar energy that is out there ready  
21 to be developed and can't be developed without some sort  
22 of a line through the area. And I don't know if that's  
23 Devers-2 or North Gila-2, but it's something, you know,  
24 that probably needs to happen, but it's our job as  
25 Commissioners to make sure that Arizona ratepayers are

1 protected at the same time. So anyway.

2 MR. GULDNER: So the WAPA authority is  
3 3.25 billion, which is a substantial sum for WAPA. As  
4 Ms. Barr mentioned, they've been having -- they've got a  
5 federal registry notice that's out on process. They're  
6 having some phone conference meetings to talk about the  
7 process for folks to submit project ideas to them.  
8 They've called their posting an RFI, request for  
9 information, seeking those projects.

10 Their initial list I think they would like to see  
11 next month. And so again, this is not something that we  
12 feel you just want to send them a note and say here is the  
13 project. You want to have some dialogue and some  
14 discussion with them.

15 We are looking at, again, several potential  
16 projects, including maybe a loop. And one of the things  
17 that we've talked about for a while is looping into that  
18 North Gila/Devers area. And as Ms. Barr also mentioned,  
19 there are some substantial benefits to the system that  
20 could be achieved by taking the 115kV system that I think  
21 WAPA has had in their plans for years to upgrade and they  
22 just haven't done it, and moving that 115kV system to 230,  
23 as well as changing -- there's at least a couple of lines,  
24 I think, where the impedance rating on the line could be  
25 upgraded by just reconductoring it, and again, improving

1 the overall system in our area.

2 CHMN. MAYES: Have you developed a schematic that  
3 graphically shows what you're talking about with the WAPA  
4 improvements?

5 MR. GULDNER: We can. I don't think -- we have  
6 mostly just been talking in, you know --

7 CHMN. MAYES: -- broad terms.

8 MR. GULDNER: But we can put something together  
9 that shows some of those. That's a good idea.

10 CHMN. MAYES: I would be interested in seeing  
11 that, where you would make the improvements, and  
12 specifically how that would bolster the state's ability to  
13 develop renewable energy and both import it to Phoenix and  
14 export it to surrounding states.

15 MR. GULDNER: We'll do that.

16 CHMN. MAYES: Because presumably you've got to  
17 show that, right, to get this funding?

18 MR. GULDNER: Right.

19 CHMN. MAYES: Or for WAPA to spend this money.

20 MR. GULDNER: Right.

21 CHMN. MAYES: Okay.

22 MR. GULDNER: The last slide on mine, this is the  
23 R&D bucket that we mentioned, 3.4 billion for fossil  
24 energy research. WESTCARB is probably the highest on our  
25 list of projects that we see. We're already getting DOE

1 funding. In some respects, this -- I don't want to say  
2 this is an easier bucket. This is one where there's more  
3 comfort because most of us, I think, already have  
4 relationships with the DOE folks who are doing the  
5 funding. We're getting DOE funding for these projects.  
6 And so now it's going to be: Can we try to get some  
7 additional DOE funding?

8           What we see is, again WESTCARB. We're also doing  
9 some work at Cholla with algae, capture of carbon. That's  
10 getting some DOE funding. And so if we can take some of  
11 those existing opportunities and obtain additional  
12 funding, then that's something that we see as a priority  
13 for us. And that's it.

14           CHMN. MAYES: Thank you.

15           Any other questions from the Commission?

16           I know Mr. Guldner was sort of going through his  
17 slides. Do the other utilities have anything specific  
18 they want to add? I know we were sort of doing some Q  
19 and A, which was fine.

20           Anything, SRP or TEP, that you want to add to  
21 about what they're doing specifically? It sounds like  
22 you're all sort of doing the same things.

23           Going back, Mr. Guldner, to the renewable energy  
24 and transmission loan guarantees -- or I'm sorry --  
25 renewable transmission development slide, WAPA. You say

1 you're evaluating several potential projects. Can you  
2 tell us today what those are? I mean, can you be more  
3 specific?

4 MR. GULDNER: On the WAPA slide?

5 CHMN. MAYES: Yes.

6 MR. GULDNER: We mentioned the 115 to 230kV  
7 upgrades, which is, I think, more just across the system.  
8 I think just our thought would be there may be some value  
9 in that solar loop. There may be some value in WAPA  
10 participation in Palo Verde -- or in the North Gila No. 2.  
11 And so if you can add a participant or increase the  
12 participation level in that line, that may help the other  
13 parties submit for it.

14 You've got a couple.

15 And then one of ours, I don't know the details of  
16 it, but it's looking at the Round Valley 230kV substation.

17 CHMN. MAYES: Okay. Mr. Heyman.

18 MR. HEYMAN: Chairman Mayes, Commissioners, we  
19 have two lines that we've looked at that have some  
20 potential for renewable energy that we might want to  
21 address with WAPA. One was the Griffith/North Havasu  
22 230kV line, which is up in Mohave County. The second one  
23 is in Santa Cruz County, and it's the Vail to Valencia  
24 138kV project that we have. So those are at least two  
25 that we've identified that are a little more specific on

1 our radar screen.

2 CHMN. MAYES: Okay. Well, I appreciate the  
3 presentation. And, you know, things are moving very  
4 quickly on this front. And so I'm -- you know, I hope  
5 that -- it looks like our utilities are moving quickly and  
6 aggressively to position Arizona well in terms of getting  
7 federal stimulus money.

8 And, you know, from my standpoint, from this  
9 Commissioner's standpoint I would like to -- and I think I  
10 speak for everybody -- we are ready to do whatever it  
11 takes to support you in these efforts.

12 And, you know, we are -- the fact of the matter  
13 is we're competing against all of our neighbor states for  
14 access to this renewable energy and energy efficiency  
15 funding, and we need to have a cohesive and aggressive  
16 effort in Arizona to be able to effectively compete  
17 against, you know, New Mexico, California, Nevada,  
18 Colorado. Those states are all laying the groundwork for,  
19 you know, for going after the stimulus money, and we need  
20 to have our ducks in a row in order to effectively  
21 compete.

22 I think the good news is that we have a lot of  
23 shovel-ready projects in Arizona. I mean, we had so much  
24 growth in the last three to four years that came to a  
25 screeching halt, but our utilities were planning for that

1 growth. So we have a lot of projects in the pipeline that  
2 got deferred that can be kick started, I think, now  
3 utilizing some of this stimulus money. So that's one  
4 thing that we've got going for us. And I think we have a  
5 lot of smart people in Arizona looking at it now, too.

6 So I hope we can -- I would like to look at  
7 creating this website. I think the Commissioners should  
8 talk about that together. I would like to continue to  
9 have meetings like this, maybe even attached to -- again,  
10 the Commissioners need to talk about this -- but regular  
11 meetings maybe attached to our Open Meetings every month  
12 to get updates from the utilities about where we are and  
13 what we're doing. Because it's moving fast, and this is  
14 all going to happen. There's going to be -- so much is  
15 going to happen between, you know, now and a month from  
16 now, and we need to be on top of it.

17 So thanks for being here.

18 MS. BARR: Thank you.

19 CHMN. MAYES: And then we'll go to Mr. Guldner,  
20 and let's go to coal ash.

21 MR. HEYMAN: Do you want to hear from me as well?

22 CHMN. MAYES: Yeah. Actually, definitely,  
23 Springerville. So you stay put, Mr. Heyman. And then,  
24 actually, SRP as well, because they are obviously a  
25 participant in Springerville. So maybe if we could have,

1 yeah, someone from SRP come to the table, too, to respond  
2 to that question.

3 MR. GULDNER: The fly ash, as you probably know,  
4 is a byproduct of coal combustion. It's a relatively fine  
5 ash that's produced, one of two ashes. There's bottom  
6 ash, which comes out of the bottom of the coal plant, and  
7 then fly ash is generally collected at the stack.

8 It's captured on site by pollution control  
9 equipment. And once you have collected this fly ash,  
10 you've got to figure out what to do with it for disposal.  
11 There's essentially three things that you can do with fly  
12 ash. You can recycle it, which is what we like to do, and  
13 we do to the extent that we can economically. And fly ash  
14 is actually a component of Portland Cement cinder blocks.  
15 It's used for structural fill. And so about 40 percent of  
16 our fly ash is actually devoted to industrial -- it's  
17 recycled in some kind of an industrial use.

18 For the remaining fly ash, there's two options.  
19 You can put it in dry storage, put it in a landfill, or  
20 you can essentially put it in a wet impoundment or behind  
21 a dam. The advantage to the wet impoundment is mostly  
22 that you don't have fugitive -- or you minimize fugitive  
23 dust emission.

24 So if you think of it, if you're going to truck  
25 this stuff off to a dry landfill and you put it all in the

1 back of a truck. You're going to have some fugitive  
2 emissions from the fly ash moving. And then, as the wind  
3 blows over the landfill, you have fugitive emission. And  
4 so there's benefit in putting it in a wet impoundment.  
5 And the way that you typically do that is you slurry it  
6 from the plant. So there's actually a pipeline that takes  
7 it from the plant, mixes it with water, and slurries it  
8 right down into the wet impoundment.

9 APS has -- we do both dry storage and wet storage  
10 and recycling. We have four active earthen dam ash  
11 impoundments, two at Cholla and two of them are at Four  
12 Corners. All of our dams have an active, comprehensive  
13 dam safety inspection and monitoring program. They're  
14 based on federal dam safety guidelines, and they are also  
15 based on state regulations.

16 We do weekly visual inspections. They're  
17 supplemented by more intensive monthly, some quarterly and  
18 annual inspections. In the more detailed ones, I don't  
19 know the technical details, but they take a -- it's called  
20 a tensiometer out, and you check essentially the surface  
21 pressure that's being put on the dam. In the other  
22 inspections, you're basically looking to make sure that  
23 the dam integrity is maintained.

24 In addition to our own inspections, we're  
25 inspected by the applicable state agencies. So in Arizona

1 that's DWR, and they have a dam safety bureau. The Cholla  
2 facilities were last inspected in October of 2008. And in  
3 New Mexico, the dam safety bureau of the state engineer  
4 does the inspections. The Four Corners plants, which are  
5 on the Navajo Nation, were last inspected in October of  
6 2007, and I expect they'll be reinspected this year. So  
7 it's not just us doing the inspection. It's third  
8 parties.

9 And then we also have the environmental  
10 monitoring at these sites. So in Arizona you're doing  
11 APP, aquifer protection program, groundwater monitoring.  
12 New Mexico you're doing surface water. It's called NPDES,  
13 National Pollutant Discharge Elimination System. And so  
14 we do the environmental monitoring at all of these sites,  
15 in addition to the safety. That's a little bit different  
16 than the safety issue.

17 They are still doing the root cause analysis. I  
18 haven't seen anything come out yet of the Kings Point TVA  
19 collapse. As we've looked at that issue, I think one of  
20 the things that may come up in that analysis was the  
21 inspection program wasn't as rigorous there, and that may  
22 have contributed to the breach maintenance.

23 One of the things they think about right now is  
24 it may have been a combination of freezing and high rain  
25 causing the water level to raise and not having any action

1 taken from that, and so we don't see that as an issue in  
2 our facilities. And again, we do the inspection program.  
3 It's pretty rigorous. We make sure that the dams are  
4 safe.

5 CHMN. MAYES: Okay. Mr. Harper and Mr. Heyman,  
6 do you have anything to add? Because you're both  
7 participants in Springerville, and maybe in the case of --  
8 well, maybe other coal plants, but can you --

9 MR. HARPER: Sure. Thank you. My name is Gary  
10 Harper. I'm manager of system operations for Salt River  
11 Project, but for 10 years I also managed all of our power  
12 plants.

13 Salt River Project is involved with six coal  
14 plants in the west. And as Mr. Guldner said, there are  
15 multiple ways to deal with fly ash. Ideally, you do  
16 reprocess it, and we try to do as much of that as we can  
17 to get it out into concrete roads and airports and  
18 whatnot. There's even some applications where we're  
19 trying to put it into construction block for use in  
20 building homes, houses, fences and so on, but that has not  
21 taken off much yet.

22 Of the six plants, all of our fly ash and bottom  
23 ash is actually very dry. And to deal with the fugitive  
24 ash issue that Mr. Guldner talked about, at all of these  
25 facilities, APS's as well, is you lay some fly ash out for

1 a period of time and you cover it with a layer of dirt.  
2 And you just keep doing that through the life of the plant  
3 such that it is all retained that way. And that's what we  
4 do on the six plants that we're involved with.

5 CHMN. MAYES: Mr. Harper, do you have any -- so  
6 are you saying that unlike APS you don't have any wet coal  
7 ash behind dams?

8 MR. HARPER: We do not. As a matter of fact, we  
9 are a participant in Four Corners. And Four Corners-4  
10 and 5, actually at that facility, that fly ash goes to a  
11 dry storage. I'm pretty sure it's Four Corners-1 through  
12 3 that has some of the wet. And also at Springerville,  
13 that fly ash is stored dry as well.

14 CHMN. MAYES: And do you see a benefit in dry  
15 over wet ash? Do you do that because there's any concern  
16 about the safety of the wet ash? Why in those cases are  
17 you doing the dry?

18 MR. HARPER: You know, I really can't go back in  
19 the philosophy of how we built the power plants. All of  
20 these, you know, were built 20 to 30 years ago. And at  
21 the time, I'm sure, in the west there wasn't as much water  
22 as there is in the east. They had a lot more in  
23 Mississippi and Alabama and Tennessee and in that area.

24 And as we looked at each of the plants that we  
25 were involved in, the conclusion was that it was -- I'm

1 sure it had to do with cost, and it was the least cost and  
2 yet still meeting all of the environmental requirements.

3 CHMN. MAYES: Mr. Heyman.

4 MR. HEYMAN: Chairman, Commissioners, TEP  
5 operates the Sundt generating station. Some people  
6 recognize it by its prior name of Irvington generating  
7 station. And that currently is not producing any ash.  
8 The first three units are natural gas units. The fourth  
9 unit you can convert from natural gas to coal, back and  
10 forth, and it's currently running as a natural gas unit.

11 Previously, there was ash that was produced from  
12 there, and it's all dry ash. And as Mr. Guldner  
13 indicated, we either sold that and recycled that, or put  
14 it into a dry landfill on that property.

15 With regard to Springerville, as Mr. Harper  
16 indicated, that's also dry, and we are putting that in  
17 landfills pursuant to an ADEQ aquifer protection permit.

18 We are participants in Navajo with SRP, Four  
19 Corners with APS, and also in the San Juan generating  
20 station, which is operated by PNM. And they also have a  
21 dry ash operation where they either recycle it or bury it  
22 right there on the property. So we don't have any wet ash  
23 or coal combustion products in our system.

24 CHMN. MAYES: So we have four wet ash ponds in  
25 Arizona, and they are all owned or operated by APS?

1 MR. GULDNER: Actually, Chairman, two in Arizona,  
2 and then two in New Mexico.

3 CHMN. MAYES: Okay. Two are in New Mexico.  
4 Okay. Have any of those dams or ponds ever been cited for  
5 a notice of violation by DEQ or ADWR's dam division? I  
6 didn't know DWR had a dam division, but I guess thinking  
7 about that that makes some sense, and I assume they just  
8 don't look at coal ash dams.

9 MR. GULDNER: Let me ask John Mitchell who  
10 actually owns this issue.

11 MR. MITCHELL: Madam Chairman, I'll answer your  
12 question about any deficiencies. We inspect on a regular  
13 basis, and there's different levels of safety  
14 deficiencies, something that's managed as an operating and  
15 maintenance repair, and then items that are reportable or  
16 more important we elevate to a higher monitoring level and  
17 proceed on that determination.

18 We found cracks in one of our fly ash dams at the  
19 Cholla power plant in 1997, and those were a reportable  
20 safety deficiency. We submitted the report. It's been  
21 accepted by the Department of Water Resources dam and  
22 safety division, and we dealt with that effectively.

23 CHMN. MAYES: So one incident, one reportable  
24 incident in 1997, Mr. Mitchell?

25 MR. MITCHELL: The terminology is a safety

1 deficiency.

2 CHMN. MAYES: Okay. And when you say it was  
3 dealt with by DWR, I mean, can you elaborate on that?

4 MR. MITCHELL: Yes. We discovered the cracks,  
5 and we did an evaluation of how best to deal with them, if  
6 it was a matter of routing or sediment or some other sort  
7 of engineering action to be taken. And the best action to  
8 be taken was a blanket of ash was put on the upstream side  
9 to provide a filter and prevent any erosion.

10 CHMN. MAYES: Okay.

11 MR. MITCHELL: Did I answer your question?

12 CHMN. MAYES: No, you did. And which dam was  
13 that?

14 MR. MITCHELL: That would be the fly ash dam at  
15 our Cholla power plant.

16 CHMN. MAYES: At Cholla. Which is in Arizona?

17 MR. MITCHELL: Right.

18 CHMN. MAYES: And are any of these fly ash dams  
19 located near population centers?

20 MR. MITCHELL: Not near population centers. Two  
21 of our four dams are considered high hazard dams because  
22 they're adjacent to I-40.

23 CHMN. MAYES: Okay. So that's close.

24 MR. MITCHELL: Joseph City is a population  
25 center.

1 CHMN. MAYES: How close is that?

2 MR. MITCHELL: Joe City is within a mile of the  
3 dam.

4 CHMN. MAYES: Of Cholla?

5 MR. MITCHELL: Yes, that's correct.

6 CHMN. MAYES: Joseph City is within a mile of  
7 Cholla. Okay.

8 MR. MITCHELL: Pretty much walking distance.

9 CHMN. MAYES: Well, that's close.

10 MR. GULDNER: Chairman, if I could ask one  
11 clarifying question. It's my understanding that if you  
12 had a dam issue, I think Joseph City is not in the  
13 floodplain, or is not in that route. I-40 is what creates  
14 the hazard.

15 MR. MITCHELL: Right.

16 MR. GULDNER: The city is actually off that area.

17 CHMN. MAYES: Okay.

18 MR. MITCHELL: The whole dam safety thing is all  
19 about prevention, prevention, prevention.

20 CHMN. MAYES: Right. No, absolutely. And so are  
21 we, that's why Commissioner Kennedy asked for this  
22 meeting.

23 MR. MITCHELL: And these high hazard dams have  
24 had a full dam break analysis. You can't protect against  
25 a hazard unless you have a vision of it. So this dam

1 safety analysis does a break of the dam and shows where  
2 all of the floodplain would be; if there are inhabited  
3 structures, where the danger would be. And there are  
4 tabletop exercises run to see, okay, how would we react  
5 and what federal agencies would be put in, what local  
6 agencies would react, and how we would do that. All four  
7 of our dams have emergency action plans on those.

8 CHMN. MAYES: Okay. And so I-40 is close to the  
9 Cholla dam?

10 MR. MITCHELL: That's right.

11 CHMN. MAYES: As is Joseph City, although it's  
12 not in the floodplain. Okay.

13 MR. MITCHELL: Those would be protected in that  
14 part of the developing failure would be to close I-40.

15 CHMN. MAYES: Okay.

16 MR. MITCHELL: You know, there's red, green, and  
17 yellow levels of alert. At some level of alert we would  
18 close I-40.

19 CHMN. MAYES: And I take it from your comment,  
20 Mr. Guldner, that you are watching closely whatever comes  
21 out of the investigation on the TVA dam break.

22 MR. GULDNER: Absolutely.

23 CHMN. MAYES: And what will you do with that  
24 information?

25 MR. GULDNER: What we typically do is when you

1 get -- this is a root cause analysis, so it should go into  
2 some level of detail as to what caused the issue. And you  
3 go back and you look at the systems and processes that we  
4 have in place to say, were there any of the potential  
5 contributing factors in that root cause analysis that we  
6 need to address more effectively, and there may not be.  
7 But if there is, you sure want to know about that.

8 CHMN. MAYES: Commissioner Kennedy.

9 COM. KENNEDY: Thank you, Madam Chairman.

10 Let me thank you gentlemen for coming today to  
11 just give me an overview. I really appreciate it.

12 After I read, and, actually, have been reading  
13 quite a bit on this issue, there was an incident down in,  
14 I believe it was Tennessee. And I just wanted to make  
15 sure that Arizona, an incident like that could not happen  
16 here in Arizona. So I really appreciate your time. Thank  
17 you.

18 CHMN. MAYES: I do, too.

19 And Mr. Guldner, if you could, I would be  
20 interested in seeing any report or a copy of the violation  
21 that occurred in 1997, any reports that were issued as a  
22 result of the 1997 incident. And then any findings that  
23 you make as a result of the investigation that comes out  
24 of the Tennessee Valley Authority incident I think would  
25 be -- I think the Commissioners would like to be apprised

1 of that.

2 MR. GULDNER: Certainly.

3 CHMN. MAYES: Okay. Great. All right. Thank  
4 you. If no other questions, thank you, gentlemen.

5 And then we'll move to -- move back into the  
6 summer preparedness presentations, and I think that,  
7 Mr. Harper, you're on deck. SRP wants to go next, I  
8 think.

9 MR. HARPER: Sure.

10 CHMN. MAYES: And again, I apologize for the time  
11 crunch, but we do need to get through both SRP and TEP  
12 before 2:00 when we lose our quorum.

13 MR. HUMMEL: Thank you, Madam Chairman,  
14 Commissioners. My name is Mike Hummel. I manage the  
15 supply and trading organization at Salt River Project.

16 I will go through our loads and resources portion  
17 of our summer preparedness, and Gary Harper will go  
18 through the T&D readiness for the summer. And in the  
19 interest of time, I'll go to the money slides fairly  
20 quickly here.

21 The summary of our presentation is that we do  
22 expect our peak demand to be slightly higher than what we  
23 saw last year. Not nearly as much as we would have  
24 anticipated looking at it a year ago, but a little bit  
25 higher. Most of that is the weather-related issue, and

1 I'll talk about that. And we have adequate resources to  
2 meet the demand for this summer.

3 As we look at the slide, it's very similar to  
4 APS's. Looking at 2007, we had forecasted a load of  
5 6,627. The actual came in at 6,578, very close to the  
6 forecast.

7 Looking at 2008, we were well under what our  
8 forecast was. Part of that we do attribute to the  
9 economic downturn and a big portion of that to the  
10 weather. The day we hit peak, the weather was relatively  
11 mild. As APS talked about, we planned to 114-degree  
12 temperature. We didn't achieve that on the day of that  
13 peak, so the load was a little bit lower than anticipated.  
14 But we do attribute part of that to the economic slowdown  
15 last year starting.

16 For the summer coming up, our anticipated load is  
17 6,614. So slightly higher than last year's peak, but not  
18 a lot.

19 So the 6,614 peak, we carry reserves of 917  
20 megawatts on top of that in order to meet unanticipated  
21 needs. I'll talk about each of these boxes in just a  
22 minute. We had SRP generation of 5,706 megawatts, and  
23 1,825 megawatts in our purchased power portfolio. And  
24 I'll talk about each of these boxes, beginning with SRP's  
25 generation.

1           We have a total capacity of our resources,  
2 including the purchases, of 7,531 megawatts. You'll see  
3 the breakout of the different technology types on the  
4 left, nuclear, coal, and gas. Essentially, the same  
5 numbers we showed you last year. We've not brought new  
6 power plants on line since that time.

7           505 megawatts of hydro resources and other  
8 renewables broken out on the right side of that chart, and  
9 then 1,594 megawatts of conventional nonrenewable  
10 resources.

11           For the purchased power we have a portfolio of  
12 purchased power for the summer. We have long-term and  
13 short-term purchases, indexed and fixed-price contracts as  
14 well. We recognize we may need to make additional  
15 purchases as we get into the summer depending on unit  
16 availability, depending on load, and depending on  
17 transmission availability. And we believe that the  
18 regional market conditions right now are such that that  
19 capacity is available.

20           I talked about the reserves. Like purchased  
21 power, we have a portfolio of different types of reserves  
22 from resources, specific resources, to system purchases,  
23 to market-based indexed purchases.

24           The reserves will provide for unit outages, loads  
25 in excess of what we anticipate, multiple transmission

1 line outages. It's based on our WECC, NERC, and FERC  
2 requirements for reserves which we need, plus any  
3 additional requirements in our contracts.

4 I want to talk real quickly about energy  
5 efficiency and conservation programs. We have put a lot  
6 of time and effort into these, both in terms of reducing  
7 our peak demand and in terms of reducing our energy. We  
8 have a very effective time-of-use program. Approximately  
9 220,000 customers on that.

10 And then our new what we call our EZ-3 program,  
11 which is similar to the time-of-use. It's just a  
12 three-hour on-peak summer product that sends very strong  
13 price signals to customers for reducing demand during that  
14 peak time. It's been a popular program since we  
15 introduced that.

16 M-Power is our prepaid metering program. It's  
17 the largest prepaid metering program in the country.  
18 About 76,000 customers on the M-Power program right now.  
19 We have interruptible pricing for our -- some of our  
20 industrial customers.

21 And then our demand response, we have recently  
22 contracted with a company to provide demand reduction for  
23 the summer, and that will go in in June, up to 50  
24 megawatts for our commercial and small industrial  
25 customers.

1           We have a lighting rebate, air conditioner  
2 rebates, and refrigerator rebates for residential -- for  
3 industrial and residential customers as well.

4           A quick slide on the fuel status. Similar to  
5 APS, all of our fuel is contracted for. It talks about  
6 Palo Verde. All of our coal is contracted for, as well as  
7 transportation and natural gas. We have the commodity  
8 under contract already, and significant transportation for  
9 natural gas, including the Transwestern pipeline.

10           And hydro, to the extent that we need that, the  
11 dams are essentially full here. I'll show a slide on that  
12 later, that our hydro capacity is full this year as well.

13           With that, I'll turn it over to Gary to talk  
14 about the system status.

15           MR. HARPER: Thank you. Again, I would like to  
16 go through the status of our system. And let me just  
17 preface it that we do the same things that APS reported to  
18 you, so I'm not going to go through that same level of  
19 detail. Tom Glock of APS went through most of that, but  
20 I'll highlight our position.

21           We have also added a number of pieces of  
22 equipment throughout this past year to make sure that  
23 we're ready for what growth we do have. That's what is  
24 listed here. We've added four substations, a number of  
25 transformers, a number of breakers and capacitors to

1 ensure that we can meet the growth that we do have.

2 Just a few more additions talking about poles and  
3 the circuit miles, somewhat similar to what APS has  
4 installed in this past year.

5 Going over the activity that we do each year  
6 heading into the summer, a similar list. Lots of line  
7 patrols. We have a regular preventative maintenance  
8 program on all of our equipment that we ensure that we  
9 accomplish throughout the year. We do wood pole  
10 changeouts. We reinforce those. They can last a while.

11 A lot of planning goes into preparation for the  
12 summer. Wildfire coordination, storm planning, black  
13 start planning, all of that kind of activity. And again,  
14 it is coordinated with the various utilities in the area.

15 In the area of tree trimming and vegetation  
16 clearing on our systems, again, we have a regular program  
17 that we go through to make sure that, you know, all of our  
18 overhead conductor and lines are clear of trees.

19 In that regard, I am sure that there may be a  
20 question that relates to saguaros. As we build our major  
21 transmission lines, as part of the whole construction  
22 process we try to do the best we can working with the  
23 agencies on identifying the saguaros and/or other  
24 vegetation that can get into the lines down the road.

25 It's at that point in time we try to move what

1 saguaros we can and transplant them. Beyond that, on  
2 occasion and through coordination with those agencies, we  
3 do have to remove some. Then, going forward, as we get  
4 into our maintenance mode, to the best that we have been  
5 able to do, most of our lines and/or the resulting saguaro  
6 cactus, we have been fairly successful at doing some  
7 trimming on them.

8           When an arm gets in the way, or even the top, we  
9 have been able to trim that. We then watch it. And at  
10 least to date, through our programs we have not had much  
11 saguaro cactus damage. The saguaro cactus may not think  
12 that because it just lost an arm, but so far that's the  
13 program we've been using and it's been fairly successful.

14           CHMN. MAYES: Thank you, Mr. Harper. And I'm  
15 trying to understand the difference between APS and SRP's  
16 approach to this. And frankly, it seems like the two  
17 companies take a very different approach to saguaros on  
18 their transmission lines. And it seems obvious that SRP  
19 doesn't believe that the saguaros have to be destroyed.

20           But, you know, APS stated earlier, or intimated  
21 earlier that they believe topping of the saguaros or  
22 chopping off their arms ultimately leads to their death.  
23 So do you monitor the saguaros after you have, you know,  
24 surgically removed the tops of them? Do you believe that  
25 it doesn't lead to the mortality of the saguaros?

1 MR. HARPER: Yes. When we trim a saguaro, we go  
2 back and monitor it for a period of time until our folks  
3 that are in this side of the business are confident that  
4 that saguaro will survive. I can't say, and I'm not aware  
5 of one that hasn't made it. It doesn't mean that's not  
6 case. I'm just not aware of one.

7 CHMN. MAYES: You check on them afterwards?

8 MR. HARPER: Yes, we do check on them after we do  
9 it. And for what length of time we check on them, I'm not  
10 sure, but we do go back and verify that they're okay.

11 CHMN. MAYES: Well, that's very interesting. And  
12 do you have -- I mean, how many -- do you have any idea  
13 how many saguaros you have treated?

14 MR. HARPER: I do not. We could probably pursue  
15 getting an estimate for that over a period of time.

16 CHMN. MAYES: A ballpark estimate would be good,  
17 and then also maybe a short description of how you monitor  
18 them afterwards.

19 And then also, how do you determine which ones  
20 have to be topped?

21 MR. HARPER: We use the same criteria. It has to  
22 do with distance from the line, and we do maintain that.  
23 I mean, there is a national standard that all of us have  
24 to maintain in our business. It's for safety of the  
25 public and the system. So that's the determination, the

1 distance from the line and based on the voltage of the  
2 line.

3 CHMN. MAYES: And have you been topping since the  
4 NERC standards -- the NERC and FERC standards came out?  
5 Were you topping before those standards came out?

6 MR. HARPER: The standards I'm referring to have  
7 been around for a long time. They've been voluntary  
8 standards. They're now mandatory.

9 CHMN. MAYES: They're now mandatory standards,  
10 and they have attached to them monetary fines, correct?

11 MR. HARPER: That is correct.

12 CHMN. MAYES: Okay. Going back to the  
13 northeastern outage of 2000 -- I can't remember when that  
14 happened, but it was four or five years ago, I think.

15 MR. HARPER: Correct.

16 CHMN. MAYES: Okay. How many saguaros have you  
17 mulched?

18 MR. HARPER: I am not aware of us mulching any  
19 saguaro. What we have done is transplanted saguaro.

20 CHMN. MAYES: Okay. Do you know how many?

21 MR. HARPER: I do not.

22 CHMN. MAYES: So if the saguaro -- if you believe  
23 that the saguaro has to be removed, you don't kill it; you  
24 transplant it.

25 MR. HARPER: There are some saguaros that I'm

1 sure through the construction process were of an age or  
2 condition that we chose to take it down and not replant  
3 it.

4 CHMN. MAYES: Okay. But how many of those? Not  
5 many, I take it.

6 MR. HARPER: I don't know. I don't know how many  
7 over the life of us building transmission lines throughout  
8 this state. I don't know. We can try to come up with  
9 some sort of an estimate.

10 CHMN. MAYES: Well, that's a different issue.  
11 Building the transmission line is a somewhat different  
12 issue from the maintenance. Although, frankly, I think,  
13 you know, the utilities need to be sensitive in both cases  
14 to this issue. But in terms of your maintenance of the  
15 line, because that's -- what APS did occurred in the  
16 course of them maintaining the Navajo to Westwing power  
17 line.

18 In your maintenance practices, have you killed  
19 any saguaros?

20 MR. HARPER: I am not aware of us killing a  
21 saguaro in our maintenance practice, but I will definitely  
22 verify that.

23 CHMN. MAYES: Okay. Do you believe that APS  
24 needs to kill any saguaros in order to maintain their  
25 power lines? I know folks that --

1 MR. HARPER: I don't know if I can answer that.

2 CHMN. MAYES: Well, I want you to answer it. And  
3 I know folks are chuckling, but that's effectively what is  
4 going on, and it's, frankly, upset a lot of people in this  
5 state. This is the signature plant in the state of  
6 Arizona, it's an iconic plant for our state, and, you  
7 know, a lot of people don't believe that utilities ought  
8 to be engaged in the wholesale destruction of them.

9 So do you think -- well, let me put it this way.  
10 Do you believe that your practice is one that could be  
11 adopted by other utilities in the state of Arizona and  
12 maintain the safety of these power lines?

13 MR. HARPER: I think they can. And Madam  
14 Chairman, let me go back and I will attempt to answer your  
15 question in a way.

16 It is very important that the distance between  
17 any vegetation and a transmission line is maintained.  
18 Through whatever process got a saguaro to within the  
19 distance, and depending on its age, depending on its  
20 health, because there are saguaros that die in the desert  
21 that aren't even near a transmission line, that there, in  
22 fact, can be a reason to have a saguaro removed in the  
23 maintenance and the protection of our transmission  
24 systems.

25 And I haven't gone and reviewed the transmission

1 lines that APS manage on behalf of their company and on  
2 behalf of our company as well if it's a participation  
3 line.

4 CHMN. MAYES: But you believe that your practice  
5 of treating saguaros keeps your power lines -- maintains  
6 the reliability of your power lines?

7 MR. HARPER: Yes, our practice does do that.

8 CHMN. MAYES: All right. And I would just point  
9 out that we do have a saguaro even on the great seal of  
10 the Corporation Commission. So that seal back there has a  
11 saguaro on it. And, you know, another indication of the  
12 symbolic and environmental importance of those majestic  
13 plants.

14 MR. HARPER: I think we all agree with that.

15 COM. PIERCE: It has grass, too.

16 CHMN. MAYES: Well, I'm not sure, with what was  
17 happening late last year, really, with APS, that they  
18 acknowledge that, but I think we're working our way  
19 through this issue.

20 MR. HARPER: We'll follow up and get you some  
21 answers.

22 CHMN. MAYES: Thank you.

23 MR. HARPER: I'm going to move on.

24 Again, in our distribution system, we have done  
25 all of the refresher training and activity that we do each

1 year. That is near completion. We have six mobile  
2 substations that can be deployed just in case there is a  
3 station that fails on us going forward. And should there  
4 be a need for reducing load due to a situation that we  
5 can't handle through all of this, we already have a plan  
6 in place by which we would have some rolling outages  
7 throughout the Valley. Real quickly, what that means is  
8 that if we were to define some megawatts we needed to  
9 reduce, we would actually divide the Valley into four and  
10 rotate it around each of those quarter sections for about  
11 15 minutes at a time.

12 In summary, we believe that we're in shape and  
13 ready to meet the summer demand: Our transmission, our  
14 distribution, our power plants, our fuel, and then we have  
15 also contingency plans in place. We've done the training,  
16 and we've worked with our neighboring utilities to make  
17 sure that we're all set for the summer of 2009.

18 As I do typically, I like to give you all a  
19 status of our hydro system. And frankly, we have had a  
20 very wet year, so the numbers are looking good for water,  
21 and water in the state of Arizona.

22 And then, lastly, this year I decided to throw a  
23 slide on at the Gatorade distribution center where we have  
24 one of the largest customer-owned rooftop solar facilities  
25 in our state that went into operation in October of 2008.

1           And with that, Mike and I are here to answer any  
2 other questions.

3           CHMN. MAYES: Thank you. Appreciate that.

4           Without any further questions, we'll quickly  
5 rotate in TEP. Thank you, gentlemen, I appreciate that  
6 presentation.

7           And TEP, Mr. Belval and Mr. Hutchens.

8           I note for the record Mr. Beck is here, too.  
9 You're not presenting today, Mr. Beck?

10          MR. BECK: Not today.

11          CHMN. MAYES: All right.

12          MR. BELVAL: He can if he likes.

13          CHMN. MAYES: You're being offered up.

14          MR. BELVAL: Chairman Mayes and Commissioners,  
15 you'll be happy to know that I can be brief. And looking  
16 at the clock, I no doubt will be. And beside me, I'm sure  
17 you know David Hutchens, Vice President of Wholesale  
18 Supply.

19                 I will be covering, first of all, the  
20 transmission and distribution aspects and the operational  
21 aspects of the UniSource Energy Corporation subsidiaries,  
22 TEP and UniSource Energy.

23                 First of all, I'll start with a description of  
24 the UniSource Energy Corporation systems. It owns a large  
25 gas utility, but we're focusing today on the electric

1 utilities. Tucson Electric Power is down in southeast  
2 Arizona, Tucson. It's the purple area on the map. That  
3 is an urban area with a relatively high load density. And  
4 the others in the yellow with the hatched area are the  
5 UniSource Energy systems. The one in the northwest is the  
6 Mohave system, and the one south of Tucson is the Santa  
7 Cruz system. Just to make the observation again that TEP  
8 is in an urban area of very high load density, and the  
9 others are very low load density. So very different  
10 systems.

11 Talking about the TEP electric system, some of  
12 the numbers that are an indication of the change in the  
13 economy from last year to this year. From 2008 to 2009,  
14 the number of new meter sets has been kind of cut about in  
15 half. There is some construction activity going on both  
16 in 2008 and 2009 to distribution substations in each of  
17 those years. Those were already in the planning phase and  
18 development phase, so those have continued.

19 And we're expecting two more next year, both of  
20 them adding some transmission capacity to the distribution  
21 system. 86 miles of line were added last year, and we're  
22 anticipating 54 this year. And one change that had made a  
23 difference in our ability to ensure voltage stability is  
24 the static VAR compensator device that went into service  
25 last year.

1           And in the Mohave area, first of all, I want to  
2 point out for the Mohave, the load is in the -- in between  
3 300 and 400 megawatts. So when you're doing forecasting  
4 for that area, trending is not very effective,  
5 particularly when you consider that there are some  
6 customers such as Mercator mine that could add 10 or 20 or  
7 as much as 50 megawatts to the system. So one customer  
8 could make a big change in the amount of load growth.

9           So there is, nevertheless, a decline in the  
10 number of new meter sets. I think that's a reflection of  
11 the state of the economy.

12           Some distribution transformer upgrades, some  
13 additional distribution lines, and some additional 69kV  
14 line construction that is to reach out into the areas that  
15 are still developing up in the Mohave area.

16           Nogales, the situation is quite similar. There's  
17 very little activity going on in that area as well.  
18 There's just been some distribution, substation,  
19 transformer upgrade activities going on.

20           In terms of emergency preparations, TEP's  
21 situation is very similar to that which was described both  
22 by APS and SRP. Emergency towers, restoration kits. Bob  
23 Smith showed a photograph of one of those, and there are  
24 spare towers located in various locations where there are  
25 EHV facilities.

1           There are three mobile transformers that you saw  
2 pictures of some of those earlier today. Plus, there are  
3 spare transformers that are not necessarily designed for  
4 emergency to just be able to move them very quickly, but  
5 they are available and can be moved in a reasonable amount  
6 of time. And then spare poles in all three areas.

7           For Mohave you have -- there is one mobile  
8 transformer that is specifically to the system in that  
9 area, and it's 25 MVA dual voltage, and there are a number  
10 of poles that are available there. Nogales, there is one  
11 spare transformer.

12           You had heard a lot of discussion today about the  
13 various power plants, so I'll just run through this very  
14 quickly and provide a little bit of a history for TEP's  
15 evolution.

16           The Four Corners project, which is a coal plant,  
17 came on line in 1969. And TEP was a participant in that,  
18 and it has rights on the line that comes into Saguaro.  
19 That's APS's line.

20           Also, the San Juan power plant came on in 1973.  
21 And along with that, the 345kV lines from San Juan down  
22 into the Tucson area going through Greenlee. Also, the  
23 Navajo plant a year later. And that was discussed, as  
24 well as the double circuit 500, and TEP is a participant  
25 in that. And it connects to the Westwing and comes into

1 the Tucson area via the 345.

2           The second line was built between -- well,  
3 actually, it was San Juan and Vail when the Springerville  
4 power plant started to develop. And the Luna facility was  
5 an addition to the TEP resources in 2005, along with the  
6 lines that were needed to bring that into the TEP system.  
7 I'll also note that there are combustion turbines and the  
8 four Sundt steam units in the Tucson metropolitan area.

9           And very quickly, the purple bars are the load  
10 serving available. This is for TEP's system. And load  
11 serving capabilities is a combination of the local area  
12 generation operating and reenforcing the ability to  
13 deliver power, importing power over the transmission  
14 system.

15           The difference between 2007 and 2008 was the  
16 addition of an EHV transformer at the South substation,  
17 and any increment from 2008 to 2009 was the addition of  
18 the Pinal West project. That would have been the  
19 Hassayampa/Pinal West 500kV with the transformation at  
20 Pinal West.

21           The actual loads, in the orange -- I'm not sure  
22 what color -- mustard-colored bars, shows that from 2007  
23 to 2008, there was very little change in actual loads.  
24 There was also discussion about the weather sensitivity.  
25 I would say that for TEP the situation is exactly the

1 same. Our forecast from 2007 to 2008 to 2009 have been  
2 reduced, and primarily due to the economic downturn. And  
3 I'll just say that between 2008 and 2009, there were  
4 multiple forecasts done trying to figure out exactly what  
5 was going on, but what I have shown here is the forecast  
6 in 2008. That was done in January of 2008. So I picked  
7 that one because we're doing a year-to-year comparison.

8 And the Mohave system, the purple bars, again,  
9 are the load serving capability. In this case, Mohave is  
10 supplied by the Western 230kV system. It generally gets  
11 all of its power served through -- most of its power is  
12 delivered through a network integrated transmission  
13 service agreement with Western, plus one point-to-point  
14 contract.

15 The actual loads have actually declined in that  
16 area. Again, this is an area where the Mercator mine is  
17 located. And if that operation steps up quickly, that  
18 could make a big difference in the amount of load that you  
19 would be seeing down in that area.

20 Nogales, that part of the system is served by a  
21 radial line supplied by the Western system at the Nogales  
22 tap. And the load serving capability, and that is the  
23 115 megawatts, is a combination of the generation down in  
24 Nogales at the Valencia substation and the ability of the  
25 system to import the power. It's a combination of those

1 two. It provides load serving capability of 115  
2 megawatts. And the loads, as you can see, are between 75  
3 and 85 megawatts.

4 This slide also repeats a lot of what you had  
5 heard about the emergency preparedness, so you probably  
6 wouldn't want to go through the whole thing. As a matter  
7 of fact, I'm sure you wouldn't. We're doing the same  
8 thing.

9 The only thing that I would add to that is the  
10 coordination with Western and APS and SRP in terms of  
11 preparations for wildfires. Otherwise, I think it speaks  
12 for itself, unless you have any other questions.

13 CHMN. MAYES: Thank you. And Mr. Hutchens, if  
14 you could give us a couple of minutes on your section,  
15 that would be great. If you can go directly to the most  
16 important slide.

17 MR. HUTCHENS: I can meet that goal. I actually  
18 only have money slides, so I'll just skip right to them.

19 I'm Dave Hutchens, Vice President of Wholesale  
20 Energy for UniSource Energy Corporation.

21 The first company I'm going to talk about for  
22 energy supply is Tucson Electric Power. Mr. Belval has  
23 talked about our generating resources. That includes  
24 1,370 megawatts of coal generation in the remote plants,  
25 Four Corners, San Juan, Navajo, and Springerville. We

1 also have 422 megawatts of steam, of gas steam generation  
2 that's in the Tucson area. That's our local Sundt  
3 station.

4 One point of interest on this slide is that  
5 Sundt-4, which is a dual-fuel unit, which has  
6 historically, actually, since I've been working there for  
7 about -- well, this is my 15th year -- has been running on  
8 coal. And now with the very low gas prices, compounded  
9 with the higher coal prices, we're actually saving some  
10 money and running that on gas. And we plan to do that at  
11 least through September of this year. So with that  
12 combined gas steam generation in Tucson, it gives us about  
13 422 megawatts.

14 CHMN. MAYES: Mr. Hutchens, quickly, how is --  
15 you know, we've got now very low gas prices, which is a  
16 wonderful thing for our consumers. So how is that going  
17 to affect electricity prices this summer?

18 Your company now has an adjustor mechanism. APS  
19 certainly has an adjustor mechanism. Although I'm not  
20 sure, and I would have to go back and look at exactly  
21 which month yours becomes effective.

22 MR. HUTCHENS: TEP's becomes effective, actually,  
23 next month, April 1. So a lot of these prices were priced  
24 in our February forecast. So the one that you'll see when  
25 we were in the settlement proceedings, we were throwing

1 around three to four-type numbers of mils of increase that  
2 we would expect. From the PPFAC it's 1.7 and some change,  
3 so it's a little less than half of what we were talking  
4 about then, so that's good news.

5 And on UNS Electric, that resets in June, and so  
6 they'll probably have a good longer draw on those cheaper  
7 prices, and we expect smiles when we bring in that PPFAC  
8 rate.

9 CHMN. MAYES: Good. Thank you.

10 MR. HUTCHENS: The last couple units, the  
11 combined cycle, that's our Luna energy facility in Deming,  
12 New Mexico, and then we have gas turbines throughout the  
13 Tucson area, and then we have 5 megawatts of solar up in  
14 Springerville.

15 So we have about 2,200 megawatts of generating  
16 resources. The rest of it we pick up in the market-based  
17 resources through a series of different types of PPAs. We  
18 have 475 megawatts of firm PPAs in place now, and we have  
19 63 megawatts of resources that we'll pick up in the  
20 shorter term market. So we have total market resources of  
21 about 538, which is, you know, roughly about 25 percent of  
22 our peak load requirements.

23 Speaking of peak load requirements, we expect the  
24 peak in 2009 -- these are just, as I note, a slight bit  
25 different than the ones that Mr. Belval puts out, because

1 this includes -- this is at the generation point, not at  
2 the load point. So the 2,737 total resources that we need  
3 include about 2,417 of retail load, 140 of firm wholesale,  
4 and then, of course, a reserve margin of about 180  
5 megawatts. And that's filled with the aforementioned  
6 resources that stack up there on the right.

7 Those combustion turbines, a couple of them are  
8 good, efficient ones. The rest of them we use to balance  
9 off and purchase cheaper power in the wholesale market and  
10 leave those as additional reserves on days that we can.

11 CHMN. MAYES: I notice that you don't have any  
12 renewable energy generation resources.

13 MR. HUTCHENS: Not on the demand. The renewable  
14 generation, the 5 megawatts of solar, was a little too  
15 thin to put on this. And the landfill gas that we have as  
16 a fuel source, so it's not a capacity, that actually goes  
17 in through the Sundt Unit 4. Actually, it's a triple fuel  
18 unit, so that burns landfill, gas, and natural gas right  
19 now.

20 CHMN. MAYES: Okay. I trust your new CEO will  
21 turn that sliver into a thicker sliver.

22 MR. HUTCHENS: We've had conversations.

23 CHMN. MAYES: Yeah. Okay.

24 MR. HUTCHENS: As you can well imagine.

25 As far as the fuel supply, we've got above our

1 target inventories at all of our plants. Obviously, the  
2 APS and Salt River Project folks talked about those plants  
3 that were joint owned with PNM also has adequate  
4 inventory. And at Springerville and Sundt, which we have  
5 more than enough inventory since we plan on burning gas.

6 On our TEP gas supply, we do have ample contracts  
7 in place with counterparties for fixed volume deliveries  
8 and for swing volume deliveries, so we've got that all  
9 contracted up. And, of course, we've got enough pipeline  
10 transportation on El Paso Natural Gas, which is the only  
11 pipeline that serves us in southern Arizona.

12 And just as a graphical representation, that line  
13 better shows what we expect our peak day usage to be each  
14 month and our underlying gas transportation capacity,  
15 which shows that we have sufficient. We picked up a  
16 little extra in the summer just to cover that Sundt-4  
17 running on natural gas.

18 On UNS Electric, it's a little bit different as  
19 far as resources go. We have 153 megawatts of turbines,  
20 90 megawatts up in Kingman, the Black Mountain generating  
21 station. And then we have 63 megawatts down in Valencia,  
22 four smaller units down there. So the majority or  
23 two-thirds of our capacity is picked up on the market. We  
24 have firm PPAs of 225 megawatts currently in place to meet  
25 that need. And then we pick up about 84 in the shorter

1 term in monthly-type daily markets, whatever we need to.  
2 And so we have total market resources of about 309 that  
3 we're counting on to meet 462 megawatt peak load.

4 This again just shows the 462 megawatts broken  
5 down between the retail peak and reserves. And again,  
6 with the combustion turbines on the top there, we  
7 generally will pick up additional market resources that  
8 are cheaper than those turbines and then we'll dispatch  
9 those last.

10 On the UNS Electric fuels side, it is only  
11 natural gas, and that's for the Black Mountain and  
12 Valencia units. Black Mountain is actually served off the  
13 Transwestern pipeline, and we have ample transportation  
14 there. And El Paso serves the Valencia plants down in  
15 Nogales.

16 In conclusion, and with 17 seconds to spare, we  
17 do have sufficient generation resources. We have  
18 sufficient transmission available to import our remote  
19 generation. We have gone through our contingency and  
20 emergency preparations and are ready for this summer.

21 CHMN. MAYES: Okay. So Mr. Hutchens, you concur  
22 with your colleague that you have seen some tapering off  
23 of demand as a result of the current economic climate?

24 MR. HUTCHENS: Yes. We've actually been -- I'm  
25 glad I'm not in the forecasting group, actually, because

1 they, at the beginning of this year, must have done about  
2 seven different iterations, and this is the last version.  
3 So I think that we caught the majority of what we see as  
4 the downturn. And again, last summer was very mild for  
5 us, as APS had mentioned as well. We didn't get a real  
6 hot summer. So we are expecting just a little bit higher  
7 than what last summer would have been in a normal weather  
8 condition. Now, you know, if it's hot, then obviously  
9 we'll see a higher peak.

10 CHMN. MAYES: Yeah. I know you guys hope for hot  
11 summers, but I hope for mild ones for the sake of our  
12 customers or our consumers.

13 But real quickly, and I know everyone wants to  
14 go, but TEP's saguaro practices.

15 MR. HUTCHENS: Mr. Heyman will answer that one  
16 for me. He's been studying that in the back of the room.

17 CHMN. MAYES: Okay. You may not have as many  
18 saguaros in your service territory, but --

19 MR. HEYMAN: Chairman Mayes, Commissioners, we  
20 don't. We have a similar policy that says that if there  
21 are saguaros that are within the NERC safety hazard area  
22 that we have to go out and look at them. How we treat  
23 them depends upon the owner of the land.

24 We do have some saguaro cactus that are in the  
25 Tohono O'odham tribe land, and they require that we top

1 those off for cultural and religious reasons, which is a  
2 little twist from, I think, what a lot of people have,  
3 their situation.

4 But the rule of thumb that we have as well is  
5 that if a saguaro is 10 to 14 feet, we're told that they  
6 will not survive a transplant and so we do clear-cut  
7 those, which means that we cut them, and we cut them at  
8 the base. We leave ours on the ground. In the last five  
9 years, we've only had to do that for 50 saguaros. Just to  
10 give you a contrast, in the last six months we have  
11 transplanted 650 of them successfully.

12 We are in discussions with some nurseries and  
13 vegetation experts who say they believe that they have a  
14 process whereby we can actually transplant saguaros that  
15 are as high as 30 feet high, and so we're trying to see if  
16 that's real. If that's real, that will take care of the  
17 issue.

18 But just because of where our lines are, we don't  
19 have as many saguaros, and so we don't have that problem,  
20 the big issue that maybe some of the other utilities do.

21 CHMN. MAYES: So you've only had to cut down --  
22 did you say 50 of them?

23 MR. HEYMAN: Less than 50 over the last five  
24 years.

25 CHMN. MAYES: Is it your general policy not to do

1 that?

2 MR. HEYMAN: It is where we can avoid it. That's  
3 our preference.

4 CHMN. MAYES: Okay. So your preference is to  
5 either top or transplant?

6 MR. HEYMAN: Correct.

7 CHMN. MAYES: Thank you.

8 Okay. Thank you, everybody, for being here, and  
9 I appreciate it. I appreciate all of the information.  
10 We're adjourned.

11 (The Special Open Meeting concluded at 2:00 p.m.)

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1 STATE OF ARIZONA )  
 ) ss.  
 2 COUNTY OF MARICOPA )

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4 I, MICHELE E. BALMER, Certified Reporter  
 5 No. 50489 for the State of Arizona, do hereby certify that  
 6 the foregoing printed pages constitute a full, true and  
 7 accurate transcript of the proceedings had in the  
 8 foregoing matter, all done to the best of my skill and  
 9 ability.

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11 WITNESS my hand this 6th day of April, 2009.

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*Michele E. Balmer*

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