



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

BEFORE THE ARIZONA CORPORATION

IN THE MATTER OF THE COMMISSION'S)
GENERIC DOCKET FOR INFORMATION)
GATHERING CONCERNING RENEWABLE) DOCKET NO.
TRANSMISSION ISSUES IDENTIFIED IN) E-00000A-09-0066
THE FIFTH BIENNIAL TRANSMISSION)
ASSESSMENT FINAL ORDER AS REQUIRED)
IN DECISION NO. 70635.)
SPECIAL OPEN MEETING

At: Phoenix, Arizona
Date: November 23, 2009
Filed: **DEC 02 2009**

RECEIVED
2009 DEC -2 P 4: 06
AZ CORP COMMISSION
DOCKET CONTROL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Arizona Corporation Commission
DOCKETED

DEC - 2 2009

DOCKETED BY *MM*

ARIZONA REPORTING SERVICE, INC.
Court Reporting
Suite 502
2200 North Central Avenue
Phoenix, Arizona 85004-1481

Prepared for: By: COLETTE E. ROSS
Certified Reporter
Certificate No. 50658

ACC

ORIGINAL

**FOR
INTERNAL
&
INTERAGENCY
USE
ONLY**

Pursuant to the contract with Arizona Reporting Service all transcripts are available electronically for internal agency use only.

Do not copy, forward or transmit outside the Arizona Corporation Commission.

1 INDEX

2 AGENDA ITEM PAGE

3

4 Overview and Order of Process Used 4
Mr. Prem Bahl, ACC Staff

5

6 ARRTIS Subcommittee Summary 11
Mr. Greg Bernosky, APS
Ms. Amanda Ormond

7

8 RTTF Summary 34
Mr. John Lucas, APS

9

10 RTTF Finance Subcommittee Summary 37
Mr. Tom Wray, SunZia

11

12 Utility Presentation of "Top 3"

13 APS, Messrs. Brian Cole and John Lucas 63
SRP, Mr. Robert Kondziolka 146

14 TEP, Messrs. Phil Dion and Ron Belval 182
SWTC, Messrs. Jim Rein and Bruce Evans 197

15

16

17

18

19

20

21

22

23

24

25

1 BE IT REMEMBERED that the above-entitled and
2 numbered matter came on to be heard before the Arizona
3 Corporation Commission, at the Arizona Industrial
4 Commission Auditorium, at 800 West Washington Street,
5 Phoenix, Arizona, commencing at 10:02 a.m. on the 23rd
6 day of November, 2009.

7

8 BEFORE: KRISTIN K. MAYES, Chairman
9 PAUL NEWMAN, Commissioner
10 SANDRA D. KENNEDY, Commissioner
11 BOB STUMP, Commissioner

12

13 For the ACC:

14 Mr. Prem Bahl

15

16

17

COLETTE E. ROSS
Certified Reporter
Certificate No. 50658

18

19

20

21

22

23

24

25

1 CHMN. MAYES: Good morning, everyone. Welcome
2 to this meeting at the Arizona Corporation Commission at
3 the Industrial Commission. That's new. Thanks for
4 being here, and I am looking forward to the
5 presentations this morning. We have an agenda, so if
6 you need to get that, I think we have them outside, but
7 if not, we will just have Prem tell us what we are going
8 to do.

9 But I want to thank you all for being here and
10 especially want to thank all the people who have put in
11 so much hard work to get us where we are at today. So I
12 am going to have Prem make a few -- Prem Bahl from our
13 Staff -- make a few opening comments.

14 It is a little, the setup is a little bit
15 awkward, so Bob and I are going to scootch over to the
16 end here and watch the presentations from the end. And
17 we will go from there.

18 So, Prem, would you like to make a few opening
19 comments?

20 MR. BAHL: Thank you, Chairman Mayes,
21 Commissioners, ladies and gentlemen. So glad to have
22 you here. Generally we meet every two years, but this
23 is a little bit earlier just in anticipation of the
24 coming next BTA which would be two or three months away.

25 Today's agenda for this open meeting actually

1 stems from --

2 Are you able to hear me? Is this working?

3 MR. BOB SMITH: Fine.

4 MR. BAHL: -- stems from the 2008 BTA under
5 Order 70635. In this order, the Commission asked the
6 jurisdictional utilities to come up with three renewable
7 transmission projects, such projects that would enhance
8 the development and proliferation of renewable resources
9 in the State of Arizona.

10 Along with that, actually Chairman Mayes'
11 amendment did the most important thing in the last
12 order, which was to come up with a funding mechanism,
13 how to construct and develop these transmission
14 projects. We call them projects, not exactly
15 transmission lines, because they could be integrated to
16 transmission lines coming from renewable resources to be
17 integrated in the existing grid, which would result in
18 the upgrades in the existing system, or they could
19 present an entirely new transmission line bringing the
20 renewable resources directly to the load center.

21 So, and stepping back actually two years ago in
22 the 2006 BTA, the order of that BTA required the
23 utilities to have an assessment of resource, renewable
24 resource potential in the State of Arizona and to inform
25 the Commission about the available transmission capacity

1 in the existing grid, which the utilities did. And 2008
2 took this further to the next step, which is definitely
3 very productive. We are developing renewable resources
4 in Arizona.

5 As a result of that order, three subcommittees
6 were formed. The first one was the RTTF group. That
7 was formed already in the 2006 BTA order. But under
8 that formed another group called ARTIS, Arizona
9 Renewable Resources Transmission Identification System,
10 or Subcommittee. And a couple of workshops were held by
11 the ARTIS group where the potential for the renewable
12 resources were identified in the State of Arizona. And
13 as the next requirement, to develop a funding mechanism,
14 an RTTF financing subcommittee was formed, chaired by
15 Mr. Tom Wray.

16 And anything below that, you see that major,
17 major rectangle, is the work done by the utilities to
18 come up with these three viable renewable projects. And
19 they would be filed in a report by October 31st, 2009 as
20 the date. And today is when they will explain the
21 rationale behind their selection of said projects.

22 I think that's the foundation for today's
23 meeting, and we can proceed from them.

24 CHMN. MAYES: Thank you, Prem.

25 And let me just say also, you know, I have been

1 thinking a lot about transmission, these transmission
2 issues since we got started with this process, and also
3 have been in a number of discussions with commissioners
4 throughout the southwest. In fact, this morning I was
5 just on the phone with the Commissioner Jim Tarpay from
6 Colorado, discussing renewable issues with Commissioner
7 Dian Grueneich from California and Commissioner Jason
8 Marks from New Mexico.

9 And as, you know, as the Commissioners in
10 Arizona have become more familiar with the renewable
11 transmission planning processes of our neighboring
12 states and as we have been discussing these issues with
13 commissioners throughout the southwest, it has been, you
14 know, it is an interesting learning process. And we
15 know, for instance, that other states surrounding
16 Arizona have begun and are in various stages of
17 developing their own renewable energy transmission.
18 They each have their own process. California has REDI.
19 New Mexico has RETA. Colorado has CRES, something like
20 that. So we are in varying degrees of advancement in
21 planning for renewable transmission.

22 And in addition to that, in the last year or so,
23 it has become readily apparent to me, to I think pretty
24 much anybody who is watching the federal scene, that the
25 current administration, the current chairman of the

1 Federal Energy Regulatory Commission and most members of
2 the majority of party in Congress would like to see a
3 more top down federalized approach to transmission, and
4 particularly renewable energy transmission. As most of
5 you know, I have been an ardent opponent of that and
6 will continue to be. But as I have thought about it,
7 you know, it has become apparent to me that we need to
8 be approaching renewable transmission from a more
9 regional, on a more regional basis, and we need to begin
10 putting together, marrying up, to the degree possible,
11 our renewable energy transmission process in Arizona
12 with our surrounding states. I think we need to do that
13 or we are going to find ourselves with someone in
14 Washington, D.C. doing it for us.

15 So, you know, I think that Arizona, California,
16 it is my sense, and I will be interested to get your
17 sense maybe at the end of the day, that Arizona and
18 California have the most advanced renewable energy
19 transmission processes in the southwest. New Mexico is
20 a little bit behind us. Colorado is a little bit behind
21 us.

22 In fact, for all, for all of you who have worked
23 so hard on the BTA process and on the RTTF process and
24 the ARRTIS process, you will find it interesting to note
25 Colorado called me this morning to ask for our BTA, to

1 ask for Prem's phone number, to ask for Steve Olea's
2 phone number because they love our process so much they
3 would like to consider adopting it in Colorado. So it
4 is a proud morning, I think, for the State of Arizona
5 and for all of you who have worked so hard on
6 transmission planning.

7 But, anyway, it is my view and I have come to
8 the view that we do need to begin thinking about how we
9 can take the results that you are going to present to us
10 today and marry them up with what our neighboring states
11 are doing. And as I said, there is, I believe, some
12 interest in doing that among commissioners in our
13 surrounding states.

14 So what I would like to propose, and I want to
15 be able to discuss this with my colleagues at an
16 appropriate time, but I think that we need to request
17 that SWAT begin studies of the lines that are identified
18 in our RTTF process, along with any lines under serious
19 consideration by our neighboring states, and look at
20 those lines from a technical standpoint. And then, in
21 addition to that, I would suggest that my colleagues and
22 I should meet, should engage in high level meetings with
23 commissioners in our surrounding states to begin
24 discussing what really makes sense in terms of
25 transmission lines in the southwest. And I think that's

1 important because it will help us create a more robust
2 reliable electric transmission grid. It will help us
3 create an import and export market throughout the
4 southwest. And it will help us prove to the federal
5 government that we don't need their help. So that's my
6 sense of it.

7 And I really want to say again how thankful I am
8 to all of you who worked so hard on these reports. It
9 is Thanksgiving week. And I am truly grateful and
10 thankful for the work that you did on this phase, I will
11 call it Phase II of the RTTF process. So without
12 further ado, why don't we go ahead and get started,
13 Prem, with the first speaker.

14 MR. BAHL: Thank you so much, Chairman Mayes.

15 I forgot to mention one thing, that these
16 workshops were held, all the meetings were held, as was
17 in the order, on a collaborative basis, all the
18 stakeholder input. And that was a great benefit to the
19 outcome of the product of this effort. And many of
20 those stakeholders are present here today. And we are
21 grateful for their presence.

22 I would now call upon the first presenter, which
23 is from actually Amanda Ormond, and Greg Bernosky of
24 APS. They co-chaired the first subcommittee, RTTF
25 ARRTIS. So I would request them to come over here and

1 make their presentation.

2 Another thing, if anybody has a question, we
3 would request them to come to the podium by themselves
4 and then identify themselves and then ask the question.
5 Thank you.

6 MR. BERNOSKY: Thank you very much, Prem, for
7 our technical support here today.

8 Chairman Mayes and Commissioner Stump, thank you
9 for being with us today. And I certainly want to thank
10 Prem for remembering the ARRTIS acronym as well as he
11 did this morning in the introduction. It is quite a
12 mouthful.

13 MR. BAHL: It was a fluke.

14 MR. BERNOSKY: All of your participation in our
15 meetings certainly helped in doing that.

16 I am Greg Bernosky with Arizona Public Service.
17 I am in our transmission facility siting group. Amanda
18 Ormond is with me today. We were the co-chairs of the
19 Arizona Renewable Resource and Transmission
20 Identification Subcommittee, or ARRTIS for short.

21 And just a quick history, Prem did a good
22 summary of how this process came on to be and what our
23 role was in it, but when the BTA order was issued in
24 December of 2008, the utilities and folks that do the
25 regional planning were interested in finding out what

1 would be the most effective way us for to quickly and
2 effectively get our heads together in response to the
3 order. And we quickly looked to the SWAT group and the
4 renewable transmission task force that had been set up
5 in response to a previous order. And we decided that
6 carving out a group that would think specifically about
7 Arizona issues and how some of the legwork could be done
8 with the group that we had assembled already would be
9 the most effective way to do that.

10 So in January 2009, we established the ARRTIS
11 group. And today we just want to share some highlights
12 of what we did and accomplished. And a lot of the heavy
13 lifting and other components came downstream from our
14 process, but we want to share a little bit about the
15 context of the ARRTIS group.

16 We had 60 tasks that we started off with. The
17 first was to assemble a group of key stakeholders, which
18 was a very important step for us because we have a broad
19 audience that are interested in renewable issues in the
20 state. And I will talk in just a minute about who we
21 were able to gather together for this.

22 We wanted to find out a lot about the Arizona
23 renewable resource potential. There is a lot of data
24 floating out there and we wanted to get what was the
25 most current, viable information to make decisions from.

1 We wanted then to look at the constraint
2 criteria. Knowing that the state has a lot of fantastic
3 natural resources, a lot of developed areas, we could
4 not assume that every square foot of Arizona was
5 developable for renewable resources, so we wanted to
6 work in an effective way to find where are some of the
7 constraints and sensitivities located in the state to
8 help shape our plan.

9 We then married that together with where are
10 some of the more likely areas for development based on
11 strong solar resource or strong wind resource. This
12 particularly relates to where the transmission is to
13 load areas.

14 And then our tasks from there were to provide
15 the information to the broader RTTF group in order for
16 them to make their identification of transmission
17 options through the broader RTTF process.

18 And that information, in conjunction with the
19 group that, Tom Wray's group and the corridors
20 identified by the RTTF, were all part of information
21 then provided to the utilities in the state to come up
22 with the top three transmission projects in response to
23 BTA order.

24 So that's the overview of what we were able to
25 accomplish in about a five- to six-month process. I

1 mentioned the participation. We were very pleased with
2 the participation that we had in this process. We had a
3 number of federal agencies. The Bureau of Land
4 Management, the U.S. Fish & Wildlife Service, Department
5 of Defense, amongst others provided geographic
6 information system data as well as meeting
7 representation on a regular basis. State agencies were
8 extremely helpful.

9 Prem and the Corporation Commission were well
10 represented at all of our meetings that we held. State
11 Game & Fish Office, some of our other state agencies,
12 State Land Department, we were really pleased to have
13 that involvement. The tribal reservations were involved
14 through a number of planning organizations. They would
15 work with us collaboratively. Obviously the utilities
16 were engaged and very involved.

17 We had quite a bit of participation from
18 development and technology companies. A lot of folks
19 out there developing the next generation of solar
20 technology, wind technology were very interested in what
21 sort of on-the-ground criteria were being discussed so
22 that we could set a good framework for planning. And
23 then environmental interest academia and legal folks, of
24 course, you can't have a meeting or decision making
25 without some legal representation.

1 So we had a really good stakeholder
2 participation. And I think we felt at the end of the
3 day that our product had been vetted by quite a number
4 of different perspectives.

5 Just a quick overview of what the ARRTIS effort
6 was. We conducted eight meetings in total bimonthly.
7 We held them in a format that allowed for remote
8 participation. So in certain cases we had folks from
9 Colorado and New Mexico that represented the National
10 Renewable Energy Laboratory, for example, that could
11 participate remotely. We gathered quite a bit of GIS
12 information provided by, as I mentioned, federal and
13 state entities. And that really helped develop a
14 database that we could use for our planning efforts and
15 was really critical to what we were able to accomplish.

16 One of the tasks that we took on was defining
17 the constraint criteria in terms of what environmental
18 resources exist within the states and how do they rank
19 against each other in terms of the sensitivity. And we
20 came up with a definition of exclusion as high, moderate
21 and low sensitivities to screen various areas against
22 each other.

23 We brought in factors such as slope to help
24 further refine where developable locations were most
25 likely to be in the state. I should say that our effort

1 was not a zone identification process. This was not
2 something where we sat down and drew a circle on a map
3 and said a resource located within this circle is a good
4 one, a resource located out of this circle is not a good
5 one. Our intent was to just overlay various criteria
6 against each other in the state, and allow these
7 utilities and other decision makers to evaluate other
8 system positions that they need to look at to determine
9 the viability of projects on a case-by-case basis. We
10 did not want to turn this into something where we didn't
11 have flexibility for projects to develop inside or
12 outside of the designated zones.

13 We brought into our analysis the existing
14 10-year plan transmission system so that we could get a
15 sense of where we have existing transmission; although,
16 through previous studies we know that the available path
17 in a lot of systems is pretty modest at best, but, also,
18 what are the lines that plan to be in service within a
19 10-year period.

20 We cross-referenced that information with
21 interconnection queue data. As of a month or so ago
22 there were more than 20,000 megawatts of renewable
23 generation requesting interconnection to the Arizona
24 system. There is a tremendous amount of projects that
25 are looking for transmission paths. And so we wanted to

1 understand a little bit more where those projects
2 generally were looking to be located in the state. And
3 we provided that data then to the RTTF, again as we
4 mentioned, for identification of the top three projects.

5 It will be a little tough to see. Some of you,
6 I am sure, have seen this map in either our report or
7 other map or other forums where we have had this
8 available. But this was essentially the end product for
9 the ARRTIS effort where we -- our lightest color on the
10 map, which is a pale yellow, was your exclusion areas
11 driven primarily by some land use considerations, for
12 example, Grand Canyon, national monuments, military
13 active bombing ranges. This is a map just showing our
14 solar resources. We had a separate map for wind
15 resource.

16 I mentioned slope was one of our criteria that
17 we looked at before. On the solar map, we decided that
18 a 5 percent slope of land, anything exceeding that would
19 be taken off the map as an exclusion area, because
20 primarily a lot of the technology that's being looked at
21 at this point in time for solar requires a little bit
22 more of a flat terrain. And so it was discussed through
23 the ARRTIS process to put a pin in the ground that we
24 would go with a 5 percent slope. So a lot of what you
25 see in the pale yellow also comes from slope as a

1 criteria.

2 CHMN. MAYES: Greg, could I just ask you a
3 question? In reading the ARRTIS report and the section
4 that covers slope, I noted that you chose that 5 percent
5 slope filter but you also note in your report that,
6 quote, CSP projects can and are built on land with
7 slopes up to 5 percent, and then PB technology not as
8 slope sensitive.

9 Why was 5 percent chosen? And do you think that
10 would exclude any CSP?

11 MR. BERNOSKY: You know, we were really trying
12 to find a middle ground that would accommodate a range
13 of technologies that were being explored by the
14 utilities at this time. So in the discussion we had,
15 and, again, you know, there were a number of solar
16 developers there, some were looking for a terrain that
17 was much flatter, 2 to 3 percent range. Some of the
18 folks were mentioning they could get above and beyond
19 that 5 percent and have seen some of that in development
20 and exploratory situations. Five kind of became a good
21 benchmark that would catch a lot of the most viable
22 technologies that we were seeing, recognizing that,
23 again, probably there are some things that could go
24 outside of 5 percent.

25 MS. ORMOND: And, also, you can build on greater

1 than 5 percent, but it just translates to cost. The
2 higher the slope the higher to cost of project
3 development. And we thought there was enough resources
4 in the 5 percent and below. A lot of the information
5 which started us to this was from the National Renewable
6 Energy Lab and zoning process. So we looked at those
7 assumptions and decided is that a good assumption to
8 stay with and we decided to stay with that one.

9 CHMN. MAYES: Okay.

10 MR. BERNOSKY: I won't say much more about this
11 map. This has been something that has been through our
12 ARRTIS group. We came through with these as our sort of
13 final product. In September of this year we put
14 together a final report soliciting comments about just
15 summarizing our efforts and the maps that were
16 ultimately developed.

17 Again, I think we want to be very careful to say
18 that these areas represent relative resource sensitivity
19 and they don't preclude or exclude any projects from
20 being developed inside or outside zones, whether they
21 are categorized low, moderate or high. We certainly
22 think the exclusion categories have parameters
23 associated with them that would make them much more of a
24 problem to be developed, but we wanted this information
25 to be useful background for the subsequent steps of

1 transmission corridor identification that were to come
2 afterwards.

3 So that really concludes the overview of --

4 MS. ORMOND: Can I just -- I wanted to have a
5 little perspective here on our process versus some of
6 the other ones.

7 At the time that we started to do the ARRTIS
8 process, you had just had the Western Governors
9 Association that finished the Western Renewable Energy
10 Zone process. That was to try to do a very broad
11 overview, where is the very best energy resources in the
12 west. And part of the critical part of that process was
13 to try to bring in wildlife information and where should
14 and should we not build projects.

15 WGA took different tacts than we did. And what
16 they ended up with for Arizona was a very restrictive
17 map. And there was some real consternation over how our
18 state ended up looking from a potential development
19 standpoint compared to some other ones. And, you know,
20 the good news of that is we have really good
21 environmental and wildlife data. But because we had
22 good wildlife data, we took a lot of potential area off
23 the map.

24 So when we started looking at our process here
25 in Arizona, a lot of the other states were looking at

1 zone issues, too. Nevada, Colorado, New Mexico all had
2 processes to look at development. What is different, I
3 think, about Arizona than some of those other states is
4 that we were doing it to inform the utilities so they
5 could choose transmission projects for renewable
6 development. A lot of other states were looking at it
7 for the economic development of finding specific project
8 areas. So ours is a little bit different.

9 And Greg had mentioned zones. We didn't try to
10 draw exact zones. And I think that's a problematic
11 thing to try to do because, as soon as you draw a line,
12 someone is going to say it shouldn't be there or you
13 didn't include my area or you did include my area. So I
14 think the process we tried to go through was not quite
15 as restrictive. Part of that was because at the time we
16 had a very tight timeline to try and pull together a lot
17 of information to try to paint a picture. I think we
18 were pretty successful in saying that there are some
19 areas that kind of jump out along I-8 and other
20 corridors that make good sense from a development
21 standpoint.

22 So we got some pushback from people about, you
23 know, what about this area, what about that area. You
24 will notice on this map, if you could read it, there is
25 a really strong disclaimer about this is not meant for

1 project siting. And we will say that over and over
2 again.

3 I think that there probably needs to be some
4 additional processes going forward, depending how the
5 state wants to proceed. I don't exactly know what those
6 are right now. But I think it was a good first effort
7 and we appreciate all the agencies that came forward
8 with all the information to put this map together as
9 well as the utility work to host the meetings.

10 CHMN. MAYES: Just a couple more questions,
11 Amanda or Greg. Yes, I was one of the people who was,
12 who dealt with what I thought was a wildly skewed and
13 unfortunate map that resulted during the WREZ process,
14 which ultimately worked out because we, the WREZ
15 participants chose not to include the environmental
16 screens.

17 Can you give a sense -- and, by the way, I agree
18 with you. You know, it is sort of a double-edged sword.
19 We have a fabulous, you know, Game & Fish Department in
20 Arizona. But it is so fabulous that it made our map
21 look like there are no solar resources or wind
22 resources.

23 Can you just describe for us how much, how many
24 of the Game & Fish environmental filters made it into
25 this map and how much of the map or, and/or how much of

1 the map reflects the Game & Fish data, or does it
2 reflect the Game & Fish data?

3 MS. ORMOND: Right. I am going to try to jump
4 in, and Laura is back there. You can call on her if you
5 need to.

6 The information, and keep in mind this is a
7 point in time map, things have dramatically changed
8 since then. We are constantly collecting more
9 information. But in the Western Rural Energy Zone
10 process of the Western Governors Association, the data
11 is the same. It was how the data was characterized
12 that's different, because, if I remember right, in the
13 REZ, in the Western Governors Association, some of the
14 data was categorized as avoidance area. And that was a
15 real hot button for a lot of developers. They said if
16 you say avoid, then that says don't go there. And the
17 categorization was given by the Western REZ folks to our
18 Game & Fish and the Game & Fish submitted data.

19 When we looked at our process, we did exclude,
20 which is, you know, places you can't build, metropolitan
21 areas, lakes, things like that. But then we did a high,
22 medium, low sensitivity. So it is not something saying
23 you couldn't develop somewhere. It is just you may have
24 a high threshold for development. So it was essentially
25 the same data, we just approached how we put the data on

1 the map and how we categorized it.

2 Much of the REZ, Western Governors Association
3 people reacted to the word avoid. And bankers were
4 telling developers if your project is in the avoid area,
5 we will not finance it. And in the REZ process, what
6 happens is that the data ended up being used for
7 processes that it was not intended. It was never
8 intended to be financable information, or information to
9 finance on.

10 CHMN. MAYES: Right. And, okay, so it is all
11 included on this map. It is just, it is just basically
12 described as high sensitivity, moderate sensitivity, low
13 sensitivity. And then there is a map behind it, a
14 couple maps behind it that shows nonexclusion solar
15 resource areas.

16 Can you describe that map. And is there, is
17 there -- should we be looking at one of these maps over
18 the other, or are they just sort of both, you know, good
19 informational tools? Can you give us a sense how to
20 look at both of those.

21 MR. BERNOSKY: Those two maps are actually
22 related to each other where we wanted to show, the
23 second map you are referring to, Chairman Mayes --

24 CHMN. MAYES: Do you guys have that one?

25 MR. BERNOSKY: I do, yes. That map is

1 essentially everything that is nonexclusion. And we
2 wanted to bring that forward to show those were the
3 areas that were the high, moderate, low sensitivity.
4 And we made it very clear from the onset of the process
5 that we would develop these criteria but we would not
6 take the high, moderate and low areas off the table from
7 discussions.

8 CHMN. MAYES: So the green map, and it is this
9 one in case people have this with the packet with them,
10 the green map just shows high, medium and low all
11 together?

12 MR. BERNOSKY: That's right.

13 CHMN. MAYES: Okay.

14 MR. BERNOSKY: And we also had a policy of
15 taking the data that was provided to us at face value,
16 saying that the agencies that developed it were the
17 experts. We were going to incorporate it into our
18 process. We weren't going to push back on it and say
19 viable, not viable or critique the individual data that
20 came into it. So what we ended up with was a database
21 that was a compilation of folks, various agencies in
22 that information gathering.

23 I will say this, Laura and the folks have been
24 very helpful in the process. They are right now in the
25 midst of a public process where they are soliciting

1 comments on a new analysis of conservation measures for
2 state resources. And I know that's going to be open
3 from December through February. And I think that's
4 going to be important feedback that they are looking for
5 to try and learn a little bit more how the state wants
6 to look at the resources and how that fits into the
7 broader plan.

8 CHMN. MAYES: Are you speaking of BLM or Game &
9 Fish?

10 MR. BERNOSKY: Arizona Game & Fish.

11 CHMN. MAYES: Game & Fish, that's what I
12 thought.

13 And then could you, Greg, on behalf of APS, and
14 maybe TEP and SRP, also tell me how, how the utilities
15 believe that these two maps can be useful. How do you
16 intend to use the maps going forward in your planning
17 processes?

18 MR. BERNOSKY: Well, I know that our folks -- in
19 subsequent efforts through the RTTF, the corridors were
20 developed, the transmission corridors were developed
21 with this as our overlay or background information. So
22 knowing where the load areas were in the state, knowing
23 where the viable resource potentials were, the folks
24 that did the individual studies, at least from APS'
25 perspective, were looking at where those, where those

1 areas were in relationship to the data developed by
2 ARRTIS and the RTTF. So I think it was very helpful
3 background information.

4 I think Brian and John will talk a little bit
5 about from the APS perspective how this was useful from
6 analyzing the issues associated with developing
7 transmission and generation in specific areas within the
8 state. And I think that's an effort that we will
9 continue to look to as, you know, projects are
10 determined, viability is determined at the time.

11 CHMN. MAYES: Okay. And are we, are we going to
12 see later a map that overlays, maybe you haven't
13 developed this yet, that overlays the top three choices
14 of each utility on top of this map?

15 MR. BERNOSKY: I think we, I know we are going
16 to see the transmission corridors, which were the menu
17 of options that the utilities were working from, from
18 the RTTF overlaid on this information. I believe there
19 are some other maps that show the relationship of all
20 the top three projects to each other. So if it has that
21 background I am not sure.

22 CHMN. MAYES: Okay. Because, I mean, I would be
23 interested in seeing that, seeing that overlaid on top.

24 MR. BERNOSKY: Sure.

25 CHMN. MAYES: Prem.

1 MR. BAHL: I would like to recognize
2 Commissioner Kennedy. Would you please come on over.

3 CHMN. MAYES: I think she is waiting for a break
4 to come up. But absolutely, it is good to have
5 Commissioner Kennedy here as well.

6 Okay. Are there any questions from the audience
7 on what has been presented so far? Yes, absolutely,
8 come on up.

9 MR. WORSLEY: I am Bob Worsley, owner of
10 NZ Legacy.

11 And, Chairman, you know that during the Western
12 Governors process we were quite upset that most of the
13 state was excluded from due to our excellent data from
14 Game & Fish in Arizona compared to the other states.

15 As I have met and worked with other private
16 developers of renewable projects, another element that
17 seems to be missing is that every renewable project that
18 has been built to date in the state and most of the
19 projects that are proposed and have the most traction
20 are based in private land. And they pick up BLM and
21 state lands around that. And the base of private land
22 gives a developer the immediate right to claim site
23 control, which enables them to start placing queue
24 positions, et cetera, for transmission.

25 And one of the -- the way we look at the state,

1 clearly self interested here, but the way we look at the
2 state is where is there private land of significant size
3 and that was not taken into account, it appears, in the
4 process. So, and it does seem that the Game & Fish map
5 kind of came through very heavy, again, with high
6 sensitivity in a lot of areas that we are concerned
7 about.

8 CHMN. MAYES: Yes, Bob, thank you very much for
9 being here. I appreciate and I wanted you to be here.
10 And I would just say I understand what you are saying.
11 And I shared your concern, as you know, and I took that
12 concern to Game & Fish and BLM and all the way to the
13 WREZ process and ultimately we were successful in
14 getting that, in backing some of that off.

15 MR. WORSLEY: I just didn't want to see it
16 reemerge here.

17 CHMN. MAYES: And I think when you look at this
18 particular map, this is a map that can be used to
19 indicate the high level of developability in the
20 northeastern part of the state.

21 And as for the private lands issue, can, Greg or
22 Amanda, can you discuss that issue or respond to that
23 issue? Is that something --

24 Because, I mean, certainly all the private land
25 that you own and others own in the northeastern part of

1 the state is covered by these, by these graphic
2 depictions of the developable resource. So I am not --
3 I guess I would -- I don't think it is such a problem.

4 But maybe, Greg, could you respond to that. I
5 mean, is that something we should --

6 MR. BERNOSKY: Sure. What we did when we
7 engaged in this process was to get as many stakeholders
8 representing a variety of agencies' and landowners'
9 perspectives. And we were able to gather the federal
10 GIS information for BLM, as I mentioned, some of the
11 other areas.

12 The federal agencies obviously have done a lot
13 of work to get where they have resources on their land
14 and they have readily available information to provide
15 to the process. We certainly looked at landownership as
16 one of the sets of data that was available to us. We
17 did not make a determination that a project on federal
18 land versus private or state land was any more or less
19 viable than the other. What we were bringing was
20 information that these agencies had developed for other
21 processes or their own internal planning that we could
22 bring together into a common database. There are
23 certain agencies that look at the state in totality,
24 state or private land included, and have made
25 recommendations about resource protection. And some of

1 it folded in there. Game & Fish data is one of those
2 layers.

3 And we certainly recognize that from a
4 permitting standpoint there are risks associated with
5 working through a federal process versus private
6 process. And, again, we feel those are best left to a
7 case-by-case basis where they are located.

8 MR. WORSLEY: I would just recommend, Chairman,
9 there is a map that the Arizona Cattlemen's Association
10 put together a couple years ago. It is readily
11 available from them. It shows large ranches that are
12 open and available.

13 And it is many developers' opinions that, to
14 start from a base of private land, because of the
15 permitting process, you can actually accelerate a
16 project by a couple of years. And it seems like that
17 would be relevant to transmission planning, what is
18 going to happen first versus what is going to take a
19 little bit longer because you have got NEPA, EIS, et
20 cetera, et cetera.

21 CHMN. MAYES: Bob, I couldn't agree with you
22 more. In fact, I think empirically when you look at the
23 projects that we have already cited, both Solana and the
24 Dateland NextLight project, we were on private land.
25 Those are solar projects. We haven't sited a wind

1 project yet.

2 MR. WORSLEY: I think Iberdrola --

3 CHMN. MAYES: Iberdrola.

4 MR. WORSLEY: -- was based in a ranch.

5 CHMN. MAYES: Right. And we didn't site that
6 one, but --

7 MR. WORSLEY: Okay.

8 CHMN. MAYES: -- but, correct. So all of the
9 major renewable energy projects so far have gone on,
10 have been based off of private land. And I would agree
11 with you. I think those are the areas that will be
12 developed first.

13 MR. WORSLEY: It seemed like it should be as
14 important maybe as environmental sensitivity in building
15 a map. That's why I just brought it up in looking at
16 the map.

17 CHMN. MAYES: If we could get that report, I
18 think that would be very interesting to have, and to
19 include in any future processes that we have to refine
20 these maps, or just as sort of an informational layer.

21 And then, Bob, I hope you will stick around,
22 because we are going to be discussing the top three
23 choices of these utilities. And one of the things that
24 I am not terribly happy about is --

25 MR. WORSLEY: Nor am I.

1 CHMN. MAYES: -- your area, to my knowledge, the
2 utilities did not propose any lines out of your area,
3 out of northeastern area despite the fact that we have
4 an ATC problem up there. So I would be interested in
5 getting your reactions to the choices that were made by
6 the utilities.

7 MR. WORSLEY: I understand.

8 CHMN. MAYES: Thank you.

9 MS. ORMOND: Chairman, if I can, what that issue
10 brings up is what is done about the data, what is done
11 next, because one of the things we did in the ARRTIS
12 process is we had these GIS maps where you can turn on
13 layers and turn off layers, of all kinds of different
14 information. And depending who is using the maps, they
15 want to look at different layers. So we have talked
16 about can we get the information that was collected put
17 in the public domain so then different people could have
18 access to it to do different things. Because for this
19 process, having that designation didn't really serve us
20 as well. We didn't need it as much. But from a
21 developer's standpoint, they would be much more
22 interested. There is so much information out of there
23 or that's possible in these GIS layers. And being able
24 to have someplace to be a repository for that is pretty
25 important.

1 CHMN. MAYES: Okay. Great. All right.

2 MR. BAHL: Next we now call upon Mr. John Lucas
3 who will be giving us a summary of the renewable
4 transmission task force.

5 Is Julius here?

6 (An off-the-record discussion ensued.)

7 CHMN. MAYES: Okay. Thank you very much, Greg
8 and Amanda, for that excellent presentation and for the
9 report.

10 And while we are waiting to get started on the
11 next presentation, one of the things I think would be
12 helpful is if the RTTF participants, particularly the
13 utilities, could at some point in the near future and
14 combine all of these reports into one document that
15 could be bound and as sort of presentable, I mean not
16 that this isn't presentable, but something that could be
17 bound and presented to the public and to our surrounding
18 states and their commissions.

19 MR. LUCAS: Good morning, Chairman,
20 Commissioners, ladies and gentlemen. My name is John
21 Lucas. I am manager of transmission and distribution
22 planning at Arizona Public Service and interconnection
23 development.

24 I will be presenting a brief update from the
25 activities and results of the RTTF. Following up

1 basically from what basically Greg and Amanda have
2 provided with their results, and then pass that on to
3 RTTF, they took that information and produced some
4 results that in turn was passed on to the utilities to
5 go forward with options.

6 So with that, I wanted to briefly show that
7 there was numerous stakeholders involved with this
8 effort regarding the RTTF, with the Arizona Corporation
9 Commission, utilities, both Arizona and involved with
10 outside of Arizona, renewable energy companies, and then
11 there were other stakeholders. So one specific time,
12 one particular workshop, we had over 40 participants
13 that were involved.

14 In summary, the two meetings that were conducted
15 in the month of May, May 12th and the 22nd.

16 The May 12th meeting attended with over 40
17 utility developer and agency representatives. And the
18 concept at the meeting was basically to take the
19 information from ARRTIS and then divide it up into three
20 groups within that workshop. And separately, those
21 three teams brought -- looked at the results of ARRTIS
22 and then drew corridors, transmission lines, et cetera,
23 on those maps separately.

24 Then in the May 22nd meeting, they assimilated
25 those options into a single set of renewable

1 transmission corridors. With that, they developed a
2 single transmission map with mileage, and then estimated
3 cost came after that.

4 The results of that are as follows:

5 So this is an Arizona map showing numerous
6 transmission corridor options, in this particular case
7 looking at it in general 500kV. You can see it covers
8 all the way from eastern Arizona, northeastern across
9 the state to northern Arizona, to the western boundary
10 connecting to California. So you have a corridor
11 connecting from New Mexico all the way across to
12 California. In addition, that would be across southern
13 Arizona, and then across the middle of the state.

14 I think what is important to note, though, is
15 they took the information from ARRTIS and then with the
16 stakeholders that were involved that involved utilities
17 and, with their knowledge, involved with stakeholders
18 that were renewable energy developers and their
19 knowledge, that would be knowledge that they are
20 presently pursuing some development or in the middle of
21 studies, and then they applied all of that knowledge to
22 end up with this result of a map showing all the
23 transmission lines.

24 Again, from this point now, this particular map
25 and information was then passed on to the utilities with

1 each of those transmission corridors with mileage and
2 with costs. And then the utilities then were taking
3 this information to narrow down to their top three
4 transmission renewable projects.

5 So in summary, that's what RTTF did. With that
6 I would like to turn it over now with questions.

7 CHMN. MAYES: Could I just ask, so the numbers
8 that are represented along the way, along these routes,
9 along the corridors represent discrete renewable
10 projects that have been proposed, or what are they?

11 MR. LUCAS: These were just line segments.

12 CHMN. MAYES: Oh, line segments.

13 MR. LUCAS: Line segments.

14 CHMN. MAYES: So, for instance, segment 4,
15 segment 5, segment 5 goes from 5 down into the Phoenix
16 area?

17 MR. LUCAS: That's correct. And they can
18 identify, put mileage and then costs associated with
19 that.

20 CHMN. MAYES: Okay.

21 MR. BAHL: No questions. Thank you so much.

22 MR. LUCAS: Thank you.

23 MR. BAHL: Call upon Mr. Tom Wray to give us a
24 summary of the RTTF finance subcommittee.

25 MR. WRAY: Good morning. My name is Tom Wray.

1 I was the chairman of the finance subcommittee. Good
2 morning, Chairman Mayes, Commissioners Kennedy and
3 Stump. Glad you could be here.

4 The finance subcommittee was created as a
5 companion committee by RTTF to recommend ways in which
6 these projects can actually be paid for and how that
7 cost might be collected. And the two different
8 jurisdictions that seem to overlap, that being the
9 Corporation Commission and retail rates and the Federal
10 Regularity Commission, all have access to Commission
11 tariff cost recovery mechanisms.

12 The finance subcommittee worked for about ten
13 months and had a series of meetings. And I will run
14 through those quickly and get to the results of that
15 effort. As I said, it was created primarily in reaction
16 to the order of 70635 by the Commission related to the
17 BTA. The other primary mission of the finance
18 subcommittee as we did our work was to support the two
19 workshops that took place on April the 20th and June 5th
20 of this year.

21 The subcommittee had fairly wide participation.
22 We had a representative from Staff here at the
23 Commission, and actually, through teleconferencing,
24 staff at the Federal Energy Regulatory Commission,
25 utilities, merchants and independents. There was good

1 participation from the conservation community,
2 engineering services companies and numerous consultants.

3 You see the meetings that we had up there. We
4 started in February and continued through August, filed
5 an interim report middle of April. And a final report
6 was docketed in October.

7 Where it was relevant, we coordinated our work
8 with the previous committee, ARRTIS committee. Here is
9 a timeline of activity. I am sure you can't see it from
10 your seats, but this represents the sequence and the
11 dates overlap periods.

12 I want to point out that an important aspect of
13 the work that we did was a formation of a legal work
14 group that was chaired by Ric Tobin. Ric is here with
15 us today. And it was a subcommittee in effect of the
16 subcommittee looking at the possibility of drafting
17 either a form of order for consideration by the
18 Commission or, short of that, characteristics that might
19 find their way into a form of order, which is what we
20 ended up doing.

21 We did issue our final report in the docket
22 three weeks in advance of the deadline imposed by 70635,
23 which was October 31st. Okay. Because we were not able
24 to reach consensus in the committee on a pro forma
25 definition of renewable transmission project, what we

1 defaulted to was in effect identifying characteristics
2 of a renewable transmission project for rate treatment
3 that would be considered later on as it turns out and as
4 we recommended on the case-by-case basis.

5 So the original attempt to define an RTP either
6 by energy or capacity or some arithmetic basis gave way
7 to a consensus that we did achieve and characterized
8 one. The main results of that you can see on the screen
9 is a creation of renewable transmission action plan,
10 which, for a transmission project to qualify as an RTP,
11 would have a conjunctive requirement that it must be
12 included in that utility RTAP and have been filed in
13 that utility's 10-year plan. We do file now every
14 January, not only the utilities, but anyone
15 contemplating transmission of a certain voltage in the
16 state.

17 Going on --

18 CHMN. MAYES: Tom, could I interrupt with a
19 question?

20 MR. WRAY: Certainly.

21 CHMN. MAYES: Very interesting. Can you go back
22 to the last slide?

23 MR. WRAY: Yes.

24 CHMN. MAYES: Did the Committee envision the
25 RTAP action plan being filed as part of the BTA or in an

1 off year from the BTA or every year? I mean, what would
2 be, what was envisioned as the timing of that?

3 MR. WRAY: The RTAP, we have to start some
4 place, so we are sort of starting now, but the idea
5 would be that the RTAP would be filed in the 10-year
6 plan --

7 CHMN. MAYES: Okay.

8 MR. WRAY: -- which is an annual filing
9 requirement, but that it would be subject to an
10 assessment.

11 What is going on here is two different
12 processes, as I know you understand, Chairman. And as
13 we -- any of us planning to construct transmission of a
14 certain voltage in the State of Arizona are required to
15 file a 10-year plan --

16 CHMN. MAYES: Right.

17 MR. WRAY: -- not just utilities but anyone
18 contemplating transmission. The assessment comes along
19 every two years if you are on my staff under order from
20 the Commission to assess, independently of the filers,
21 the adequacy of that plan and impose the Commission's
22 vision at that time of the reliability requirements for
23 electric service in the State of Arizona.

24 So I would think that in that assessment process
25 those RTAPs would undergo scrutiny and revision and

1 could very likely change, but the idea would be the
2 renewable section and their overall filing of
3 transmission lines would be done annually in the 10-year
4 plan.

5 Again, there are other types of transmission in
6 that plan that are unassociated with development of
7 renewables. They are required for quality of service
8 and viability and so on.

9 CHMN. MAYES: Thank you.

10 MR. WRAY: Again, the conundrum that's going on
11 here that is causing all of this, of course, is sort of
12 a three-legged stool. And that is that the generators,
13 the renewable generators are not going to invest capital
14 until there is assurance of transmission to their
15 customers and markets. Utilities will not build the
16 transmission without assurance of cost recovery from
17 their regulators. And independents won't build the
18 transmission without financial or creditworthy shippers.
19 And so everybody is sort of standing off waiting for
20 somebody to move. One of the things that is occurring
21 here, I believe, and I give credit to the Commission, is
22 that you are trying to resolve this conundrum.

23 These points you see up on the screen here are
24 further identified in our final report, but the utility
25 would describe in evidence why a transmission project

1 rises to the definition of a renewable transmission
2 project and, therefore, be afford the opportunity for a
3 special cost recovery determination and/or possible
4 incentives if the Commission chooses to do that.

5 And I want to point out that increasingly you
6 are going to see, I believe anyway, I think most of the
7 members the Committee agree with me, more projects that
8 are jointly developed that would include a hybrid
9 combination of developers, private, independent,
10 organizations, utilities. And so your point to the
11 project, and I am project engineer for the SunZia
12 project, is just that, it consists of three merchants
13 and three utilities. And I think that you are going to
14 see more of those kinds of projects as opposed to
15 singular sponsorship. It has the benefit of mitigating
16 some of the risks and, I think, creates possibly,
17 depending on the credit quality of the project, better
18 access to capital markets more quickly.

19 Going on with the recommendations to the
20 Commission, that the RTAP procedure be adopted as a part
21 of the 10-year planning requirement in the BTA
22 process -- that was your question, Chairman -- and that
23 there be coordination of the cost recovery with FERC
24 jurisdiction, and this comes about because there
25 continue to be gray areas.

1 Gen-tie lines, for example, that don't produce
2 network service cause a gray area, regular lines that
3 collect renewables but do not improve network services.
4 Those kinds of projects can be material costs to the
5 utility sponsoring them, and they are going to come to
6 this Commission for rate relief where they can't recover
7 it on FERC Order 888, cost recovery. But then again,
8 inconveniently but it is a form of reality here, there
9 is no pro forma solution to these; you are going to have
10 to look at these on a case-by-case basis.

11 CHMN. MAYES: And, Tom, to that point, on
12 page 13 of the report that you docketed with the
13 Commission, you talk about, second to the last bullet on
14 page 13, that the ACC would review and approve RTPs
15 within a utility's RTAP. An RTP that provides potential
16 benefits to Arizona electric consumers that outweigh the
17 potential cost could be deemed to be in the public
18 interest and would be considered for approval, and
19 presumably for special cost recovery or incentive
20 treatment.

21 Did the Committee consider how the Commission
22 would determine whether an RTP and how, whether and how
23 an RTP would provide benefits that outweigh the costs
24 and what those benefits would be? Or do you want -- you
25 would leave that --

1 MR. WRAY: I was going to say we didn't present
2 them to supplant the wisdom of the Commission.

3 CHMN. MAYES: Well, guidance is always
4 acceptable. This is a tough question.

5 MR. WRAY: The benefit of a pro forma solution
6 is it makes it easy when it works. The problem is it
7 doesn't always work and so unfair outcomes can result
8 that may not be in the public interest.

9 I think that there are two different ways to
10 look at this bullet point, Chairman. And that is that
11 there is a constitutional process that goes on here at
12 the Commission regarding need and balancing against the
13 effect on the environment. That's your authority as
14 constitutional officers of the state. The siting
15 process is a creature the legislature and is statutory
16 driven.

17 To the degree that the Commission is able to
18 establish need by finding public convenience and
19 necessity, through the RTP process, then the duty then
20 falls to the Siting Committee to find the least
21 environmental impact location for the project and not to
22 research whether or not there is public convenience and
23 necessity for the project. And so it forces a little
24 bit of coordination maybe that has not been there in the
25 past for ordinary, business-as-usual, transmission

1 projects that go through the 40-360 process in the
2 statute.

3 CHMN. MAYES: Okay. And then on the final
4 bullet point on page 13, the Committee recommended that
5 an RTP that had been designated by the Commission would
6 maintain that status unless it is shown by clear and
7 convincing evidence presented during a hearing that the
8 RTP does not and will not provide the capability to
9 advance renewable resource development in the State of
10 Arizona as described in the utility's RTAP.

11 And I guess that is two questions:

12 One, how did you decide on the burden of proof
13 of clear and convincing?

14 And, two, I assume that this provision is in
15 here because at any given time what might have been
16 deemed to be a renewable transmission line because it
17 had a couple of anchor tenants that were renewable could
18 become majority fossil or traditional fired. I mean, it
19 could carry fossil full driven electricity given FERC's
20 rules, correct?

21 MR. WRAY: Correct, which leads us full circle
22 back to why there is no pro forma definition for an RTP.
23 Standing right across the road here is FERC Order 888
24 which does not allow discrimination on fuel power. It
25 says anyone meeting certain requirements can enter. And

1 until that order is repealed or substantially modified
2 by the commission, utilities subject to that
3 commission's jurisdiction are obliged not to
4 discriminate on interconnection. There are things
5 underway in the Congress that might alter that but that
6 is the law today.

7 CHMN. MAYES: So -- and I am sorry to interrupt.
8 I want you to finish that sentence.

9 MR. WRAY: I was just going to add, though, the
10 other scenario, of course, is default on the part of
11 generators. You may have a radial gen-tie line that has
12 a single customer and that customer defaults. Then that
13 line, does that line lose its RTP status by virtue of
14 that? I would consider that to be force majeure
15 position beyond the capability of the commission that
16 has jurisdiction over it.

17 As to the clear and convincing level, the work
18 group was populated by attorneys. And unsurprisingly
19 that was the evidence standard that they recommended.
20 And far be it for me not to agree with that. So...

21 CHMN. MAYES: Okay.

22 MR. WRAY: Subject to modification, I am sure.

23 Let me conclude with a few things that -- and
24 these are my items and not necessarily the opinion of
25 the committee but I do think they rise to the level of

1 consideration, so I am going to offer them.

2 One of the things that we are talking about here
3 today, I believe, is, when a prudence determination is
4 made on the part of a particular transmission project
5 and whether or not you are actually doing them by
6 approving an RTAP or a project in the RTAP, the BTA is
7 an assessment. It is not a filing activity. The
8 results of the BTA are filed at an open docket. But it
9 is an assessment of transmission plans that are filed
10 separately by those that are subject to the law or the
11 rule. And so I believe this is an item that the
12 Commission needs to discuss.

13 The issue of permanence, and you talked about it
14 earlier, Chairman, is very important because these
15 projects are 30-, 40-, 50-year assets, and financed
16 regulatory uncertainty cannot show its head later into
17 the financing. The first couple of times that happens,
18 folks will not be able to find lenders because of
19 regulatory uncertainty.

20 The other thing I am concerned about is making
21 sure that renewable, good renewable transmission
22 projects that show up unannounced that have not been
23 identified in a previous RTAP don't get proper
24 consideration here because they were not in an RTAP.

25 And then, again, there is the issue of

1 allocation. I don't know how many opportunities you are
2 going to have to have so-called pure transmission
3 projects that only ship renewables in the first place.
4 And so you were speaking to a little bit earlier can
5 that, can allocation be made. Sure, I think if you can
6 get yourself to a position where it either, the project
7 that you are considering for whatever special recovery
8 you are going to grant on a case-by-case basis, either
9 it is an RTP or it is not. Either it has met the
10 characteristics that oblige you to give it that special
11 treatment or it has not. But once you made that
12 determination, you don't change it. I mean, so it is,
13 it is -- just about like when you approve a power plant
14 someplace, if you don't like the way that plant is
15 operating ten years later, you don't order the operator
16 to tear it down and remove it. It is similar
17 importance. So it is kind of one bite at the apple on
18 this determination. And I think that's, that's just a
19 financing reality for the project.

20 And with that, I will be happy to take
21 questions.

22 CHMN. MAYES: Tom, can you describe the process
23 that you went through to try to define an RTP and why
24 you were not able to come to consensus on that.

25 MR. WRAY: The process we -- I didn't want to

1 bore you with all of that, but I will try to be quick
2 with it; we filed a lot of material in the docket -- is
3 to look at what other states have done and also look at
4 some of the pending projects that are being considered
5 today, although none of them very active. So bills are
6 being considered in Congress. Senator Reid has a bill.
7 Senator Bingaman has a bill. There are a couple bills
8 floating around on the House side that talk about either
9 capacity or energy driven metrics when a transmission
10 line is, quote, renewable. Having achieved that golden
11 ring, then those bills go on to give it special kinds of
12 treatment pertaining to FERC's jurisdiction.

13 Nearest neighbor here, New Mexico, has a
14 provision in the Renewable Energy Transmission Authority
15 Act passed by the legislature about two years ago in New
16 Mexico that sets the standard at 30 percent measured by
17 energy annually. And the transmission line that meets
18 that minimum requirement becomes eligible once it passes
19 some additional screens enforced by that authority in
20 New Mexico to low cost financing. That is provided,
21 that can be provided by the state under certain
22 conditions.

23 Because of the fact that things may happen after
24 an RTP is designated, particularly under the Federal
25 Energy Regulatory Commission's Order 888, defaults on

1 the part of a generator, reuses of lines later for good
2 reasons, we did not reach a consensus on a metric based
3 pro forma definition. And to try to -- rather than just
4 stop there, we decided to go on and try to define the
5 most important characteristics that you could apply as a
6 regulator on a case-by-case basis.

7 CHMN. MAYES: Okay. And would it be -- what do
8 you think of this notion that the Commission or a
9 commission might identify an RTP or classify an RTP as
10 such based on a triggering event, i.e. once the line has
11 become 30 percent renewable or 30 percent subscribed by
12 renewables? Is that something that you have considered
13 or that the committee considered?

14 Rather than identifying it ahead of time -- I
15 mean, again, I am not saying that I have decided one way
16 or the other, but you could identify it ahead of time,
17 hopeful that the projects that are -- that that line is
18 designed to reach counter fruition and then those
19 projects could potentially fall through or you could
20 identify it based on some triggering event.

21 MR. WRAY: Yeah, I would think that, my own
22 opinion is that that doesn't get us any farther from
23 where we are right now because, if anything, it is going
24 to inhibit the financial decision making that's
25 necessary for the project to be financed. It increases

1 additional regulatory uncertainty, in my view.

2 I mean another way to look at what happens if
3 the line is in normal rate base now and it is business
4 as usual, it is financed five years ago, it is out there
5 in rate base, and someone comes along and has available
6 transmission capacity and they want to install a
7 250 megawatt concentrated solar plant and connect to
8 that line, the other way to look at this is that utility
9 comes back and asks for special treatment by virtue of
10 that renewable generator showing up suddenly on a line
11 originally built and justified for reliable service or
12 operating convenience to keep lights from going off all
13 the time during a lightening storm, who knows for what
14 reason.

15 The point is, I think, if you lean too hard on
16 those you regulate prospectively, then you can expect
17 for them to come back in, what about these lines that we
18 built some time ago through some of the areas that Greg
19 and Amanda talked about earlier.

20 CHMN. MAYES: Okay. And you have identified on
21 page 13 and 14 of the report a number of cost recovery
22 mechanisms. And basically, to synopsise, you say that
23 you think the Commission could consider preapproval of
24 cost recovery for a utility to enter into a long-term
25 transmission service agreement to facilitate the

1 construction of transmission facilities where the
2 transmission line is not owned by the utility. So I
3 guess that would be merchant transmission.

4 MR. WRAY: Could be, in which you are
5 encouraging a utility directly subject to your
6 regulation to obtain access to renewables through
7 contract and not through construction and ownership. I
8 don't see that that amounts to any difference as long as
9 the objective is attained. And, in fact, depending on
10 the credit quality of that utility, it may be in the
11 stockholders' interests that it is all balance sheet,
12 for example, taking on additional debt through a
13 construction of the facility.

14 CHMN. MAYES: Okay. And then you also talk
15 about, you talk about the fact that because network
16 transmission facilities are FERC jurisdictional, that
17 they would, those utilities would initially seek special
18 regulatory treatment from FERC, including an enhanced
19 ROE, CWIP, those types of things. And then you say to
20 improve the utilities' ability to obtain financing from
21 the RTP, timely recovery of transmission costs and
22 retail rates should be considered through a TCA. One of
23 our utilities already has one, so you can check that
24 box.

25 Should FERC fail to fully approve cost recovery

1 or provide special regulatory treatment for ACC approved
2 RTP, you state that perhaps the utility may seek cost
3 recovery or special regulatory treatment from the ACC,
4 including possibly cost recovery of initial development
5 costs and enhanced ROE for the RTP CWIP in rates.

6 And so I guess my question for you and the
7 subcommittee is -- these are on page 14 -- are these the
8 financing mechanism recommendations of the Committee?

9 MR. WRAY: It is certainly one of them. I
10 happen to believe that that whole section you are
11 reading from is a situational oddity. I don't think you
12 are going to have situations during which FERC agrees to
13 recover part of a line. But they are capable of doing
14 anything from time to time. So in the event they do, we
15 would like redress to be left for the utility to come
16 back to the Commission under the circumstances, sort of
17 laid that out there. Just because it occupies half the
18 page, that it also rises 50 percent of the importance in
19 this section --

20 CHMN. MAYES: Well, let me ask it to you this
21 way. What is the primary financing mechanism
22 recommendation?

23 MR. WRAY: The primary recommendation is that
24 you have a process here that allows the utility who is
25 going to put their shareholders at risk to borrow money

1 to build transmission projects to advance renewables in
2 Arizona, you make a determination as soon as possible
3 that that's in the public interest and assure that
4 utility that, short of costs being deemed imprudent,
5 those costs would be recovered in rates.

6 CHMN. MAYES: Okay. So you are basically
7 saying, one, identify RTPs --

8 MR. WRAY: Uh-huh.

9 CHMN. MAYES: -- and, two, preapprove costs?

10 MR. WRAY: That's right.

11 CHMN. MAYES: Okay.

12 MR. WRAY: That are prudent. You always have a
13 prudence determination.

14 And then we laid out the kind of costs you could
15 expect to see later on in this report in this section,
16 and just sort of a long list there.

17 CHMN. MAYES: Okay. And can you touch on a
18 little bit of that.

19 MR. WRAY: Sure. If you go to page 17, Roman
20 numeral III C, there are 12 items, 12 areas of costs
21 that would be relevant to the recovery. There is
22 nothing really new here.

23 The thing that I think that might draw your
24 attention is item number ix. And that is where you
25 would -- because so much public interest is being served

1 by that project, it rises up to the level of a higher
2 rate of return component --

3 CHMN. MAYES: Okay.

4 MR. WRAY: -- and then eligible costs,
5 permitting/licensing, engineering, environmental
6 screening, those kinds of costs.

7 CHMN. MAYES: Okay. And there was consensus
8 amongst the subcommittee members on the two primary
9 recommendations that you identified.

10 MR. WRAY: Yes.

11 CHMN. MAYES: Okay. And how, how does a
12 transmission cost adjuster mechanism fit into all of
13 this?

14 MR. WRAY: The TCA was, as you can imagine, was
15 discussed and brought up by APS, because they have that
16 now and have that mechanism available to them now, and
17 talked a lot about how it is working for them. And I
18 would, you know, you can certainly ask them about their
19 experience with that and how that's, how that has
20 assisted in their ability to add transmission on a more
21 timely basis.

22 But it is certainly a way that might be less
23 shocking to the retail ratepayer were those funds
24 gradually collected. If you can see sort of a rhythm
25 going on here, how these lines are being proposed and

1 constructed, then you can begin to collect some of that
2 for investment in RTPs in the state.

3 The other thing you have to -- you are going to
4 be faced with, and I know you know this, not all of
5 these RTPs are solely going to generate results and
6 benefits for Arizona retail ratepayers, that electrons
7 have no brand loyalty and they are going to go where the
8 least path of resistance is here. So some of the
9 recovery that you may be considering in a utility for a
10 transmission project in Arizona is going to provide for
11 access to renewable resources here in the state to
12 customers in California and Nevada.

13 One way you might find yourself justifying that,
14 though, is that to the degree that there are more
15 wholesale power choices for renewables in the State of
16 Arizona among those utilities that you do regulate,
17 competition, benefits of competition will show up and
18 you won't have some of these arm's length transactions
19 now with a sole developer and a sole project without the
20 benefits of competition and getting prices in that arm's
21 length process, that you can actually have a robust
22 bidding process for renewables, something we don't have
23 now because we don't have a lot of choices on the supply
24 side. It is my belief that if you promote policy to
25 expand transmission in the state and therefore create a

1 bigger market of renewable generation, the unit costs
2 are going to go down. I mean they are commodities,
3 after all, and to the degree unit costs go down and you
4 have competition, your ratepayers will benefit.

5 MR. BAHL: Chairman, I have a question.

6 CHMN. MAYES: Sure, please.

7 MR. BAHL: Tom, you mentioned that the electrons
8 will flow where they would and maybe go out of state.
9 But generally all exports, are they not scheduled?

10 In other words, electrons will not flow unless
11 there is a load for them to meet. For that, I believe
12 there is always a prescheduled arrangement between
13 control areas. In that case, it is a known quantity and
14 there may even be, well, there has to be a contract.
15 Now, in the interconnected network, of course, electrons
16 will flow according to the path of least resistance.
17 But I thought out of state it is all under control. Am
18 I correct?

19 MR. WRAY: Yes, you are correct. But the
20 problem is that, as you add generation and add
21 transmission, you move around the paths of resistance.
22 And the commercial, the commercial arrangement, you are
23 correct, they are done through contracts. They are done
24 through dispatches. And there is always a contract with
25 differences that take place at the end of the day so

1 loads and resources balance short of reserves and
2 losses.

3 But I guess the broader point I was trying to
4 make is from a policy standpoint, not an operator's
5 standpoint. And that is that it seems to me there is
6 certain reason to encourage competition here at the
7 wholesale in renewables and, if you are doing that, to
8 the degree FERC does not allow recovery by that utility
9 through an open access transmission tariff and you have
10 to do some of that through retail rates, you are going
11 to benefit the utility customers in the long run because
12 they are going to have more competition for wholesale
13 power supplies, the renewables. But, nonetheless, more
14 suppliers for that utility that you do regulate to bid
15 has got to result in lower prices.

16 CHMN. MAYES: Tom, one more question. You know,
17 I am trying to get at, and I think the recommendations
18 are very interesting and it is going to be up to the
19 Commission to decide which ones to accept and which ones
20 not to accept, but it seems to me that, you know, we
21 basically already have, we basically have a sense of at
22 least a couple of renewable transmission lines that
23 probably ought to be built or that could be considered
24 renewable transmission lines. North Gila 2 is an
25 example of that, already certificated by the Commission,

1 clearly, if you look at the map that was drawn by
2 ARRTIS, clearly right in one of those solar corridors.
3 But APS has chosen to push off construction of North
4 Gila 2 for a significant number of years.

5 And my -- what I am trying to understand, and
6 SRP has done the same thing with several lines and
7 probably TEP as well in many cases because -- well, in
8 several cases they have said, well, we are cash
9 strapped. I suspect in other cases it is because when
10 you build a lot of transmission, you are, at least for
11 that period of time if you are a utility, you are going
12 to take a hit to your earnings because you are spending
13 money on capital projects.

14 So the question is: Which of these mechanisms
15 would actually encourage these utilities to actually
16 build these lines in a timely fashion?

17 MR. WRAY: Madam Chairman, if you really want
18 North Gila 2 built in advance of need that arises from
19 the ordinary course of business on the part of APS, and
20 that is they need to build it because of reliability
21 because of load growth --

22 CHMN. MAYES: Well --

23 MR. WRAY: -- some of those kinds of sort of
24 traditional reasons, if you want, since that's not
25 occurring fast enough for it to get built and you want

1 it built sooner, to the degree the Commission is willing
2 to assure cost recovery for assets and be willing to, if
3 you feel that that is necessary and a necessary
4 precondition for those renewable generators to show up
5 and develop out there along the path of that line, the
6 regulatory question that you have as a Commissioner is
7 whether or not that additional generation that could be
8 used maybe for some other level of renewable portfolio
9 standard that you may be contemplating here in Arizona
10 that would be available in time so that that could be
11 satisfied inside the state, if those kinds of things are
12 running through your mind, the way to get there is to
13 assure cost recovery for APS while that line could very
14 well be idle and not generating revenue. And yet,
15 again, there is no free lunch and we cannot have more
16 than there is. So who would be on the hook for that
17 would be ratepayers for a future use.

18 Now, we know that we build generation all the
19 time with load growth service in that generator. And
20 over time, the reserve margin on the generator slowly
21 comes down to some level beyond which is unacceptable
22 for operations. So no one puts a generator on the line
23 fully subscribed with no growth potential. Same thing
24 with transmission. But the only way to get on that
25 particular line, you brought that case up, would be,

1 absent customers, which is what you have there, I think
2 you would have to determine that you want that line
3 prefinanced and be willing for it to sit there generally
4 idle but being paid for by ratepayers.

5 CHMN. MAYES: Well, and the other issue is that
6 particular line is co-owned by multiple utilities and
7 several nonACC jurisdictional utilities, so...

8 MR. WRAY: Right, which is very much the case in
9 most of the western interconnects.

10 CHMN. MAYES: Right.

11 MR. WRAY: Most lines are owned with multiple
12 parties.

13 CHMN. MAYES: And then, finally, you said that,
14 at the onset of your comments, that you had considered
15 and I suspect you yourself wanted to present the
16 Commission with a form of order but you pulled back from
17 that. Why is that and what was the form of order going
18 to look like?

19 MR. WRAY: Well, the form of order would have
20 taken a lot of these characteristics and put it in a
21 form of order. We chose a path of reasonable
22 resistance, not least resistance, to create these
23 characteristics for you to use. And I believe in
24 fairness to my utility friends on the Committee, they
25 argued, they argued very competently about steering us

1 away from a form of order as a work product for this and
2 that we look at this on a case-by-case basis, and that's
3 what we have.

4 CHMN. MAYES: Okay. Any questions from the
5 audience or from my colleagues?

6 (No response.)

7 CHMN. MAYES: No? Okay. Any questions? Okay.
8 Thank you very much, Tom. I appreciate it.

9 MR. WRAY: Thank you.

10 MR. BAHL: Well, now we start with the utility
11 presentations. We will start with APS first. John
12 Lucas and Brian Cole will give us the summary of their
13 top, their choice of top three transmission lines.

14 Before APS starts I need to make a confession so
15 that I am not caught in the midst of it. When I gave
16 the background of today's meeting, you saw a slide on
17 the screen. And that slide is from Brian Cole. So when
18 you see that, you may not think I stole it, it was his
19 idea. Thank you.

20 MR. COLE: Well, that's only if everybody liked
21 it.

22 Good morning. Thank you for all being here.
23 Thank you, Chairman and Commission, for allowing us this
24 opportunity to go through our work that we have done in
25 the BTA and our top RTPs.

1 I also -- real quickly, by the way, I guess I
2 didn't introduce myself. I am Brian Cole. I am a
3 manager with the resource planning organization. You
4 already met John Lucas, my partner in crime here.

5 I do want to thank all of the other participants
6 in this whole process because this clearly wasn't just
7 the utility, members of all the ARRTIS group, the RTTF
8 group, the finance subcommittee that Tom chaired, all of
9 the participants in the workshops that we held in
10 April and June, and then other utilities, and of course
11 ACC Staff for participating with us. I think it is
12 overall a better product because of that.

13 So the overall objective of the presentation is
14 to walk us through how APS got to the end result of our
15 top RTPs. So that's the focus of it. So a quick
16 outline -- and, by the way, there is 28 slides; I will
17 do my best -- overview, background and objectives,
18 objective being APS' evaluation; policy issues that APS
19 felt are important in this process. Then we will go
20 through the analysis of the candidate renewable
21 transmission projects, both economic and qualitative
22 assessments that we have done at APS. We will talk
23 about cost recovery, very important subject. Tom just
24 talked about a lot of it. And then we will go through
25 our RTP projects. And I will do the first part and then

1 I will be turning it over to John to talk specifically
2 about the existing system and the RTPs going forward.

3 So, objective of the evaluation, and I will make
4 sure I actually read this because it is very important,
5 was to select a set of transmission projects that have
6 the potential to advance renewable resource development
7 within Arizona while minimizing the possible rate
8 impacts to wholesale and retail transmission customers.
9 So it truly is a balancing act. And Tom stated that
10 several times. And that is the case. And as we go
11 forward, it is going to be a weighing of benefits for
12 overall consumers and ratepayers versus what we are
13 spending on transmission.

14 So, for APS anyway, the very key component to
15 deciding what our RTPs were was the economic analysis of
16 it. And that really gets to where can we get the best
17 bang for the buck for our customers from advancing
18 renewable energy development in Arizona while balancing
19 the costs to our ratepayers, both wholesale and retail.

20 A few of the questions that are also relevant
21 are listed here. I will just let you read them. I
22 won't read them, but I did want to note that another
23 outcome of this whole process that the Commission has
24 set in motion is that, through identifying of the
25 resulting RTPs, we are able to send a signal to the

1 renewable energy development community to help them
2 understand from a "value to our customer" standpoint
3 where the best locations are. When we show them what
4 transmission we want to be built going forward for
5 renewables, it shows them what the areas are that make
6 the most sense for customers. It helps us steer them to
7 the areas likely to be beneficial in the future.

8 The other thing that I think it can help with,
9 and I think it already started, is entities like the BLM
10 are inundated for requests for use of their land. And
11 hopefully with each of the utilities' identification of
12 where we think the transmission makes sense, it will
13 help the BLM and other entities narrow in a little bit
14 on where they might focus first and help a little bit
15 with their future resources.

16 So review of some of the policy comments that
17 APS has made during this process, which has been about a
18 10-month process, I guess, which there is a lot of work
19 that has gone in ten months but we got there.
20 Advancement of renewables requires two types of
21 transmission. And this goes back to Tom mentioned the
22 definition of renewable transmission. And although we
23 weren't able to reach a complete consensus, there was
24 general agreement that being too specific on numbers, as
25 Tom mentioned, was potentially going to stifle it. So

1 we agreed on a more general principle. But the two
2 areas that were important were connecting the resources
3 to the existing transmission system and the market hub,
4 so you need renewable transmission components to do
5 that, and then also, once you get to, say, a hub like
6 Palo Verde, you still need transmission to move it to a
7 load center. And short that, you have got it to a hub
8 but you aren't necessarily creating enough transmission
9 component to actually deliver it to load. So you need
10 both of those pieces. And we feel that's important.

11 Project timing, there is a downside to being too
12 early or too late. The downside to being too early is
13 that we hurt our existing transmission customers, and
14 when I say that, I mean both wholesale and retail,
15 because clearly we are going to increase transmission
16 rates to both. And so we want to make sure there is a
17 commensurate benefit when we do that. If we are too
18 late, we hurt renewable energy development. So we are
19 trying to strike a balance as we go through this
20 process.

21 We feel it is important to take proactive steps
22 in order to reduce that mismatch of long development
23 lead times on transmission versus resource, referred to
24 as the chicken and egg problem. We have heard it many
25 times and we feel that the things that we have advocated

1 in our report or our first RTAP, as it may be, can help
2 to alleviate some of that inconsistency.

3 So following up on that, we also recognize that
4 we really need a -- this is also following Tom's comment
5 on flexibility in the CEC permitting process -- that it
6 would be very beneficial if we had flexibility of
7 Commission policy in order to help us with determination
8 of need being, if renewable transmission is something
9 that we want, then that needs to be considered as part
10 of the overall need. And then the aspects of the
11 duration of the CECs that we get, because it is, the
12 timing is uncertain, we don't know when the renewable
13 development will come, in many cases it would be very
14 helpful to get longer time CECs, longer duration, so
15 that we can synch up and not build too early or too
16 late.

17 Transmission projects that provide multiple
18 benefits are preferred. We have said this throughout
19 the process. I think Tom even mentioned that it is
20 almost impossible to get a line that's completely
21 renewable. And, frankly, the more different uses you
22 can get, be it reliability benefits or other resources
23 for a transmission line, the better utilization you are
24 going to have to your customers.

25 And then assurance of cost recovery is critical.

1 And that is why we will be taking the finance
2 Committee's recommendations and we will be asking for
3 RTAP and RTP approvals. And I will talk about that some
4 more.

5 So the next line I need to talk about, Prem
6 already did a great job of going over that so we will
7 skip right over that.

8 So first, the first piece of the economic
9 assessment, and, as I said, this is a very important
10 component to APS' analysis, I want to be clear that we
11 conducted a comparative economic analysis. And the
12 reason for doing that was to compare all the different
13 renewable transmission projects that were out there and
14 to try to identify which ones were going to be the most
15 capable for advancing renewable energy development at
16 the, I will call it, the best cost/benefit ratio to our
17 customers.

18 And then we also looked at export projects. But
19 another thing that we will talk about going forward is
20 we can only control part of the equation when it comes
21 to export. We can build, for example, to a state line,
22 California, but at some point we have got, going back to
23 Chairman Mayes' comments, we have got to coordinate that
24 regionally to make sure that that potential export line
25 in Arizona matches up with what they are doing in

1 California.

2 So some of the specifics, we did use the ARRTIS
3 process very heavily, as well as the RTTF maps that John
4 mentioned earlier and showed with all the transmission
5 segments. What we did was we took, and I will show you
6 on a subsequent map on the next page how we did it, but
7 we essentially took resource areas that we identified
8 and then coupled them with transmission segments, either
9 one or more, to give us the basis for doing our economic
10 analysis on. And at the end of the day, what we did was
11 establish an economic value to our customers and that's
12 how we essentially ranked our transmission segments or
13 opportunities.

14 So to give you a little bit of context related
15 to that, the map you are looking at here shows the
16 northern two-thirds of the state. And it has wind
17 resources located on it. You will also note the
18 existing transmission lines are actually solid colored
19 red, green and blue. And then the darker dotted blue
20 lines are the RTTF transmission components that were
21 established based on the ARRTIS work that were given for
22 the utilities for our evaluation. And so what I will do
23 is I will walk through a quick example just to show you
24 how we did this. And we will use the Moenkopi. We will
25 use the Moenkopi -- sorry. This is kind of hard to go

1 back and forth -- the Moenkopi spot here as our analysis
2 point.

3 So in order to analyze Moenkopi's resources,
4 which are here, wind resources, and put the transmission
5 associated with them together in order to do our
6 economic analysis, we chose sort of the shortest
7 distance of new transmission to get to our load. And
8 that would be this transmission component segment, half
9 of this one, to where that, I think it is a 5, is
10 located, and then this segment back down to the Valley
11 load. And the combination of those segments actually
12 puts you into the Valley load pocket. So it essentially
13 gets those resources delivered to load.

14 So we took the cost of the transmission here,
15 coupled it with resource cost here, and that's how we
16 did our economic analysis. Now, there is more to it and
17 I will describe that shortly. But I wanted to walk
18 through how we did that.

19 Now, you will note that there is a W-2 and W-2E.
20 And that's because we also analyzed this point for
21 export purposes. And for export purposes what we meant
22 was we were taking it to the California border. So we
23 took this transmission segment here all the way over to
24 the California border. And for the export portion of
25 the analysis, that is what we coupled with the resource,

1 those same capital O&M and everything for the resource
2 with a different transmission component. The difference
3 is delivering it here may not be delivered to load and
4 there may be additional transmission in California
5 needed. So it is a little bit different analysis but we
6 wanted to put those numbers out there for comparison
7 purposes.

8 The other note I want to make is that one
9 assumption, it was a key assumption, in our analysis was
10 we assumed a full utilization analysis. And that meant
11 that we took 1200 megawatts of resources in the area and
12 we coupled it with 1200 megawatts of transmission, so
13 sort of the best case scenario where all of the
14 transmission that we are looking at got utilized and
15 that we have resources to fill the bill. So once we
16 identified that, that would help us rank things and see
17 whether it was worth pursuing further. If the economics
18 of that looked good, then we could look at from, okay,
19 is there going to be partners involved, is there a
20 possibility that we may actually be able to go forward
21 on this line. And if not, then we moved on to the other
22 ones. And if so, then we took it on forward. So that's
23 how we did that.

24 CHMN. MAYES: So the lines -- and I appreciate
25 this explanation because it helps a lot. As I was

1 reviewing the documents, I wasn't entirely sure about
2 why it was that none of these northern Arizona lines
3 made it into any of the utilities' top three. And it
4 sounds like the answer is because the driving criteria
5 for at least APS was cost.

6 MR. COLE: Yes, our economic evaluation was our
7 number one criteria, absolutely.

8 CHMN. MAYES: Okay. And so you -- did you rank
9 them on a cost basis or is there anywhere in the report
10 where the Commissioners could look at each of these
11 segments or a combination of the segments to understand
12 the cost vis-à-vis the projects that you actually chose?

13 MR. COLE: Yes. In Attachment E in our report,
14 we actually have a full description of our economic
15 evaluation. And in the main report, we have a summary
16 table which I am actually going to show part of in this
17 presentation.

18 CHMN. MAYES: Okay.

19 MR. COLE: There is also separate sheets that
20 identify each of the transmission segments and their
21 costs. So you can see everything that we looked at.

22 CHMN. MAYES: And where is that one?

23 MR. COLE: That is also in Attachment E in our
24 report.

25 CHMN. MAYES: Thank you.

1 MR. COLE: Okay? So moving on, and this one
2 will be quicker, but I guess I didn't point out that we
3 looked at on the previous slide four renewable areas
4 that were predominantly wind. And then on this slide we
5 looked at 12 areas that were predominantly solar. And
6 for the solar, we tried to cast a little bit wider net
7 and include areas like Hilltop and Bowie that were a
8 little bit farther removed from our load. We have a
9 pretty good feel and understanding that some of the
10 solar closer to our load makes a lot of sense but we
11 wanted to make sure we analyzed sort of the whole
12 spectrum. So that's why we have included that many
13 solar resource options.

14 And then we did the same thing with the solar as
15 I described for the wind. So getting a little bit more
16 of the economic analysis process, the first couple of
17 bullets I really already spoke to, talking about the
18 resource areas and transmission segments that we used.

19 When we estimated the capital costs for the
20 renewable resources, we essentially, they are
21 essentially reflective of our knowledge based on
22 previous RFPs that we have done and discussions with
23 vendors that we have had. And then the capital cost of
24 transmission, as noted there, we used about 2 million a
25 mile. And it is consistent with the WGA process that

1 was undertaken. It is actually slightly greater than
2 2 million a mile, but that was something that was also
3 vetted in that forum and, rather than trying to recreate
4 the wheel and find another target, we decided to use the
5 same information.

6 From all this you can compute the average
7 delivered cost of renewable energy. But the difference
8 that we have here is we took an additional step and we
9 used location-specific renewable resource performance
10 both from NREL's western wind resource data set and
11 DOE's solar advisory model, SAM. We also did look at
12 both solar thermal and solar PV when we did our
13 analysis.

14 Simulating the resource performance in different
15 locations is important because, to give you an example,
16 if -- can we flip back to the map real quick for me --
17 if you take the solar resource essentially delivered
18 cost here at Delany and compare it to the solar resource
19 delivered cost at Hilltop, there is about a 7 percent
20 difference in energy production between those two. So
21 looking at location-specific versus just taking a
22 generic one-stop number and only using transmission as
23 the differentiator gives you a better picture of how it
24 fits in with our overall analysis and how we did that.

25 And then following that on, you take the time of

1 renewable -- you can go back to the other now -- the
2 time of renewable energy production, daily and seasonal,
3 along with essentially an energy value, along with the
4 capacity value of when we actually are serving our peak
5 load and how the renewable resource fits in with the
6 serving of that peak load. Then you can come up with an
7 essentially value adjusted delivered cost. We also
8 included system integration costs from previous studies
9 being done.

10 So going back to the results, and this is the
11 partial table that I mentioned, Chairman Mayes, here,
12 this is also included in our report. The one thing that
13 I did to make it a little more readable was, where you
14 see the sort of squiggly line there after Hyder, I am
15 not showing an additional six solar areas that actually
16 were in that mix prior to the first wind resource. And
17 this reflects the delivered cost which takes into
18 account energy and capacity value specifically for APS
19 customers. So it is, it is a very much APS analysis for
20 our customers that brings us to these conclusions.

21 And I wanted to note that the top four, not to
22 take anything away from your thunder, John, sorry, but
23 lead directly to some of our top RTPs that we lay out in
24 our report and that we will talk about here shortly.

25 CHMN. MAYES: Could I ask a question?

1 MR. COLE: Yes.

2 CHMN. MAYES: Did APS consider -- how
3 significant did APS believe the differences between
4 these projects is in terms of price? I mean, is
5 that -- I am asking for sort of a subjective judgment of
6 the difference between Hyder and the Moenkopi/Gray
7 Mountain value or price. I mean, is that --

8 MR. COLE: Chairman Mayes, I will do my best to
9 answer the question. The reason that I brought up that
10 this is a comparative analysis is that you really are
11 using this just to compare these renewable resource
12 options against each other. And so you will note that,
13 say, the Palo Verde and Delany, Gila Bend and Hyder are
14 in the low 90s, or dollars per megawatt hour range. And
15 the first wind resource is about 105. So if you want to
16 just take it on the surface, you can see that there is a
17 10 plus percent difference in the economic value to our
18 customers for doing, say, that Meteor Crater, Snowflake
19 wind, transmission for wind versus the solar that we are
20 showing there.

21 CHMN. MAYES: And was there any consideration
22 given, and maybe not in terms of the price or the price
23 that you put on these resources, but was there any
24 consideration given to the viability of projects in
25 those areas?

1 In other words, I am aware that at Gray Mountain
2 there has been, I think, a significant amount of work by
3 both Sempra and the Navajo Nation, I think it is Sempra
4 and Navajo Nation, toward building wind there. And so
5 was that factored into APS' decision about where to put
6 these, where to rank these projects, maybe not on this
7 particular chart but in your ultimate decision?

8 MR. COLE: So, Chairman Mayes, yes, we did look
9 at what is called qualitative factors. And I am going
10 to actually talk about those shortly.

11 CHMN. MAYES: Okay.

12 MR. COLE: But some of the qualitative factors
13 were specifically items such as how many megawatts of
14 interconnection requests are there in the general area
15 we are talking about, so...

16 CHMN. MAYES: Well, there is a difference
17 between interconnection requests and viability.

18 MR. COLE: And viability. There is also, the
19 viability, the risk associated with transmission
20 segments versus, you know, long line versus shorter.
21 There is a risk differential, too. So we did look at
22 those and go through those and we can speak further.

23 CHMN. MAYES: Oh, Commissioner Newman, you are
24 here.

25 COM. NEWMAN: I just want to ask a question with

1 regard to -- I am sorry on being late, came up from
2 Tucson. And this is very important discussion.

3 But on the economic analysis, any -- did you
4 take into account externalities besides just strict
5 costs of comparative analysis? How did you do that?
6 You have costs here. That's just transmission delivery
7 costs?

8 MR. COLE: And the big piece here that -- I am
9 sorry, I am not sure when you came in, so I will kind of
10 go back a little bit. But this is a comparative
11 analysis, really just looking at the wind resources
12 versus the solar resources. And we did both an economic
13 assessment and a qualitative assessment of each of them.
14 So that is what, in total, led us to our conclusions and
15 our RTPs.

16 COM. NEWMAN: You mentioned that the value, that
17 value to APS. Let's say Bowie and Cochise County, and I
18 am just citing an example -- I am glad that you looked
19 at different options on the map, and I see a high number
20 there of 120 -- but would that value be any different to
21 the customers of Sulphur Springs than the customers of
22 APS? Because APS area includes Douglas and Bisbee,
23 therefore, it is the same value? The things have
24 different values to different companies.

25 MR. COLE: Yes. And I would say that, we will

1 ask them when they come up, but I believe every company
2 has slightly different values depending on where their
3 locations are, what their service territory is. We did,
4 as we went through this process and narrowed down
5 choices, we did meet with the other utilities and do our
6 best to coordinate and see where there might be
7 synergies. And that's why you will see that there is
8 actually quite a bit of overlap in some of our projects.

9 But, for example, down in that area, APS does
10 have load, but the load is very small and doesn't
11 necessarily support large transmission. However, that
12 question of does a renewable resource in that area make
13 sense is really outside of this process, because this is
14 really looking at large transmission projects and the
15 building of them to support large renewable energy
16 development in Arizona. So I would say that looking at
17 that specifically is a different question from what we
18 were trying to answer here.

19 COM. NEWMAN: And don't forget I am not
20 supporting it; we are going to have to be judges over
21 this eventually, where these things go. But with regard
22 to Bowie, there is talk about a New Mexico line
23 connecting with Bowie, going to other places. So it
24 might be viewed in other contexts in terms of value,
25 that it is providing this wheeling capability of

1 wheeling clean energy out of New Mexico and the
2 southeastern portion Arizona into other places. It is
3 apples and oranges when you go in that direction, isn't
4 it?

5 MR. COLE: Well, there are clearly a lot of
6 regional transmission projects that are out there, our
7 SunZia being one of the major ones that connects New
8 Mexico and Arizona. But what we are trying to look at
9 here specifically was transmission development that
10 supported renewable energy development within Arizona.

11 Now, the area down there does support renewable
12 energy, but our analysis showed from our customers'
13 standpoint that that didn't, I will call it, meet the
14 level of wanting to build a large transmission project
15 to enhance development of renewables because we had
16 better options.

17 COM. NEWMAN: Just one other, one last question.
18 I see that you have Palo Verde interestingly enough
19 listed as your number one. That's a form of
20 hybridization in the sense of, you know, since the lines
21 are there, we are trying to get as many -- if we can
22 have renewable sources near those present existing
23 lines, that makes eminent sense from a cost/benefit
24 analysis. I see Springerville, however, lost out a
25 little bit as a wind resource area.

1 When I just look at these things in general, the
2 concept of hybridizing solar and wind close to the
3 places where we have plants already operating makes some
4 economic sense. And does that fit into that adjusted
5 delivered motive? So even though Springerville is down
6 low on the thing, it might make sense because there are
7 a lot of players there to do a hybridization thing there
8 even though that money is a little bit different. But
9 like I said, that money may look a little bit different
10 after the cap and trade as well.

11 MR. COLE: Definitely, Commissioner Newman.
12 There are a lot of other questions that can always be
13 asked. We were just doing our best to come up with the
14 transmission projects that we think provide the best
15 bang for the buck for our customers and for the Arizona
16 communities.

17 COM. NEWMAN: Thank you.

18 CHMN. MAYES: We are going to go ahead and take
19 a lunch break now. And we will come back and finish up
20 with APS' presentation. So let's take about an hour and
21 15 minutes and be back here at 1:15, start sharply and
22 1:15.

23 (A recess ensued from 12:03 p.m. to 1:19 p.m.)

24 CHMN. MAYES: Why don't we go ahead and go back
25 on the record and continue with the meeting.

1 MR. COLE: Thank you. So we talked about the
2 economics. And out of the economics come general
3 findings of the comparative economic analysis. And sort
4 of at a high level, solar resources were economically
5 superior to wind. Again, I want to make sure that I am
6 clear that I said comparative analysis done for APS
7 customers. So not in all cases will that be the case.

8 And let's also be clear that that's looking at
9 new transmission for these resources areas. So if there
10 is existing transmission that's available, that could be
11 different on a case-by-case basis. That's not, you
12 know, all times, all pieces.

13 The best solar resources for APS and its
14 customers are located west and southwest of the valley,
15 which is in relatively close proximity to load. I think
16 you will find that as a recurring theme among utilities
17 that says that it is, it is and does make some sense to
18 try and stay closer to load if possible, there is less
19 losses, less risk, and that the other piece, that Palo
20 Verde east transmission is sort of a common component to
21 many of the RTPs that we have put out there. And the
22 reason I say that is, when you look at Delany to Palo
23 Verde, as I mentioned earlier, you need both pieces.
24 You need to get on the transmission system or a market
25 hub and you also need to get from that point into the

1 load. So for Delany-Palo Verde, you need to get that to
2 the hub, or, if you are using for APS customers the
3 North Gila to the Palo Verde, you also need a Palo Verde
4 east component to get to the load. And just to make
5 sure everybody understands, that means transmission from
6 the Palo Verde or general west of Phoenix area that
7 carries the power into the Phoenix load pocket, which is
8 loosely defined as Westwing, Kyrene, Rudd, Pinnacle
9 Peak, that sort of ring. So that's the only point I
10 wanted to make there.

11 Moving on from the economic to the qualitative
12 analysis, Chairman Mayes, you had asked earlier if we
13 had considered some of the other aspects, and viability
14 being one of them. And we have. And that is what is in
15 our qualitative analysis. And in the report -- forgive
16 me, I don't remember the attachment number -- but we
17 have shown a four-page qualitative analysis in metrics
18 form of each of the four wind areas, 12 solar areas, and
19 then each of these qualitative factors that we looked
20 at, and sort of gave a very brief description of how we
21 rate them. And it is subjective and it is our rating
22 from APS' standpoint. I will just go through a couple
23 of them. I won't go through all of them.

24 Potential to support multiple renewable energy
25 markets. So this is the export potential for, for

1 example, Palo Verde to Delany. We can use Delany
2 resources to bring to Palo Verde. And then with the
3 Palo Verde east component, that gives you APS customer
4 load, but you can also move to Palo Verde at which point
5 the Cal ISO can be able to take some of that renewable
6 energy and move it to California on transmission that
7 they may make use of instead of for other resources.

8 CHMN. MAYES: So that's based on, Brian, that's
9 based on the notion that California utilities would
10 displace other resources at Palo Verde because, I
11 mean -- or is there a current ATC to actually get it to
12 California? That's based on a displacement theory?

13 MR. COLE: Chairman Mayes, California uses a
14 slightly different methodology. It is more of a flow
15 based. So knowing exactly how much ATC is difficult at
16 any given time.

17 But the understanding is that there might be
18 some flow ability on that system, but for the most part
19 they will need additional transmission to move it, but
20 displacement of natural gas resources or other power
21 purchases that they make at Palo Verde is a possibility
22 to get more renewables.

23 CHMN. MAYES: All right. And have we talked to
24 California about this? I mean obviously Devers 2 was --
25 well, I mean it was not envisioned a renewable

1 transmission line, but a Devers 2 like project certainly
2 at this point looks like a possibility for transporting
3 renewables both between, well, to California and from
4 California to Arizona. So right now you are operating
5 under the -- under what assumption, that that line will
6 not be built, will be built, or doesn't have to be
7 built?

8 MR. COLE: The assumption would be that the
9 Delany-Palo Verde for that specific example supports
10 movement of renewable resources to a hub which is a
11 potential export point for California. That's now both
12 and in the future. Additional lines being built from
13 Palo Verde to California are going to enhance that, if
14 and when they do get built. We are not going to
15 speculate on when that might happen.

16 CHMN. MAYES: Okay. We might come back to this
17 issue.

18 Prem.

19 MR. BAHL: Can I make a comment? Chairman
20 Mayes, Southern Cal Edison has existing Palo
21 Verde-Devers 1 line. It may have capacity at certain
22 times where renewables could be shipped because it is
23 not a summer peaking, southern California doesn't peak
24 in summer as the Arizona utilities do. So even at the
25 peak load time it may have capacity on that line.

1 Talking about displacement of resources,
2 Southern Cal Edison could sell its share of the Palo
3 Verde to another utility, New Mexico, Arizona or -- then
4 they have room there. As far as getting power from
5 California to Arizona, it will be a counter schedule on
6 the Palo Verde Devers line, which will allow it to do
7 that. So both export in and out of Arizona is possible
8 even partly on the existing system.

9 CHMN. MAYES: Okay. And thank you, Prem.

10 But, Brian, the choice of the Delany project by
11 APS, was that predicated on an understanding that
12 Devers 2 would be built?

13 MR. COLE: If you --

14 CHMN. MAYES: I mean because APS, under the
15 current RES, is not going to need anywhere near all of
16 the interconnection that is in that area, correct?

17 MR. COLE: That's correct, Chairman Mayes.

18 CHMN. MAYES: Okay. So was your choice of that
19 segment predicated on just the use of that energy by APS
20 or on the likelihood that Devers 2 would be built?

21 MR. COLE: Well, Chairman Mayes, in our
22 descriptor of the RTP itself and our reasons for
23 thinking that it makes sense, APS can make use of some
24 of that line for renewables. APS also has a reliability
25 need for that line in conjunction with the Delany to Sun

1 Valley and Sun Valley to Morgan and Morgan to Pinnacle
2 Peak section of that. It sort of completes that piece.
3 So there is opportunity there for reliability benefit.

4 And then the export is another piece that we
5 feel is important because if, if we get that line, we
6 being the west, if that line does occur between Palo
7 Verde and California, then it is providing additional
8 opportunity to gather renewables and send to California
9 for export.

10 CHMN. MAYES: Well, if Devers 2 is not built,
11 and it was not chosen by any of the utilities as one of
12 their top three, although APS I think named it as their
13 fourth option, then would that affect APS' analysis of
14 the benefit of that line?

15 MR. COLE: Chairman Mayes, it would not. We --
16 I am sorry. You wanted --

17 CHMN. MAYES: No, go ahead.

18 MR. COLE: I was just going to say the
19 robustness of that line is much of the reason why it was
20 selected. And its contribution to reliability --

21 CHMN. MAYES: Well --

22 MR. COLE: -- alone --

23 CHMN. MAYES: -- this is not the reliability
24 transmission task force. It is the renewable energy
25 task force. And one of my concerns is, when I look at

1 the lines that were chosen by the utilities, many of
2 them, it seemed, it seems to me a cynical person could
3 look at them and think, oh, these are just utilities
4 trying to get the stuff that they wanted to build anyway
5 and call it a renewable energy line. So why, please
6 explain to me why that's not the case. What is
7 Delany --

8 MR. COLE: Well, Chairman Mayes, John Lucas will
9 be speaking more on that in a few minutes.

10 CHMN. MAYES: Okay. We will wait to get with
11 that.

12 MR. COLE: Okay.

13 CHMN. MAYES: You can answer that when you get
14 to the actual line segment. Okay.

15 MR. COLE: Going back to the qualitative
16 analysis factors, we talked about export potential. The
17 other, another one that would be important is potential
18 to bring benefits beyond renewables. And that's what I
19 was just speaking of, the robustness of the line use as
20 far as from a reliability standpoint or alternative
21 resources.

22 And then the last one I will mention is
23 interconnection queue robustness, which feeds back into
24 the Delany-Palo Verde line. At the time of the
25 analysis, there were over 3300 megawatts of

1 interconnectors at Delany, one of which was a project
2 that APS had that is no longer there. But they are
3 still moving forward in their process even though the
4 contract with us is gone. So there is queue robustness
5 there so the developers clearly think that's a good area
6 for renewables. So building a line from that point into
7 a Palo Verde hub which provides, well, import and export
8 capability seems to, seems to us to support renewable
9 energy development in Arizona to a great, to a great
10 degree.

11 And just as a couple of examples of the
12 qualitative analysis, there was no way we could have
13 shown this on slides so we just took a couple of small
14 examples out of the matrix, but for Delany area
15 resources, the ability to support multiple potential
16 renewable energy markets, this is sort of what it was
17 laid out to look like. And there were 12 by, or 16 by,
18 I forget how many qualitatators, about 12, so that
19 multiplication is how many cells there were.

20 And this basically talks exactly what I was
21 talking about, the potential for both import and export
22 from the Delany solar transmission project being Delany
23 to Palo Verde. And then from the Palo Verde solar,
24 looking at the interconnection queue robustness, which
25 was another qualitative factor, that particular one in

1 Salt River Project's queue, there were over 1700
2 requests for interconnection there. So that helped us
3 understand the robustness of our choices and our
4 decisions and feel better about the fact that there were
5 already developers that were interested in these
6 transmission opportunities.

7 So now to completely change directions and go
8 into cost recovery, what I wanted to do was sort of lay
9 out what APS' existing transmission cost recovery looks
10 like for those who aren't as familiar with it.

11 As Tom Wray pointed out, every year utilities,
12 including APS, file 10-year transmission plans laying
13 out our transmission needs. And then every two years,
14 there is a Commission sponsored biennial transmission
15 assessment that takes those 10-year transmission plans,
16 along with a lot of other studies that are required by
17 the Commission outside of that, and sort of compiles a
18 statewide transmission plan and assesses the reliability
19 of that plan. And out of that comes a Commission order
20 approving the BTA report findings.

21 Then from all of that planning, for each
22 individual transmission project, APS goes and submits
23 applications for CECs, receives the CECs and then goes
24 to development and construction. Of those projects, at
25 some point they go in service. And then APS files an

1 annual rate adjuster at FERC. And the recovery at FERC
2 is essentially for wholesale transmission customers.

3 And just to make sure we are clear about that,
4 what that means is that renewable developers
5 generation-wise, and also other utilities who use our
6 system to wheel power across it, pay transmission tariff
7 rates. And the rate that FERC approves is that tariff
8 rate that we charge those customers. In order to get
9 the approval for the rest of our transmission customers,
10 which are the retail customers that we are talking about
11 jurisdictionally here within the State of Arizona that
12 the Commission has priority over, we actually file for
13 ACC approval there through our transmission cost
14 adjuster, which is called a TCA. And then once we have
15 that approval, that provides cost recovery for the
16 retail customers.

17 And note at the bottom of the slide, I just put
18 the current transmission cost recovery split of about
19 80 percent toward retail customers of Arizona and then
20 20 percent of the wholesale customers, which are the
21 wheeling customers that we have. Now, I do want to be
22 clear that that is not a fixed number. That changes
23 over time depending on how many wholesale customers we
24 have wheeling, how much additional transmission we have
25 for retail rate base also.

1 So going back to the definition of the RTP, and
2 Tom mentioned that this was not agreed to completely in
3 all of these processes, there was general agreement but
4 not complete agreement. And I just wanted to point out
5 that the overall idea by those that sort of advocated
6 this was so that, if you keep the definition in a way
7 that allows you to describe why the RTP makes sense to
8 the Commission and keep it in a relatively broad sense,
9 then you can let the Commission, your Commission make
10 the determination of whether that makes sense or not.
11 So it will be on the utility to come up with essentially
12 why, why we think the RTP should be an RTP and explain
13 that to you. And at the end of the day that's, it is
14 your decision as to whether you agree with that or not
15 and whether we should go forward with whatever
16 development plans we have laid out for that RTP.

17 CHMN. MAYES: Okay. But shouldn't there be some
18 criteria that the Commission would use for making that
19 determination? I mean, and I understand that the
20 utilities would like the greatest degree of flexibility
21 possible, but it seems to me if we are going to declare
22 something an RTP, there has to be some sort of basic
23 threshold that would, that would lead us to do that.

24 And I guess one question I would have for you
25 is: Could the Commission use, for instance,

1 transmission service agreements between shippers and/or
2 potential shippers and the utility as a means for
3 declaring an RTP? And at what point do those
4 transmission service agreements get filed at FERC?
5 Would they be useful? Would they be usable before an
6 RTP declaration?

7 MR. COLE: Chairman Mayes, in many cases what we
8 were trying to do with the filing of our RTPs is we are
9 trying to advance the development of them prior to when
10 they would actually be contracted for and used, trying
11 to eliminate some of the chicken and egg issues that
12 exist today. And if we were to wait until we had a
13 service contract in order to build the transmission,
14 then we still have the entire process of the permitting,
15 the development and the construction of it, which still
16 leaves us in the chicken and egg dilemma because where
17 we are at today we have trouble with developers, not --

18 CHMN. MAYES: Yes.

19 MR. COLE: -- not a bad way, but trouble trying
20 to synch up with the transmission with when they want to
21 build their projects.

22 CHMN. MAYES: On one of your projects, and I
23 know maybe John will get to it, but one of your projects
24 you do propose an open season for that project.

25 MR. COLE: Right.

1 CHMN. MAYES: And that presumably would lead to
2 letters of intent or MOUs, something that would show the
3 Commission that this really is going to be an RTP.
4 Would that be accurate?

5 MR. COLE: And, Chairman Mayes, on those
6 projects, what we are really talking about is they are
7 Palo Verde to the Valley and Gila Bend to the Valley,
8 kind of a 3A and 3B. What we are really talking about
9 there is trying to do some detailed study work to
10 determine what the best project is. And it will be done
11 per the 890 requirements or out in the open and in front
12 of others. Once we decide what that is, then we will --
13 the open season means we want to find out what other
14 interested parties there are. And those interested
15 parties can go forward with going and getting a CEC and
16 potentially constructing it down the road. It is not an
17 open season to commit a transmission shipper. It could
18 be, it could be done as a part of a TSA, transmission
19 service agreement, or it could be done as another owner.

20 Okay. So going back to the renewable
21 transmission action plan and RTP, I just wanted to
22 explain how APS sees the use of the RTAP and the RTPs
23 themselves. The report that APS filed on the 30th of
24 October is considered APS' first renewable transmission
25 action plan. And contains our first RTPs. As a result

1 of that, we plan on filing at the Commission for
2 approval of the RTAP and RTPs for the development plans
3 that we have advocated for them within that RTAP.

4 The approval was also advocated within the
5 finance subcommittee and the findings and conclusions.
6 And we agree that that's appropriate and necessary. And
7 the reason for that is the RTPs that we have listed in
8 our RTAP are specifically meant to be projects that we
9 are either moving up the timing on or projects that we
10 would not necessarily need to do in, I will call it, a
11 normal planning process, where our customers aren't
12 really ready for them yet to meet APS' reliability
13 and/or renewable energy standards and/or other resource
14 needs.

15 So, for example, the Delany project, if it
16 weren't for the potential to advance renewables by
17 building it by the end of 2012, we would actually build
18 it in conjunction with the rest of that 500kV loop that
19 I mentioned earlier that happens in 2014 that goes from
20 Delany to Sun Valley to Morgan and over to Pinnacle
21 Peak. That's when the next piece of it happens from
22 Delany to Sun Valley. So the reason we need approval is
23 we are doing things that are above and beyond what we
24 need for our normal planning and our normal construction
25 of transmission process.

1 The other thing that the approval does, and I
2 will jump ahead a little bit rather than wait until the
3 next slide to make sure I explain, is, once we get the
4 approval from the Commission our plan is based on what
5 we have asked for in that development plan, is to go to
6 FERC, if needed, get our approvals there, and then go
7 ahead and construct and develop those transmission
8 projects as we laid out in our development plan.

9 So related to that, let's flip to the next
10 slide. And this essentially covers what the RTP
11 approval and cost recovery would look like from APS'
12 perspective. I don't want to speak for everybody at
13 this point because we do have a TCA and others don't.
14 So the idea is we would file our RTAP and RTP.

15 And the other thing, I think I need to take a
16 step back and make clear, we mentioned the concurrence
17 with a 10-year plan. We mentioned the concurrence with
18 the BTA. APS would advocate that every two years a
19 filing would be done in parallel with the BTA process.
20 It wouldn't necessarily be part of the BTA, because each
21 individual utility will have different RTAP and RTP
22 requirements. But it makes sense to analyze it sort of
23 on the same time frame as the BTA happens. We think it
24 makes sense to do it. We have already done it now. We
25 plan on doing it for the 2012 BTA. And then going

1 beyond that, we think it makes sense that the Commission
2 direct at the time of the 2012 BTA will it make sense to
3 do it again rather than creating an ongoing process that
4 only stops if someone purposely tries to stop it.

5 CHMN. MAYES: So, Brian, you are doing this as
6 part of your current BTA?

7 MR. COLE: Correct. Our filing we just did
8 would be part of the BTA that will be in process the
9 beginning of next year.

10 CHMN. MAYES: Right, okay. And, okay. You
11 would envision a process at the Commission in which you
12 would request ACC approval of your RTAP and RTP plans.
13 And presumably, as part of that filing, you will present
14 some kind of evidence to the Commission as to why the
15 Commission should declare, for instance, the Delany line
16 a renewable transmission project, correct?

17 MR. COLE: Chairman Mayes, that's correct.

18 CHMN. MAYES: And what would that concrete
19 evidence be?

20 MR. COLE: Chairman Mayes, in our mind, that
21 evidence is supplied in our report. We have shown all
22 of the different reasons why we think it makes sense to
23 be a renewable transmission line, how it supports the
24 development of renewable energy and why it has enough
25 robust uses that it is beneficial for our customers when

1 you do the balancing.

2 CHMN. MAYES: So the evidence that it supports
3 renewable energy in Arizona is that you have
4 interconnection requests?

5 MR. COLE: No, Chairman Mayes. It is based on
6 the economic analysis that we have done.

7 CHMN. MAYES: Okay.

8 MR. COLE: And it is based on the qualitative
9 factors that we looked at, which include the robustness
10 of interconnections.

11 CHMN. MAYES: But it wouldn't include any
12 concrete evidence of signed agreements or letters of
13 intent or an open season or anything like that?

14 MR. COLE: Chairman Mayes, that's correct.

15 CHMN. MAYES: I, I find that problematic and I
16 think we need to work our way through a process that is
17 a little more defensible than that. And I don't know
18 what that is going to be, but there are a lot of bright
19 minds in this room.

20 But it seems to me in my mind, and I am just one
21 Commissioner, but that there has to be some veneer of
22 legitimacy associated with the proposal and then, and
23 ultimately a declaration by this Commission that a line
24 is a renewable transmission project. So maybe that's
25 something that people can be thinking about as we go

1 through the day.

2 MR. COLE: If I could just add one more -- oh.

3 CHMN. MAYES: Go ahead, Brian.

4 MR. COLE: If I could just add one more thing,
5 Chairman Mayes, one of the things that was on the top of
6 our minds as we were going through this long process
7 was, and this came up many times in the finance
8 subcommittee work, is that all the different, I will
9 call it, categorizations of transmission or, to give it
10 a definition, of RTP, and have something to put it in a
11 cubbyhole, all of them have something that restricts you
12 from building a renewable transmission. And what we
13 were trying to advocate for is a way to make it the
14 least restrictive so that we have the ability to build
15 these renewable transmission projects. Because, from
16 our standpoint, Chairman Mayes, at APS, we are trying to
17 work around the fact that we don't necessarily need
18 these lines to serve our customers with the plans we
19 have today. We are trying to do this on behalf of
20 supporting renewable growth as we go forward. So there
21 is a differentiation that needs to be made.

22 CHMN. MAYES: And your own REST requirements.

23 MR. COLE: Our existing transmission 10-year
24 plans already support our REST requirements.

25 CHMN. MAYES: Maybe that's another reason to

1 rethink the current level of the REST.

2 But go ahead, Commissioner Newman.

3 COM. NEWMAN: I am glad to have had that
4 colloquy with you.

5 Is the mike on? Can people hear?

6 I think the word, the Chair used the word
7 veneer. It is more than veneer. I think, I think it
8 was almost facetious using the word veneer. We should
9 have transparency in this.

10 It would be good to know, you know, what are the
11 top two, three lines that you guys are recommending and
12 try to be outside of the prism of being so scared, like
13 of divulging contracts or whatever. We need to know the
14 need for the line. Part, part of that is because it
15 goes to rate base in the end and we are going to have to
16 say okay to that. So, an open --

17 You know, this group, by way of my prefatory
18 remarks, it is an honor to be just with you guys today,
19 you know, designing the next generation of, you know, of
20 this generational project for Arizona, and the west
21 really. You guys are the minds.

22 But I would like, I would like to have, you
23 know, a little more transparency than I have. And I
24 have been on the Commission for a year. But the lines I
25 have dealt with, it has been a little bit nebulous about

1 the needs of the line. And so when -- and I am being
2 counseled now that perhaps, you know, we should, I
3 should be asking questions about the need for the line
4 and how much is the line costing and do we need six
5 lines, do we even need one line.

6 I hear a report that would be coming out by a
7 potential -- a report coming out by WECC or one of the
8 other government -- either WAPA, actually I think it may
9 be WECC -- coming out with reports that might speculate
10 that we are not using efficiently our present
11 transmission systems. There is a rumor about that,
12 about usage things. So I am just -- the more and more I
13 learn about this, and I know that you are the experts, I
14 just know that there are questions that I need to ask.
15 And you need to be sure with us in a transparent way the
16 public knows, you know, the real cost/benefit behind
17 these lines.

18 Now, you are talking to one Commissioner at
19 least that wants to create -- I go around telling people
20 I want to figure out a way to wheel the sun out of the
21 southwest and the wind out of the northeast. I want to
22 be able to help in this process. Don't get me wrong. I
23 don't want to be obtrusive in that process. But it
24 needs to be transparent because we are going to have to
25 sell a lot of cost to people and we are going to have a

1 lot of fights with environmental people about where
2 these lines are going. So it really has to be an open
3 process.

4 MR. COLE: Commissioner Newman, if I may.

5 COM. NEWMAN: Yes.

6 MR. COLE: I just did want to point out that APS
7 is trying to be as responsive as we can to this BTA
8 order. And the information that we filed in the report,
9 it was trying to divulge as much as we possibly can
10 about the process that we used. And that's what we are
11 trying to do today, is show you how we got there.
12 Questions, not a problem, but we will, we will continue
13 to be as open as we can.

14 COM. NEWMAN: And, again, it really is an honor
15 to be in a room and just be getting to work -- you know,
16 you have been working for awhile. I mean I think this
17 is going to be, you know, a five- to ten-year process
18 for sure of fundamental important planning and probably
19 more for implementation. But thank you.

20 MR. COLE: So going ahead and continuing on, I
21 just want to point out that once we have ACC approval of
22 these RTPs and the RTAP, the idea is that you kind of go
23 back to the regular development plan depending on what
24 you have asked for.

25 And the case of, for example, Delany to Palo

1 Verde, we are not asking for any additional cost
2 recovery or anything like that. We are just asking for
3 your approval that it makes sense for us to go forward
4 and do it on a construction time frame event of 2012.
5 So that dollar box that shows up on the top right of
6 your screen, we wouldn't even touch that project for
7 example. It just becomes the ACC gives us approval that
8 what we are doing makes sense and it really isn't even a
9 finality because we still go through the process of
10 getting a CEC, if needed -- if we have already got it,
11 then that's a different story -- putting the project in
12 service and then going to FERC, filing for our rate
13 increase there for wholesale, and then using our TCA and
14 asking for approval from the Commission for our retail
15 customers.

16 So, John, we have been through policy
17 comparative economics, qualitative cost recovery.

18 So now I am going to turn it over to John Lucas
19 to talk about the top RTPs. So there you go.

20 MR. LUCAS: Thank you. Good afternoon. Again,
21 my name is John Lucas with Arizona Public Service
22 Company. Thank you, Chairman Mayes, Commissioners, for
23 this opportunity to talk about renewable transmission
24 projects.

25 As we filed in our report, we listed four

1 projects. The third project is the 3A, 3B component.
2 And I will be talking about each of these in detail:
3 the Palo Verde to Delany; Palo Verde to North Gila; and
4 then 3A and 3B, Palo Verde to Valley load, sometimes you
5 will hear us refer to that as Liberty, but it is in that
6 general vicinity, 3B, Gila Bend to Valley load; and then
7 a Delany to Blythe, the Arizona portion of the Devers 2
8 sometimes referred to.

9 Briefly, what I would like to talk about is that
10 we have APS' existing transmission plans. It provides
11 for system reliability, provides for sufficient
12 transmission for import of remotely located resources,
13 and it supports the renewable resources as specified in
14 our resource plans.

15 Projects identified through the BTA order
16 process that are beyond the normal planning process is
17 new project and accelerating time frames for previously
18 identified projects.

19 Now, if we go to the next slide, talking to
20 specifics, because as planners we always like maps, what
21 we are seeing on the screen here is, and I am going to
22 talk about this, APS' transmission plan around the
23 metropolitan Phoenix. And more to the westerly area,
24 but looking at the PowerPoint, in this center area is
25 basically metro Phoenix. We have got the Pinnacle Peak

1 substation that's over on the northwest -- or northeast
2 part of the valley. And that's about Scottsdale Road
3 and Pinnacle Peak Road. If you go due south to the
4 Kyrene switchyard, that's at Kyrene and Elliott. Moving
5 off to the west, of course, we have got the Jojoba
6 switchyard, and that's south of the Buckeye community;
7 Palo Verde, of course to the far west. To the northwest
8 is the Westwing substation. And that's at about the
9 Loop 303 and Happy Valley. And then if you go a little
10 further north, it is more in the dotted, is Morgan
11 switchyard presently under construction. Then, of
12 course, if we move to the very southwest part of the
13 drawing, we have got the North Gila switchyard, which is
14 basically Yuma.

15 What I wanted to point out here, a couple of
16 things here, again, this is just in our transmission
17 planned projects today. Highlighting in the yellow is
18 the solar resource areas. But a line from Palo Verde to
19 Harquahala, Harquahala is a generation station, 1100
20 megawatts, there is no line that goes beyond Harquahala.
21 It is just a gen-tie line. So Harquahala generating,
22 and go to the hub, and then it gets disbursed from that
23 point.

24 In our 10-year plan, going off somewhat to the
25 north we have the Delany switchyard. The intent was,

1 and we have a certificate, it is certificated, the
2 intent has a couple of options. But our first option
3 was to cut into the Harquahala line with the Delany
4 switchyard. Then the 500kV line would go to Sun Valley.
5 It is a certificated line with a transmission plan in
6 service of 2014; Sun Valley to Morgan with an in-service
7 date of 2016, and it has been certificated; and then the
8 Morgan to Pinnacle Peak 500, and that's a 2010. As
9 mentioned, the Morgan switchyard is under construction.
10 There is some preliminary line work that's occurring
11 between Morgan and Pinnacle Peak. And then there is
12 construction that has been started at the Pinnacle Peak
13 expansion.

14 In addition, we have got the North Gila No. 2
15 line that was mentioned earlier with presently a 2014
16 in-service date from Palo Verde to North Gila going
17 right through this identified solar resource area. And
18 then briefly I would like to mention that the Solana is
19 outlined here just off the Gila Bend.

20 APS, just to briefly mention, between Palo Verde
21 and North Gila, APS is a 40 percent participant in that
22 project.

23 If we could go to the next one, please.

24 All right. Let's talk about the first project,
25 the renewable transmission project from Palo Verde to

1 Delany. What is different here in comparison to what we
2 have in our 10-year plan is, instead of cutting in the
3 Delany switchyard into the Harquahala line, it is a
4 separate line from Palo Verde to Delany.

5 Now, the advantage of that is that we have been
6 studying over 3,000 megawatts at the Delany switchyard.
7 We have had that much in interconnection requests.
8 Those, with that amount of interconnection, cutting and
9 having Delany into the Harquahala line created problems.
10 So it is obvious then that we would need to build a
11 separate line from Palo Verde to Delany to handle that
12 type of magnitude of resources connecting at Delany.

13 Now, will all those connect, all those
14 interconnect there? That we don't know. But we do know
15 that with a line from Palo Verde to Delany, we would
16 accommodate and help satisfy some of that chicken and
17 the egg question.

18 CHMN. MAYES: John, what proof do we have that
19 APS' theory of displacement will actually come to pass?
20 In other words, what, what evidence is there that
21 California utilities will displace their gas at the Palo
22 Verde hub to be able to get renewable projects that are
23 built in this area?

24 MR. LUCAS: What we did, Chairman Mayes, is,
25 with that much interconnection at Delany, what we have

1 to do is turn off other resources. What evidence we
2 have, we don't know that. That is just in our model.

3 CHMN. MAYES: There is no evidence, no
4 discussions with California utilities or --

5 MR. LUCAS: Specifically, no.

6 CHMN. MAYES: Okay. And then my next question
7 would be: It would appear to me that at least two,
8 possibly three, of the renewable transmission lines that
9 APS picked have already been certificated by the
10 Commission --

11 MR. LUCAS: Yes.

12 CHMN. MAYES: -- correct?

13 MR. LUCAS: Correct.

14 CHMN. MAYES: In which case, why would they need
15 preapproval or ratemaking incentives from the Commission
16 to get built? Is it just to get them built sooner than
17 you would otherwise have to because our growth slowed
18 down --

19 MR. LUCAS: What we --

20 CHMN. MAYES: -- or --

21 MR. LUCAS: Why don't you take this.

22 CHMN. MAYES: I have to tell you I was surprised
23 when I saw so many lines pop up on all of the utilities'
24 lists that were already certificated by the Commission
25 and already in the utilities' 10-year plans.

1 MR. COLE: Yes, Chairman Mayes. What we found
2 during our analysis was that some of the projects that
3 we already had looked at, already had plans for but not
4 necessarily in a time frame that would help advance
5 renewables turned out to be some of the best ones
6 anyway.

7 CHMN. MAYES: So it was just a coincidence?

8 MR. COLE: Yes. We didn't, we didn't skew any
9 economics, if that's what you are asking. We just did
10 straight economics to see what we would come up with.
11 And the Delany-Palo Verde showed up as one of the best
12 projects. And so it ended up on our RTP list. And the
13 difference, again, is we wouldn't build that line until
14 2014 if not for the renewable energy development that we
15 could help by doing it in an advanced stage of 2012.

16 Commissioner Newman, a question?

17 COM. NEWMAN: Madam Chairman, do you mind?

18 CHMN. MAYES: Yes, please.

19 COM. NEWMAN: And speaking of the chicken versus
20 the egg, did the Harquahala egg cause the chicken to
21 crow or did the -- you know, what is the secret about
22 Harquahala? Has it become -- it has become the mecca.
23 I even learned how to pronounce it very well and
24 everyone knows it very well now. How did it become the
25 goose that laid the golden egg, that APS will now invest

1 in this cycle in Delany that will wheel it out of there?
2 I am happy to find someplace that we are doing it. But
3 I just, I was curious, why Harquahala.

4 MR. LUCAS: Commissioner Newman, I will be
5 responding from a technical standpoint, that the
6 Harquahala is 1100 megawatts of generation. And on this
7 single line back to Palo Verde, when we are -- if we cut
8 in the Delany directly into that particular line, we
9 would be limited in amount of capacity that could
10 connect to Delany. So that's where the concept would be
11 to build a whole separate line from Palo Verde to Delany
12 to handle additional resources just to connect at
13 Delany.

14 COM. NEWMAN: So the actual size of the market
15 in Harquahala is causing you to change the dimensions,
16 which makes sense. And, but I guess there might be
17 somebody else who could answer the question as to how
18 it, how that happened, and I am, I am -- and why prices
19 in Harquahala are so high and why people are speculating
20 in that one place.

21 Was it -- did they know Delany was CEC'd and
22 that they able to get this done fairly well? Have there
23 been conversations about that with vendors and the
24 company? Or is this land -- how is this land
25 speculation happening without the company knowing about

1 it?

2 MR. LUCAS: Commissioner, if I could go back a
3 little bit in time, in our 10-year plan we show the
4 Delany to Sun Valley, Morgan and Pinnacle Peak lines.
5 So they see that the Delany is a good interconnection
6 point, because we had identified it to cut into the
7 Harquahala line itself. So renewable developers saw
8 that that was a good spot. It is close. It is already
9 part of our 10-year plan. So if they want to connect at
10 Delany and they move through that interconnection
11 process, at some point we are obligated to build that
12 substation. And so that makes a good interconnection
13 point. I am assuming based on those interconnection
14 requests of over 3,000 megawatts, and when we look at
15 that study, that told us we need to build a whole
16 separate line to Palo Verde.

17 COM. NEWMAN: Makes sense. Thank you.

18 CHMN. MAYES: John, could I ask you, do we know
19 what the bottom line cost is of advancing the time frame
20 of these already certificated lines?

21 And then, or Brian, and then as a follow-up to
22 that, is the cost of advancing the lines that we have
23 already certificated surpassed by the benefits to
24 consumers that would be created by creating generator
25 competition in these areas? And is there an analysis of

1 that, or is that, would that just be speculation?

2 MR. COLE: Chairman Mayes, what we have tried to
3 do is put together what the cost of these projects would
4 be. And we are essentially asking for you to do that
5 balancing analysis. We think that it makes sense that,
6 if we are going to build additional renewable lines to
7 support renewable development in Arizona, these are the
8 lines that make the most sense. But from making a
9 decision of cost/benefit, we don't have a way to do that
10 to Arizona customers.

11 CHMN. MAYES: Okay. Go ahead, Prem.

12 COM. NEWMAN: Good question.

13 MR. BAHL: John, this Palo Verde-North Gila,
14 which has already been certificated and moved up in
15 construction because of renewable development, what
16 about the other participants? APS is only 40 percent
17 shared in that line. And there is IID and Mohawk and
18 SRP. Are they in tune with the enhancement of that
19 project?

20 MR. LUCAS: Prem, that's a good lead-in right
21 into talking about the next projects.

22 If we could click number two, Brian.

23 All right. Palo Verde to North Gila No. 2 was
24 identified as APS' number 2 project for renewable
25 transmission. As Prem has pointed out, APS is a

1 40 percent participant with three other utilities
2 involved: SRP at 20 percent, IID at 20 percent, and
3 Wellton-Mohawk, 20 percent.

4 All parties are involved working through a draft
5 participation agreement at this time. And we have
6 talked about a 2014 in-service date. This particular
7 project for us, based on the economy and the changes
8 that we have seen, that project could slide out to a
9 later date for in service. We are proposing to keep it
10 at 2014 and we have communicated that to the
11 participants.

12 CHMN. MAYES: What have the participants
13 communicated back to you?

14 MR. LUCAS: I would say not in a negative
15 fashion. They were still supportive of that 2014 day.
16 But we are still in that draft process with the
17 participation agreement.

18 CHMN. MAYES: And you had pushed it back to what
19 before now? Or you were pushed off, wasn't it?

20 MR. LUCAS: Yeah, originally we were at 2012.
21 It changed to 2014. We could move this to even further
22 to 2016, 2017 based on what the forecast loads are for
23 the Yuma area.

24 CHMN. MAYES: Okay.

25 COM. NEWMAN: Just follow-up question. Whenever

1 I see the North Gila, I think of California. And I
2 don't know if I should or not. But that's why -- I
3 think of Yuma, too, because I am an Arizonan. But I
4 think we are serving California market.

5 So when you just were giving projections on
6 dates going down lower on that, I know that there is a
7 very high standard, as you know, RPS standard in
8 California. And we have already been seeing come across
9 our desks at the Corporation Commission, several export
10 modeled solar facilities. And so, and I expect that
11 trend to continue.

12 I would think, you know, and I would like to
13 know what to tell my California counterparts, we already
14 talked to the California PUC, are we -- do we need that
15 North Gila line for exporting reasons and perhaps
16 energizing the western Arizona utility market in terms
17 of creating a whole solar system, which I hope to do in
18 western Arizona? I don't hope -- I mean I hope that
19 these policies foster a good economic development hold
20 in western Arizona for solar projects. And I think that
21 North Gila is a big part of it. So putting it down the
22 line gives me some room for just asking the question,
23 shouldn't that concern a long-time planner if you are
24 trying to get a, get a state off the ground, if you
25 will?

1 MR. LUCAS: Commissioner Newman, that's a good
2 point, good question to us in that there is some
3 activity that is occurring in reference to a study
4 process jointly with multiple utilities and WAPA. And I
5 can expand on that here now or I can expand on it when I
6 get to a couple slides later when I talk about a more
7 broader than Arizona market.

8 COM. NEWMAN: Okay.

9 MR. LUCAS: We have identified now the 3A
10 project. This is a combination of another Palo Verde,
11 which Palo Verde is the market, the hub area, bringing
12 more resources from Palo Verde to Jojoba and Jojoba into
13 this Liberty. Here it is calling that the Valley. It
14 is not so much connecting to Liberty itself but the
15 concept is we are not the only ones with the
16 interconnection requests. SRP has other interconnection
17 requests in the hub area. This particular line would
18 provide additional transmission capability to get from
19 the hub into the Valley.

20 Next one. Thank you.

21 CHMN. MAYES: John, can you explain the
22 importance of that in terms of the end use? Who would
23 be the consumer of any generation delivered into
24 Liberty?

25 MR. LUCAS: When I say Liberty, again, it is

1 Valley. We use Liberty sometimes interchangeable. But
2 it is not so much, it doesn't have to be at the Liberty
3 switchyard itself, but I would see that as APS
4 customers. It could be a path for SRP customers or
5 others when we go through that open season and see if
6 there is anybody else interested in buying into that
7 project.

8 The portion of that is also what we are calling
9 3B. That's now a path from Gila Bend area to Jojoba and
10 Jojoba into the Valley. And we are basing that also on
11 the magnitude of resources, interconnection requests
12 that we are receiving in Gila Bend. There is a lot of
13 interest in that area. We are studying in the magnitude
14 of about 1500 megawatts at this time. And that would be
15 another path into the Valley area for renewable
16 resources.

17 CHMN. MAYES: How much capacity would be on that
18 line? And again, to my concern about whether these are
19 really renewable energy transmission lines, I mean it
20 looks like a dead end to me. You don't have the
21 capacity requirements under your REST to take all that
22 out of Gila Bend, do you?

23 MR. LUCAS: That's correct.

24 CHMN. MAYES: So why is it a cul-de-sac?

25 MR. LUCAS: It could be another path for --

1 well, twofold. Generally speaking, we use 1200
2 megawatts.

3 CHMN. MAYES: Okay.

4 MR. LUCAS: Could be Gila Bend to Jojoba back
5 into the hub to sell to California and others.

6 CHMN. MAYES: Okay. I see. So you would be
7 adding to the exiting line. And then 3A, there is
8 existing line out of Gila Bend?

9 MR. LUCAS: Yes, there is.

10 CHMN. MAYES: Okay. 500kV?

11 MR. LUCAS: 500kV.

12 CHMN. MAYES: Okay.

13 MR. LUCAS: Yes. Sometimes we call it the
14 Peter K loop.

15 CHMN. MAYES: The Peter K loop? Oh, man. Oh
16 jeeze. Why don't you just call it that?

17 MR. LUCAS: Well, some people out of the region
18 may miss the Peter K portion so we call it 3A and 3B.
19 But this is proposed 3A and 3B.

20 CHMN. MAYES: Peter, you are going to have to
21 come up here and defend this then at some point.

22 MR. LUCAS: The thought is we would look at,
23 when we proceed with studies, looking at the options of
24 3A or 3B or a combination of both 3A and 3B.

25 COM. NEWMAN: Just a quick question. The Delany

1 is CEC, but the Jojoba and over there, those are not?

2 MR. LUCAS: That's correct. We just have this
3 CEC here presently.

4 CHMN. MAYES: And the Sun Valley CEC.

5 COM. NEWMAN: And the Sun Valley.

6 MR. LUCAS: Yes.

7 COM. NEWMAN: What do you expect -- what were
8 the issues in the CEC Palo Verde to Delany when I wasn't
9 around? What do you expect to be some issues
10 environmentally or anything-wise in Jojoba? I should
11 say Jojoba.

12 MR. LUCAS: Well, speaking as a planner?

13 COM. NEWMAN: Yes.

14 MR. LUCAS: You know, I think I would have to
15 defer that to Greg Bernosky to come from a siting
16 perspective. From a planner we would just be looking at
17 connecting the two points.

18 COM. NEWMAN: Another day.

19 MR. LUCAS: Another day.

20 And then the last project we mentioned is the
21 fourth project, which is the Arizona portion of
22 Devers 2. We had brought that forward. That could be
23 a -- Western is looking at that project along with
24 others that might be interested in that project. I
25 think if we get to the next one, it probably will help

1 out.

2 Going back to Commissioner Newman, what we are
3 looking at here is a combination graphically of both
4 Arizona and California. The green large bubble off to
5 the far west would be the Los Angeles load center. Down
6 here would be the San Diego load center, small load
7 center in the Yuma area and then the Phoenix load
8 center.

9 Palo Verde is off to the right-hand of the
10 screen showing both the project 1, 2, and 4. And then
11 you see the Arizona portion of Devers 2. They have just
12 got approval to move forward, CEC, just got approval to
13 move forward at the Los Angeles basically back to
14 Devers.

15 But what I wanted to point out here is there is
16 competing renewables that are occurring in California at
17 the same time. And so the challenges looking at this,
18 and if we take the Palo Verde to North Gila No. 2 line
19 for instance, and if we are building that to count on
20 exporting to California, we need to look at what the
21 limitations would be, one, from North Gila into
22 California, both to San Diego, probably more importantly
23 to get up to the LA load center, and we are competing
24 with resources that are already in California that
25 California utilities are chasing. I wanted to first

1 point that out. And that would be the same scenario
2 going from Palo Verde-Delany, well, basically Delany to
3 Blythe and Los Angeles.

4 But what is occurring today, which is a very
5 positive thing, is that Western is looking at the North
6 Gila No. 2, and Western, meaning Western Area Power
7 Administration, the portion of Devers 2. They are also
8 studying, looking at 500 and 230 upgrades along the
9 river, and then 500 in from North Gila west both to
10 Devers and to Imperial. So that's more of a regional
11 look and study process. And APS and others are very
12 active in that study. But that's a very broad study
13 that is just commencing and study plans are being put
14 together at this time.

15 COM. NEWMAN: First, if I must say, I have seen
16 some of the WAPA plans, and they are quite significant
17 and fascinating. I mean they have done a lot of
18 planning and a lot of connections on our Arizona side
19 down at the Colorado River. And they have a money
20 source to build a line because they are a unique federal
21 entity. And that could be very helpful to developing
22 western Arizona's resources. And I think that that's a
23 huge piece.

24 I just don't -- I am not an engineer. I am not
25 a scientist. I understand the aspects of that piece.

1 And I don't really know, but it seems like the funding
2 source makes it fascinating and almost impossible, if
3 not -- to explore -- if not to want to latch onto. It
4 is almost similar to the CAP water project in a sense,
5 the ability of latching onto a federal project as it is
6 about to expand. We have to look at that very closely.

7 And so I was very impressed with what I have
8 heard so far. And I have no idea how that WAPA, how
9 long that WAPA is going to take.

10 And I just wanted to throw out another variable
11 and factoid, if you will, that even though California
12 has this very high need, I don't know whether it is
13 Senator Boxer or Senator Feinstein or one of the
14 senators from California, has made recent statements
15 about a lot of California desert being off limits to
16 solar experimentation. And so that puts this into even
17 a higher echelon than it was before, if that's true. If
18 they are going to have problems building enough solar
19 facilities in California to meet the need, we need to be
20 ready for that. And that's a political factoid but it
21 should be part of the algorithm I think.

22 MR. LUCAS: I would agree, Commissioner Newman.
23 I am not sure how it will play in yet in reference to
24 when we get to the study and how it will work out.

25 COM. NEWMAN: What is your prognostication about

1 WAPA? And that's the only thing I would ask. What
2 would you say, where is WAPA and where is WAPA going?

3 CHMN. MAYES: I will do that.

4 COM. NEWMAN: Where are the WAPA people? Are
5 the WAPA people here today?

6 CHMN. MAYES: They were here at our first BTA
7 meeting.

8 COM. NEWMAN: They are very nice WAPA people.

9 CHMN. MAYES: They are very nice WAPA people.
10 Interested, my take on the meetings with them,
11 they are very interested in both the North Gila 2
12 project and possibly participating in a -- I don't even
13 want to call it Devers 2 anymore; let's call it
14 WAPA 1 -- in a possible WAPA 1, slash, Arizona utilities
15 project.

16 COM. NEWMAN: I like that. I like the WAPAs.

17 CHMN. MAYES: Okay. But I don't, I don't know
18 where they are in their planning process. I do think
19 that we should -- I would love to sit down with WAPA. I
20 would love to have the Commissioners sit down with WAPA
21 and talk to them about the \$3.2 billion they have to
22 spend on transmission in their footprint.

23 But to Commissioner Newman's point and with
24 regard to WAPA, the information that I get is that they
25 are really not interested in being the dominant partner

1 in these lines, that they want to take a minority stake
2 and they would like to have sort of a partnership in the
3 lines.

4 And, I guess, is that your understanding? I
5 don't know if this is something that Mr. Guldner would
6 need to respond to or somebody else. But is that your
7 understanding of it? What is your last communication
8 with WAPA and sort of where they are at with all of
9 this?

10 MR. LUCAS: A couple points. Western does want
11 to be a partner in the projects. They want to be a
12 joint participant. The Arizona utilities along with
13 other companies have submitted various projects to
14 Western. And specifically, when I talked about those
15 projects, North Gila 2 and the Delany to Blythe portion,
16 the Colorado River upgrades, combination of 500 or
17 500/230kV, there is another company or two that have
18 submitted lines, projects from North Gila into
19 California. And APS along with other utilities and
20 other stakeholders are actively engaged in meeting with
21 Western, it is probably weekly, working out study plans
22 about how to study this larger picture and what the
23 impacts to the system are.

24 CHMN. MAYES: And California is not involved in
25 those discussions, correct, California utilities?

1 MR. LUCAS: I can't comment to that part.

2 CHMN. MAYES: Well, okay. We will --

3 MR. LUCAS: I just don't recall.

4 CHMN. MAYES: You know, and I just, I think -- I
5 appreciate this discussion. As you pointed out, John,
6 the California Public Utilities Commission last week
7 approved the Devers segment on their side of the border.
8 So I think that puts this entire line more in the
9 spotlight. And probably it is incumbent on us to
10 consider it. And I appreciate the fact that APS did put
11 it on its list. I know it didn't make its top three but
12 I do think you really, we really can't go through this
13 process without considering that line. So...

14 COM. NEWMAN: I just have a follow-up question
15 in terms of how the money flows on that. And I think
16 all the Commissioners would appreciate separate
17 briefings about this. I have talked to the WAPA leaders
18 about it, but I am still sort of confused how the money
19 flows.

20 But it is true that a lot of the line that they
21 want to build through the north-south, from Las Vegas
22 hub down to ultimately our Yuma hub, which will help, I
23 would think, help reliability as well as renewable
24 energy, but that there is a great deal of federal money
25 involved in their funding of the project, which wouldn't

1 that in the end help the ratepayers? Or are you the
2 person to talk about it, or am I the person to make the
3 judgment? You said it is in our hands and, you know, we
4 have to --

5 MR. LUCAS: I think that would be a good
6 question for Western and how much, because theirs is
7 more of a funding authority.

8 MS. ORMOND: Madam Chairman, the 3.2 billion is
9 a loan program. You still have to have a utility that's
10 going to take a loan. So it is not like they are going
11 to build all this line. There has to be a party on the
12 end that will take out the loan for this money.

13 COM. NEWMAN: Subsume.

14 CHMN. MAYES: For the record, that was --

15 MS. ORMOND: Is that not correct?

16 A VOICE: No.

17 CHMN. MAYES: Wait, wait, wait, wait. If we are
18 going to comment from the audience, we have to come to
19 the podium. Let's come back to that when we get to that
20 segment.

21 MR. LUCAS: This is, this is the Arizona
22 utilities renewable transmission project. You will see
23 this is consistent with all of our presentations between
24 utilities showing the various lines. And I think what
25 is interesting to note is that all of our projects are

1 pointing out starting, they are all in southern Arizona
2 starting from a more easterly part of the state and
3 there is ties that go all the way to the western part.
4 But you will see this common thread with each of our
5 presentations today. And SRP gets acknowledged for
6 putting that together.

7 This is just a high level summary. I have
8 talked about most of these points, about the CEC that we
9 already have with Palo Verde-Delany. There is a
10 finalizing of the participation agreements. Palo Verde
11 to Delany, APS is an 80 percent owner/participant of
12 that project. And then there is SRP and CAP for the
13 other remaining. We would proceed with acquiring
14 right-of-way, engineering design, and that would be
15 construction ready and in service 2012.

16 Do you have a comment?

17 MR. COLE: Just to add a little bit to that,
18 Chairman and Commissioners, so what we are advocating is
19 that we go ahead and proceed with the expenditure of
20 funds to advance this project and to construct it on a
21 December of 2012 in-service date.

22 The only thing we will do is make sure, going
23 back to one of your questions, Chairman Mayes, about
24 having assurance of the user, we will not build it
25 unless we know there is somebody that will be utilizing

1 it. So we don't want to go expend those funds if we are
2 going to be building a line to nowhere at least for two
3 years. So we will make sure that we are tied in with
4 the development community and make sure that there is
5 some project at least that will either be selling to APS
6 or another Arizona utility that's going to use that
7 line, or is going to sell it as an export to California
8 through the Palo Verde hub.

9 CHMN. MAYES: Do you have -- would you be -- so
10 you would be filing for RTP treatment from the
11 Commission of this, and would that trigger anything at
12 FERC in terms of rate incentives?

13 MR. COLE: No. The only thing we will be doing
14 is asking for the approval of the advanced development,
15 if that makes sense.

16 CHMN. MAYES: Okay.

17 MR. COLE: We won't be asking for any further
18 cost recovery, special cost recovery considerations I
19 will call it. We would just be looking for your
20 agreement that it makes sense to advance the
21 construction date of that project. And once we have
22 that, we will proceed with that development. We will
23 construct it assuming somebody is there. And then we
24 will go to FERC for our normal wholesale rate recovery
25 and then through the TCA back at the ACC for retail.

1 CHMN. MAYES: Okay. Got it.

2 MR. LUCAS: Palo Verde-North Gila No. 2, we
3 already have the CEC. We are in the process of
4 developing participant agreements, acquire the land and
5 right-of-way, engineering design, construction,
6 in-service of 2014 based on those other criteria above
7 being met.

8 Palo Verde to Valley and Gila Bend to Valley,
9 the 3A and 3B that was referenced earlier, we will,
10 would be required to perform technical studies, conduct
11 an open season. Then we would move forward with
12 preparing a CEC application and filing. Then once all
13 that's approved, then we need to acquire land,
14 engineering design, and construct the line based on
15 needs existing either of serving a PPA or TSA.

16 MR. COLE: The only thing to note there is that
17 we are, in our development plan through the RTAP, what
18 we are advocating is that we go in and do all those
19 steps through the completion of the CEC in order to, I
20 will call it, help the chicken and egg issue. So we
21 will take some of that development part out of the
22 picture from a timing standpoint and try to help synch
23 up that timing of the transmission and future resources
24 that may show up.

25 MR. LUCAS: And the last project, Delany to

1 Blythe, this project has the potential of influencing
2 additional solar resource. We talked about exporting to
3 California. APS will continue to encourage and support
4 other transmission developers to move this project
5 forward. That includes WAPA that I talked about
6 earlier. It has a potential for merchant transmission
7 developers. And APS currently has not concluded that
8 the ownership participation in this project is
9 appropriate for its customers.

10 And last bullet, additional transmission
11 development within California may be necessary to allow
12 the full exports, as I talked about in that previous
13 slide.

14 COM. NEWMAN: I just have to ask you about this.
15 APS currently has not concluded that an ownership
16 participation in this project is appropriate for its
17 customers. You know, I laid out, you know, sort of a
18 scenario in which that perhaps, you know, we ought to be
19 thinking different as a model. I mean APS could be
20 thinking differently in terms of not only wanting to
21 export nuclear energy but also solar energy, too.

22 Do you think all your needs can go through the
23 Yuma line down there? Or why is it still such a hard
24 one to think that we could have this direct connection?
25 This whole thing with California, going to Blythe, and I

1 know there is a history and lawsuits involved and
2 everything, but if California is going to build a line
3 to Blythe, is that just going to go into WAPA? Wouldn't
4 you want that in order to sort of like help the trade
5 capabilities between both Arizona and California and the
6 need to feed the Phoenix market? Which, by the way,
7 might end up being as big as Los Angeles one day if you
8 believe these ridiculous population projections. But
9 the loads might be similar. So why don't you want a
10 verdant line going between LA and Phoenix and how can
11 APS not conclude that that wouldn't be in the interest
12 of Arizona yet? I mean they have been looking at that
13 for a long time.

14 MR. COLE: Commissioner Newman.

15 COM. NEWMAN: Yes.

16 MR. COLE: The way we looked at this, a couple
17 of points, first of all, the transmission in California
18 and the project that has now been approved by the CPUC
19 and just needs Cal ISO's blessing, I believe, to move
20 forward, they also have a coincident 3- to 4,000
21 megawatts of interconnections in the Blythe area. So
22 theoretically, if those went forward and they make it
23 attractive for them, they can utilize that entire line
24 that's already being built. So us building a line to
25 Blythe from Palo Verde or Delany could end up right back

1 in the same spot of now we need more lines in California
2 to be able to take the resources in Arizona and move
3 them to California load. So that's one point.

4 The other one I wanted to make --

5 COM. NEWMAN: Interesting.

6 MR. COLE: -- is that, from a top RTP
7 perspective, that line may in the future make sense to
8 go get renewable resources for APS customers. But as I
9 mentioned earlier, the proximity to load for the
10 renewable resources, we are blessed here. We are
11 blessed with renewable resources in abundance that are
12 close to our load. And we don't need to go out that far
13 yet. Sometime in the future that may change but right
14 now that would be mainly for export lines because it
15 just, we don't need it for our customers at this point.

16 COM. NEWMAN: And if we raise the renewable
17 energy standard, let's say as a hypothetical, would you
18 need to expand your export market as well as your import
19 market depending how carve-outs were arranged in the new
20 RPS?

21 MR. COLE: Do you mean would we need to go to
22 California to bring resources yet? The answer would be
23 no to that question.

24 COM. NEWMAN: You wouldn't have to?

25 MR. COLE: No.

1 COM. NEWMAN: You would be able to do it with
2 the in-state; in-state people are waiting to link up to
3 your line right now?

4 MR. COLE: Commissioner, there is plenty of
5 resources in Arizona, yes.

6 COM. NEWMAN: That's good to know.

7 CHMN. MAYES: Well, and, you know, I guess it is
8 sort of a, it is difficult to tell, well, whether the
9 resources in Blythe will actually be developed. I mean
10 it is hard to develop anything, it seems, in California
11 these days. So whether there would be a congestion
12 point there it is hard to tell.

13 But given what you said about that, Brian, does
14 that make North Gila 2, you know, a better option for
15 APS than the Devers 2 from the standpoint of an
16 import/export type situation?

17 MR. COLE: Yes. And part of our analysis looked
18 at, I will call it, risks involved with different
19 options and different projects. And the North Gila
20 project has the benefit of reliability help for Yuma
21 where we do have, you know, 400 megawatts worth of
22 customers. So there is a use for it. Even if the
23 export market doesn't continue to expand and we are not
24 able to use it as much for export, there is still a use
25 for APS customers.

1 CHMN. MAYES: But are there similar constraint
2 concerns on the California side of the border down in
3 Yuma or in the Imperial Valley?

4 MR. COLE: Yes, there are.

5 CHMN. MAYES: Okay. But that is being worked on
6 as part of their REDI process, isn't it?

7 MR. COLE: Yes, they are working on a lot of
8 transmission projects as part of their REDI process,
9 that's correct.

10 CHMN. MAYES: Which is another reason that --
11 and, Commissioner Newman, I don't know if you were here
12 when I gave my opening comments. I think it is another
13 reason why our two commissions, and probably New Mexico,
14 need to get together and start to marry together our
15 different renewable transmission task force processes so
16 that we can start to see where some of these possible
17 congestion areas are and understand what each state is
18 actually doing to address them.

19 For those who are interested in getting wind
20 developed in northern Arizona, at first blush, they
21 might be a little bummed out by this map and the maps of
22 other utilities, that the other utilities have provided.

23 MR. COLE: I actually failed to mention
24 something. It might help with where you might be going.

25 CHMN. MAYES: Okay.

1 MR. COLE: One thing I failed to mention is
2 there actually is current transmission that is available
3 both from the Moenkopi area that we talked about as part
4 of this process and up in the Mead area. APS itself has
5 several hundred megawatts of capability from both of
6 those areas. So if a wind project were to be a viable
7 project compared to all of the other options they have,
8 they wouldn't need transmission to be built to get to
9 our load.

10 So just because we are not advocating the
11 transmission be built to wind right now, it is not
12 because we wouldn't necessarily take any. It is just we
13 have transmission available for that now.

14 CHMN. MAYES: Right. So you have ATC coming out
15 due north and due northwest, but you don't have ATC
16 coming out of the northeast, correct?

17 MR. COLE: Correct.

18 CHMN. MAYES: And the reason we didn't get a
19 proposal on that from any utility, it was a pure cost
20 issue?

21 MR. COLE: I will speak to APS. And from APS'
22 standpoint, economically it didn't make sense. It
23 wasn't a value to our customers at this point.

24 CHMN. MAYES: Okay.

25 COM. NEWMAN: Madam Chairman.

1 And I am not sure if TEP is here or not, and it
2 might be a very small project, but I had got word that
3 TEP might have signed up a very small wind farm provider
4 out in Kingman. And either that's going to be announced
5 or they have made a decision. But I am -- but I know
6 that there was a lot of negotiation on that. And sort
7 of it is the, you know, the price stuff. And I think
8 the wind developer had to come down precipitously to
9 make it economic for Tucson, TEP, to sign a contract. I
10 am not privy to the contract; that's what I heard,
11 though.

12 But the wind -- I know when we go to Flag or we
13 as a Commission go to Flagstaff, I mean I am constantly
14 talking about solar, but I make sure that I am talking
15 about wind and solar when I went up north. In fact, I
16 talk about it all over because I would like to see some
17 way to incentivize small wind net metering sort of
18 projects with ranchers as well as big commercial
19 projects. I think that's something we should do.

20 But is that on, is that on your -- it is not on
21 your maps to sort of do it unless the Commission maybe
22 incentivizes, or what do we have to do to make you guys
23 interested in wind?

24 MR. COLE: Commissioner Newman, I can't answer
25 that directly. We of course are committed under our

1 settlement in a different case to look for some wind in
2 Arizona.

3 CHMN. MAYES: Let me ask it to you this way, and
4 this is kind of a process oriented question, but you
5 intend, APS intends to file RTPs as part of an RTAP, a
6 renewable transmission action plan, is that correct?

7 MR. COLE: That's correct.

8 CHMN. MAYES: And when do you envision doing
9 that, filing the RTAP?

10 MR. COLE: Well, our report essentially is our
11 RTAP.

12 CHMN. MAYES: Okay.

13 MR. COLE: What we haven't done is we haven't
14 filed and asked for approval.

15 CHMN. MAYES: Okay. And when do you anticipate
16 doing that?

17 MR. COLE: I don't know the answer to that. As
18 soon as you want.

19 CHMN. MAYES: As soon as we want. Okay. Let me
20 get back to you on that. How about tomorrow? Yes, we
21 are a little busy for the next couple weeks.

22 Well, let me ask you. You will file the RTAP
23 which will have within it your RTPs. And it will, you
24 will have one, two, three, all of them? I mean, my
25 concern is I want the Commissioners to be given, you

1 know, choices. And I don't know if my colleagues are
2 going to be prepared to move forward with all three, if
3 we might want to choose two but we don't like the third
4 one you picked and we would like see some wind done or
5 what. But, so I am trying to understand what we are
6 going to be presented with.

7 MR. COLE: Well, I will just say procedurally I
8 am not exactly sure how this is going to work out.
9 Although, I think we understand that we will need to
10 file and ask for approval as ourselves versus doing, you
11 know, so as part of the BTA because that's all utility
12 kind of lumped together.

13 CHMN. MAYES: And I apologize, I don't want to
14 go too far down this because that would be something we
15 would have to decide at a future date, but I just wanted
16 to get a sense of how the utilities plan to present
17 these options to us.

18 MR. COLE: One thought that we did is, and I can
19 kind of finish up if you like, that we would essentially
20 give you -- we would like agreement with the RTAP and
21 RTPs. What we would do is essentially put each RTP sort
22 of as a separate approval. So if you determined that
23 all of the RTPs was too aggressive, then you could just
24 approve a part of them.

25 CHMN. MAYES: Okay. Okay. Thanks, Brian.

1 MR. COLE: Everybody will be happy to see that.

2 CHMN. MAYES: Are there any questions from the
3 audience?

4 (No response.)

5 CHMN. MAYES: No. Very shy audience today.
6 Okay.

7 COM. NEWMAN: I guess, just, what is the wind
8 question? What is the issue with the wind? We can't
9 get it? Cost? Not purple enough wind? What is
10 the story? Somebody who wants to answer the question.

11 CHMN. MAYES: Mr. Worsley, if you would like to
12 come forward and address this issue, that would be
13 great. And then I am going to take a five-minute break
14 for the court reporter before we go to the next
15 presenter.

16 MR. WORSLEY: It might be better to listen to
17 the SRP and TEP presentation before I react to what we
18 have seen here from APS, but basically, intuitively
19 looking at the first matrix that APS presented showing
20 solar projects at 90 some dollars and the closest wind
21 project in Springerville 115, you are \$25 delta there.
22 And almost everybody knows that you can buy wind because
23 it is very economical today at about \$50 cheaper per
24 megawatt hour than solar.

25 So the analysis that APS has done has a lot of

1 other factors than what would seem logical on the
2 surface. And it has to do with time of day, just
3 talking to Brian and some of the other people here from
4 APS.

5 So we are going to go back and see if we can try
6 and refigure out how the model works and understand how
7 you could be at a \$25 disadvantage when you are at a \$50
8 advantage to start with. And one of the issues appears
9 to be that wind does not come when there is load, when
10 you have capacity, when you need it in Phoenix. At some
11 point I would just like to understand where that data
12 came from, because our met towers and Iberdrola's met
13 towers, where we have wind projects already on the
14 ground in Arizona, in Arizona our wind is an afternoon
15 wind resource. And it is very rare, it is unusual.
16 Midwest, New Mexico, and other areas have wind at night.
17 In Arizona, we tend to, because of our desert and
18 everything, we generate wind in our windy season in the
19 afternoon.

20 And so I am not sure where they got their wind
21 factors and if they are the right ones for the state.
22 But that could swing the analysis dramatically if wind
23 were blowing during peak times in Arizona. I mean it
24 could make a fairly large difference.

25 So I don't -- again, there is a whole bunch of

1 things to learn. And unfortunately this is the first
2 time all of us are looking at this. So I would hope
3 that at some point, looking at it more carefully, that
4 maybe there is some factors that could make northeast
5 Arizona more competitive.

6 CHMN. MAYES: Thank you, Mr. Worsley.

7 And, Brian, if you could respond to that.

8 And let me tell you, and I know I told you
9 before, this is a fight that I have been fighting for
10 quite a long time. I lost a vote probably four or five
11 years ago when I was trying to get some, a project
12 approved, or I thought a project should have been
13 approved in Arizona rather than in New Mexico. And one
14 of the reasons that I was told we couldn't approve that
15 project was there was no ATC out in that area. And I
16 said where are we going to get some ATC out of that
17 area. And one of my biggest frustrations in reading the
18 reports that we have in front of us is we still have no
19 real proposal to get the wind out of your area.

20 So, Brian. And then, you know, every other
21 utility that's going to come up next, you better be
22 prepared to answer that question.

23 MR. COLE: Thank you, Chairman Mayes.

24 And, Bob, no, you point out a great fact. And
25 that is that it is very dependent on location specific

1 wind data. And the wind data that we used in this
2 process was -- let me make sure I read the western wind
3 resource data set which gives hourly profiles.

4 So if for example there were a wind project, and
5 I am going to use Moenkopi because we don't have any
6 transmission coming from the northeast, but if there
7 were a project in Moenkopi and the coincident data for
8 that project were more coincident with our load, then it
9 could change the numbers some. Having said that, the
10 idea here was to look at the transmission options and to
11 determine which ones were the best ones. And in our
12 analysis for our customers, we determined that the ones
13 that happened to be for solar were the better ones. As
14 you go down the road, just as I said, on the what we
15 call WAPA 1, just as I said, on WAPA 1, that could be a
16 potential future project. It is just, it is not in the,
17 I will call it, screen right now for the best projects.

18 MR. WORSLEY: Chairman Mayes, one other thing.
19 We do have, I think, potential to store in our area
20 because of the large salt deposit that we have. And
21 that changes the dynamics, too, because then you can
22 bring wind on exactly when APS, SRP, TEP need the
23 renewable, which is very rare to have solar available
24 on-site in a cased, compressed air storage, or other
25 methodology. So we also think that northeast Arizona

1 can add that, which will also benefit and may not have
2 been in the analysis.

3 COM. NEWMAN: Can I keep -- just for a second.

4 CHMN. MAYES: Sure.

5 COM. NEWMAN: It is northeast Arizona. And I am
6 also aware of a BP project. I am not sure of the status
7 of it. They may have still -- it is still in planning
8 stages, six or seven years of planning stages or
9 something like that. And they have a lot of numbers
10 that they showed to me that would indicate that that
11 would be commercially viable.

12 So I am beginning to wonder whether we had to do
13 this cost/benefit analysis and say, well, it is cheaper
14 to get Wyoming and Montana wind than it is to get
15 northeast wind. And is that the kind of northeast
16 Arizona wind, is that the kind of calculation that we
17 have to make as a society, that solar is actually the
18 better bang and forget about our wind with all these
19 entrepreneurs that want to utilize what we do have, a
20 fairly robust wind? What do we do? How do we make that
21 decision?

22 MR. WORSLEY: My personal opinion is that this
23 went so fast this year. I mean APS, SRP, everybody had
24 deadlines to get this done. And we just didn't have
25 time, everybody didn't have time to circle the wagons.

1 I mean we had some people at some sessions and not at
2 others. So this is a very fast and dynamic situation.

3 I am sure there are developers out there today
4 that have some wonderful ideas that maybe just didn't
5 get in in time so that the utilities could hear what
6 they have in mind. So I don't know how to get BP and
7 Sempra and everybody. Iberdrola has got big plans. I
8 think SRP bought more power from them, more wind.
9 Everybody is running really fast right now.

10 And the utilities, in fairness to them, they had
11 to get this thing done and come forward with their best
12 thinking today. And it appears that southwest Arizona
13 kind of was the winner with the really logical stuff
14 that needed to be done first. So...

15 COM. NEWMAN: Right. Even if it needs to be
16 done first, it doesn't mean it is not part of the
17 renewable energy strategy, that, if there are, if there
18 is a -- I know it may not be as hot as the Harquahala
19 Valley, but that area there does have some major wind
20 projects that would like -- and some are very well
21 heeled but somehow are not making it into our linkages.
22 And it always brings to mind, I say to ourselves, if our
23 standard was 30 percent, maybe it would be in the
24 linkages because you could bring it in pretty quick,
25 wind, from what I understand, quicker than solar.

1 CHMN. MAYES: Okay. Brad, did you -- Mr. Brad
2 Albert.

3 MR. ALBERT: Thank you. Brad Albert with APS.
4 Just to add to what Mr. Worsley said, we would
5 sure be happy, there is a lot of data that's in our
6 report to go to some of the questions that Mr. Worsley
7 raised, but we would sure be happy to sit down and go
8 through the data and the analysis that we did in more
9 detail if it would help any of the stakeholders in the
10 audience.

11 CHMN. MAYES: Okay. That would be great.

12 And then one final question, then we are going
13 to take a break. On page 7 of APS' filing, it mentions
14 that with regard to the, 7 and 8, with regard to the
15 Palo Verde to Liberty and Gila Bend to Liberty choice --
16 is that the Peter K loop? Yes -- the Peter K loop will
17 require studies to identify definitive projects and APS
18 proposes to conduct an open season.

19 Do we know how long that is going to take? How
20 long will the studies take and how long will the open
21 season take, ballpark?

22 MR. LUCAS: One to two years, I would say, first
23 year to get involved with all the studies, be part of
24 the regional planning process for a couple years.

25 CHMN. MAYES: And when you say definitive

1 projects, do you mean renewable energy projects, or is
2 that referencing the line?

3 MR. LUCAS: Just the 3A and 3B lines themselves.

4 CHMN. MAYES: The lines themselves. Okay.

5 Okay. Thank you.

6 Let's take a really quick five-minute break and
7 come back for the next presentation.

8 (A recess ensued from 2:50 p.m. to 3:01 p.m.)

9 CHMN. MAYES: Let's gather and go back on the
10 record. We have Rob Kondziolka from the Salt River
11 Project up next to talk about their top three renewable
12 energy transmission lines.

13 And, Rob, why don't you go ahead and take it
14 from here. Everybody take a seat.

15 MR. KONDZIOLKA: I will move on with the
16 pleasantries. Chairman Mayes, Commissioner Newman, as
17 you know, my name is Robert Kondziolka. I am from Salt
18 River Project to address SRP's top three renewable
19 transmission projects. And we do appreciate being
20 invited to participate and being included in this ACC
21 process.

22 While people kind of filter back in, I will just
23 relate that there is great interest across the western
24 connection on what is happening here in Arizona with the
25 RTPs. I have had opportunities to give regular updates

1 to the WECC, Transmission Expansion Planning Policy
2 Committee, or TEPPC, on a regular basis. And I have to
3 admit, when the meeting last week was notified and I
4 mentioned that this would be occurring on Monday and
5 that each of the utilities would be addressing what
6 their top three RTPs are, that was at the point in time
7 when everybody stopped doing what they were doing, they
8 ignored the rest of my slides, but they wanted to see
9 what everybody had nominated as their top three RTPs.
10 And I think it really is going to tend to move things
11 forward and create that type of interest, which will
12 provide a lot of the impetus which is needed.

13 And so as I go through this, I will comment that
14 I will try to, in the interest of time, not to repeat
15 what was done and provided by the previous presenters.
16 So I won't cover all the items that Greg and Amanda
17 provided as to ARRTIS, that Tom provided under finance
18 and the comments from APS by John and Brian.

19 You will see as you go through the material
20 that, yes, even though we developed the reports and we
21 developed our presentations separately, that there was
22 some coordination and there is a lot of commonality.
23 But I do believe that commonality really is a reflection
24 of these years and years of integrated planning amongst
25 all of us and trying to move things forward. And as we

1 talk about joint participation projects, there has been
2 really an incredible amount of communication and
3 development agreements between a lot of the parties here
4 in the room.

5 So as part of the overview, I will review the
6 SRP criteria that we used in identifying the top three
7 renewable transmission projects for RTPs. As I get to
8 the end, I will note that we really struggled on coming
9 up with the just top three. We had many more and we
10 debated. And in our report, we included what we
11 considered our future RTPs. And those are projects that
12 were close, but, you know, you forced us into
13 identifying three. So we had those that are very near
14 that cusp but for one reason or another through our
15 criterias became our second tier versus our absolute top
16 three.

17 And then I also cover three policy issues which
18 we believe is imperative to be addressed by the Arizona
19 Corporation Commission in being fruitful in developing
20 these RTPs.

21 So as I mentioned before, I am not going to
22 repeat everything, but we did work and our report really
23 is substantiated upon the ACC workshops, the two that
24 were held, the one in April and the one in June, the
25 work of the SWAT RTTF, the SWAT ARRTIS and the SWAT

1 finance and subcommittee.

2 SRP's top ten criteria for RTPs -- that just
3 sounded like it is a late night show for some reason.

4 COM. NEWMAN: Letterman.

5 MR. KONDZIOLKA: However, it is not quite the
6 same way that David Letterman would present this.

7 You will see here that there ends up being quite
8 a bit of commonality with the criteria that was
9 presented by APS. We may have applied it a little bit
10 differently. But when you look at what our key items
11 are, it will tend to help drive why the RTPs that we
12 selected tend to show up on the map, the first being the
13 proximity to renewable resources. I think you know that
14 we would like to see the bulk transmission as close as
15 possible to these resource areas and not have to build
16 long feeder or collector type lines.

17 Another one that may be slightly different is
18 meeting SRP's long-term needs. And SRP, as we look at
19 where we are going to invest and participate in, we
20 certainly want to have a project that we believe works
21 as we start through the planning process, but we know
22 that five years away when it first gets built, 10 years
23 out, 20 and 30 years out, it still makes sense from a
24 high level perspective. We don't tend to make decisions
25 saying we have one type of agreement that makes sense,

1 we are going to move forward. We tend to take a look at
2 it, it tends to make sense to meet our needs when we
3 look at it under a lot of scenarios.

4 The ability to provide the deliverability of the
5 renewable resources and multiple purposes, APS has
6 touched on that. I will touch some more through the
7 presentation.

8 Number 4 really is also a very key one. And
9 Brian Cole touched on this quite a bit. And that's
10 accessing multiple resources, resource dense areas or
11 energy hubs. I really believe, especially if we look at
12 renewables in Arizona that might be used for more than
13 just meeting load in Arizona, that it is going to be
14 able to need to access an energy hub. And those
15 projects that don't have transmission to access an
16 energy hub probably won't have a good chance of moving
17 forward.

18 We heard this morning quite a bit of discussion
19 on cost and schedule. And we will touch on why we think
20 that's important.

21 The distance from SRP service territory, again
22 that was touched on, lowering the losses. But also,
23 when we take a look at the total installed costs getting
24 these projects built, we do believe there are some
25 significant renewable resources within 100 miles of the

1 SRP service territory. And we think it makes sense
2 that, if at all possible, being able to access those
3 first is going to make more sense than accessing those
4 last.

5 Then integrating into the local transmission
6 system, that's something sometimes it is overlooked but
7 we have looked at that as part of our evaluation.

8 I thought APS did a good job of talking about
9 the ability to align partnerships. And we also agree
10 that is one way to manage our costs and also to manage
11 the risk associated with doing this work. And that's
12 not always the exact same things so that's an important
13 element.

14 Permitting, I think we are all aware of the
15 issues of permitting so we have that included in our
16 overall evaluation.

17 And then, lastly, enhancing system reliability,
18 we fully agree with APS that's a critical one, but for
19 SRP those projects that enhance reliability are not
20 always the same ones as, I mean, as APS'. And when we
21 talk about our top three, we will show which ones tend
22 to align and which ones tend to align elsewhere.

23 So in summary of the top 10, instead of going on
24 more in the aggregate, the RTP should demonstrate and
25 conclude that renewable resources will be given the

1 opportunity to develop. So we talk about definition and
2 criteria, that's probably the critical element for us.

3 And in listing the top three, these are the ones
4 that we noted in the report, the first one being Pinal
5 West to Pinal Central, the second being Pinal Central to
6 Tortolita, and the third being Delany to Palo Verde.

7 The first two, you will note that, when TEP
8 gives their report, those are common with TEP, and
9 Delany to Palo Verde is common to APS. The 2014
10 reference is the current projected in-service date, not
11 what it is going to be.

12 Here is a map that you saw that was in the APS
13 presentation showing the renewable transmission
14 projects. I will emphasize that SRP is in this map
15 shown in blue. So as you look from left to right, the
16 first project you see is Delany for Palo Verde and the
17 second project is Pinal West to Pinal Central. And then
18 the third project is Pinal Central down to Tortolita.
19 You will note that they tend to be in the more central
20 Arizona area. I think there is probably about 10 years
21 worth of reasons for some of that.

22 I do think, Chairman Mayes, you know, one of the
23 questions that has been brought up is, you know, these
24 look a little internal. And I do agree with you that,
25 when you look at it that way, they do tend to be

1 perceived as internal. On the other hand, these are in
2 some of the best renewable resource areas. And we also
3 think that these end up being core projects to expand on
4 any other type of projects that really are needed in
5 Arizona. And when I finish up with the future projects,
6 I will do an overlay and you will be able to see how
7 things tie together.

8 So the first project here is Pinal West-Pinal
9 Central. Yes, it was certificated. It is a relatively
10 short line. And I think you will see, common theme, it
11 is only about 50 miles. There are about 3500 megawatts
12 of renewable interconnection requests right now, and
13 they are all solar. And no one should really take away
14 that by building this project you can now build 3500
15 megawatts of solar. It does provide the opportunity for
16 a portion of that 3500 megawatts to be developed. It
17 doesn't -- but the project will allow all that to be
18 built and delivered.

19 The project is strategic in that it allows
20 resource development opportunities at Palo Verde, which
21 we have heard quite a bit about, and Jojoba and Pinal
22 Central area.

23 I would note that for those who are tracking all
24 this, there were comments this morning about the BLM and
25 their permitting process. Right now for the BLM, their

1 top priority in the state for renewable resource
2 development is a project that's adjacent to the Jojoba
3 switchyard. So that's one they are putting high
4 priority and trying to expedite. So this is a project
5 that would allow that one to get built and deliver. And
6 without this project, that has lower opportunity of
7 delivering it to load.

8 We heard a lot about reliability. This one
9 increases the transfer capability of the Palo Verde east
10 on the order of 2,000 megawatts. So it is a critical
11 expansion of that overall Palo Verde east path. It does
12 increase the load serving capability of the metro
13 Phoenix area and allows for greater import as well. So
14 it is serving the purpose of allowing the increase in
15 load serving and import at the same time so that we rely
16 less on local and more on imports.

17 Having access to the Palo Verde hub here is
18 really quite a critical element for this. And we will
19 see that when we look at future projects as well.

20 And then, lastly, it is a joint participation
21 project. This one here, SRP is the project manager for
22 six entities. And you will note on the other projects
23 that they are all joint participation projects, that SRP
24 is not the project manager. This one SRP is.

25 The second project is Pinal Central down to

1 Tortolita. This project is, or does not have a CEC. It
2 is under development. TEP is close to making an
3 application for a CEC. It is another one that we would
4 consider relatively short, on the order of 30 miles. It
5 is addressing development of renewable opportunities
6 between Phoenix and Tucson. For those who aren't
7 familiar with it, that's Pinal County. And it is
8 primarily solar with some biomass.

9 Currently there is about 500 megawatts of
10 interconnection requests and they are all solar. As we
11 look at the area, we do think that the area around
12 Saguaro, Tortolita, and the area to the east has strong
13 renewable energy development potential. We have been
14 looking at projects in that area.

15 When we talk about reliability, APS did a nice
16 job of showing that the transmission project expansion
17 on the west side moved right into their load serving
18 territory. And just as most of you know, our major
19 growth area is the southeast valley area. So a project
20 like this comes right up into the edge of our southeast
21 Valley area. So now we start to get injection which
22 balances out the Phoenix metro area.

23 If you recall the map you saw by APS, you have
24 the strong source for import from the Pinnacle Peak area
25 and then Westwing and kind of go around the horn. You

1 had the Rudd and then the possibility of a potential
2 expansion of Liberty and Kyrene. And SRP has permitted
3 a station called Abel, which is in the southeast valley.
4 This is one of those projects which will help fit into
5 that. And then we will start having more transmission
6 coming equally into the Phoenix metro area as opposed to
7 having as many as we have coming a lot from the west
8 side.

9 And as I mentioned, SRP is a participant and we
10 plan to move forward with TEP in supporting our
11 application.

12 I guess one last thing here, and this goes back
13 to a lot of the work that has been done by others, not
14 by this group here, and that is when the Western
15 Governors Association has put together their maps and
16 they are showing the renewable resource potential, this
17 is not one that got a lot of high rankings. It is
18 because it doesn't have lots and lots of resources. We
19 do believe that there are good moderate resources in
20 this area. And because of the relative location to our
21 service territory, it makes it a good fit.

22 And then lastly is the Delany to Palo Verde
23 project. We have the very same reasons that APS has
24 stated for this project. So I will just reemphasize
25 that APS is the project manager and SRP is a project

1 participant in this particular project.

2 CHMN. MAYES: Rob.

3 MR. KONDZIOLKA: Yes.

4 CHMN. MAYES: You note that there are 3300
5 megawatts of renewable interconnection requests at
6 Delany. How much of that, between TEP and APS' REST
7 requirements, and SRP's lesser renewable energy
8 appetite, how much of that would -- how many megawatts
9 would be required under all of your REST, slash,
10 renewable requirements? And then how much, how many
11 megawatts can currently, do you estimate concurrently
12 can be used by California utilities through
13 displacement?

14 MR. KONDZIOLKA: Chairman Mayes, excellent but
15 tough question. As SRP at least looks at its renewable
16 resources and looks at solar, specifically large scale
17 utility, we are looking at that Pinal Central-Tortolita
18 area, we are looking at the Palo Verde-Jojoba area, and
19 then this would be a third area.

20 Obviously if I include APS and TEP, then I am
21 speculating because I don't know. But I think it would
22 be safe in saying that the development of this project
23 would not be feeding just load in Arizona, at least for
24 that type of potential. And if -- to have a similar
25 amount of this solar potential developed, it would need

1 to be exported, and specifically most likely to
2 California. And so the question is would this project
3 allow that amount to be used in state and exported. And
4 that's a good question.

5 Something that could be moved on the existing
6 transmission system, I do recall the discussion brought
7 to you before. Prem asked me during the break a little
8 bit about that. And what was challenging is I think it
9 would be clear to say that California will continue to
10 move their share and allocation of Palo Verde
11 uninterrupted. Might there be a change in the gas-fired
12 generation that is currently in state and moved to
13 California? And the answer is yes. And would the
14 driver be what key element? As I was saying, most
15 people in the room right now, gas is relatively low and
16 projected to stay somewhat low. So price will stay
17 fairly competitive. And probably what would drive more
18 than anything else is just the California renewable
19 energy requirements. And as they look at opportunities,
20 you know, they would like to build in state, but I think
21 they have come to the conclusion they can't develop all
22 the state and they are looking for import opportunities
23 that match well.

24 I think we would have to do a lot of homework to
25 maybe figure out that question, but I think it is clear

1 to say we know that this type of quantity won't be
2 developed unless some of that, a significant amount of
3 that is exported.

4 CHMN. MAYES: Right. It seems to me, while it
5 is a hard question, it is a somewhat discernable answer.
6 And I would hope that when APS, and if you would as
7 well, work on this issue and give the Commission an
8 estimate of the total amount of megawatts of these 3300
9 that would be needed to meet Arizona RPS requirements,
10 including yours, and then an estimated maximum amount of
11 megawatt renewable energy megawatts that could be
12 consumed by California through either existing ATC on
13 Palo Verde-Devers 1 or through displacement of gas, and
14 I understand that piece of it would be a little bit
15 difficult to discern, but you -- it seems to me that
16 some estimates could be made at current gas prices.

17 MR. KONDZIOLKA: Yes, estimates could be
18 developed. And just for clarification, Chairman Mayes,
19 are you looking at five years out, in other words the
20 2014 time frame, or ten years out?

21 CHMN. MAYES: Yes, I guess within the time frame
22 of this proposed project --

23 MR. KONDZIOLKA: Okay.

24 CHMN. MAYES: -- or both, if you want to do
25 both. But that might make the homework assignment

1 harder, so maybe just 2014, 2015 time frame.

2 MR. KONDZIOLKA: I think we will select the
3 2014, 2015 time frame.

4 CHMN. MAYES: Yes.

5 MR. WRAY: On the record, off the record, what
6 is the assumption in concocting this forecast? What is
7 your assumption on carbon tax, so we can get a fair
8 measure on how much generation is being displaced?

9 CHMN. MAYES: Well, you could do it both ways.

10 MR. WRAY: Do you want to assume a carbon tax
11 enacted by Congress?

12 CHMN. MAYES: Cap and trade at 2015, yes.

13 MR. WRAY: Okay. Thank you.

14 CHMN. MAYES: Then if the utilities want to do
15 it without that assumption, they can do that, too.
16 Okay.

17 MR. CHARTERS: Jim Charters.

18 CHMN. MAYES: Can you say your name again for
19 the record.

20 MR. CHARTERS: Jim Charters. Does -- that would
21 assume that all of the RPS would be coming from here?
22 There is a lot of other little things all over the
23 place. While that makes it more complex, they are still
24 out there.

25 CHMN. MAYES: No, I understand that. And I am

1 just trying to get an understanding of -- yes, I mean I
2 would assume that all the RPS would come out of that
3 area. Clearly it is not going to. I am just trying to
4 get a sense of the maximum amount of megawatts that
5 Arizona utilities could consume if we were to develop
6 this line in that area. So, you know, obviously it is
7 not going to be -- it is going to be a lower amount than
8 that.

9 Yes, Mr. Bahl.

10 MR. BAHL: Madam Chair, Southern Cal Edison
11 withdrew its application on Palo Verde/Devers 2. At
12 that time their mandate was still 25 percent by 2020.
13 It has increased to 33 percent. I think the situation
14 now is different. And considering today's environment,
15 I wouldn't be surprised if Southern California Edison
16 would not be rethinking its decision to withdraw the
17 application. They may come back. They may also be
18 looking at the WAPA 1 line, how far that goes
19 successfully. If it does, then they can get back upon
20 the line to draw the renewable resources from Arizona.
21 If it doesn't, I wouldn't be surprised if they come back
22 to us for preplanning for that line, because they
23 already have been approved for the plans and this would
24 be connecting to Blythe. That's my personal thought.

25 CHMN. MAYES: Yes. And I would agree with that.

1 That would be very interesting to see if that happens.

2 Sorry for the interruption, Mr. Kondziolka.

3 MR. KONDZIOLKA: Chairman Mayes, quite okay.

4 So, in summary, let me just go back to the map
5 that we saw before. When we look at the top three RTPs
6 for SRP -- that doesn't sound quite right, does it --
7 but you see that we are just to the west of Palo Verde,
8 and then we are focusing on coming east out of Palo
9 Verde and then we are coming south into our service
10 territory. And, again, it does tend to focus in the
11 central Arizona area and Maricopa County and Pinal
12 County. The balance with that is you have some of the
13 finest solar resources not only in the state but in the
14 western U.S. and maybe even nationwide and worldwide in
15 that area.

16 COM. NEWMAN: Madam Chairman.

17 CHMN. MAYES: Yes, Commissioner Newman.

18 COM. NEWMAN: I have sort of a question and sort
19 of counterpoint to it. And it might be very, the most
20 logical place to put it, and I am not questioning that,
21 but it also seems to me that it helps you fortify for
22 reliability purposes, of course, that community that you
23 call Pinal County now, which is about to become one of
24 the largest regions in the United States, if you believe
25 their population projections. So one critique, or not

1 critique, it is just this feeling, I guess, also on your
2 suggestions, the very prudent, very safe short
3 distances, that could really just supply what you think
4 is your future load but you are saying are renewable
5 energy zone lines. Do you see what I mean?

6 MR. KONDZIOLKA: Commissioner Newman, I do. And
7 I think what I am able to conclude with the future
8 projects, it will have clarity that one of the things
9 that we had advocated in the two workshops was, you
10 know, obviously SRP is looking to make investments in
11 transmission to meet our needs, but what we are very
12 open to participating with everybody else is to have a
13 multipurpose transmission line so that that line can
14 serve a lot of different uses. Other uses include
15 export and throughput. And you will see that when we
16 show at least what we believe are the reasonable next
17 steps that these will be core projects that will be
18 instrumental to making those other projects work
19 properly.

20 COM. NEWMAN: Can I talk about an elephant in
21 the room? Everything is focused through the Palo Verde
22 hub, even with your plan and, tangentially, with
23 UniSource's plan. Is there any -- is the elephant in
24 the room that's not being talked about, is that all
25 these will be linked up within expanded nuclear power

1 capabilities at Palo Verde?

2 MR. KONDZIOLKA: I guess the assumption is --
3 Commissioner Newman, did you say expanded nuclear at
4 Palo Verde?

5 COM. NEWMAN: Yes.

6 MR. KONDZIOLKA: I guess this is not based upon
7 any expanded nuclear at Palo Verde.

8 COM. NEWMAN: This is only about renewable
9 energy?

10 MR. KONDZIOLKA: That's correct.

11 COM. NEWMAN: Just happens to have Palo Verde at
12 the hub?

13 MR. KONDZIOLKA: Well, I guess probably the
14 question, Commissioner Newman, to follow up on, I
15 mentioned before I believe it is important to be able to
16 access an energy hub. There aren't too many to speak
17 of. You know, we have --

18 COM. NEWMAN: No. That is the last nuclear
19 power plant built in the United States. That's what
20 caused the hub.

21 MR. KONDZIOLKA: It certainly is a major reason.
22 Certainly there are other elements that make Palo Verde
23 a hub. But the area in southern Nevada, which we call
24 Mead, is also a hub.

25 COM. NEWMAN: Yeah.

1 MR. KONDZIOLKA: Four Corners is a minor hub.
2 But Palo Verde is one of two major hubs in the entire
3 western interconnection. What they like to call COB,
4 which is the California/Oregon border, and Palo Verde
5 are the two largest trading hubs. And so it is
6 important to be able to access Palo Verde, because when
7 a resource planner doesn't get a firm alignment on a
8 project and they say we will meet our needs through
9 market purchases, it implies for many that they will be
10 assuming that access to Palo Verde and that there will
11 be opportunities to acquire those resources. And so
12 Palo Verde continues to expand.

13 The other reason, and we don't have a map to
14 show all the corridors in Arizona, but I think most
15 people here recognize there is very limited corridor
16 potentials in Arizona, very, very limited. And if you
17 just look at Palo Verde south to the border, that is all
18 restricted land. That's either the Tohona O'Odham, the
19 national monuments or the Department of Defense land.
20 And so you won't see any transmission really south of
21 that Gila Bend substation because it is all off limits
22 right now. That may change over time but right now
23 there is not.

24 When you go north out of the state you get the
25 same thing. You have a lot of wilderness areas. You

1 have a lot of Forest Service areas. And it was touched
2 on, our access to northeast Arizona, a little bit, but
3 we just don't have many opportunities. And so there is
4 a natural convergence to an energy hub. And because
5 there aren't any opportunities to develop energy hubs,
6 this will be a primarily long-term focus, whether it is
7 a utility or renewable resource developer.

8 COM. NEWMAN: I didn't mean to be cynical. It
9 was just a --

10 MR. KONDZIOLKA: Sure.

11 COM. NEWMAN: And I am sure it could be argued
12 another way to an engineer. It gives you, it gives one
13 a double reason for investing if one were to up the
14 investment in Palo Verde's nuclear capability.

15 MR. KONDZIOLKA: Commissioner Newman, I can see
16 that. And then, and I would say that we can continue to
17 see importance on Palo Verde so we will continue to look
18 at opportunities at Palo Verde, but we also want to have
19 focus on other parts of our service area. And so you
20 will notice this focus here south and to the east of our
21 service territory to balance out all that transmission
22 coming west and east out of the hub.

23 COM. NEWMAN: Well, to be honest with you, half
24 of me is very happy that renewable energy lines are sort
25 of spreading throughout the state through the various

1 service territories in a way that I like them to go. It
2 is just when I thought about what our renewable energy
3 zones were, I mean they are all over the state, there is
4 no doubt about it, but I saw it, and this is not -- I
5 saw it as more of western activity close to that Arizona
6 border in terms of where I see the rich solar power. So
7 when I see our major utilities lining up and saying they
8 want to, they want to build them across the main thrust
9 of their service territories, it brings a lot of
10 questions to mind.

11 MR. KONDZIOLKA: Commissioner, fair question. I
12 think when we get to my last map, which shows the
13 future, I think it becomes a little more evident that we
14 are more far reaching.

15 And then we said when we initially had to
16 identify our top three RTPs, time and schedule and
17 permitting was one. And you notice that these all have
18 great certainty to them. I mean it is really just a
19 matter of building them. And the other ones are going
20 to take some additional steps. And that's how I think
21 we take this next step in tying things together.

22 So I will proceed.

23 CHMN. MAYES: Yes, let's keep going. We are
24 running short on time.

25 MR. KONDZIOLKA: I mentioned before that SRP did

1 have, like I believe the other utilities did, a real
2 challenge in coming up with just three. Because we did
3 have it so close, we identified four future renewable
4 transmission projects, the first one being the Palo
5 Verde-North Gila 2. APS has already gone through that
6 so I won't spend more time on that, but we did list the
7 key criteria and elements associated with that
8 selection.

9 I would point out here that one additional item
10 was the access to geothermal resources in California. I
11 know that has been discussed quite a bit. But SRP would
12 continue to explore renewable, geothermal energy in
13 Arizona, but some of those in California have been very
14 good for us, and being able to move those from
15 California to Arizona on our own transmission would be
16 of interest.

17 CHMN. MAYES: Mr. Kondziolka, if the Commission
18 were to approve an RTP for APS for North Gila 2, what
19 would SRP's posture be with regard to involvement in
20 that project?

21 MR. KONDZIOLKA: As APS stated, right now we
22 have 20 percent involvement with the project. And
23 that's matching up to a line with our needs on resources
24 we see in the Yuma and California area.

25 CHMN. MAYES: Right. Would you be willing to

1 participate in the 2014 time frame?

2 MR. KONDZIOLKA: As of right now, we are showing
3 in our 10-year plans as 2014.

4 CHMN. MAYES: Right now?

5 MR. KONDZIOLKA: Correct. That's what we plan
6 to show. We just --

7 CHMN. MAYES: And APS was showing it in a longer
8 time frame, or 2012? So they are moving it up to 2012?

9 MR. KONDZIOLKA: They would be proposing to move
10 to 2012. So if they proposed for January, let's say our
11 10-year filing is 2012, we would need to move up to APS.

12 CHMN. MAYES: They are shaking their heads.

13 MR. KONDZIOLKA: So --

14 CHMN. MAYES: John, can you just quickly --

15 MR. LUCAS: We have it in our plans from last
16 year's filing of 2014. And we intend to stay at 2014 at
17 this time. We could move it out further but our intent
18 was to keep it at 2014.

19 CHMN. MAYES: And you guys have it already at
20 2014?

21 MR. KONDZIOLKA: Right. We were adjusting to
22 2014. And I would concur.

23 CHMN. MAYES: And you weren't planning on moving
24 it out like they were?

25 MR. KONDZIOLKA: If APS were to move it, let's

1 say, to a later date of 2014, we would be supportive of
2 APS.

3 Commissioner Mayes, we are in the same situation
4 that we have talked about, and it is just tough right
5 now, as we have seen our decrease in sales and
6 expansion. So we will probably support APS on their
7 proposed date.

8 CHMN. MAYES: Which is already your proposed
9 date.

10 MR. KONDZIOLKA: Yes. It was, previously it had
11 been -- at one time we had 2012 and it got delayed to
12 2014. APS had addressed a possibility of delaying it
13 later. But right now they are not contemplating to do
14 that for the 10-year filing. We will match the APS
15 proposed date with our filing.

16 COM. NEWMAN: So your future is not as quite as
17 theirs -- it is not the same future as their future?

18 MR. KONDZIOLKA: Commissioner Newman, I must be
19 saying this wrong. We plan to match APS' proposed
20 in-service date for this project.

21 COM. NEWMAN: Which is really the present if you
22 are defining it the same way as APS is. Anyway, you see
23 what I am --

24 CHMN. MAYES: One other question.

25 COM. NEWMAN: On the drawing board.

1 CHMN. MAYES: Is SRP proposing to accelerate any
2 of its projects or any projects in, any renewable energy
3 transmission projects at all?

4 MR. KONDZIOLKA: Chairman Mayes, if not for
5 maybe going through this process, we would be delaying
6 projects further than we are showing. So on all the
7 projects that we show, we otherwise would be delaying
8 them further out in time than we are now.

9 CHMN. MAYES: Okay. For each one can you cite
10 how many years you are not delaying them by?

11 MR. KONDZIOLKA: Going back into the top three,
12 if we start with Pinal West-Pinal Central, we would have
13 to defer that to at least 2015. On Pinal
14 Central-Tortolita, we would have delayed that to at
15 least 2015 and encouraged Tucson so we could delay that
16 to 2015. And then on Delany to Palo Verde, we probably
17 would have requested APS to delay that to 2016.

18 CHMN. MAYES: Palo Verde-North Gila 2 would have
19 been --

20 MR. KONDZIOLKA: 2016.

21 CHMN. MAYES: Okay. Okay. Go ahead.

22 MR. KONDZIOLKA: The second of these future
23 projects is what we have talked about here quite a bit.
24 And that's Valley-Coronado. When we look at the map,
25 those of you who are not familiar, Coronado generating

1 station is near St. Johns, Arizona, which is in
2 northeast Arizona. And we just call this Valley to
3 Coronado. But it really doesn't need to be specifically
4 to that area, to that location. It could be really
5 anywhere in this northeast Arizona area. And we did
6 acquire and make acquisition of the Dry Lake Phase I
7 wind project. And we have development opportunities
8 with that same development for a Phase II.

9 We have had conversations with Bob Worsley on
10 this area. And we tend to agree that it has a lot of
11 wind and solar opportunity. And this is another one of
12 those areas where it may not be the best wind, it may
13 not be the highest rated solar, but it has a lot of
14 combinations of good other factors that, when placed
15 together, tend to make that an area that rises to the
16 top. And it is a longer line.

17 There was discussion on the current transmission
18 system for that area. So it would allow that to
19 reinforce the existing system. We have in conjunction
20 with a lot of others identified the needs for this line
21 with the Department of Energy dating back to November of
22 2005. But currently there is no specific project
23 development or project sponsor of a project. But we do
24 think, and we listed this as this opportunity, this
25 unique area of Arizona, to develop renewable resources.

1 CHMN. MAYES: And that's the purple line that's
2 drawn between Phoenix and St. Johns, Rob?

3 MR. KONDZIOLKA: Chairman Mayes, that's correct.
4 And for everybody else, if you don't have the
5 copy, we will get to that in two slides.

6 The two other projects that we listed were:

7 The SunZia Southwest Transmission project. This
8 is not a relatively long line; we consider it a very
9 long line at 460 miles. It is being routed through
10 significant solar, wind and geothermal opportunities in
11 southeastern Arizona, southwestern New Mexico and
12 central New Mexico. It will be the really first major
13 transfer project from New Mexico to Arizona. And it is
14 a joint participation project. And Southwestern Power
15 Group is the project manager and SRP is a project
16 participant. Right now they are showing the ability to
17 bring the project in service based upon permitting in
18 the 2013, 2014 time frame. We continue to work with
19 that and believe we will be participating.

20 Then the fourth project is Palo Verde-Blythe,
21 which, whatever we are going to call it, we know what we
22 are talking about. Again, it is a relatively long line.
23 But it does provide the opportunity to connect with
24 California. We do know it goes into a significant solar
25 rich area, western Arizona. And even though we have

1 talked a lot about it and who might do this project,
2 there is no specific project developer proponent at this
3 time. We also are working with Southwestern on their
4 study with Western. And we as well support the
5 statement of interest submittal to Western to try and
6 get this going forward.

7 I do think there are issues with Western as to
8 how much funding they may provide. And I do think that,
9 even though that it is a loan, that at the levels that
10 they are talking about, it may not enhance the ability
11 to move this forward faster and that, if western was
12 willing to look at a different cost structure for the
13 loan, it could make a difference in advancing the
14 project.

15 CHMN. MAYES: Can you elaborate on that, Rob.

16 MR. KONDZIOLKA: Yes. Western has communicated
17 that, as was stated previously, they -- these are loans.
18 They were not looking at being a majority owner so they
19 are looking at more of a minority investment interest,
20 more in the 10, 15, 20 percent interest range. You
21 know, it is my opinion, and not necessarily shared by
22 everybody else, that at that level they may not get that
23 project moving faster or moving forward in time any
24 sooner than it otherwise would.

25 But if Western were willing to fund a more

1 significant portion, let's say the 40 to 50 percent
2 range, and have terms of payback on the loans that maybe
3 even include some negative amortization, it may provide
4 the ability for that project to move forward than it
5 otherwise would.

6 CHMN. MAYES: Okay.

7 MR. KONDZIOLKA: I think, Commissioner Newman,
8 you had a question.

9 COM. NEWMAN: Along on the same subject, I was
10 talking about Western outside. And maybe we should name
11 it the Obama line, but get some press anyway.

12 I was thinking is there ways through political
13 work of our congressional delegation or, you know, to
14 actually help Western and help Arizona, help the
15 southwest develop what could be a very important line,
16 renewable energy line serving Nevada, Arizona,
17 California and, you know, hopefully New Mexico as well,
18 depending, you know, how things flow.

19 What is the story? I mean, should the
20 Commission -- I know we are lowly regulators, but we
21 might have some influence in talking to you, and your
22 companies all have certainly influence over many things
23 that happen in Washington. So, you know, should we be
24 talking about some sort of political help to help some
25 of these renewable energy lines that we would identify

1 through this process, but most specifically the Western
2 because of its federal nexus?

3 MR. KONDZIOLKA: Commissioner Newman, I can't
4 help believe that a positive dialogue between this
5 Commission and Western would be helpful.

6 COM. NEWMAN: So it would be a good idea perhaps
7 to have a joint planning meeting with Western and our
8 PUCs and maybe other PUCs?

9 MR. KONDZIOLKA: The logistics start to become
10 complicated, but, yes, that would be good.

11 I mean I do believe Western, since you look at
12 the Western footprint, they cover a lot of area and
13 there is a lot of encouragement by other areas for them
14 to act in their areas, and I believe Western is trying
15 to balance where they make these investments. And in
16 balancing both regionality and also what provides the
17 best opportunities, having communications and clear
18 dialogue on what is going to provide those best
19 opportunities will be helpful.

20 COM. NEWMAN: And the political component, no
21 comment on, or that actually is also helpful as well?

22 MR. KONDZIOLKA: Yes.

23 This map summarizes the four future projects
24 that we identified. This overlays on the existing RTPs
25 by each utility. Here you can see it tends to take that

1 next step to be somewhat more expansive. And you can
2 see how the future projects start to tie into those core
3 projects. And this then reaches to almost all parts of
4 the states when you take a look at this step.

5 I do know there was questions earlier. One, the
6 Mead/Perkins line, which is upgraded this year from the
7 Westwing up to southern Nevada, increase of 625
8 megawatts, so that's going to the northwest part of the
9 state. And then there are upgrades planned for the
10 Navaho Southern system which goes due north out of the
11 Phoenix area. And so there is a lot of activity out
12 here.

13 But this then makes our second tier. So we grow
14 this core area and we expand out. And that's sort of a
15 philosophy we saw as a natural evolution.

16 Chairman Mayes, I know we are short on time. I
17 will be brief on these policy issues.

18 Definition of the RTPs. We agree with the
19 finance subcommittee and the proposal with RTAP.
20 Broadly defined. We do agree that having a specific
21 capacity or energy-hours target is not in the best
22 interest. I think that there becomes challenges when
23 you talk about the measurement of that when you talk
24 about compliance and financing aspects of it. And then
25 also a long-term use.

1 So we do think that having something in that's
2 more than just a promise and a wish is a good thing.
3 And I will touch on that on our next policy issue. I do
4 think that if we do start putting restrictions, then we
5 would be like we have seen in other states that have
6 tried to develop this. It tends to provide uncertainty
7 as how it can be used. And I think that's what we want
8 to avoid.

9 And the need for collaboration, I guess we would
10 have advocated that we don't believe it is just the
11 responsibility of the utilities to figure the
12 transmission solutions and it is not the sole
13 responsibility for us to figure out all of the
14 responsibility for rules that the ACC has, and that we
15 need to have all the other stakeholders really involved.
16 And I would praise the southwest, I think, for having
17 the best involvement in the west. And I think it needs
18 to continue. But I do think we need to have stronger
19 attendance and more input from the resource developers.
20 They are still not as much as we used to see. And I
21 think that's an area that we need to close the loop on.
22 We have heard it stated a lot of different ways already.
23 By doing that we will probably remove a lot of
24 contentious issues that tend not to be resolved.

25 I think the Commission certainly can take

1 encouragement and ask for a demonstration on steps of
2 how we are going to achieve these RTPs. And that
3 probably goes to the middle point of we do believe that
4 having intermediate steps where they might be PPAs or
5 long-term transmission service agreements would be able
6 to help define that there is, there is real interest in
7 here as opposed to just continuing to have it develop on
8 the transmission side.

9 And then the third of the policy issues, which
10 was touched on before as well, we are very supportive of
11 looking at the CECs having longer terms, terms of 10 to
12 20 years, you know, for the same reasons. We think it
13 would reduce a lot of the uncertainty and it would
14 certainly guide the resource developers as to removing
15 that part of the picture and knowing they will have
16 access to move energy either to in-state or export.

17 And then the broader definition of need, I do
18 think, once again, is important in that, if we were to
19 make an application for a CEC for a line permit, that we
20 would not be asking for a specific project but coming to
21 a defined renewable resource area that has been agreed
22 upon by the Commission and that that line is going to be
23 used to serve that resource. So we do believe and
24 support the approach of advanced siting, permitting to
25 secure the opportunity to build transmission line when

1 needed, so transmission be permitted, the resources
2 develop, and then they can be constructed on the same
3 time frame.

4 And I will conclude my remarks on that and take
5 any other questions you may have.

6 CHMN. MAYES: Here is a hard one,
7 Mr. Kondziolka. How does this Commission, how can this
8 Commission be successful in accelerating the time frames
9 of renewable energy transmission lines where there are
10 multiple participants on those lines, including your
11 company, which we don't have jurisdiction over, and your
12 company which has what I consider substandard renewable
13 energy requirements?

14 MR. KONDZIOLKA: On the second question,
15 Chairman Mayes, I am not going to go there.

16 CHMN. MAYES: That's okay. But, and I am not,
17 you know, I am not --

18 MR. KONDZIOLKA: Sure.

19 CHMN. MAYES: I am not meaning to take a shot at
20 you, but the fact of the matter is your company doesn't
21 have the same requirements that this Commission puts on
22 other companies in terms of renewables, which means that
23 you have lesser, lesser, a lesser appetite for
24 renewables. You are nonjurisdictional to the Commission
25 on most things. I mean you still go through your siting

1 process.

2 So if we were to say to APS we want you to
3 accelerate X line and we want you to accelerated even
4 more than you proposed, but you are a joint participant
5 on X line, what is your reaction going to be?

6 MR. KONDZIOLKA: I think that over the years we
7 have demonstrated a multiple faceted approach meeting
8 needs. And I will use that first leg of the Southeast
9 Valley project, the portion from Palo Verde to Pinal
10 West.

11 When you look at all the participants in that
12 project, that first section primarily met an immediate
13 need by Tucson Electric Power and Southwest Transmission
14 Cooperative. Knowing we wanted to keep the critical
15 mass of the project and to be able to build that project
16 while we still had that ability to move it forward, we
17 built it. And so you have some of the participants in
18 that project getting as much value added out of that
19 first segment as some, but it was done to meet the good
20 of the whole. And I think as you look at all these
21 projects that we are jointly participating in, we
22 continue to find a way to find those needs being met.

23 One item that may happen is, as one project is
24 accelerated, something else might get pushed out,
25 because ultimately we all have a spending limit we are

1 working with.

2 CHMN. MAYES: Okay. Thank you very much for
3 your presentation.

4 All right. Who do we have next, Prem?

5 MR. BAHL: I may now call upon Mr. Ron Belval of
6 Tucson Electric Company. Here he is.

7 Mr. Phil Dion, vice president of Tucson Electric
8 Company, and Mr. Ron Belval, manager of transportation.

9 MR. DION: Good afternoon, everybody. Good
10 afternoon, Chairman Mayes, Commissioners Newman and
11 Stump. Again for the record, Phil Dion, vice president
12 for legal and environmental services, Tucson Electric
13 Power. I too will echo everyone, although I will be a
14 lot briefer.

15 Thanks to everybody for their hard work in this.
16 As was mentioned before, this was a 10-month process.
17 And for those who do long-range planning, 10 months is
18 awfully fast. So I would echo the appreciation to all
19 the participants and Commission Staff for their help.

20 I am going to talk a little bit about Tucson
21 Electric Power's and UniSource Electric's RTPs. And I
22 will be very brief because you have seen some of these
23 slides before. That's the engineer, by the way, not the
24 lawyer who is operating the PowerPoint.

25 MR. BELVAL: You won't have to do that.

1 MR. DION: So with that, obviously we have got
2 the companies and we can go ahead and move.

3 Just quickly, the service territories, and I
4 thought this was important to show you all, not just for
5 the commercial value of it, but just to really show you
6 the lines and the way that things are and the things --
7 and the planning that had gone on as you will notice the
8 existing lines and what they do.

9 And so, as you can see, the lines come, the
10 number of very long lines come from the Four Corners
11 area, Springerville, as well as up at the border of Utah
12 and Arizona and through Kingman and down to Tucson. And
13 a lot of that has to do with what the company was trying
14 to -- companies, these are all joint projects -- were
15 trying to do. And the idea of this process is to change
16 a little bit of that thinking. So with that, I will go
17 ahead and move to the second slide.

18 And you have seen all these things before.
19 These are essentially what the RTPs are. And the three
20 top, our three proposals comply with that decision in
21 that essentially all the things that you have kind of
22 seen before from APS and SRP. I don't know that I
23 necessarily have to go through all of them.

24 One of the things I will talk a little bit about
25 is that one of the things that we looked at were also

1 the regional benefits. We also took a look as to in
2 this space there are some interesting challenges. And
3 one of those challenges, Chairman Mayes kind of pointed
4 out already, is about viability. And for us, when we
5 were looking at a number of these projects, we were sort
6 of led to looking at the viability of the projects and
7 then looking more towards the economics of it. And the
8 reason for that was simply that there were some projects
9 that seemed very, seemed very interesting. But just the
10 economics behind it, and some of the participants led us
11 to believe that perhaps, while we still always look at
12 those projects, there might be an issue with those
13 projects.

14 And so when we started going through our
15 criteria, which we will move to the next slide, when we
16 started looking at the criteria we really started
17 evaluating from a viability and economic -- same process
18 that APS and SRP went through. But that was one of the
19 questions that was at the forefront of my mind.

20 COM. NEWMAN: Just a quick question. There must
21 be a report with the fourth, fifth and sixth selections
22 and other analyses. Will the ACC ever see that? You
23 know, will we ever understand the decisions that you
24 went through to get to these three things?

25 MR. DION: If you would like that, absolutely.

1 COM. NEWMAN: I would. It might help me
2 understand a little more.

3 MR. DION: Yes, sure. We can absolutely,
4 absolutely provide that to the Commission.

5 COM. NEWMAN: I would say that would be true for
6 all three of the companies, if they could. It would be
7 interesting to know.

8 MR. DION: And I think you heard from APS and
9 SRP, SRP especially, on a number of the ones that they
10 were looking at, including SunZia, which we are also a
11 participant in. And that one was, that is another one
12 that we have looked at. But, again, for purposes of
13 today, purposes of the order, these were the three RTPs.

14 COM. NEWMAN: It would be interesting for my
15 analysis and perhaps another analyst who I ask to look
16 at it, you know, for comparative, contrast.

17 MR. DION: Absolutely. We can do that.

18 So moving on, we will go ahead and talk about
19 the key RTP decision factors. I group them up. There
20 are, a number of them are similar to APS' and SRP's. We
21 are half their size so I have half the bullet points.

22 One of the things that I do want to point out on
23 this slide is the ratepayer impact. And generally when
24 you think about that you think cost. When I put that
25 bullet down I also intended benefits. So ratepayer

1 impact for us is not just the cost but also looking at
2 some of the benefits to the ratepayers.

3 And APS does the same thing. I mean you heard
4 that from them as well. They are looking at, you know,
5 what is out there. They are doing a balancing act just
6 like all of us are. And they do have a focus on that,
7 as does SRP, as to some of the benefits to their
8 customers besides just the traditional ratepayer impact,
9 which as we move through hearings here at the ACC
10 generally means some sort of cost in a cost
11 pass-through.

12 So let's move on to the proposed RTPs. And you
13 have seen some of this before, but I just broke it down
14 into our particular RTPs. And first one is Palo Verde
15 to Pinal West. Second is Pinal Central to Tortolita.
16 And I did like Rob, a play on that. That sounds like a
17 acronym, that TEP, SRP, RTP. One and two are exactly
18 the same but they are for a reason. And then the third
19 one is one that goes into southeastern Arizona. It is a
20 Western Apache-Tortolita. That is an upgrade of
21 existing line. And I will explain to the individual
22 ones why that one is particularly interesting to us.

23 So Slide No. 6 is the same slide. It is not as
24 pretty as SRP or APS' slide. So, see, we don't totally
25 coordinate. But it does give you that sense of what the

1 individual companies looked at and how it fits into
2 Arizona.

3 I think the next one is the one that is most
4 interesting. We talked about regional benefits. As you
5 can see, the red lines are the proposed transmission
6 lines in the west, and the Arizona utilities' RTPs, not
7 TEP or UniSource, but all of them. And you look and see
8 what is happening. It is basically what we have been
9 talking about all day, the flows of the power from west
10 to east or from east to west.

11 So when you are looking at it in the
12 presentations as to this seems to be moving in the
13 southwest and it seems to be dealing with some of the
14 things that we have already filed in the 10-year plans,
15 it also does fit into that regional picture of, you
16 know, whether it is a resource coming from Wyoming or we
17 are moving resources across to California or to Nevada,
18 you can kind of see how critical that pathway is to the
19 renewable regions of the west.

20 So with that in mind, let's talk about Palo
21 Verde, Palo Verde to Pinal Central, number one. We have
22 talked a lot about this already. And essentially what
23 is happening from Tucson Electric Power's perspective is
24 it is a twofold attack, if you will. One is we have all
25 seen the maps. And while we, for siting purposes we

1 won't hold anybody to any particular decisions, but a
2 lot of the resources, very dark brown resources, are to
3 the west of Palo Verde.

4 And so from that, and with the discussion we had
5 about the Palo Verde hub, it stands to reason that there
6 is going to be some significant development in that
7 area. So if that's going to happen, how can Tucson
8 Electric Power and UniSource Electric participate?
9 Well, we have got to get that power to our load. And so
10 these two, the Palo Verde 1 and Palo Verde 2, helps us
11 do that. As a matter of fact, it is critical to that.
12 And taking an -- they also touch on renewable areas from
13 Palo Verde and on down into Pinal County as well as part
14 of that plan.

15 So Palo Verde 1, or, excuse me, Palo Verde to
16 Pinal Central is the first step of that in increasing
17 that capacity and taking what would be normally, as you
18 can see on the map, a 285 megawatt line to 400
19 megawatts. Of course there is an upgrade of 96 to 403,
20 but basically what is happening is upgrading that line
21 from Palo Verde.

22 If you can go to the next slide on down to
23 Tortolita, you are increasing it to accommodate that
24 flow from there. We can help -- you know, we can do a
25 couple things. But essentially from TEP's position, it

1 is, one of the plans is that we need to tap that market
2 because that's, that's where the marketplace is going to
3 be. It is where the competition will hopefully happen
4 and where we are going to be able to provide our
5 customers some of the renewable resources at a good
6 price.

7 As to Chairman Mayes' question, that won't take
8 care of, we don't think, our entire RES obligations. So
9 with that mind, we have had to augment a little bit of
10 that. And we are doing that currently now with a lot of
11 local stuff that we are planning and I know the
12 Commission is aware. And we do have that commitment to
13 southern Arizona, a commitment to southern Arizona. It
14 doesn't just encompass the greater Tucson area where a
15 number of the projects that we have announced are going
16 to be.

17 The next line, which doesn't appear in a CEC
18 application or a 10-year plan, it was an actual
19 development from this process. And this is upgrading
20 the Tortolita 115kV line to 230. There is a renewable
21 area out in the southeastern part of the state. And one
22 of the issues with it is not necessarily connecting it
23 to the distribution system or connecting it to the
24 system. It is getting it out. That's really the issue
25 in this area.

1 And we have a lot of developers say, and this is
2 kind of where the rubber meets the road, to be very
3 honest, developers say, well, if you did this, we might
4 be interested in coming down to this part of Arizona and
5 moving into the renewable area space in southeastern
6 Arizona. So this particular project is a direct result
7 of that.

8 It is also -- I talked a little bit about
9 SunZia. There is also a connection to SunZia that there
10 are a number of advantages that can come out of that if
11 the SunZia project comes to fruition. That said, this
12 was planned and talked about within our company
13 independently of whether or not SunZia comes into
14 fruition or not. So in this case, this is addressing
15 some of those questions regarding the available transfer
16 capacity and that is creating that capacity in that
17 area.

18 This is the one line that I think is most
19 interesting for a number of reasons. But when we were
20 talking about from a financing perspective and a need
21 perspective, I absolutely agree with some of the, some
22 of the policy things mentioned by APS and SRP about
23 need. This is truly one of those outside of the -- I
24 won't say outside of the box because we came up with it,
25 it can't be that far outside of the box, but it is one

1 of those things that we wouldn't be proposing it but for
2 this process. And so from a financing mechanism and
3 from a siting perspective, some of the ways that we
4 define need and we talk about need are going to have to
5 change. And perhaps some of the ways that we finance
6 some of these things is going, or at least some of the
7 assurances that we would ask for would be a little bit
8 different.

9 To Chairman Mayes' point, we haven't, I haven't,
10 we, I thought through all that process, or if we would
11 actually file RTP and RTAP for this particular line, but
12 I will say this line does present some of those more
13 complex, thought provoking issues than the other lines
14 which either have a CEC or are in the 10-year plan. It
15 does, of course, enhance reliability. It does all the
16 things that a transmission line does. But it is
17 something that, when we were looking at it, it made some
18 sense from this particular docket for our desire to have
19 renewables from southern Arizona and some of the things
20 that we were tasked with and some of those key factors
21 that were talked about in the RTAP process.

22 COM. NEWMAN: I have a quick question on that
23 line, which is provocative to me, just where it goes,
24 just a quick question.

25 It goes, that southern end that goes from Vail

1 over to the Apache, there are no -- there are people who
2 would like to see development of solar, and perhaps
3 wind, but mostly solar projects down there. And so how
4 would you pay for the line in terms of the chicken/egg
5 deal?

6 MR. DION: That's where I was trying to go
7 without committing to too much. Commissioner Newman,
8 that's a difficult question because, from our
9 perspective, it is not a chicken and egg. If that
10 transmission line doesn't get built, the developers, the
11 development doesn't happen. So this particular line
12 would have to be built in coordination with whatever the
13 developers are out there doing.

14 This is the line that, again, through the siting
15 process and through the Commission policy decisions, we
16 would have to have a real discussion about that, because
17 we might be upgrading this line and, again, not to be
18 too cute, but if they build it and they don't come, then
19 who pays for that. And at that point, again, we would
20 have to keep working with our friends in the development
21 community, keep working with other folks in the area.
22 There might be some other people who might be
23 interested, not just solely a TEP project. But if that
24 happens, what, what sort of, you know, mechanisms are
25 going to be in place to alleviate, alleviate some of

1 that risk or take on some of those cost burdens,
2 because, as I said, outside of this process, I don't
3 think that you would be seeing these lines drawn the way
4 that they are drawn right now, so it begs that question.

5 COM. NEWMAN: It is a fascinating question. And
6 all three areas seemingly would serve Pima county, Santa
7 Cruz County and Cochise County, which all three counties
8 are interested in sort of upping their commitment. And
9 we had talked even about aggregated metering for Pima
10 County and how that would all work out.

11 But, anyway, you know, this, if I were in
12 economic development in Pima County, Santa Cruz County,
13 and Cochise County, I would say that this is a very good
14 thing that I would want to get behind and support.

15 But just now I have a negative question. There
16 is that big issue, I am not sure if it will ever be on
17 our plates, but somebody wants to put one of the biggest
18 mines, copper mines in North America over in the
19 beautiful mountains over there in Madera Canyon. So I
20 have to ask you sort of the tough question, which is,
21 you know, this is also in this service area that this
22 mine is looking for a big load, is that this line can
23 serve that load, too. It might become controversial in
24 the sense that environmentalists may say we are okay
25 with this line, environmental line, but this is just

1 sort of a hoax so we can get and set up one of the
2 largest copper mines in the country in the mountains
3 outside of Green Valley. What do you say to that?

4 MR. DION: Well, Chairman Mayes, Commissioner
5 Newman, correct my hoax first.

6 COM. NEWMAN: I mean it is in jest.

7 MR. DION: I am just kidding as well. Those two
8 projects are independent of each other. That project
9 has been planned well before an idea for something like
10 this came along.

11 COM. NEWMAN: Right.

12 MR. DION: And there is a very simple way to
13 take care of that, which is don't interconnect it. And
14 the line that serves one, serves one area, and another
15 line that serves another area.

16 Now, it is not always wise to turn it back to
17 your regulators, but that would then become a policy
18 decision for this Commission as to is that the most cost
19 effective way to do something. And even if, even if it
20 isn't the cheapest way, perhaps that is the way you want
21 to proceed. That's how that, if I have perceived your
22 question correctly on the mine down south, that's the
23 way that that is proceeding, that that is a sole
24 customer, they have requested that. If they want it,
25 they are going to pay for it, and there will have to be

1 a process for that particular line site.

2 I will say --

3 COM. NEWMAN: I am fascinated by the line. I
4 like it. I am just playing devil's advocate.

5 MR. DION: Just so the record is clear, we are
6 trying to work with everybody. As the Commission knows,
7 the siting process is the hardest thing we all do. I
8 don't mean that facetiously because you actually sign
9 off on it and you have to explain to the State of
10 Arizona why this is a good deal. But, honestly, it is a
11 process that is a very collaborative process and it is
12 the toughest thing to go through. So you can believe we
13 are working with everybody we possibly can when it comes
14 to these things.

15 So I am going to end just quickly with a
16 summary, which I really don't think I need to end up
17 with. We heard all the summaries before, SRP and APS
18 did a wonderful talking about. I echo some of the
19 things that we all agree on. I think we generally agree
20 on a number of the points, including some of the policy
21 objectives. Those will certainly be for the
22 Commissioners to determine. And then hopefully I
23 presented just some other thoughts from a more
24 southeastern perspective.

25 CHMN. MAYES: Thank you, Mr. Dion, for the

1 presentation. Before you go, are you planning on filing
2 a renewable transmission action plan and RTPs with the
3 Commission? Or, I mean, where do you, where does TEP
4 intend to go with regard to steps?

5 MR. DION: The down and dirty answer is we
6 haven't talked about it amongst all of ourselves as to
7 when we would be filing and what we would be filing.

8 One thing I would say is if we do file
9 something, and everyone will do this, but if we do file
10 something, it is going to have to be something
11 compelling for you all. And I take that away, very
12 crystal clear, from what happened today. Not every line
13 is going to be an RTP line. We all surmised that. And
14 we will have to make a compelling case.

15 It will be as soon as this January. I don't, I
16 think that would be tough from TEP's perspective. If
17 the Commission was looking for that, then we can, we can
18 certainly use our best efforts and get through the
19 season and file it. But I think for us it would be a
20 next -- a year from, probably a year from January. Or
21 we would use the process -- I have to double back on the
22 process. I can't say that I am as familiar as some on
23 the other processes as the Commission is on the filing
24 of it. But I will certainly go back, talk to those who
25 can be talked to. And I would not be surprised if you

1 saw something in January from us, but I can't commit to
2 it right now because we haven't sat down and agreed to
3 talk about that.

4 CHMN. MAYES: Okay.

5 MR. DION: But I hear the Commission.

6 CHMN. MAYES: A year seems like a long time,
7 Phil, especially when your sister utility has just
8 committed to doing it within weeks.

9 MR. DION: I know. I wish I would have known
10 that a little bit earlier. But we do coordinate these
11 things and we will coordinate them.

12 CHMN. MAYES: All right. Okay. Thank you very
13 much.

14 MR. DION: Thank you.

15 CHMN. MAYES: Do we have one more or is that it?

16 MR. BAHL: Chairman Mayes, one more presentation
17 by Southwest Transco. May I call upon Mr. Bruce Evans
18 or Mr. Jim Rein.

19 (Brief pause.)

20 MR. REIN: Sorry for the technical difficulties.
21 TEP indicated they are half the size. We are half the
22 size of TEP, so that gets us to a very small portion
23 right here. We will try to get us out of here a little
24 faster than normal.

25 We talked about the other dynamics and so forth

1 that is going on. We have no complaints and support
2 what has been said before. So we will try and get to
3 our point.

4 We are looking at our three projects. We are
5 definitely looking at trying to support the growth of
6 renewables in southeast Arizona. We are too small to
7 affect the whole state so we concentrated in our little
8 area. We try to make it show that the existing
9 renewable developers can interconnect to our system and
10 then be able to build out to the 600 megawatts that has
11 been identified by the RTTF.

12 We are very supportive of the stakeholder
13 process. And we have tried to accommodate everyone's
14 needs in our point, and is evidenced by the coordination
15 we have had amongst all the utilities making
16 presentations today.

17 We can currently meet our needs of our
18 resources. I do need to interrupt my presentation a
19 little bit just to make sure everyone is aware that we
20 are strictly transmission. We have no generation. We
21 have no retail customers. So that being said, the
22 renewables that are required by the Commission of our
23 members, that can be met today without any additions to
24 our system.

25 So what we are looking at is concentrating on

1 getting the 600 megawatt bubble out to other areas. One
2 of the major problems that we have is with the Rural
3 Utility Service. They are our banker. And they are the
4 governing body. And they have some very strong
5 limitations of it. We refer to it as an act
6 beneficiary. If it is not an act beneficiary
7 participant, then we cannot fund it. And that is our
8 main funding mechanism, so that there -- to be able to
9 build something is beyond our reach that we have in our
10 existing structure.

11 This is another major difference that we have
12 right here. We start in the upper left-hand side and
13 that internal planning will identify projects that are
14 necessary. It then goes to the middle box where
15 construction work plan is then presented to our Class A
16 operating committee. That is contractually required
17 between ourselves and our members to review all the
18 plans. That is then submitted to our board of
19 directors. And if our board of directors approves it,
20 then it goes into the 10-year process, as well as going
21 to the RUS for approval of that plan. Until we get RUS
22 approval of both the plan itself and then the funding
23 mechanism of that, we cannot move forward. After we
24 receive this, then we go into the normal position of
25 coming before the ACC Siting Committee and the use of

1 the funds that we do have available.

2 So this is, is different than what we have seen
3 before. And it is a process that we have lived with
4 since mid '60s when we were first established.

5 I think that being said, I will let Bruce
6 describe our three projects.

7 MR. EVANS: Okay. Good afternoon. As
8 mentioned, I am Bruce Evans with Southwest Transmission
9 Cooperative planning engineer. As Jim had mentioned, we
10 were organized back in the '60s and our transmission
11 system was basically designed to reliably and
12 economically serve the needs of our member systems. And
13 so any expansion that we do to our transmission system
14 has to be tied to the member system needs both for
15 reliable service and expected load growth. And so when
16 we talk about cost, talk about trying to get some kind
17 of cost recovery, our banker is RUS. We really have no
18 other means to go to for funding.

19 We could probably go to other funding agencies,
20 but if we were to do so, we would still have to go to
21 the RUS and get what is called a lien accommodation. In
22 other words, anything that we can do to be able to pay
23 those amounts to the bank, if you will, would have to be
24 tied back to a lien back through our particular company
25 to make sure that we can continue to meet our

1 obligations to the RUS that holds our mortgage.

2 COM. NEWMAN: Could I ask you a quick question?
3 Isn't there, and I am just learning, so, isn't there
4 a bank associated with rural cooperatives that also can
5 be tapped besides RUS?

6 MR. EVANS: Yes. We have what we call the FFB
7 bank. But, then again, when we do that, we have to go
8 through the RUS process of loan approval to go through
9 that particular bank.

10 COM. NEWMAN: But it has been mentioned to me by
11 Tom Jones that perhaps the Commission should assist the
12 cooperatives in getting that bank money because it is at
13 least cheaper money. It would be one way to help the
14 cooperatives participate in building renewable energy
15 lines. This comes from Tom Jones, not me.

16 MR. REIN: They have the FFB and they have CFC
17 funding. The common element to either one of those is
18 you still need to go through the RUS in order to get, to
19 get the bank. So there is different funding mechanisms
20 but the common thread is that it is the Rural Utility
21 Service that has to make approval before we can go
22 anywhere.

23 COM. NEWMAN: I see your point. I just had
24 mentioned to the Chair awhile back. And I still think
25 it should be part of the mix, at least initially.

1 MR. REIN: Commissioners, anything we can do to
2 assist in that we strongly support. But keep in mind we
3 can't spend anything until we get the first hurdle of
4 RUS.

5 COM. NEWMAN: I will do anything I can to RUS
6 you and bank you.

7 CHMN. MAYES: Do you know, just a quick
8 question, are there any plans that you know of by the
9 Obama administration to direct the RUS to release funds
10 to entities like yours when the country goes to a
11 national renewable energy standard?

12 MR. REIN: I have not seen any publicity on that
13 at all, nothing from RUS or nothing through RETA, which
14 is our national organization, not that it is, not that
15 it is not happening, I have not seen it.

16 CHMN. MAYES: It would be interesting to know if
17 there is a move afoot. It would seem only natural if
18 the nation goes and objectives change such that rural
19 utilities and co-ops have to meet them that they should
20 be allowed access to financing based on those
21 objectives.

22 MR. EVANS: It would make sense when you think
23 about the fact that there is over 900 co-ops in the
24 United States.

25 CHMN. MAYES: Absolutely.

1 MR. EVANS: A lot of folks have mentioned the
2 fact that sales are down, revenues are down. Our
3 revenues are also down. And as a result of that, some
4 of our projects have had to be deferred we have put into
5 our 10-year plans.

6 One of these is the San Manuel oil interconnect
7 project. That is one of our top three. The other two
8 of our top three projects really is what we would call
9 conceptual projects. And I will discuss those here in a
10 bit, but each of those would have a significant impact
11 upon the rates to our member system, keeping in mind
12 those are the wholesale rates to the member system and
13 not to retail customers.

14 So these are the three that we have: San Manuel
15 interconnect project, the Apache to Bicknell 230kV line
16 upgrade project, and the Western Saguaro to Apache 115kV
17 line project upgrade that TEP also talked about.

18 You have seen this map before. Thanks again to
19 SRP for putting this together. We are concentrated down
20 in the southeast Arizona. And so this is kind of an
21 overview of the transmission system that we use in our
22 planning down there in the SATS area.

23 So taking that down even further, this is a
24 view, if you will, of our San Manuel interconnect
25 project. We have a 115kV line that comes up out of

1 Apache that goes over towards Hayden that we would be
2 interconnecting into the APS San Manuel interconnect
3 project. There is a renewable entity there. I believe
4 that when we filed this report, we were aware that that
5 one renewable entity, that was I believe number 44 in
6 the APS queue, have now changed hands and now another
7 entity is putting that in. It is now 77 in the APS
8 queue.

9 But, anyway, that project it shovel ready. It
10 was approved by the Line Siting Committee on the 12th of
11 May, Case No. 142. And the Commission approved it on
12 the 9th of July. We are looking at an estimated
13 in-service date of 2014 for that project. The cost is
14 about 4.2 million. We would fund that through our RUS
15 loan process. And we feel that the impact to our
16 ratepayers would be minimal with that.

17 We plan on tying into San Manuel at 115 but
18 construction will be 230kV in case we wanted to upgrade
19 that up to 230. We feel that that can accommodate
20 approximately 240 megawatts of renewable generation near
21 that San Manuel area. We talked about number 77 in the
22 queue. And we would be willing to work with any of the
23 third-party entities to upgrade that 115 line to allow
24 for additional exports to market.

25 COM. NEWMAN: What kind of technology is 77, is

1 this project?

2 MR. REIN: Solar, I think it is solar thermal, I
3 believe.

4 COM. NEWMAN: Thank you.

5 MR. EVANS: We haven't had a lot of contact with
6 those entities. They were -- in fact, just got an
7 e-mail from one of them the other day asking where we
8 were at. We simply told them that from our standpoint
9 the in-service date is about 2014. And they seemed to
10 be fine with that. But, of course, we mentioned if they
11 want to advance that we would be willing to work with
12 them on that.

13 The next project is the Apache to Bicknell 230kV
14 line upgrade. This is an existing 230kV system that we
15 have that we are looking at upgrading. Basically we
16 would go from 795 ACSR to 1272 ACSS, which was a slight
17 bit of difference from what we had filed in our 10-year
18 plan.

19 We are looking now at 2016 for the Apache to
20 Butterfield piece and 2017 for Butterfield to Bicknell
21 piece. We don't have a detailed cost estimate on this
22 project but we figure it would be about 19.6 million if
23 we funded this through the RUS loan pack. The increase,
24 if you will, to the ratepayers would be fairly
25 substantial. It would be about 11.2 percent over and

1 above a current rate increase that we have into the
2 Commission right now.

3 These upgrades could provide up to an additional
4 450 megawatts to support renewable energy in that area.
5 Then again, we would be willing to work with any
6 third-party entities that would want to interconnect for
7 export of renewable energy to markets.

8 Then again, this is the Western Saguardo to
9 Apache 115kV line to a double circuit 230kV that TEP
10 talked about. That would probably be upgraded to a 954
11 ACSS or a 1272 ACSS depending on the WAPA standards. We
12 did propose this in the Western SOI project. Now, we
13 have not officially heard from Western whether or not
14 they are going to accept this as part of their -- of a
15 project to be funding in their TIP funding process. We
16 haven't heard anything officially on that. We know they
17 are working on other projects.

18 So what has happened in the meantime is we have
19 had discussions with another entity that has been
20 willing to fund that particular project. And so,
21 anyway, the project would be shovel ready, if you will,
22 in the time frame that would be required for any
23 renewable developers into that area, whether it is 2014
24 or 2015 or around that same time frame.

25 From the SOI we had estimated that there would

1 be a transfer capability of as much as a thousand
2 megawatts that would support the renewable generation in
3 the area. We have been working with TEP. TEP has done
4 the lion's share of the legwork on cost estimates of
5 this project. They are estimating right now, still
6 subject to change, a little over 205 million for this
7 project. The funding again, if this other entity were
8 to do that, would be through the aegis of Western. If
9 TEP and ourselves were to do this project by ourselves,
10 our particular share of the cost of this project would
11 be over \$61 million, and so that would represent a
12 substantial increase to our ratepayers of about
13 35 percent above our current rate proposal. However, we
14 would expect there would be other entities that would
15 want to subscribe to that line. And so perhaps we could
16 reduce some of the cost to our ratepayers.

17 Any questions?

18 CHMN. MAYES: Where is that -- can you go back
19 to that last segment? Can you point that out to us, the
20 Western Sag-Apa?

21 MR. EVANS: Yes. It is the double yellow dotted
22 line from Saguaro at the top all the way into Apache.

23 CHMN. MAYES: Wow. Okay. And WAPA is looking
24 at that one?

25 MR. EVANS: Yes, they are.

1 CHMN. MAYES: And is that part of their stimulus
2 package?

3 MR. EVANS: Yes. We have submitted that to
4 them. But, again, we have not officially heard whether
5 or not they are going to accept that for funding.

6 CHMN. MAYES: Okay. And you noted that you
7 thought there would be other entities that would be
8 interested in that line.

9 MR. EVANS: We would hope so, yes.

10 CHMN. MAYES: Do you have any identified or --

11 MR. EVANS: Not at this time.

12 CHMN. MAYES: Likely subjects, suspects?

13 MR. REIN: This -- no, there is no one. I am
14 not committing anyone else right now.

15 CHMN. MAYES: Okay.

16 MR. REIN: However, we were talking about this.
17 If we look at on the far, what, lower right, San Rafael,
18 and then over to Kartchner, both of those lines can take
19 additional capacity for renewables. And so this would
20 be using our system as you follow those yellow lines up,
21 230kV solid yellow lines, so that while there is a
22 feeder system available as of today, we have no large
23 generator interest connection requests in our queue. So
24 while the bubble was identified 600 megawatts, no one
25 has come through our door, even though for some smaller

1 projects, we can handle them today without any
2 additional transmission upgrades.

3 CHMN. MAYES: Okay.

4 COM. NEWMAN: Just a quick question. Just
5 geographically, that huge double yellow line crosses
6 over in Vail and is actually similar as it goes out to
7 western Arizona. It is, but it is serving your
8 territory versus TEP's territory?

9 MR. REIN: Well, it does a little bit of
10 everything. The double yellow line starting from Apache
11 right now is presently a single Western 1151V line.

12 COM. NEWMAN: Right.

13 MR. REIN: And Adams tap, they have APS coming
14 off of it. They have Nogales tap. It goes down to
15 UniSource. And the point Del Bac is just a substation
16 in Tucson. I don't know if there is any loads up at
17 Tucson. Rattlesnake, CAP is coming off of Rattlesnake
18 right now. Marana tap is back to our system again and
19 goes into Saguaro.

20 COM. NEWMAN: So there is already that mixture
21 of interconnections.

22 MR. REIN: Correct.

23 MR. CHARTERS: Tucson goes to Oracle.

24 MR. REIN: Oracle? They don't use -- they have
25 a line, the 138. I guess I will let Tucson answer.

1 MR. CHARTERS: Okay.

2 CHMN. MAYES: Okay.

3 COM. NEWMAN: I guess the only other question,
4 the cost of that huge line, and we heard before that
5 Western wasn't interested, wasn't in the business of
6 giving away money, these are very -- they might be able
7 to have creative ways to help us bid that line, but what
8 is the cost, prospective cost on that very long line?

9 MR. REIN: That's what Bruce -- that's, the
10 total cost was estimated \$205 million, that our 35
11 percent of it would be the \$61 million.

12 COM. NEWMAN: I see.

13 MR. REIN: So just that made -- the biggest
14 problem is the fact that it is all these together -- let
15 me back up.

16 Our peak load in 2009 was only just a little
17 over 600 megawatts. So we are presenting here 1600
18 megawatts, a thousand megawatts of additional capacity
19 to support renewables. But it gets back to what earlier
20 speakers have said, is that we cannot afford to build it
21 ourselves so we need to have someone step up and say
22 take this service or participate in the project.

23 COM. NEWMAN: Just tell me how this one, and
24 maybe all three of your top ones, help the cooperatives
25 in general in the marketplace, you know, the different

1 kind of --

2 MR. REIN: As I mentioned from a solar
3 standpoint, that our existing transmission system can
4 take us through 2029 essentially for the renewables that
5 we have for the requirements. It would be used by
6 AEPCO. It would be available to AEPCO to bring the
7 power in. But they are not needing that much power.

8 COM. NEWMAN: So this would be exported
9 capability for rural co-ops?

10 MR. REIN: Exported from the renewables in
11 Cochise County primarily.

12 COM. NEWMAN: Thank you.

13 CHMN. MAYES: Thank you, gentlemen, appreciate
14 the presentation.

15 Are there any questions from the audience for
16 Southwest Transmission?

17 (No response.)

18 CHMN. MAYES: Okay. Prem, is that our last
19 speaker?

20 MR. BAHL: Just a quick question. I thought I
21 heard you say, Jim, that Pantano to Kartchner can take
22 renewable resources.

23 MR. REIN: It can export, yes. We are not, you
24 know, talking about hundreds of megawatts. But, you
25 know, if it is a good size --

1 MR. BAHL: My question was export from Kartchner
2 to Pantano, because I thought there was no capacity from
3 Pantano to Kartchner.

4 MR. REIN: Right, import capability. This would
5 be counterflow.

6 MR. BAHL: Okay. Go ahead. Sorry.

7 MR. REIN: Similar to San Rafael to Butterfield
8 would be counterflow. That's why we can handle some and
9 get out of the system.

10 CHMN. MAYES: Okay. All right. Well, I think
11 that that probably concludes our agenda for the day.
12 And I want to thank everybody for hanging with us for as
13 long as you have.

14 Would my colleagues like to say anything in
15 closing?

16 COM. NEWMAN: I just want to say I have learned
17 a lot tonight. Thanks for having us, and listening to
18 your briefing. And I look forward to continuing working
19 on winnowing these lines down, figuring out funding
20 sources, figuring out what is in the best interest of
21 Arizona as we have some more of these planning meetings.

22 And thanks, Kris, for setting this process off.
23 And thank you all, you on the committee, who did an
24 unbelievable job to get us here.

25 CHMN. MAYES: Ditto. I would just say I think

1 the Commissioners will probably be taking up our next
2 steps at the subsequent Staff meeting. Obviously
3 utilities can make filings based on this BTA as they see
4 fit. And we may want to do something that would
5 encourage that process along.

6 And I for one believe that this should be an
7 ongoing process, that this should be an annual
8 assessment. I would agree with APS' view on that, that
9 we should have this being a very regular event and
10 certainly a regular part of our BTA process.

11 So thank you, everybody, again for all your hard
12 work. This was a tremendously heavy lift for less than
13 a year. And then I know, I know that you all worked
14 diligently, and a lot of you were not being paid to do
15 it. I know Tom Wray was not being paid to do this,
16 Amanda Ormond was not being paid to do this. A lot of
17 volunteer work went into this effort. And the State of
18 Arizona appreciates this. So thank you very much.

19 We are adjourned.

20 (The proceeding concluded at 4:41 p.m.)

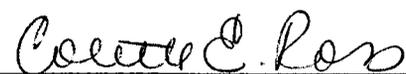
21
22
23
24
25

1 STATE OF ARIZONA)
2) ss.
3 COUNTY OF MARICOPA)

4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I, COLETTE E. ROSS, Certified Reporter No. 50658 for the State of Arizona, do hereby certify that the foregoing printed pages constitute a full, true and accurate transcript of the proceedings had in the foregoing matter, all done to the best of my skill and ability.

WITNESS my hand this 27th day of November, 2009.



COLETTE E. ROSS
Certified Reporter
Certificate No. 50658