

DOCKETED

Docket Number:	15-IEPR-08
Project Title:	Transmission and Landscape Scale Planning
TN #:	205788
Document Title:	Transcript of August 3, 2015 Lead Commissioner Workshop
Description:	LEAD COMMISSIONER WORKSHOP ON LANDSCAPE-SCALE ENVIRONMENTAL EVALUATIONS FOR ENERGY INFRASTRUCTURE PLANNING AND THE STRATEGIC TRANSMISSION INVESTMENT PLAN
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Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	8/20/2015 3:59:23 PM
Docketed Date:	8/20/2015

BEFORE THE CALIFORNIA ENERGY COMMISSION

In the Matter of:)
2015 Integrated Energy Policy) Docket No. 15-IEPR-08
Report (2015 IEPR))
_____)

LEAD COMMISSIONER WORKSHOP ON
LANDSCAPE-SCALE ENVIRONMENTAL EVALUATIONS FOR
ENERGY INFRASTRUCTURE PLANNING AND THE STRATEGIC
TRANSMISSION INVESTMENT PLAN

CALIFORNIA ENERGY COMMISSION
1516 9TH STREET
ART ROSENFIELD HEARING ROOM
SACRAMENTO, CALIFORNIA

MONDAY, AUGUST 3, 2015

10:00 A.M.

Reported by:
Peter Petty

APPEARANCES

COMMISSIONERS

Andrew McAllister, Lead Commissioner, IEPR Committee

Karen Douglas, Associate Member

Janea Scott, Associate Member

ADVISERS

Kevin Barker, Adviser to Chair Robert Weisenmiller

STAFF

Heather Raitt

Al Alvarado

Scott Flint

Judy Grau

Roger Johnson

Lori Sinsley, Special Adviser to Commissioner Douglas

ALSO PRESENT AT DAIS

Ken Alex, Office of the Governor

Jim Kenna, California Bureau of Land Management

Michael Picker, President, CPUC

MODERATOR

Terry Watt, Governor's Liaison

PANELISTS

Paul Douglas, CPUC

APPEARANCES (CONTINUED)

PANELISTS

Jeff Billinton, CAISO

Pat Lineback, USFWS

James Strittholt, Conservation Biology Institute

Lorelei Oviatt, Kern County

Heidi Brannon, Solutions Strategies International

Tim Snellings, Butte County

Carl Zichella, Natural Resources Defense Council

Andy Horne, Imperial County

Cathreen Richards, Inyo County

Susan Tae, Los Angeles County

Juan C. Perez, Riverside County

Tom Hudson, San Bernardino County (via WebEx)

James Caruso, San Luis Obispo County

ALSO PRESENT (VIA PHONE)

PUBLIC COMMENT

Erica Brand, The Nature Conservancy

Christopher Ellison, Ellison, Schneider & Harris, DATC

Michael Boccadoro, Agricultural Energy Consumers
Association

P R O C E E D I N G S

10:03 A.M.

SACRAMENTO, CALIFORNIA, MONDAY, AUGUST 3, 2015

MEETING BEGINS AT 10:03 A.M.

MS. RAITT: Welcome to today's IEPR Commissioner Workshop on Landscape-Scale Environmental Evaluations for Energy Infrastructure Planning and the Strategic Transmission Investment Plan. I'm Heather Raitt, the Program Manager for the IEPR.

I'll quickly go over the housekeeping items. Restrooms are in the atrium. We have a snack room on the second floor at the top of the stairs. If there's an emergency, we need to evacuate the building. Please follow Staff to Roosevelt Park which is across the street, diagonal to the building.

Today's workshop is being broadcast through our WebEx conferencing system. And parties should be aware that you're being recorded. We'll post an audio recording on the Energy Commission's website in a couple of days, and a written transcript in about a month.

At the end of the day we will have an opportunity for public comments. We'll limit comments to three minutes each. We'll take comments first from those in the room. Please go ahead and fill out a blue card and you can give it to me. Then we'll take comments from the folks on WebEx. And

1 then finally, from phone-in only.

2 If you're on WebEx you can use the chat function to
3 tell our WebEx coordinator that you'd like to make a comment
4 during the public comment period and we'll either relay your
5 comment or open your line at the appropriate time.

6 If you haven't already, please go ahead and sign in
7 at the front entrance to the hearing room. The materials for
8 the meeting are available there. They weren't earlier this
9 morning. So if you missed them, they are there now.

10 Written comments are welcome and they're due August
11 17th. And that provides -- the written notice provides
12 instructions for providing comments.

13 And with that, I'll turn it over to Commissioners
14 for opening remarks.

15 COMMISSIONER MCALLISTER: Okay. Thank you, Heather.

16 I'm going to be very brief. We have a bunch of
17 people on the dais that we want to hear from, and also panels
18 that are going to be very, very interesting. I want to thank
19 everybody for coming. There's a lot of expertise in the room,
20 so I want to make sure we take advantage of that.

21 I want to thank Ken Alex from the Governor's Office,
22 Jim Kenna from the State BLM. I really appreciate your being
23 here. We're really looking forward to hearing what you have
24 to say and your participation in the panel. Thank you very
25 much.

1 Commissioner Scott, Commissioner Douglas next to me.

2

3 And President Picker from the PUC, we really
4 appreciate your being here with us today. I know your time is
5 limited, so I want to pass the mike here quickly to you.

6 And the Kevin Barker representing Chair
7 Weisenmiller's office.

8 So we have a full dais here which is great, so thank
9 you all for being here.

10 With that I'll pass -- well, let me just say ten
11 words. Transmission is so important for lacing together our
12 system in the state and supporting all the other decisions
13 that we make, from land use, various supply options, just our
14 over dispatch. You know, now we're going to -- we're going to
15 interconnect more robustly across the west, and that process
16 is moving, I think, in a very positive direction. So
17 transmission has been -- it's difficult to site and build
18 transmission. We all know that and we want to sort of figure
19 out ways to do it better in a more integrated way with the
20 rest of our decision making processes across the board in
21 terms of infrastructure and investment. So a very critical
22 topic.

23 And I'm really happy to share the dais, particularly
24 with Commissioner Douglas who has been working so hard on many
25 of these landscape issues and working across many, many

1 agencies, not even the, you know, minimal number here
2 represented at the dais, many more agencies than are actually
3 here.

4 So I want to first pass it to Commissioner Douglas
5 for some comments, and then to President Picker.

6 COMMISSIONER DOUGLAS: So thank you, Commissioner
7 McAllister. And I will be brief too.

8 I know that Michael has somewhere to be at 10:30.
9 So we want to make sure that he has a chance to speak. And
10 actually, I'm going to hold some of my comments.

11 But I just wanted to acknowledge the letter from
12 President Picker and Chair Weisenmiller to the ISO
13 establishing the RETI 2.0 process. I think that that is a
14 really important thing to do. The timing is really good. And
15 it's an opportunity for us to build on the great work that's
16 been done already at the state and the local level in
17 renewable energy planning and build into that a statewide and
18 a regional perspective, which is what is needed.

19 I also want to note that, you know, Michael has been
20 in the trenches with us for so many years on permitting issues
21 and on planning issues. And I actually had a chance to go to
22 dinner with some folks from the counties who came here to be
23 here today, and Apple Valley, as well. And we reminisced a
24 bit about the magnitude of what has been achieved in this
25 state in renewable energy permitting. And, you know, your

1 name came up more than once. And, in fact, as we thought
2 about some of the late night and weekend and early morning
3 phone calls, and very often just like the sky is falling,
4 help, we just wanted to say we thought a lot about you. So
5 thank you for being here.

6 And I'd like to turn this over to Michael now.

7 MR. PICKER: Okay. Thank you. I should admit that
8 I sit here in several different roles, but one of them is that
9 I'm an ex-officio commissioner on the California Energy
10 Commissioner. I'm so inferior that my picture is not even
11 posted on the wall outside. So with your forbearance --

12 COMMISSIONER DOUGLAS: We can fix that.

13 MR. PICKER: -- and your recognition of your -- of
14 my role here --

15 COMMISSIONER MCALLISTER: Today you are official,
16 you're very official. You're --

17 MR. PICKER: Right.

18 COMMISSIONER MCALLISTER: -- yeah, on the record.

19 MR. PICKER: I'll put my -- I'll put my CPUC hat on
20 and just say that as Commissioner Weisenmiller and I -- he's
21 the chair of the Commission, we're talking about the future
22 and the challenges that we have faced and what we've learned
23 from them, and the challenges that we'll face as we continue
24 to implement policies that reduce greenhouse gas emissions in
25 California's economy and the need to site new renewable energy

1 power plants to actually help us to meet that. We started to
2 think about some of the successes of the past. And so I'll
3 just read a few paragraph from our letter, and then make some
4 brief comments.

5 But essentially what we agreed is that our two
6 agencies will work to reestablish a Renewable Energy
7 Transmission Initiative 2.0 to establish the relative
8 potential associated with various renewable locations in
9 California. And then we asked that the CAISO join with us in
10 this process to map out the associated transmission
11 infrastructure.

12 So given the implications of both 111(d), which is
13 the president's Clean Power Plan which is being rolled out
14 today as we sit here, and PacifiCorp's interesting in joining
15 the CAISO, this effort will need to consider regional
16 renewable opportunities as well.

17 So since the goal for California is to reduce
18 greenhouse gas emissions by 40 percent below 1990 levels by
19 2030, an important pillar of that goal is to produce 50
20 percent of our electricity from renewable power generation. I
21 will say that I think that meeting that goal will actually
22 drive us beyond the 50 percent goal. Everybody who has
23 actually looked at it realizes that our task is both larger,
24 although clearly our experience from the last few years makes
25 it within our grasp.

1 And so we have a proven model to ensure climate
2 goals from clean electricity and renewable power are met. For
3 example, California saw record numbers of renewable projects
4 permitted during the period from 2009 to 2013. Many of those
5 permitted projects are now in full operation. There are over
6 11,000 megawatts of renewable projects in the pipeline that
7 receive their environmental permits allowing construction.
8 California now has over 21,000 megawatts of renewable capacity
9 installed within its borders, although we also rely on
10 renewable power from outside of our state.

11 This project was successful because it was supported
12 by the proactive transmission planning effort going back to
13 2008, becoming the Renewable Energy Transmission Initiative
14 and the California Transmission Planning Group, the CTPG.
15 Through these stakeholder efforts the best concentrations of
16 renewable resources were identified. And then using science-
17 driven findings in the broad consensus resulting from the
18 stakeholder process, the CAISO identified the new transmission
19 lines that were needed to interconnect the high quality
20 renewable projects with the load basins and population
21 centers.

22 So I think that that's the framework as we see it,
23 both from the history and into the future. I'll point to some
24 of our many successes. For example, the Tehachapi Renewable
25 Power Transmission Line, I think Kern County saw that need

1 very early and articulated the value of that resource area.
2 It not only drove the exciting construction of wind and
3 allowed it to be financed because the banking and investment
4 community could see that there was actually real potential for
5 reaching market, but unfortunately it's now filled with wind
6 and solar.

7 The -- in Southern California the Sunrise Power Link
8 which was broadly debated because people were afraid that it
9 would be a pathway for cold to come from outside of California
10 is now saturated with -- with wind and solar from the Imperial
11 irrigation area. There's not a whole lot more capacity.

12 So if we're going to -- if we're going to take
13 advantage of these resource areas, as well as the West
14 Riverside region that -- and East Riverside region that are
15 served by the Colorado River Project, we're going to have to
16 think about augmentations within that quarter. But there's
17 other parts of the state that we also need to open up.

18 Some of the -- the learnings for the Desert
19 Renewable Energy Conservation Planning process have actually
20 assembled really superb data that will refine the next RETI
21 process. It hasn't quite reached the point where it has
22 actually speeded the permitting process for endangered
23 species, although that can eventually be perfected with
24 changes to the California Natural Communities Conservation
25 Planning Act. I think that the -- the biology on itself that

1 we've assembled through the DRECP serves as a real model for
2 actually making the RETI more immediately valuable and
3 actually helping us to choose amongst the many transmission
4 alternatives.

5 So I think for all these reasons we see that the
6 lessons of the past actually help us to refine our actions in
7 the future. The challenges for the agencies, of course, will
8 be to really refine our roles. The CEC will always be the
9 team with the most biologists and the best overall siting and
10 planning. They work very well with our other biological
11 partners in the U.S. Fish and Wildlife Service, Department of
12 Fish and Game, and the Bureau of Land Management. BLM and
13 CAISO tend to -- and then -- and the CEC tend to have a macro
14 view of the landscape in California. The CEC -- and, frankly,
15 the legislature has vested the CEC with -- with transmission
16 corridor siting authority. The CPUC is effective at looking
17 at the economic issues associated with these choices, since
18 we've got all the economists. And then, of course, the CAISO
19 has the best people to actually look at power flows and to
20 actually help us map out what makes the most sense as we
21 interconnect all those potential renewable generation projects
22 in California and through the west.

23 I think the big challenge will be that as we
24 continue to grow and we look at the potential for multi-state
25 compliance plans and the governor -- and the president's Clean

1 Power Plan, we'll have to actually start to think about
2 transmission projects outside of California. The entrance of
3 PacifiCorp into the -- CAISO's balancing authority will also
4 tend to drive us to that perspective. So all these are the
5 new challenges that we'll face. But I think we actually have
6 a very successful template.

7 I will say that if you look back to those
8 transmission decisions, that's probably where about 85 percent
9 of the renewable energy projects that we count amongst those
10 21,000 are located, Kern, Imperial, East and West Riverside.
11 That really, more than anything else, stands out as the driver
12 of where projects are located and the ease and success with
13 which we've actually been able to proceed so far.

14 So thanks. I will have to leave early. I have to
15 go deal with an antiquated technology that's very
16 controversial here in California, nuclear power. We don't
17 seem to have had much luck with that technology here, so it
18 requires my attention today. So thank you.

19 COMMISSIONER DOUGLAS: Thank you.

20 COMMISSIONER MCALLISTER: Thanks very much for being
21 here, President Picker.

22 Quickly, I'd like to just start maybe with Ken, if
23 you have any opening comments. And we can sort of try to make
24 it brief and plan on -- not that -- not that you wouldn't
25 otherwise, but --

1 MR. ALEX: I'm always busy.

2 COMMISSIONER MCALLISTER: Yeah, exactly. But we
3 look around us, we have panels that have -- have a lot of
4 expertise we want to get down on the record. So thanks very
5 much for being here.

6 MR. ALEX: Thanks for inviting me. I will be very
7 quick. I approach this from a little different angle,
8 perhaps, than some of the other people on the dais who
9 actually have some expertise on these issues. I approach this
10 from primarily a land use background, and as the director of
11 the Office of Planning and Research which focuses a fair
12 amount on land use.

13 So thank you, first, to the -- to the Energy
14 Commission for doing this, and to Heather the project manager,
15 it's a big undertaking.

16 We're going to hear a lot about the Desert Renewable
17 Energy Conservation Plan. We're going to hear a little about
18 a solar agriculture convening that we're currently doing
19 around siting issues in the San Joaquin Valley. There are
20 different approaches to how we put together what we think
21 should be done on the ground for renewables and their
22 connection to transmission. There's a conservation planning
23 effort going on, as well, to understand the most important
24 conservation corridors. Those all have to mesh. And I think
25 that we'll hear some more details, so I won't talk too much

1 about that.

2 But I think that this process has become so much
3 more sophisticated in the last few years, in no small part
4 because of the effort of this gentleman to my left and others
5 on the Desert Plan. And I think we're taking those lessons
6 and trying to use them to do much more effective and faster
7 processes to get things done more quickly and to move into the
8 next phase of how we provide power to the public in
9 California.

10 So I think I'll just stop there, Andrew, and we'll
11 get more details as we go on today.

12 COMMISSIONER MCALLISTER: Thanks. Thanks very much.

13 Mr. Kenna, any opening comments you'd like to make?

14 MR. KENNA: Thank you. Let me do a couple of things
15 that were -- are sort of high level and think a little bit
16 about what this sessions is called. And you kind of heard
17 Michael already underline the importance of transmission. But
18 there's also some other key, just in the title, concepts here,
19 the landscape-scale piece of this, that it's about
20 infrastructure, that it's about planning, that it's trying to
21 be strategic, and that it's focused on investment. So all of
22 those things imply some things which I'll talk a little bit
23 more about.

24 I also very much welcome the RETI 2.0 letter. I
25 think it's pointed in the right direction. And the reference

1 to the president's Clean Power Plan is also, I think, right on
2 point.

3 We have a wonderfully constructive relationship
4 between the Bureau of Land Management, the Department of
5 Interior and the United States Government in general with the
6 State of California on these issues. We have a history to
7 prove it. There are projects on the ground; you heard about
8 some of them already. And I do believe one of the catch
9 phrases from early on the process was do things smart from the
10 start, and I believe we're getting there. I do believe we
11 are.

12 So let me give you a couple of specific pieces that
13 I think are important in terms of what we're going to talk
14 about here today. One is the infrastructure piece. And I'm
15 going to highlight it based on a comment that Michael made
16 about Sunrise Power Link. And if I think back to that summer
17 and how important it was to flip the switch on that line,
18 given what happened in San Diego area with San Onofre, and
19 remembering that all of the work that led up to that moment
20 had to start years and years before.

21 I think that highlights the importance of planning,
22 paying attention to the infrastructure, and having a backstop.
23 You can't assume, when you've got a situation with aging
24 infrastructure, that everything is going to stay static. It
25 won't. And so what we have done here in California has -- has

1 been a sincere and dedicated effort to get ahead of that
2 curve.

3 So where does that leave us today? Well, I think it
4 leaves us in the position where we've got to finish the DRECP,
5 the Desert Renewable Energy Conservation Plan. And I'll give
6 you a few reasons why I think it's so important to bring this
7 to decisions.

8
9 One is the certainty about the renewable energy
10 generation and transmission on public lands. It's a big
11 component. And I think it allows us to also create some
12 certainty about the conservation that's provided on public
13 lands in an area that has been nationally designated since
14 1976 but has never really had the full-blown description of
15 what the conservation expectations are for that area. The
16 DRECP does that.

17 The last thing that I wanted to do is just highlight
18 how important it is to take this kind of commitment from many,
19 many, many people and turn it into decision value. The value
20 of the process is important but it's not anywhere near the
21 value of having decisions that actually set direction and move
22 things ahead. And let me give you a little bit of an example
23 of why what I think is at stake.

24 We have the READ (phonetic) agencies, the four
25 agencies, state and federal, that worked over years and years

1 to pull together the data structure that you've already heard
2 about that is as good as there is out there. Those agencies
3 have put a lot of commitment, staff time, money into a
4 collaborative approach to problem solving, getting beyond turf
5 and just trying to put the public interest out front and do
6 what makes sense. There's a commitment to putting the best
7 expertise on the line when you've got an issue or problem.

8 As evidence of that I would cite the transmission
9 planning process. We've got the best transmission planners in
10 the State of California and said what should we be looking at
11 and how does it fit to the alternatives that we're talking
12 about? It's a state and federal effort that I think is truly
13 an expression of a focus on public purpose.

14 There's also stakeholder interests that are at
15 stake. Everyone brought valuable perspectives. We heard from
16 every single one of the energy -- renewable energy components.
17 We heard from a full range of environmental groups. We had
18 engagement from a number of communities. We had a number of
19 agencies, even outside of the READ agencies, who provided
20 valuable perspectives and participation.

21 If you look to the tribes, there are 40 tribes in
22 the DRECP planning area that we've had tribal leadership
23 forums extending over almost four years now. We've had one-
24 on-one consultations with those tribes. We've had staff
25 analysis that many of the tribes have brought to the table.

1 And we've had -- have the programmatic agreement process
2 that's currently underway.

3 The Department of Defense which is engaged in
4 training and testing in the California Desert and has been
5 since World War II. These are important, nationally important
6 kinds of efforts. The -- they have provided liaison to this
7 process throughout. We've had coordination across all of the
8 installations and commands, and that's at scales all the way
9 up to the Pentagon. We had involvement with the National
10 Clearinghouse process. And specific project consultations,
11 some of them really significant, like the one on the West
12 Chocolates where the -- where the Chocolate Mountains are --
13 that gunnery range is very important to the training of
14 soldiers.

15 I want to especially highlight the counties. They
16 have really stepped up to the need. And our recent history in
17 the last year has been really remarkable. They bring to the
18 table a very constructive and practical brand of input. And
19 this is something that for me is refreshing, frankly.

20 We have -- the input from a number of the counties
21 that are essential to the components, and you're -- when you
22 see the final DRECP you'll see some of that. But I also would
23 highlight that you can see part of the work now. Riverside
24 County's work is already out there. Inyo County's work is
25 already public. And Imperial County's work is already public.

1 And the public processes on a number of the other counties
2 have already -- are well underway, and that part is public as
3 well.

4 So I think the counties have really stepped up, and
5 I want to thank them for that. And I want to thank them for
6 the input that they provided to the Bureau of Land Management.

7 So let's just assume the DRECP is a set of
8 decisions. And with that as an anchor point, what is possible
9 now? And I think you've heard a little bit of that from
10 Michael Picker. And I share some of Karen's sentiments about
11 Michael Picker. Always valuable to get a call from Michael
12 Picker.

13 But I do think that there are lessons here that have
14 statewide implication that are -- have implications at the
15 western grid scale, and that have implications at a national
16 scale. And I'll give you just a flavor of that. I don't want
17 to be too longwinded here because everybody else has been nice
18 and short. But let me highlight some of the things that I
19 think fall into the category of most successful and most
20 necessary components.

21 One is that the logic of the alignment between
22 transmission and generation is learnable. You just have to
23 get down and get dirty and get in the middle of it and figure
24 it out. And the -- it shouldn't be daunting, that it can be
25 done in an organized way. And I have learned a tremendous

1 amount through my association with the State of California on
2 these kinds of issues.

3 The second thing is that attention to a broad
4 portfolio and the distribution of that portfolio of the
5 different technologies is really important. That if we're
6 going to think long term we have to be careful not to just be
7 responsive to short-term market stimulus kinds of things.

8 And I remember the shift that was going on in the
9 middle of the planning process where photovoltaic price points
10 really started to change some of what was going on in the --
11 in the project queue at the Bureau of Land Management. We had
12 to remind ourselves, though, that we're -- we're trying to
13 think at a system level and think about stabilities across
14 even the individual major trunk line level. And there was an
15 IEPR workshop, much like this one, that CEC held right at the
16 right point in time. And we were able to learn a little bit
17 about that and regroup ourselves from a planning perspective.

18 The third thing is that the best conservation
19 outcomes require some focus, as well, in this case a focus on
20 species and natural communities. We started with well over 50
21 species. We eventually whittled that down by the time we got
22 to the release of the formal draft of 37. And so -- and that
23 was a planning -- a deliberative, iterative kind of planning,
24 sort of thought process. But the conservation piece has to be
25 in the mix, as well, and Ken Alex eluded to that.

1 Then the last point is that the -- there -- you
2 reach a point where you can't maximize everything. And so you
3 need to at that point, I think, have a cultural commitment, is
4 what I would call it, at an interagency level, defining the
5 low-conflict solution. And that is one of the most remarkable
6 pieces I have seen in this California process. There are some
7 tendencies that I would call sort of let's-avoid-these-in-the-
8 future things, and Ken talked a little bit about one or two of
9 these points.

10 But before I mention those I wanted to emphasis that
11 the principles and the overall direction of what we've been
12 doing, and the DRECP is on point; it is right. I'm convinced
13 of that at this point. I think there's clear evidence of it
14 at this point. I think the relationships that have been
15 established under this collaborative process have been
16 invaluable. I don't think there's any doubt of that.

17 I do think, though, that there are -- we can't get
18 to the kinds of scales that I talked about, statewide,
19 national or western grid scales, with the same sort of unit
20 costs that we saw in the DRECP. That's probably not possible.

21 The good news in that is that some of that flows
22 from we were learning and we didn't always know exactly what
23 we were doing. And in hindsight I think there are some things
24 that had greater value and some things that had lesser value
25 in some of the process pieces that we had going on.

1 Some decisions also can't wait for a long process.
2 So I think time is the other piece that I think needs some
3 serious attention and consideration is how do we get more
4 quickly to the chase, protecting the value of the things that
5 we learned in the process, like bringing all the right people
6 into the conservation, making sure all the right data is on
7 the line, being able to sort down to best possible
8 conservation outcome, along with best possible infrastructure
9 outcome?

10 And then I think the last part of this is that it's
11 probably not a pure yes or no answer on any of the above, that
12 it's going to require some judgment and some grayscale kinds
13 of thinking in order to provide the most optimum mix going
14 forward.

15 In closing, I would say I am absolutely proud to be
16 part of the kind of climate change, greenhouse gas and
17 infrastructure initiatives that have been going on here in
18 California. And one of the reasons that I am so proud to have
19 been part of it is that the commitment is very sincere across
20 the board to ensure that conservation is a co-equal goal, and
21 I think we're doing that.

22 COMMISSIONER MCALLISTER: Thank you very much for
23 your comments and for your partnership. It really is a
24 fundamental part of the process you described so well. So
25 thank you very much.

1 Commissioner Scott?

2 COMMISSIONER SCOTT: Thank you.

3 Good morning everyone. And I just want to say --
4 echo the welcome to our colleagues on the dais. It's terrific
5 to see all of you. And this is a space that I used to be --
6 have my sleeves rolled up and be right in the middle of. And
7 it's good -- it's good to be back in. I'm looking forward to
8 today's conversation.

9 I wanted to highlight something that you heard
10 President Picker say in his remarks. But Governor Brown has
11 set goals for us, 50 percent of our energy from renewable
12 energy sources by 2030. And also, a 50 percent petroleum
13 reduction by 2030. And I mention that to you all here today
14 because I think that means in many instances we will have an
15 electrified transportation fleet. And these measures are
16 going to be really important to meet our climate and clean air
17 goals.

18 But with an electrified transportation fleet, I
19 think that just puts a real fine point on the types of
20 planning and conservation that we're talking about, where will
21 we put the renewable energy and the transmission that gets
22 that power from where it's generated to where people are? And
23 to consider that is part of our Integrated Energy Policy
24 Report in the midst of kind of this changing dynamic for our
25 transportation fleet, grid modernization, the big conversation

1 we're having about how to meet the climate goals is just
2 exciting for me.

3 So I think it's -- it's timely, it's relevant, it's
4 an incredible topic. I'm really pleased to see everyone
5 around the table and in the audience and the folks, I'm sure,
6 are on the WebEx as well. And I anticipate a robust
7 discussion. So I'll stop there.

8 COMMISSIONER MCALLISTER: Thank you very much.

9 And, you know, the flip side of this is the demand
10 side which we're not going to talk about today, but they all
11 have to work together. You know, we're talking macro here,
12 transmission and large-scale land use. But, you know,
13 we're -- another topic for another day is, well, it also has
14 to work with demand which is a new, you know, a new supply
15 that we have to juggle in order to create the headroom for all
16 the new electrification that's going to take place. So
17 keeping that in mind in the greater scheme of things.

18 Kevin, would you like to make some comments on
19 behalf of the Chair?

20 COMMISSIONER SCOTT: I think you have to share with
21 Michael Picker.

22 ADVISER BARKER: Hi. Thanks. A few comments on
23 behalf of Chair Weisenmiller. Sorry he couldn't be here
24 today. He's overseas in China, doing follow-up work from a
25 previous trade mission with the governor.

1 One thing I'd like to note, we've talked a lot about
2 some good statistics, that we're going to meet 40 percent
3 greenhouse gas reductions by 2030, 50 percent renewables by
4 2030. Currently we're at 25 percent renewables in the state.

5 I think the electricity sector has done quite well. We're 20
6 percent below greenhouse gas emissions from 1990 to today.

7 One thing that I think that we really need to think
8 about is sort of the regional effort. I think it's been
9 discussed. I think that was one of the reasons why President
10 Picker and Chair Weisenmiller decided to do the letter. We
11 did a lot of great work before. We've done a lot of great
12 work since. And I think the partnership that they've
13 committed to is kind of looking at what we're going to do in
14 the future.

15 So, Commissioner, thank you for inviting me here.
16 And that's it.

17 COMMISSIONER MCALLISTER: Great. Okay.

18 With that, let's -- are you going to be able to
19 stick around anymore, Michael, or are you going to have to
20 head out? Okay. We'll big you adieux.

21 MR. PICKER: I'm going to leave before you start the
22 next part --

23 COMMISSIONER MCALLISTER: Okay. Great.

24 MR. PICKER: -- of your agenda.

25 MS. RAITT: I was just about to do so, so thank you

1 again for your comments and for being here. And we'll --

2 MR. PICKER: Thank you.

3 COMMISSIONER MCALLISTER: I'm sure you'll be
4 listening to the, you know, the -- reading the transcript of
5 this event. We'll take some cliff notes for you. Great. So
6 really value the partnership with the PUC on this and other
7 issues. Okay.

8 With that, let's move on to the first panel.

9 MS. RAITT: Yeah. Our first panel is on agency
10 introduction updates. And Al Alvarado is our moderator.

11 MR. ALVARADO: Good morning. My name is Al
12 Alvarado. I'm with the Transmission Planning Office here at
13 the Energy Commission. I'm here to introduce and moderate the
14 first discussion session for today's workshop.

15 Today we have representatives from the Energy
16 Commission, the Public Utilities Commission, and the
17 California Independent System Operator that are here at the
18 table today with me. They will present an update of the
19 landscape-scale environmental considerations underway for
20 energy infrastructure planning. The energy agencies and the
21 ISO do work closely together to coordinate many of the
22 technical assumptions that all feed into the interrelated
23 energy infrastructure planning processes.

24 The first speaker today is Roger Johnson. He is the
25 Deputy Director of the Siting Transmission and Environmental

1 Protection Division here at the Energy Commission. Roger will
2 provide us an overview of the Energy Commission activities and
3 renewable energy planning, and the technical support
4 activities for the planning processes.

5 Gentlemen, we have a full agenda today. So I will
6 urge you to keep time in mind since we have many other
7 speakers.

8 Roger?

9 MR. JOHNSON: Thank you, Al.

10 Good morning, Commissioners and public and
11 attendees. I've been asked to lead this off, to talk about
12 where we've been so far with landscape-scale environmental
13 evaluations for energy infrastructure. And maybe we're going
14 today -- and this is one of the discussions we're going to
15 have today.

16 Just to recap what we did last year on the 2014 IEPR
17 update pending activities, the Commission held a 2014 IEPR
18 Workshop on the Landscape-Scale Environmental Considerations
19 for Energy Infrastructure. That was a well-attended workshop.
20 And I see a lot of the same faces this year as last year. And
21 I appreciate everyone's continued interest in this.

22 The participants included government, utility,
23 environmental and developer stakeholders. And we had broad --
24 broad stakeholder support for landscape-level planning for
25 renewable generation and transmission infrastructure.

1 Support for -- also using -- there was also
2 identified support for using analytical tools, such as the
3 Conservation Biology Institute's database and platform, which
4 we're going to hear about today and get sort of a view of that
5 effort.

6 On behalf of the Renewable Energy Action Team, the
7 Energy Commission has developed a dataset of renewable energy
8 projects. We did this back when the agencies were actively
9 helping to get these projects permitted, get them reviewed.
10 And we've continued to develop that database, excuse me, which
11 includes information on project proposals, permitting and
12 construction phases, start of commercial operations, and the
13 status of power purchase agreements.

14 Currently our database has 503 proposed projects
15 that are larger than a megawatt, which total some 36,700
16 megawatts. Of that group, 214 of those projects have permits
17 totaling 13,000 megawatts. And then again in a subgroup, 64
18 projects have power purchase agreements today totaling 3,300
19 megawatts.

20 So we're looking to, as we discussed this morning
21 already, looking forward to 50 percent renewables by 2030. And
22 to get there we're going to need another 14,000 to 20,000
23 megawatts of new renewable energy to reach that goal. This
24 will depend on the mix of technologies.

25 Currently we've -- we're mapping all these projects.

1 We have the data on them. And this is just a representation
2 of that list of projects. And we're hoping this week to have
3 this up on the web and available to the public for their use.
4 It will have information about the status of the project,
5 whether or not it has a permit, what's the status, what stage
6 of permitting it's in, and whether or not it has a BPA.
7 Looking forward to that being up.

8 So current landscape-scale studies for
9 infrastructure planning, the Energy Commission is expanding
10 our environmental scoring metric used for previous CPUC and
11 ISO planning studies. In the back we did sort of -- in the
12 past we've done real basic evaluation of environmental
13 preference for projects, primarily using the DRECP information
14 that was available. We had very good information in the
15 desert and so we were able to essentially evaluate projects,
16 whether or not they're being proposed in development focus
17 areas or outside of those areas. And if they were outside of
18 the DRECP we didn't have much information that would allow us
19 to score those, and so they were given neutral -- neutral
20 scores.

21 So we've been working with the agencies, evaluating
22 information and tools for performing these types of analyses.
23 Again, we'll talk about that today. We're working with the
24 local state and federal partners and other stakeholders, and
25 we're focusing on -- beyond the DRECP. We've got information,

1 good information on the desert, but we've also got some fair
2 information in the rest of the state. And so we're going
3 to -- we're going to be looking at the Central Valley, the
4 rest of California, and also the west, and then
5 internationally looking to our neighboring countries north and
6 south.

7 So modifying environmental evaluation criteria to
8 better reflect preferred development locations and risks for
9 possible permit failure is one of the goals of this effort.
10 We're really trying to develop some tools that will help the
11 agencies and the public and the developers to understand where
12 the preferred areas are to develop this. And then if we
13 develop -- if we designate those areas, one of the efforts now
14 is to look at what transmission is needed to support that
15 development.

16 So we're working with local government jurisdictions
17 on geographic designations. The counties that are here today
18 were -- are going to have the opportunity to talk about the
19 actions that they've been taking to develop their renewable
20 energy using their planning grants they received from the
21 Commission.

22 And the goal here is to apply landscape-level
23 environmental valuation metrics to evaluate the permit
24 challenges and the -- for proposed renewable projects. So the
25 valuation metrics, like we mentioned, can help developers

1 select project locations with low risks for permit failure and
2 better mitigation costs.

3 So some of the work that's been going on, as Jim
4 Kenna mentioned, DRECP, we've done a lot of work there. Phase
5 1 is near completion. The Phase 1 Final Report will be out
6 soon. And now we're working also on Phase 2 with the local
7 governments and the counties in the -- in the desert, working
8 with them on designing what land use tools we can -- we can
9 end up with the DRECP for that area.

10 The Transmission Project Environmental Feasibility
11 Study, last year the ISO asked the Energy Commission to assist
12 with evaluating certain transmission -- potential transmission
13 projects that could be used to support the shutdown of the San
14 Onofre Generating Station. And the Energy Commission's
15 consultant looked at 13 projects, evaluated those and
16 identified that only 5 of those would probably be -- would
17 have some permitting challenges but would be permittable. The
18 other were deemed to be too difficult to permit.

19 And this is the first time that the ISO has looked
20 at droughting and environmental analysis as part of their
21 transmission planning process, trying to get a look ahead at
22 what might be the challenges. So there's continued technical
23 collaboration going on today with the PUC and the ISO for
24 energy infrastructure processes.

25 The Energy Commission prepares the -- as part of the

1 IEPR we prepare the demand forecast which will be used for the
2 landscape-level environmental evaluations for planning
3 studies. We submit that forecast to the PUC and they use that
4 in their long-term procurement process to identify generation
5 needed for jurisdictional utilities, the IOSs, and they use
6 that in their RPS, Renewable Portfolio Standard calculator,
7 which will be discussed this morning as well. And then
8 finally, the ISO takes this information provided by the Energy
9 Commission and the PUC and inputs into -- into their
10 transmission planning process to identify the transmission
11 system of grade requirements.

12 And as mentioned this morning, with the release of
13 the decision to go forward with RETI 2.0 by the Energy
14 Commission and the PUC, that's also going to provide an
15 opportunity to reassess those (inaudible) that were identified
16 and analyzed and ready, super cresses, and we'll hear more
17 about that this morning. And it will give us a chance to
18 update the data and the assumptions that were in RETI and
19 apply the new landscape-level environmental assessment tools
20 that we've been developing.

21 And also, it's going to allow us to reevaluate the
22 results of RETI and update that. RETI was looking at 33
23 percent. And now RETI 2.0, as mentioned, will be looking at
24 50 percent renewables. So looking forward to that effort as
25 well.

1 Thank you very much.

2 MR. ALVARADO: Thank you. Thank you, Roger.

3 I don't know if there's any questions for Roger.

4 COMMISSIONER MCALLISTER: So, yeah, I just wanted to
5 sort of consult here. I'm inclined to sort of -- to wait
6 until everybody presents in order to ask questions so we're
7 not -- we're not -- so we don't get behind basically. But if
8 you could expect some questions at the end of the panel, that
9 would be great.

10 MR. ALVARADO: Okay. With that, then I'd like to
11 introduce Paul Douglas. Paul Douglas is a supervisor of the
12 Renewable Procurement and Market Design Unit at the California
13 Public Utilities Commission. Paul will provide us an overview
14 of the RPS calculator proceeding and their -- their plan
15 considerations of environmental issues for evaluating
16 renewable project portfolios.

17 MR. DOUGLAS: Good morning everyone. Thanks for the
18 opportunity to speak today. Again, my name is Paul Douglas
19 from the California Public Utilities Commission. I oversee
20 renewable procurement and resource planning for utility-scale
21 renewables. Today I've been asked to provide a brief overview
22 of the Commission's work plan for integrating renewable
23 environmental considerations in the RPS calculator, which we
24 have just done an extensive overhaul on and just finished.

25 So for those of you who are not familiar with the

1 calculator, it's a renewable resource planning tool that the
2 Commission has been using since 2010. It creates plausible
3 portfolios, plausible defined as from an economic,
4 transmission and environmental perspective. It's used in the
5 long-term resource planning proceeding to inform their
6 scenarios. And it's also used to inform the ISOs
7 transmission -- annual transmission planning process.

8 Before discussing about how we're planning to move
9 forward, I think it's important to highlight for everyone,
10 though, that we've been talking about environmental
11 considerations and planning for quite a while, since 2008.
12 And it's been eluded to several times this morning, starting
13 with RETI in 2008, which I see a lot of familiar faces in
14 here. We all worked on that. That was -- that was a very
15 interesting exercise and it was cutting edge. And that -- a
16 lot of those lessons learned then were transferred into the
17 long-term procurement plan proceeding with the use -- via the
18 RPS calculator. So basically since 2010 until today there has
19 been some type of environmental considerations in long-term
20 resource planning.

21 The reason why I want to -- we want to work with
22 stakeholders to reassess how to integrate environmental
23 considerations in the RPS calculator is that there have been
24 significant changes in the renewable market, and we've already
25 talked about that a little bit this morning. We have enormous

1 amount of economically viable renewable potential, orders of
2 magnitude beyond what we need for 50 percent. We have good
3 solar resources available throughout the state. Where in 2008
4 we were looking at tiny little landlocked renewable potential
5 out in the desert, now we have economically viable solar
6 potential throughout the state. And so what that means is
7 that we have increased availability and lower costs which will
8 probably result in greater flexibility in siting, and also
9 potentially fuel transmission investments.

10 Fortunately, several planning initiatives have
11 actually tried to tackle this issue, ranging from RETI, which
12 I've already mentioned, the Western Renewable Energy Zones.
13 The Commission's long-term resource planning proceeding has
14 done this for several years. And then also the WECC through
15 its Environmental Data Task Force methodology. But it's
16 important to highlight for everyone it's not really clear
17 which approach is the best, and that's because different
18 screening scored methods have different purposes and
19 approaches. There's not one single approach that has been
20 widely accepted. And none of the methodologies have ever been
21 benchmarked against actual impact to see if one methodology is
22 more predictive than another methodology.

23 So the -- here are the staff's proposed guiding
24 principles to use when evaluating stakeholder proposals for
25 considering environmental planning in the calculator, so

1 ranging from aligning with existing permitting guidelines and
2 operative judging permitting to incorporating DRECP and other
3 ongoing processes, like the San Joaquin effort. And ideally,
4 hopefully, this would facilitate the siting of projects,
5 generation and transmission projects to permitting.

6 So regarding the environmental scoping exercise, the
7 Commission will be issuing a ruling shortly that will present
8 this scoping exercise, quantitative scoping exercise that we
9 hope the parties will use to inform their proposals when they
10 file their comments in response to the ruling. And so we've
11 used the latest version of the calculator which we've gotten
12 an enormous amount of stakeholder input on, and I think it's
13 in a really good place right now. And we've been using the
14 calculator to constrain the supply curve reflecting different
15 land use considerations to explore how these screens would
16 impact resource location transmission solutions, how the land
17 use screens impact portfolio costs, this tension between
18 transmission utility-scale renewables versus distributed
19 generation, which is always an issue when we're trying to
20 permit a transmission line, so the non-wires alternative.

21 And then this -- this was also discussed a little
22 bit this morning, this tension between in-state and out-of-
23 state resources and how does that impact the cost of the RPS
24 portfolio. And also the associated risk.

25 And then lastly, and this is actually a new piece of

1 analysis that we just finished, and this is quantifying how
2 energy-only generation transmission impact land use
3 considerations. And for those of you who are not familiar
4 with the concept of energy only, it's basically saying that
5 until recently we've been asking generators to be fully
6 deliverable in those sort of critical hours which would
7 then -- this is a very simplistic summary of it, but in those
8 critical hours where they would pass a certain test and say
9 you are resource -- you are deemed eligible for resource
10 adequacy. And that results, though, in a sort of overbuild of
11 the transmission systems so you're deliverable in all those
12 hours.

13 And so we asked the question: What happens if you
14 were energy-only, so you'd be deliverable most of the time?

15 And what we found is like, wow, that's quite a game
16 changer. We just got the results from Staff last week. We'll
17 still processing that. But again, that's another reason why
18 we think it's important to work with stakeholders and reassess
19 this environmental scoring methodology because so much as
20 changed, including this energy-only aspect.

21 So the ruling that we'll be issuing shortly is going
22 to have a variety of portfolios that we ran through the new
23 calculator. I'm not going to go through all of this but, you
24 know, it's starting with a 50 percent base case WECC-wide, and
25 then starting to do permutations around in-state versus out-

1 of-state, and if you're in-state only, then we start adding
2 additional land use screens. So all portfolios have already a
3 Category 1 land use screen in them. It's basically -- it's
4 illegal to develop there. So we thought that was pretty safe
5 to put in the calculator.

6 By then you start adding RETI Category 2. And then
7 you do DFA only from DRECP. And then we started looking at
8 salt-affected lands and to what extent is that an opportunity
9 for additional development in the state.

10 So the preliminary results, and I should highlight
11 the word preliminary because we're still reviewing the
12 results, and I don't think anyone will probably be surprised
13 by some of these results, though, but in-state only cases
14 increase our (inaudible) compliance costs. And interestingly
15 enough, it drives wind development to other locations in
16 California that haven't seen wind development, so such as the
17 Sacramento River Valley. So there's no -- very little
18 generation up there, very little transmission up there.

19 Jeff Billinton from the ISO just showed me a map of
20 California and all the transmission work that's been done at
21 the bottom of the state. And then Sacramento River Valley is
22 just a couple little dots. There's not much going on up there
23 right now.

24 Allowing out-of-state resources lowers the cost of
25 compliance and reduces the impact of California land use

1 restrictions. So this concept of, you know, the ISO and
2 PacifiCorp merge, you know, how does that impact land use?
3 And I think probably significantly.

4 High DG scenario, you know, I think this is
5 something that's been stated for several years and it's still
6 the case, is currently the highest case, costs have come down
7 significantly, potentials is increased, and that a significant
8 amount of salt-affected farmland could be used for renewable
9 development with little impact on net costs. So that's --
10 that sort of bolsters the San Joaquin effort, I think to some
11 extent.

12 And then I just mentioned this earlier, so the
13 energy-only procurement tends to increase the amount of solar,
14 increase the amount of wind, and reduce costs relative to
15 scenarios assume additional generation transmission is fully
16 deliverable, and that's because we're able to actually
17 interconnect more renewables onto the system without
18 transmission costs. And so that means that the remaining
19 amount of wind that we have actually can compete, and so the
20 calculator is saying we would like wind. And we are trying to
21 do a little less solar because of a lot of the grid
22 integration issues that have been discussed recently.

23 So the preliminary results indicate that certain
24 land use screens have significant impact on where a selected
25 resource is located and transmission solutions. So we're very

1 interested in getting -- in getting party comments on the
2 analysis when we mail the ruling.

3 And then with regards to next steps, so the ruling
4 will go out shortly. We will be asking parties for comments,
5 replies. And I think our work plan the way -- if you can
6 think -- break it down into two basis sort of deliverables,
7 one is long-term resource planning, the ISO are our clients.
8 And they have -- the next planning cycle starts early next
9 year. So that means then what can we get into the new
10 calculator by October of this year from a land use screens
11 perspective? Because I don't think we'll be able to do much
12 more. So we'd be working with stakeholders, work with the
13 local, state and federal permitting agencies, make sure we
14 have the right land use screens in the calculator. And then
15 span the remainder of 2015 working with stakeholders to make
16 sure we got the right portfolios before they're sent to the
17 ISO and the long-term resource planning group.

18 And then in parallel, because we have to start that
19 also, is this: What is the methodology we're actually going
20 to use in the calculator?

21 And so -- so October 2015 is the first drop-dead
22 date for us. And then August 2016 is the second drop date for
23 us because it's probably going to take quite a while to work
24 with the stakeholders. There's a lot of information to
25 process, a lot of issues to think about to get a methodology

1 together into the calculator and vetted and adopted by the
2 Commission. And then spend the remainder of 2016 working with
3 stakeholders to get the portfolios right before we send them
4 to LTPP.

5 So those -- that's -- those are my -- concludes my
6 formal comments. And we'll take questions later.

7 COMMISSIONER MCALLISTER: Okay. Thanks very much,
8 Paul.

9 MR. ALVARADO: Thank you, Paul.

10 The next speaker is Jeff Billinton. He's the
11 manager of the Regional Transmission North at the California
12 ISO.

13 MR. BILLINTON: Thanks. As indicated, my name is
14 Jeff Billinton with California ISO. I'm just going to go
15 through in terms of the ISO's transmission planning process,
16 and in particular with -- with regards to generation
17 interconnection.

18 As has been eluded to today already, transmission
19 planning is a coordinated activity within the state. We've
20 done a fair amount -- a significant amount of coordination
21 with the CEC and CPUC with respect to the various processes
22 that -- that -- the inputs, the outputs from the various
23 processes so that we make sure that we're -- we're aligned and
24 coordinated as we move forward looking for the future needs,
25 in particular, components of that being within the IEPR

1 forecast. The energy and demand forecast is a significant
2 input into the ISO's transmission planning processes, as well
3 as the CPUC's portfolios as we look at the needs going forward
4 for transmission to support the renewable -- the renewable
5 goals, as well as making sure that the assumptions of the LTPP
6 process are aligned as we look at procurement for generation
7 within the state as well.

8 So it's -- from the -- from the ISO's point in terms
9 of the coordinated leads into the ISO's transmission planning
10 process, the ISO's transmission planning process is about a
11 15-month transmission planning process. With the approval of
12 the ISO's transmission plan in March the graphics up here are
13 in terms of reflecting in terms of the latest transmission
14 plan that we have that was approved in March by the ISO's
15 Board, but it is an annual process. So as we look through the
16 cycles, taking into account the assumptions in the early
17 portion of it, and making -- making in terms of clear is the
18 ISO's transmission process is a transparent process with
19 significant stakeholder involvement through the process. So
20 as we go through the assumptions and development of them early
21 in the -- in the February-March timeframe, stakeholder -- on
22 the assumptions, in addition to the inclusion of the aligned
23 with the LTPP and CEC's IEPR -- IEPR.

24 And then we go into the actual planning components
25 in the studies. And we kind of go through a process as we

1 look at it as assessing from a reliability need, and then a
2 policy need, and then the economic analysis from an economic
3 perspective. And so as we go through there we will be posting
4 in terms of reliability results in the next two weeks, August
5 14th. And we'll have the stakeholder session in September,
6 late in September on those, which opens for alternatives a
7 request window for parties to submit alternatives to the
8 reliability needs.

9 And then in November we have a stakeholder process
10 where we go -- stakeholder meetings where we go through the
11 policy analysis and the economic preliminary analysis with the
12 culmination of the transmission plan, taking into account the
13 stakeholder information or comments that we've received at the
14 end of January with another stakeholder process to go through
15 in terms of the review of that plan.

16 As we look at the transmission that's underway based
17 upon the transmission approved through the ISO's transmission
18 planning process, as well as a number of projects that have
19 come through as we look at the interconnection for generation,
20 be it of the LJAs (phonetic) for interconnection to the ISO's
21 grid, that's -- that's in terms of -- covers off the majority
22 of the projects required as we look at it to meet the 33
23 percent RPS. A lot of the projects are the ones that earlier
24 today were referenced, be it of the Tehachapi, Sunrise, which
25 went through the ISO's transmission planning process for the

1 approvals by the ISO's Board for the need for these
2 facilities.

3 With regards to the renewable integration within our
4 transmission planning process, the ISO utilized the portfolios
5 that are developed by the CPUC within the planning process.
6 Those portfolios, as was indicated, take into account
7 environmental in regards to the siting for the generation and
8 the needs for the siting, and the ISO in terms of from the
9 point of what is the transmission -- the transmission
10 alternatives to integrate the renewable portfolios into the
11 electric system.

12 With this years, be it of the 2015-16 transmission
13 planning process, the portfolios for 33 percent that we
14 received are essentially the same as last year. In last
15 year's transmission plan we didn't identify any additional
16 transmission needed for the 33 percent. And as reflected in
17 the previous slide, there was a significant that has been
18 identified already. And as we look at 2020 in particular
19 we're getting close to that time period and the amounts in
20 terms of for the 33 percent already interconnecting.

21 As a part of the 2015-16 ISO transmission planning
22 process we are and have been working with Paul in terms -- and
23 the CPUC to look at the 50 percent scenarios in the -- this
24 year's transmission planning process. We are conducting a
25 special study. The intent of the study is for information

1 basis at this time, looking in terms of a couple of portfolios
2 that the CPUC is providing to the ISO with internal and an
3 external portions to the -- to the California within those
4 portfolios, and looking in terms of what are the transmission
5 needs.

6 And as Paul indicated, as well, looking if we -- as
7 we go beyond the 33 percent, the transmission needs of the
8 beyond 33 percent not being deliverable but being energy only
9 which involves, in terms of the analysis, looking at the
10 technical of our power flow models as we have typically for
11 the production -- or for the -- for the deliverability
12 components, but also production simulation to look at from the
13 energy-only point of view within those areas, potential areas
14 of constraint.

15 And so that's -- as we're going through the process
16 we're looking. We'll probably -- we'll give an update in
17 the -- in the November stakeholder meeting. And then it will
18 be included into the draft transmission plan in January of
19 2016.

20 And then in addition to the ISO's planning process,
21 we have, in terms of the -- excuse me -- we have the
22 generation interconnection process where -- in terms of
23 looking at generation needs to interconnect to the
24 transmission system based upon applications by interconnection
25 customers we utilize in terms of a queuing process and are

1 going through in terms of Cluster 7 and Cluster 8 within the
2 queue process this year.

3 The map gives an indication, and as Paul indicated,
4 where we have generation currently within the queue and where
5 we're -- we've looked in terms of that transmission
6 interconnection, based upon the interconnection customers'
7 requests for access to the transmission system.

8 And then with that I'll conclude the presentation.

9 COMMISSIONER MCALLISTER: Thanks very much, all
10 three of you.

11 Commissioner Douglas, do you have any questions?

12 COMMISSIONER DOUGLAS: Actually, I think I'll hold
13 off on my questions. I found the panel was very helpful.
14 Someone else might jog me to ask a question or two.

15 COMMISSIONER MCALLISTER: I have one. I want to
16 give others a chance to ask a question, as well. And we are
17 just a little bit behind, so I don't want to delay us too
18 much.

19 I was interested in Paul's -- your mentioning the
20 energy-only option and sort of some of the technical analysis
21 you're doing around that. I guess I'm wondering if that -- I
22 guess, let's see, this is probably a question for the ISO, but
23 anybody really. Does that drive -- you know, would the
24 emphasis of that option and recognition of it in our planning,
25 would that drive the need for sort of the flip side which

1 would, you know, highlight the need for a capacity market or
2 something to kind of drive the other attributes that we also
3 need for reliability purposes and deliverability and all that?

4 MR. DOUGLAS: I think I would defer that to the ISO.

5 MR. BILLINTON: At this time I'm not sure if I
6 would. I guess, like I say, as we're going through the
7 analysis right now it's for information to try to understand
8 what energy-only from the perspective of the renewables would
9 look like, and from that perspective look and see what would
10 be -- what is the results, because we haven't really looked,
11 in terms of have a study of that nature.

12 COMMISSIONER MCALLISTER: Okay. I think that would
13 be really interesting to look at. I mean, there's all sorts
14 of contractual issues that kind of come up if you think of,
15 okay, well, what would that look like in practice in the
16 marketplace? And, you know, would it be a mistake? How
17 much -- how much curtailment would you have -- you know, would
18 be acceptable and you'd still be able to mobilize those
19 resources? All sorts of issues like that. And then the flip
20 side, would we also need to shore up on the -- you know, for
21 the ISO to be able to operate the system effectively if it
22 does -- you know, if the energy is not there at any given
23 moment?

24 MR. BILLINTON: Yeah. Just -- just to kind of
25 distinguish between the two, as well, the study of the 50

1 percent special study is, in a large way, looking at the
2 transmission needs. There is other, and that's within the
3 LTPP process and work that we've done looking at from the
4 point of operationally, integration, and the flexibility
5 needs. So there is -- this is looking primarily at the
6 transmission component within the special study. But there is
7 the ongoing work with regards -- with regards to the issues of
8 potential of over-gen, how do we mitigate, how do we manage,
9 and working through some of that and the flexibility needs of
10 the system.

11 COMMISSIONER MCALLISTER: Okay. So those -- those
12 different pieces are not integrated as of yet?

13 MR. BILLINTON: No. That's --

14 COMMISSIONER MCALLISTER: Okay.

15 MR. BILLINTON: We are looking in terms of --
16 towards -- to integrate those, and looking possibly within the
17 transmission plan.

18 COMMISSIONER MCALLISTER: Okay. Great. Well,
19 that's super, super interesting and potentially very viable.

20 MR. DOUGLAS: I should also highlight the --

21 COMMISSIONER MCALLISTER: Great.

22 MR. DOUGLAS: -- the energy-only work that we're
23 doing with the ISO. Jeff mentioned it's a special study to
24 provide inputs and assumptions into the RPS calculator. Right
25 now we were using rules of thumb that ISO provided based on

1 their judgment. And so this is why our results are very, very
2 preliminary in that with the results coming from the special
3 study we can see, are the rules of thumb correct? Do they
4 need to be modified.

5 And you mentioned earlier just a curtailment. And
6 that's actually one of the things that we're hoping to
7 identify is how many renewables can we interconnect or how
8 much renewables can we interconnect on the existing
9 transmission system without upgrades? And does transmission-
10 related curtailment occur? And at some point there would be,
11 well, there's enough curtailment and it has a cost, then we
12 might actually build more transmission. But I might not be
13 fully deliverable transmission, it's like partial
14 deliverability.

15 So it's getting a very sort of rich nuanced
16 conversation about transmission planning, and I'm looking
17 forward to see where that goes.

18 COMMISSIONER MCALLISTER: Okay. Great. Thanks.
19 And I'll pass to others.

20 Ken?

21 MR. ALEX: So somewhat related, a couple of
22 questions. How does the expanded availability of storage
23 change the transmission and siting process? A very simple
24 question.

25 And equally simple I think, is -- are you also

1 evaluating the timing, the location, and other related
2 attributes of how we're going to take existing gas-fired
3 projects offline, which creates all kinds of transmission
4 opportunities and challenges?

5 MR. BILLINTON: Well, as we look at the transmission
6 plan and the assumptions as we go forward, in that is looking
7 at the storage that's been identified, a lot of it in terms of
8 from the point of the reliability needs. But then as we get
9 into the operational, as we talk about it in terms of the
10 over-generation issues, the storage, be it of what technology,
11 can provide benefits for changing the shapes as we look
12 forward, and those are some of the things as we -- as we're
13 conducting the studies, a lot of that being within the work of
14 the LTPP currently. But also as we -- as we go forward
15 looking at, within the transmission planning, those aspects
16 and those impacts and having to take those into consideration.

17 Like I say, in terms of the belly of the duck is
18 something as we go forward that we need to look at. What are
19 the needs? What is it from a technical point of view during
20 the time periods as we shift the mix or the portfolios of
21 generation and the characteristics? And as was eluded to, as
22 well, the demand side has an impact, as well, too, as we look
23 at that mix, as well, the increasing of be it solar itself as
24 self-generation that is imbedded as a low modifier within the
25 IEPR forecast but -- and how does the storage evolve, as well,

1 too, on the demand sides with regards to shaping those
2 impacts.

3 I'd also like to add that, I mean, you just
4 mentioned load shapes. And so it sort of gets into, well,
5 what is the definition of RETI 2.0? And, you know, RETI 1.0
6 was very focused on how to integrate transmission in the
7 environment and economics in very discrete regions of the
8 state. And we were just talking before the panel discussion
9 started, and then -- and it was also eluded during -- by
10 members on the dais that we actually have moved light years
11 beyond where we were in RETI 1.0. And the analytics we have,
12 it's sort of mind blowing really where -- what we've been able
13 to do in the last few years. And that maybe RETI 2.0 is
14 more -- it's really getting more into sort of more of an RIPS-
15 type resource planning exercise. Because, I mean, the RPS
16 program of today has been a compliance program. You know,
17 it's not serving a particular system need. And if we're
18 trying to then decarbonize other sectors of the economy using
19 renewables, then what is the infrastructure and grid operation
20 practices that need to occur to make all those renewables
21 happen? And that then actually then sort of shapes where the
22 renewables need to be located, how much, what resource mix.
23 It depends on how we go and electrify the transportation
24 sector.

25 So that's sort of -- it's more of an expanded scope,

1 I think, potentially.

2 COMMISSIONER DOUGLAS: You know, I was just going to
3 jump in and say, you know, I appreciate that comment. And,
4 you know, I think that we are in a place where the analytical
5 tools we have, and we'll see some of that today, are capable
6 of helping us integrate information and in a usable way that
7 can support decisions.

8 But then you get to the really important crux of the
9 question which is: Well, what do you do with this
10 information? And, therefore, you know, what kinds of
11 portfolios are possible? And what are the tradeoffs and
12 choices between these portfolios, not only from an
13 environmental perspective, although it's really important and
14 really exciting that we can put that into the equation of what
15 we look at but from a grid reliability perspective, from a
16 resource choice perspective, from a transmission perspective?

17
18 And ultimately, and this is one of the things that
19 was really great about the RETI 2.0 letter, you know,
20 ultimately we are going to need a very robust, both
21 interagency and stakeholder, discussion. Because, you know,
22 that's -- that gets to the heart of the question. And it's
23 going to be a really important dialogue to be able to tee up
24 as we move forward with this.

25 COMMISSIONER MCALLISTER: And I, in a previous life,

1 had kind of a close-up view of the discussion around the
2 Sunrise Power Link. And, you know, to the extent that some of
3 that discussion happened locally in San Diego with lots of
4 stakeholders, and there was just -- it was -- it was a
5 difficult process. And I think, you know, I certainly learned
6 a lot about how to do things and maybe how to not do things in
7 terms of, you know, what I would do if it were up to me to do
8 those sorts of processes.

9 But I think that just the level of stakeholder
10 involvement and how that is managed so that everybody has
11 their say but that we're all sort of knowing where we're
12 going, like what the -- what the actual foundation of the
13 discussion looks like, that having these tools is just huge
14 because it kind of gets rid of some of the chaff and lets us
15 focus on what we know, and then what we're trying to build.
16 And I think that's a huge, huge step forward because we just
17 don't have the kind of time to invest in making these kinds of
18 decisions.

19 You know, we don't have all the time in the world.
20 We need to kind of make the preparation that's required to
21 reach our goals. So I'm really encouraged by this
22 informational foundation that we've building.

23 Go ahead.

24 MR. KENNA: Just a thought, and I think this is a
25 Jeff question. I mean, one of the things that we heard is

1 that we're in a different place than we were in RETI 1.0. And
2 we've heard a little -- heard about the DRECP and some of the
3 jumps that have been made. And we have a different kind of an
4 information flow coming in.

5 And so, Jeff, I'm looking at your -- kind of your
6 opener slide there where you had the processes that describe
7 how information comes in and when it comes in. Does the where
8 we are today present an opportunity for process evolution,
9 given that we -- is there a different or better way to deliver
10 information or is there a different point in time for getting
11 information that might get at some of these issues that have
12 been discussed in the system?

13 MR. BILLINTON: Well, a lot of the work to date has
14 been with the existing processes that we have in place, what
15 is the timelines, the requirements based upon those. And
16 they're on different cycles. As we look at -- the IEPR is on
17 a two-year cycle. The LTPP is on a two-year cycle and those
18 are staggered. The ISO's planning process is on an annual --
19 annual basis.

20 We've opened discussions, as I go through, with the
21 distribution resource plans, how would those potentially link
22 in because they're important inputs, as well, into the various
23 processes. And so we've established in terms of looking at
24 those inputs and outputs of the various processes and aligned
25 them so that they are integrating and information is flowing

1 in at a timely fashion so that all of those processes work.

2 As we look at them for additional information,
3 that's something. I know with the portfolios, as we've gone
4 forward we've adjusted in terms of the timelines so that those
5 are incorporated and can be earlier into the process so that
6 they can be accommodated, because they are important aspects.
7 If there's other -- other alignment pieces that we need to
8 look at, that's something that we could most definitely have a
9 look to see how best would it fit in, taking into
10 consideration that the processes themselves in their current
11 forms are established with requirements and timelines moving
12 forward.

13 MR. DOUGLAS: Yeah. I would also like to add a
14 couple thoughts on that too.

15 So the white paper that we're about to issue shortly
16 actually has a section called process alignment and gets to
17 the question you just asked. Because, you know, to date, you
18 know, the calculator and LTPP and the ISO process, alignment
19 process has been dealing with 33 percent. And we've done an
20 enormous amount of work, almost before we put that process in
21 place, on procurement and transmission. And so what was at
22 stake was a little bit less than what we're talking about
23 today. And if we're talking about not only just getting the
24 RPS portfolios right from a compliance perspective, but then
25 if you're saying, no, we need to get it right from a GHG

1 cross-sectorial perspective, that's sort of a more -- it's a
2 more meaty conversation to have with stakeholders.

3 And so our white paper actually lays out what we
4 think are the steps that we would need to vet the portfolios
5 with stakeholders in a sufficient transparent way. And we say
6 looking at the current process alignment that we have between
7 ISO and the PUC, is there room? And I think the analysis
8 indicates there's not enough room in the schedule to do all
9 the vetting that we need to do, certainly not the first go-
10 around. I think after we go through this once it might get
11 easier. But I think there's a lot that we need to do to bring
12 people up to speed, and there's a lot of complex thoughts to
13 communicate. So we're asking parties to comment on like what
14 type of reform would we want to do on the process going
15 forward?

16 MR. BILLINTON: And just one last point on the
17 process alignment, too, because it is -- it is detailed. What
18 I -- what's on the slide is -- doesn't provide a lot of the
19 detail. On each of -- the agency's website and the ISO's
20 website there is a more detailed diagram in terms of the
21 process alignment for, in particular, like say the IEPR and
22 the ISO's planning, the LTPP process, as well as some
23 documentation that goes with that.

24 COMMISSIONER DOUGLAS: I just wanted to comment
25 briefly. And then I note that we are a bit behind so we

1 should probably move on, unless there are other really
2 pressing questions.

3 But, you know, certainly there are some aspects of
4 our processes that are pretty baked in, in terms of the timing
5 of the demand forecast, for example, the LTPP and so on. And
6 yet we also need to adjust processes to the extent we have to
7 and circumstances demand. And we certainly showed a lot of
8 ability to do that as we move forward to achieve 33 percent.

9 So I think, Jim, your question is well taken. And
10 as we move forward we should always have in our minds the
11 question of, you know, does the process that we currently have
12 reflect the needs and opportunities today. But it certainly
13 reflects the needs and opportunities we had as we met the
14 challenge of getting to where we are today.

15 COMMISSIONER MCALLISTER: Okay. We're about a half-
16 hour behind. We may end up starting our lunch at noon instead
17 of 11:30, but we'll hopefully make up a few minutes at least.
18 But I don't want to shortchange the next presentation.

19 So we have the next panel, Staff presentations.

20 MS. RAITT: Yeah. And Judy Gaur from the Energy
21 Commission, your first speaker.

22 COMMISSIONER MCALLISTER: Judy, go ahead.

23 MS. GRAU: Thanks. I'm Judy Grau with the
24 Commission's Strategic Transmission Planning and Corridor
25 Designation Office. And I'll just skip this slide, but this

1 is briefly what I'm going to talk about today.

2 So first of all, we want to get back to 1988 with
3 something called the Garamendi Principles. And this was in
4 recognition of the value of the transmission system and the
5 need for effective long-term transmission corridor planning.
6 Senate Bill 2431 by John Garamendi declared that it is in the
7 best interests of the state to accomplish the following, which
8 are referred to today as the Garamendi Principles. So first,

9 "Encourage the use of existing rights of way by
10 upgrading existing transmission facilities where technically
11 and economically feasible.

12 "Second, when construction of new transmission lines
13 is required, encourage expansion of existing rights of way
14 when technically and economically feasible.

15 "Provide for the creation of new rights of way when
16 justified by environmental, technical or economic reasons as
17 determined by the appropriate licensing agency.

18 "And fourth, where there is a need to construct
19 additional transmission, seek agreement among all interested
20 utilities on the efficient use of that capacity."

21 And I think we can all agree that, you know, 27
22 years later these still are the principles that are as
23 important today as they were then, and maybe even more so now
24 going forward.

25 Senate Bill 1565 of 2004 directs the Energy

1 Commission, in consultation with the Public Utilities
2 Commission, the California Independent System Operator,
3 transmission owners, users and consumers to adopt a biannual
4 strategic plan for the state's electric transmission grid.
5 The strategic plan shall identify and recommend actions to
6 implement investments needed to ensure reliability, relieve
7 congestion and meet future growth in load and generation,
8 including but not limited to renewable resources, energy
9 efficiency and other demand reduction measures.

10 And then President Picker mentioned this in his
11 opening remarks about our corridor program. The legislative
12 intent of Senate Bill 1059 is to designate and preserve
13 corridor zones to meet long-term transition infrastructure
14 needs. The designation process is intended to provide a link
15 between transmission planning and transmission permitting by
16 performing an environmental review in advance of need. It
17 involves local, state and federal governments, generators,
18 other stakeholders and the public in planning for transmission
19 corridors. And it seeks to ensure compatibility with local
20 land uses by promoting consistency of land use changes with
21 future transmission line development.

22 As to the relationship between the Strategic
23 Transmission Investment Plan, which I'll refer to as the STIP
24 after this, so the relationship between the STIP and corridors
25 is that any corridor designated must be consistent with the

1 state's needs and objectives identified in the latest STIP,
2 which I mentioned, again, is a biannual document.

3 And then finally, our 2015 scoping order directs the
4 Energy Commission to prepare a Strategic Transmission
5 Investment Plan, including a discussion of deliverability and
6 western region planning activities. And as you've already
7 heard, we've discussed deliverability versus energy only a
8 little bit this morning. So that, as I mentioned as in our
9 scoping order, we were directed to talk about that. We see
10 the work being done by the -- the special study that's
11 being -- answering a big piece of that puzzle because we
12 recognize that full deliverability, as Paul Douglas mentioned,
13 is leading to possibly overinvestment in transmission for
14 limited -- possibly limited value.

15 Some other recent efforts -- I'm sorry, I have not
16 been forwarding my slides. There we go.

17 Recent efforts. The Energy Commission hosted an
18 IEPR Workshop on May 11th that dealt with renewable progress,
19 challenges and opportunities. And there we looked back a
20 little bit at our 2012 Renewable Action Plan, as well as
21 looking forward at the renewables required to meet a 50
22 percent renewables target.

23 And one of the things at the workshop was a panel
24 discussion on renewables and reliability. Presentations and
25 panel discussion comments from the CAISO, Union of Concerned

1 Scientists, Westlands Solar Park and others addressed some of
2 the challenges and opportunities associated with the
3 transmission system planning and operations for higher levels
4 or renewables, including comments on deliverability
5 requirements and western issues such as the energy imbalance
6 market and possible full participation in the CAISO by
7 PacifiCorp.

8 Work has just begun on the Governor's Office effort
9 on solar in the San Joaquin Valley Identification of Least
10 Conflict Lands. They had a kickoff meeting on June 10th. And
11 you'll hear more about this, this afternoon, from Jim
12 Strittholt.

13 And then more recently, the July 9th Governor's
14 Office Symposium on Governor Brown's Greenhouse Gas Reduction
15 Goals included two important transmission related themes, the
16 importance of regional coordination and the benefits of full
17 participation in the CAISO by other balancing authorities.

18 And so turning back then to our mandate to produce a
19 STIP and the requirement that any corridor for designation --
20 proposed for designation must be consistent with that, the
21 2013 STIP which is contained in chapter five of our 2013 IEPR
22 includes the following recommendation,

23 "From a timing perspective it makes sense to
24 identify and designate, where appropriate, transmission
25 corridors in advance of future generation development so that

1 needed transmission projects can be permitted and built in an
2 effective, environmentally responsible manner, contemporaneous
3 with the generation development. The Energy Commission will
4 work with the utilities, federal, state and local agencies and
5 stakeholders to identify transmission line corridors that are
6 a high priority for designation, such as those corridors that
7 would ease the development of renewable resources.

8 Appropriate corridors could be identified as a result of the
9 DRECP effort, future examination of opportunities and needs in
10 the San Joaquin Valley, and the ongoing San Onofre
11 transmission alternatives under consideration.”

12 And so as we go through today’s agenda we look
13 forward to hearing participants perspectives on this question:
14 For the 2015 IEPR, what are the appropriate corridor
15 opportunities that should be identified? And that actually
16 might be a little premature based on the RETI 2.0 effort
17 that’s just been announced. It may be that we have to wait
18 for the RETI 2.0 feedback to get all the way there, but we’d
19 like to start the effort this cycle. And so would also
20 appreciate any written comments on that topic.

21 So right sizing, many of you have probably heard
22 that term before. It essentially means looking beyond the
23 current planning horizon, which is typically ten years, to see
24 if needed projects should initially be built larger or built
25 in such a way that they can easily be upgraded in the future.

1 And where appropriate, right sized projects can reduce future
2 costs and environmental impacts of transmission facilities.

3 This concept was used throughout the Tehachapi
4 Renewable Transmission Project effort where Southern
5 California -- excuse me -- Southern California Edison built
6 transmission facilities to 500 kV specifications but only
7 energized the lines at 220. For example, Segment 5, an 18-
8 mile transmission line connecting the Vincent and Antelope
9 Substations was built to 500 kV standards but only energized
10 at 220 kV until more capacity is required. Where 500 kV
11 facilities are needed, these 220 kV lines could be energized
12 to 500 kV by upgrading the substation facilities which
13 requires little or no environmental permitting.

14 The issue of right sizing was first identified in
15 our 2011 IEPR proceeding where the Energy Commission was
16 considering ways to make better use of the existing grid by
17 allowing projects to be upsized beyond what is needed to
18 provide unused capacity for future use. Upsizing could
19 maximize the value of the land associated with already
20 necessary transmission investment while avoiding future
21 costlier upgrades.

22 And then the 2014 IEPR update touched briefly on the
23 importance of right sizing as a key component of integrating
24 the environmental information into renewable energy planning
25 processes, but we did not make any specific recommendations.

1 And so we would like to invite stakeholders to delve
2 further into the concept of right sizing. And we have a set
3 of questions that we would like stakeholders to address in
4 their written workshop comments. This is in writing because
5 we don't -- we have such a full agenda, we don't have time to
6 pursue these, but we would like thoughts in writing. And just
7 as an aside, these questions are also found on the last page
8 of today's agenda.

9 So briefly, is right sizing transmission a
10 qualitative, i.e. policy, issue or is it a quantitative
11 metric-based issue? What criteria should be used to assess
12 this?

13 COMMISSIONER DOUGLAS: So, Judy --

14 MS. GRAU: Yes?

15 COMMISSIONER DOUGLAS: -- I think that since the
16 questions are in the agenda, we can --

17 MS. GRAU: Okay.

18 COMMISSIONER DOUGLAS: -- skip reading.

19 MS. GRAU: All right. All right

20 COMMISSIONER DOUGLAS: Thanks.

21 MS. GRAU: So just on my last slide then. Written
22 comments are due on August 17th. We'd appreciate any update
23 on corridors, the corridor questions, right sizing questions,
24 any other STIP related comments, including the RETI 2.0
25 initiative that we've been discussing today. And then we will

1 be preparing the STIP as part of the draft 2015 IEPR. It
2 should go out in October. And then there will be an
3 opportunity for stakeholders to comment on that before it's
4 finalized and adopted.

5 So that's all I have.

6 COMMISSIONER MCALLISTER: Thank you very much.

7 MS. GRAU: Thank you.

8 MS. RAITT: Thank you, Judy.

9 Next is Scott Flint. And also joined with him is
10 Pat Lineback from the U.S. Fish and Wildlife Service, and
11 Armand Gonzales from the California Department of Fish and
12 Game.

13 MR. FLINT: Thank you. Good morning, Commissioners
14 and attendees. Today I'm not going to talk about the DRECP.
15 But you are going to see a lot of examples from the work we've
16 done in the DRECP. And I'll discuss a little bit the Energy
17 Commission and Renewable Energy Action Team Agency's efforts
18 to move that -- move that sort of information approach to both
19 inform the San Joaquin planning process, the San Joaquin
20 process for identifying least conflict areas for generation,
21 and taking that more statewide and being able to evaluate
22 different generation scenarios that can inform various
23 planning processes and probably well suited to inform what has
24 now been announced as RETI 2.0.

25 So one thing I'm going to just mention, we talked --

1 if you've worked on the DRECP you've probably seen us talk a
2 lot about the landscape and Intactness Model. And I just want
3 to say a little bit about why something like this is important
4 and how developing models and tools and then being able to
5 look at them interactively on a site like the Data Basin and
6 Gateway Platform is so invaluable into -- as far as
7 understanding that information and being able to make it
8 transparent, and then support and document decision making
9 based on that information and data.

10 So here we have a terrestrial landscape intact in
11 this model. And you might say, well, what value is that?
12 Well, one of the goals in the DRECP was to identify areas of
13 higher value for conservation, which would be -- which would
14 come from the areas of the green and dark green on this map,
15 and areas of lower conservation value or places not essential
16 for long-term conservation in the -- as areas to best place
17 generation, one, from the standpoint of having less
18 environmental impacts, secondly from being able to support an
19 overall strategic of speeding up the permitting of those
20 facilities. So those would be the blue areas on the map. So
21 valuable from that sense in a planning perspective.

22 From a conservation-biology standpoint or
23 conservation-planning standpoint, large blocks of intact
24 habitat are one of the best things you want to have and are
25 essential for providing long-term conservation of species on a

1 regional basis. And from a climate perspective, those are the
2 areas that you would expect to be more resilient in the face
3 of climate change. They have -- they have intact vegetation
4 and they have ecological processes operating in them that will
5 help to sequester carbon and do that for a long time into the
6 future, versus areas that are much more highly disturbed. So
7 that's why data like this is so important from several
8 perspectives.

9 As far as it being transparent and documentable,
10 just go with me on this, I know it looks a little confusing,
11 but the models are built from various data sets. And you
12 can't just throw a thousand data sets out to somebody and ask
13 them to download them and figure out what you did. That's not
14 a decision support tool. Hey, look at all this data. We
15 assembled it somehow. Read the report and figure out what we
16 did.

17 Instead, we want to have it assembled in logical
18 ways so people can go back and pick it apart if they want to,
19 or that things make sense from a perspective of assembling and
20 analyzing multiple data sets. So here -- and a little bit
21 about what went into the high terrestrial intactness model
22 which would be the map you saw represented by this block up
23 here, lots of different data sets and lots of different data
24 manipulations of those data sets. And they -- you know, we're
25 looking -- here we're looking at low areas of development for

1 high intactness.

2 So -- and to get there you need to look at a lot of
3 development. So here we're looking at linear development,
4 transportation, pipeline, utility line development from
5 individual map inputs that we have for that. Over here we're
6 looking at point counts of existing oil and gas wells, mining,
7 geothermal, those sorts of projects. We have some polygon
8 features where we have large sites that are -- that have
9 footprints on the landscape.

10 So we put all that together in a logical fashion to
11 get to this terrestrial intactness model. And you can pull it
12 apart and see what data went into formulating the map easily
13 and what data -- and how that data was assembled at these
14 various different points in the process so you can understand
15 more fully how we got to that map.

16 On the -- on the conservation side we looked at
17 things like vegetation, invasive species, and disturbance to
18 vegetation. And we also looked at high and natural core areas
19 and high percent of intactness, landscape intactness
20 patches -- patches and fragmentation. So that sort of thing
21 is important.

22 We also have a conservation values model. Not every
23 species responds the same way to disturbance. So on top of
24 disturbance we had to put together a conservation value model.

25 In the conservation value model we're looking at presence of

1 rare species and those sorts of things, rare and natural
2 communities and highly functioning best examples of natural
3 communities. So we have that sort of thing here built with a
4 logic model to support it.

5 One thing I want to do show live in just a second,
6 climate console is something that we are rolling out later,
7 later in August, later this month. The idea behind the
8 climate console is, again, the data, lots of data. In DRECP
9 we modeled 20 models, climate models. And that results in
10 about 450 data sets. And then we picked three of those sets
11 of models to examine further, and that still left us with 150
12 data sets.

13 So what we're looking at here is an easy tool where
14 people can see and visualize this climate data from the DRECP.
15 So this data is not only important for conservation purposes.
16 This same data, basic data on temperature, precipitation,
17 change, evapotranspiration can be used for many purposes, not
18 just conservation. We could use the same information for
19 looking at siting considerations, for new infrastructure. We
20 can use this information to evaluate vulnerabilities of
21 existing infrastructure to climate change. And we can use it
22 to even evaluate the human environment and local planning --
23 for local planning purposes.

24 And what we're looking at doing, working with the
25 San Joaquin, and then to a statewide -- into a statewide

1 basis, is developing a renewable energy generation scenario
2 builder. So what this tool would do -- this is a brand new
3 tool and I'm going to show you a working prototype. What this
4 tool would do is take a lot of the information that we've been
5 working with and criteria in three large categories. These
6 are the same considerations that went into identifying
7 development focus areas in the DRECP. We're looking at energy
8 considerations, how much resource is there, solar, wind,
9 geothermal. We're looking at megawatt targets to define a
10 scenario that we might want to analyze. We're looking at
11 distance of transmission of slope. We're looking at different
12 land use designations. We looked at a lot of conservation
13 designations in the DRECP.

14 One of the things we're building as we go through
15 the San Joaquin Valley exercise is that sort of information
16 and how to best use our existing information on -- to evaluate
17 agricultural lands, which are more suitable for potential
18 development and which are -- what are most suitable and
19 necessary from an economic standpoint and a food production
20 standpoint to keep and -- keep in agriculture and from a
21 climate standpoint?

22 And then we've talked before. We have a statewide
23 excluded lands map. We can also examine that in this -- in
24 this tool.

25 So from an environmental perspective, using

1 information such as terrestrial intactness, conservation value
2 or other data, substitute data that's available statewide, we
3 can run this tool to basically find areas that, once you set a
4 certain level of criteria, the best areas that meet that
5 criteria on the landscape.

6 So I'm going to switch to live presentation. The
7 first thing I want to show you here is some of the -- starting
8 up the terrestrial intactness model. So I just wanted to
9 show -- quickly show you some interactive features here that
10 we discussed on the slide, but show you them working on the
11 fly.

12 So here in -- here's the DRECP area, the terrestrial
13 intactness model we saw earlier. Here attached to that -- to
14 that terrestrial intactness model is the diagram that we were
15 looking at just a little bit ago. And it's the same diagram
16 you can scroll through on the site, complete diagram. Here
17 you can look at the different pieces. But you can -- you can
18 instantly visualize and see what the different pieces are on
19 those inputs just by clicking on the diagram. And it will
20 change the map and show you the input, that piece of input
21 data that's at that part of the diagram. It takes a little
22 bit of time to draw when you first start it up but once it
23 gets going -- so pipeline density, that one is not too
24 thrilling. But we put ground transportation density, utility
25 density, pipeline density together into an intermediate map

1 that then went into the logic chain. Let's just take a quick
2 look at what that one looks like.

3 So if you want to visualize the -- and understand
4 the linear development component that went into the overall
5 intactness model, you can do that very easily on this site.
6 So that would be your map. You can zoom in and out and you
7 can add any other data sets that are available in Data Basin
8 that you want to examine along with these maps. That's an
9 example of the sort of terrestrial intactness model.

10 COMMISSIONER MCALLISTER: So just to -- just to be
11 clear here, I mean, maybe Commissioner Douglas can describe
12 this, but this is public; right? I mean, citizens can go in
13 and check this out?

14 MR. FLINT: Yes. This is already all publicly
15 available on the Databasin.org website. And we have built a
16 gateway for the DRECP. So this is all available. People can
17 go in and take it apart.

18 COMMISSIONER MCALLISTER: That's phenomenal. This
19 is a great example for, I mean, I can imagine five or six, you
20 know, obvious areas where this model could be leveraged and
21 utilized and more data. You know, Ken knows exactly what I'm
22 thinking actually here. But --

23 MR. FLINT: So I want to --

24 COMMISSIONER MCALLISTER: -- you know, this is
25 terrific.

1 MR. FLINT: I want to show -- so that's one model.

2 I want to show our climate console quickly for
3 folks. This will be rolling -- this will be rolling out later
4 this month. So from the climate perspective, again, if I talk
5 about the DRECP, a lot of -- a lot of the species information
6 we used had climate feature information with it, a lot didn't.
7 So the purpose of this climate console is to give us an
8 overlay that we can use with all of the data that we've
9 collected, whether it has its own climate implications
10 discussed or not.

11 So here I've just highlighted the watersheds in the
12 DRECP area. I've clicked on one of them here and when I did
13 that it populated this side of the screen. Over here you can
14 look at temperature, minimum-maximum precipitation, aridity,
15 and potential evapotranspiration. And these we selected for
16 people to use to evaluate the DRECP. As we expand this to the
17 San Joaquin Valley or statewide we can set this up with any
18 sets of data that's appropriate to examine those larger areas,
19 different and larger areas.

20 So look at precipitation. And we purposely looked
21 at a model that was very, very wet and a model that was drier
22 and about an average type model. So we picked three to work
23 with here in the viewer. So for this area I picked here I'm
24 seeing some -- I'm seeing the information here from the model.
25 You're seeing the historical information and you're seeing the

1 trend here in precipitation. So for this model -- these two
2 models -- this model, about the -- about -- these two models
3 lower, the ensemble of the three models, about the same, a
4 little lower, and one model being really wet.

5 If I click on that I see the map for the area, the
6 entire area and the area I selected here and I can compare the
7 wet model, the wettest model. So you're seeing the wet. On
8 the wet model the dark green is wetter and the yellow and
9 orange areas are drier. On the dry model the yellow is the
10 wettest part. So you can evaluate the change here across the
11 entire landscape.

12 Again, I can zoom in, change the base maps, those
13 sorts of things. And I can move from this tool quickly back
14 into the main Data Basin platform which would -- allows me to
15 then take that data set that I was concentrating on and add
16 other sets of data to it and do various different analyses.

17 So two challenges with this. One is this is a
18 pretty -- a very sophisticated tool. So we're looking at
19 developing a tool here that practitioners can use, like
20 myself, and experts to work with the data. And at the same
21 time we also have the capability to develop case studies and
22 products that come out of this analysis that are easily
23 digestible by the public. So we have both capabilities here
24 in the system.

25 And then the last thing I want to show you, we

1 have -- whoa, that's not good. I don't think I want to see
2 that much stuff.

3 So the last thing I want to show you is our -- I've
4 got too many things in the way here -- our Renewable Energy
5 Generation Scenario Builder. So I showed you this, a static
6 just a moment ago with an ideal interface. But here we have a
7 working prototype already.

8 Over here you can pick an energy resource, solar,
9 wind or geothermal. Once you pick that it will adjust the
10 controls available to you. I can -- this is using all
11 existing mapped information. I can pick solar insulation
12 value. And down here I can pick environmental variables for
13 the terrestrial intactness model. Let's say we want it to be
14 low intact -- low intact -- it says moderately high but it's
15 actually fairly low if you delve into the model. I want to
16 set the conservation fairly high in this case to start. And
17 the number of species, we have that for DRECP. So we're
18 looking at species richness or density with this measure here.
19 And I can just click a county -- I'm not picking on San
20 Bernardino, but it's the biggest one, right in the middle --
21 and let this run.

22 And what the -- what this tool will do is go find
23 all of the areas that meet the criteria that I just entered.
24 So from an environmental perspective they'll have a certain
25 intactness and conservation value. From an energy perspective

1 it will have a certain value of solar insulation. So it's
2 picked a set of lands that meet those criteria here.

3 So a couple other things that I can do from here, if
4 I have a minimum area needed for my project, say it's 3,000
5 acres for a large project, enter 3,000 acres, it will go back
6 and take out all of the areas that meet the other criteria but
7 are smaller than 3,000 acres. So this gives you another set
8 of scenario to look at that meets these particular criteria.
9 I can also easily say I want those on BLM land and look at
10 ownership. There -- there we'll see the ones that are owned
11 by BLM. I can turn that off, redraw and go back to where we
12 were. And the I can adjust something like say I want the --
13 more -- I have more of a concern about the conservation value
14 in this particular area, leave everything the same and move
15 that slider. And then we get an even more constrained set of
16 results returning from here.

17 So also you can zoom in on this. I can zoom in and
18 actually see those lands a little better. And I can turn
19 off -- I can turn off and on the different maps in the
20 background. So you can see the terrestrial intactness value
21 and the adjacent surrounding area on the map. Conservation
22 value, the same thing, clearly lower conservation value. And
23 species density, so you can lower species density, but there
24 are species everywhere in the desert.

25 So I can -- we also have the Western CHAT data in

1 here. And we can also -- are adding the WECC western data in
2 here for the -- that we'll be using in the San Joaquin effort
3 to help look at transmission.

4 So this tool, the prototype is already working.
5 Between a combination of logic models, again, we'll be
6 developing. We don't have anything -- we don't have the ag in
7 here and we don't have all of this working yet, but we will
8 do -- be examining an ag model or a way to address ag in the
9 San Joaquin that then would be incorporated in here so we
10 could bring that important set of criteria into this tool.

11 So the idea behind this tool statewide would be a
12 way to identify portfolios or areas of different areas, what-
13 if scenarios, whatever you want to call them, to examine from
14 a standpoint of these are, you know, based on whatever
15 criteria you set up. We can put others in here, other mapable
16 data that folks agree on, and run this again. But you can --
17 we can do that and have this tool support a transmission
18 planning process from the standpoint of identifying the most
19 appropriate or least conflict areas for generation -- for
20 deploying generation. So that's the goal.

21 We're already building statewide data sets. And we
22 have a lot of existing data sets that we already have
23 statewide. I'll just take a quick look and then I'll finish
24 with my part.

25 I've already set up my own group, California Energy

1 Planning Group, in Data Basin. I started assembling data
2 there. In the content we have California statewide data sets.

3 While we don't have a conservation value model built the same
4 way with all the detailed information that we built for DRECP,
5 we have substitute data on essential habitat connectivity
6 statewide. And we have two areas of conservation emphasis
7 that come from the California Department of Fish and Wildlife
8 that already exist statewide that we could leverage and use
9 them separately, together, or build them into a model. So
10 this will be ready to go in a very short amount of time.

11 So I just wanted to ask Pat Lineback to talk a
12 little bit about the Region 8 U.S. Fish and Wildlife Service
13 date site on Data Basin.

14 MR. LINEBACK: Oh, I'll spare you. I don't have a
15 PowerPoint presentation, so I will spare you from that.

16 I was asked to talk about our web mapping gateway
17 for the Pacific-Southwest Region of the U.S. Fish and Wildlife
18 Service which includes California, Nevada and the Klamath
19 Basin of Oregon. And we recently stood up a web mapping
20 gateway for the Fish and Wildlife Service. Again, once again,
21 you've been hearing about it. It's hosted by -- it's hosted
22 by Data Basin. And the backend is being managed by the
23 Conservation Biology Institute.

24 And what we're doing with that site is we're hosting
25 data that we author or that's either being directly or

1 indirectly created by the Fish and Wildlife Service, or in
2 many cases we're pointing to data that is being generated by
3 trusted partners from a variety of different sources. So the
4 idea for us within the Fish and Wildlife Service is to create
5 this one-stop shop for our staff, as well as our partners that
6 we collaborate with, and to some degree provide information to
7 the public where a lot of data that's important to us is
8 essentially being glued together in one location.

9 And from a Fish and Wildlife Service perspective,
10 some of the data that we rely on is what I guess I would call
11 constraint kinds of data or avoidance data. That would be
12 areas that, you know, you might want to avoid for a variety of
13 reasons. And this would include things like proposed or
14 listed critical habitat, listed species ranges which for most
15 of our species we do have that, species occurrence locations,
16 and other things like wetlands, vernal pools, that sort of
17 thing. So that kind of data, you know, we either host or we
18 provide through this site as a mechanism to help our employees
19 or collaborators to get access to the most current
20 information, most current spatially explicit information
21 associated with those particular species.

22 One of the reasons we established this gateway to be
23 hosted by Conservation Biology Institute, because it is not a
24 federal site, is that there's been a lot of work or a lot of
25 efforts on the part of the landscape conservation cooperatives

1 which touch our region. These landscape conservation
2 cooperatives are focused on important conservation issues.
3 And they're essentially bringing a lot of people together to
4 develop landscape-level sorts of analysis. So we wanted that
5 information to be available in our gateway as well. And that
6 information, of course, for the most part is available to the
7 public as well.

8 So an example of that would be -- of why we've
9 gone down this path is, and you may not have heard about this
10 particular effort but they're well into their first year of
11 planning, is there is the Central Valley Landscape
12 Conservation Project which essentially covers the entire
13 Central Valley ecoregion. And this is a group of scientists
14 across organizations that are focused on identifying priority
15 natural resources within the Central Valley, and then looking
16 at climate change vulnerability analysis associated with those
17 priority natural resources, and then develop adaptation
18 strategies related to climate change.

19 So they're at the point for this particular project
20 where they've identified, you know, those priority areas in
21 the Central Valley that includes woodland, upland, riparian
22 and wetland landscapes. We don't yet have spatially explicit
23 information associated with those species as they are
24 currently generating it. But that is the direction that
25 they're headed, and that will probably be available in the

1 next year or two.

2 So the web mapping gateway for us is -- is a really
3 useful mechanism because we're able to host data, not only
4 within Data Basin, but we can also host it inside of a federal
5 repository, whereas federal stewards of that data, these are
6 federal records, we're actually able to keep that data in that
7 federal repository and discover and access it directly inside
8 of Data Basin. So a lot of the data that we are hosting or
9 beginning to stand up inside of Data Basin, including stuff
10 that's available to the public, is actually being stood up
11 inside of a federal repository. From a user perspective you
12 don't care. You just want to access the data. But from a
13 management perspective, for us in the Fish and Wildlife
14 Service, that's an important concept.

15 So it's a dynamic site. You know, we're constantly
16 managing and updating it, because a lot of this data is
17 changing. But we think it's a good path for us to follow
18 because of this ability to integrate data from so many
19 different sources that -- that is out there now.

20 MR. FLINT: So I just wanted to add one thing to
21 wrap up. So as far as data it's not -- the system is designed
22 not just to rely on the agency data or our data, it's set up
23 to easily be able to take other users' data into account.

24 So in DRECP, too, the counties are developing data
25 that will go up on portal and portal sites, and you'll see

1 some of that today.

2 The -- our partners, the renewable -- the renewable
3 and wind -- the solar and wind industries gave input during
4 the DRECP. Their information is up on the DRECP site. We
5 have information from our conservation partners, including
6 Defenders for the San Joaquin Valley effort, Defenders of
7 Wildlife, and several data sets from the Nature Conservancy
8 who are pretty active in planning jointly with us.

9 So if you didn't pick it up when I flashed really
10 quick on those statewide data sets, you saw some TNC
11 (phonetic) data in there. And we're looking to incorporating
12 other data, like their most recent report on studying costs
13 and impacts while integrating land conservation into renewable
14 energy goals in California. So it definitely serves us well
15 for a stakeholder process.

16 COMMISSIONER DOUGLAS: So I was just going to ask a
17 couple very quick questions, Scott.

18 My one -- the first is that, you know, my
19 understanding of this is that we will be able to also portray
20 a very up to date map of local government designations. So
21 for example, where not only BLM through DRECP designates
22 renewable energy areas or development focus areas, but also
23 when counties, as a number have done, designate renewable
24 energy areas, those would show up.

25 Can you describe how those would be called up, at

1 least under the model or under the --

2 MR. FLINT: Yeah. Yeah.

3 COMMISSIONER DOUGLAS: -- what you have set up right
4 now.

5 MR. FLINT: Yeah. So once -- so once we have the
6 final Phase 1 of the DRECP, when those lands are -- those
7 lands are set up for renewables, we can bring those map lands
8 into the picture. An output from the San Joaquin exercise
9 would be a stakeholder -- it's a stakeholder-driven process.
10 So it would be a stakeholder agreed upon map of areas of least
11 conflict for renewables. So we can -- we can bring those maps
12 into the system and make those available, either under the
13 land use component or a separate component.

14 And we can then, if that's the decision in an area,
15 we can do two things. We can use the existing data to
16 validate those -- those sorts of areas by looking at the data
17 with -- you know, and how well those maps fit with the data in
18 the background. And then secondly, when we actually run
19 scenarios we could hardwire those locations into the scenario
20 builder so that that would become -- you know, if a county
21 approved the areas for renewable energy and they were mapable
22 and mapped, those would become the areas. So you wouldn't be
23 using the tools to select other areas. You would replace that
24 or build in the county decisions.

25 COMMISSIONER DOUGLAS: Excellent. Thank you. And,

1 you know, just as maybe a really quick comment with a
2 question, I mean, the comment I think is that I think this is
3 the kind of tool that can greatly facilitate stakeholder
4 dialogue. I think being able to sit around the table with
5 people and have a fact-based and spatial-based discussion
6 where you can see kind of real-time, well, you know, you want
7 us to look at this way, let's look at it. Well, what do we
8 like? What don't we like? What do we find hard to believe?
9 Let's drill down. What do we, you know, want to understand
10 better? Let's follow up with this organization or this
11 agency. I think, you know, I am excited at the prospect of
12 using a tool like this for stakeholder dialogue.

13 My question to you is obviously our -- you know, the
14 example and the first part of the live system is DRECP because
15 that's really where we started with this in terms of building
16 the tools and the information. Can you give us a sense of
17 what it will take to build out? And I'm not even going to
18 start with west wide at the moment because, you know, we have
19 a lot of dialogue as the letter noted.

20 But thinking statewide for a moment, you know, we've
21 got some major tools in DRECP. There's the climate console.
22 There's the intactness model that you showed today. There's
23 the conservation values model. What is your sense of what is
24 needed? You know, and then there's the agricultural, both
25 land use designation screens, and potentially logic model

1 depending on those discussion goes. And there's the county
2 layers. Within the DRECP, of course, we've got very well
3 established working relationships with the counties, and
4 they're typically in planning processes. And, you know,
5 outside we'll be starting with some of that dialogue.

6 Can you give us a sense of what it takes to build
7 that kind of modeling approach outside of the desert area?

8 MR. FLINT: Well, and clearly we can set this up so
9 we can incrementally add things, because that's a lot of work
10 happening a lot of different schedules, some of those not
11 driven by us. So that's the first thing. So we can set it up
12 to incrementally bring those things on.

13 I think if from -- from the perspective of the San
14 Joaquin effort it is looking at a lot of existing efforts that
15 have already been completed and essentially validating those,
16 and then doing some new work on agriculture. So in the next
17 month or two or three we should have some agreement on those
18 approaches. Then we would be able to take that and develop --
19 take that same sort of approach that we look at agricultural
20 lands in San Joaquin and expand that -- expand that with the
21 same data to the rest of the state.

22 So we have statewide data sets for agriculture.
23 We're working with those statewide data sets in the San
24 Joaquin area. Once we have an approach it would be fairly
25 easy to build that.

1 As far as the technology for the viewer, that's
2 already built by CBI. And what we are doing working with CBI
3 is developing the interface and maybe a few of the techniques
4 to analyze the data. But we're really not investing in the
5 system from building it from the ground up. It mostly exists.
6 We're really investing in the science behind the data and
7 being able to communicate the existing data out to folks. And
8 then the collaborative tools that are available in Data Basin.
9 So --

10 COMMISSIONER DOUGLAS: And the climate model, the
11 climate console?

12 MR. FLINT: The climate console too. We're already
13 working on extending that to San Joaquin, we have -- to the
14 San Joaquin area. We have new data coming in the next several
15 months that will be downscaled and much more -- much more
16 usable on a regional level. So that will be coming into the
17 viewer. And then when that data comes it will be statewide
18 and probably west wide, so a couple of months for that.

19 As far as building a conservation values model, I
20 think we have some really good information that we could work
21 with folks to assemble and use as a substitute for the
22 detailed kind of conservation values model that we use at
23 DRECP while we actually build that model statewide, and that
24 will take some effort. So probably closer to the end of the
25 year or, you know, mid next year to have all that up and

1 running.

2 COMMISSIONER DOUGLAS: Well, that's great, Scott.
3 And, you know, I think I'll just say one more thing, and then
4 see what other comments or questions there are from the dais.

5 But, you know, I think one of the things that's
6 really good about this is that you can use -- you can use an
7 approach that allows you to compare apples to apples to some
8 degree through -- with the development of scenarios, and yet
9 you can also customize. And so we could set this up so that
10 it looked at information in a different way in the desert or
11 in certain counties or, you know, to the extent that
12 differentiating the approach makes sense, that could be done
13 too.

14 So it's -- you know, the prospects are pretty
15 interesting. And I think that, you know, I'm certainly
16 looking forward to working with people in this room and well
17 beyond in the dialogue that will hopefully come out of this.

18 COMMISSIONER MCALLISTER: So why don't you go ahead,
19 Jim. Yeah.

20 MR. KENNA: I just wanted to build on Karen's point
21 with a practical example and draw from our experience with
22 Phase 1 in the DRECP and emphasize how powerful it is to have
23 access to common mapped data and information. Our experience
24 with the counties in the DRECP area is they're good at that.
25 You give them that information, and we've been able with BLM

1 to sit down and have very practical conversations about what
2 the shared map should look like, and it is a shared map.
3 There are clearly areas where BLM lands are distributed in
4 such a way that a lot of the primary decision are county
5 decision, access and so on, like that.

6 So it makes sense over the long haul to end up with
7 a map that's a shared map, and to have the foundation pieces
8 mapped so you can see the conservation tradeoffs, you can see
9 the infrastructure needs, is a very powerful tool. And we've
10 got immediate experience with that in DRECP Phase 1
11 discussions with the counties. And some of the evidence of
12 that is already out there.

13 COMMISSIONER MCALLISTER: Great. Thanks.

14 So just a comment really. And it's food for
15 thought, perhaps. You know, I think this is really an
16 incredible example of what you can do, of sort of an
17 incrementally -- you know, you build data sets, you build data
18 sets, you integrate them and it becomes something that you can
19 really generate new knowledge with, and it's a beautiful
20 thing. At the same time I know -- you know, and it's
21 impactful; right? Because visual, we all like, you know,
22 maps. And you get to see it visually and it's colorful and
23 everything, and it's all quick. And I think it belies the
24 incredible resources that it's mobilizing to make that
25 reality.

1 And, you know, having been involved in some of these
2 projects in the electric sector, you know, it's just a huge
3 lift to kind of get it up and running. But once it's up and
4 running it helps do better policy. And you're totally right,
5 these local planners, they know what they doing. They know
6 their places and they get it, you know? And so they can
7 really use it in a way that is kind of well informed, but also
8 intuitive. And that's really what we want, to get to a good
9 place locally.

10 So I wanted to just sort of bring up an idea that,
11 you know, there's a lot of granular information in here. And,
12 you know, to do good policy there are any number of ways of
13 directions we could go with this. Obviously we're trying to
14 influence lots of different things. In my world it's the
15 built environment, which is still -- which is part of our
16 environment. And there is a massive amount of data at the
17 assessor's offices. There's, you know, energy consumption
18 data. There's all sorts of information that is in many, many
19 ways analogous to the -- you know, you can -- you can make it
20 geospatial and you can back it up with databases and it's not
21 rocket science, it's doable; right? And in order to target
22 the right places for investments in all of our infrastructure,
23 not just transmission, not just, you know, out in the desert
24 but actually in our population centers, as well, on the demand
25 side, tools like this could be incredibly powerful.

1 In our local jurisdictions I think, you know,
2 mobile -- making these kinds of -- mobilizing that
3 marketplace, and here we're talking solar, wind, you know,
4 investors building projects, right, those kinds of relatively
5 large scale for the most part we're talking about. We've
6 mentioned some of the smaller scale stuff and how that also
7 needs to be incorporated in a complimentary way. But we have
8 an analogous marketplace investing in the existing buildings
9 and informing the demand side and helping move that side of
10 the equation. And those investments will be optimized if
11 information like this exists for them to understand their
12 marketplace and their opportunities.

13 And so I think it's a really powerful example for us
14 to think about in terms of how we can leverage this or how we
15 can do something analogous to -- on that front. You know, we
16 have the three goals. They are renewables, transportation,
17 energy efficiency. We could use these kinds of resources to
18 integrate those discussions and have them in parallel in ways
19 that are informed and that help investors figure out what
20 they're doing, because the state is not going to pay for all
21 of this. You know, the marketplace has to get it done. So we
22 need to set up the policies that create the conditions for
23 that to happen.

24 And so I think this -- we're only better off when we
25 have these kinds of resources. And other, you know,

1 innovative folks can think through it, use the same
2 information we see to come to those decisions.

3 So I'm really impressed with the effort. And, you
4 know, obviously it takes a village, more than a village. So
5 really, thanks for -- thanks for plowing the path to
6 Commissioner Douglas, and actually Commissioner Scott, you
7 know, in her previous life. And the BLM and the other
8 agencies that are involved are really terrific.

9 So did you want to make any comments, Ken? No?
10 Okay. Great. Okay.

11 So Commissioner Douglas has an announcement. And I
12 think we're going to have to sort of rejigger our lunchtime,
13 obviously.

14 COMMISSIONER DOUGLAS: Yes. I'm assuming we'll give
15 folks at least an hour for lunch. So that would have us back
16 at 1:15, except if you're interesting in joining in a little
17 impromptu birthday party for Andy Horne from Imperial County.

18 Can you wave? Stand up for a moment, Andy, so
19 everybody can -- happy birthday.

20 So we'll be having --

21 MR. HORNE: I can't think -- I cannot think of a
22 better way to spend my birthday than here with you fine folks.
23 It speaks very poorly of my social life, and very well for the
24 company here, as well, or a combination thereof.

25 COMMISSIONER DOUGLAS: Thank you. Thank you, Andy.

1 So at about a quarter to one you will find some of
2 us, everyone here is invited, just on the second floor in here
3 in the atrium to celebrate Andy's birthday. And then we'll
4 try to start at 1:15 or so, does that sound all right?

5 COMMISSIONER MCALLISTER: Yeah. I think that -- I
6 think that's right.

7 If that's good, Heather?

8 COMMISSIONER DOUGLAS: All right. Excellent.

9 COMMISSIONER MCALLISTER: Okay.

10 COMMISSIONER DOUGLAS: Thanks.

11 COMMISSIONER MCALLISTER: Great.

12 (Off the record from 12:15 p.m.)

13 (On the record at 1:17 p.m.)

14 COMMISSIONER MCALLISTER: So let's get started.
15 We're obviously running behind the published agenda, which did
16 end before -- you know, ended at 3:30 or 4:00 or something, so
17 we do have a little bit of cushion for those that can stay.
18 But we want to just try to move through as quickly as
19 possible, so let's just get started.

20 So we'll pass it off to the next panel.

21 MS. WATT: Good afternoon. A pleasure to be here.
22 My name is Terry Watt and I am a Liaison to the Governor's
23 Office for a couple of special projects, including DRECP and
24 San Joaquin Solar.

25 So this panel, I think, is going to bring you some

1 pretty exciting real-time examples of landscape-scale planning
2 efforts for renewable energy, land use and conservation. And
3 so I'm going to take the liberty of just introducing my
4 panelists and letting them go sequentially after that.

5 We're going to start with Jim Strittholt. He's a
6 scientist. I won't go into all of his science degrees. He's
7 also -- he's also an educator. But he also is a computer
8 mapping and technology guru. What can I say? So he will be
9 actually touching on many of the other presentations in his
10 presentation and setting the frame for why landscape-scale
11 planning is so important and how it's playing out to assist us
12 in what are becoming essential collaborations with our local
13 government around all of these kinds of planning, energy, land
14 use, conservation and transmission.

15 Kern County's Director of Planning and Development,
16 Lorelei Oviatt, really needs no introduction. I do not want
17 to steal her thunder today and tell you what she's
18 accomplished by way of the metrics you heard this morning. So
19 I'm just going to leave it at that. Lorelei is also using
20 Data Basin Gateway. And I think Jim will touch on that a bit,
21 and Lorelei might talk about how important the tools have been
22 to her as well.

23 And then we're moving on to Heidi Brannon, Heidi and
24 team at Solution Strategies International. I called Heidi
25 yesterday. I said, "You're tenacious." They have and I think

1 are delivering a pretty exciting part of the DRECP in the
2 Multi-Species Habitat Conservation Plan and Natural Community
3 Conservation Plan. She works in a firm that is focused on
4 solving complex environmental issues in ways that preserve the
5 environment while growing the economy. And they're going to
6 talk about some of the new models that they're working on.
7 But again, the Data Basin Gateway I think has been an
8 essential tool for their work in Apple Valley.

9 Tim Snellings from Butte County. Tim is also the
10 Director of the Development Services Department. And Tim and
11 Lorelei collaborated on a very important handbook for counties
12 called the Solar Development Handbook and Guidebook. Tim is
13 here because his county is one of the first Northern
14 California counties to really approach renewable energy
15 planning from the landscape scale. And Tim -- Tim will be
16 using Data Basin after today.

17 Last but certainly not -- not least, Carl Zichella
18 who is the Director of Western Transmission from NRDC, Natural
19 Resources Defense Council. He's going to talk about the
20 Western Electricity Coordinating Council Environmental Risk
21 Metrics tool for transmission planning, something we have now
22 loaded on Data Basin Gateway for the San Joaquin. And I'm
23 just going to call Carl Mr. Transmission. That's when I think
24 transmission, call Carl.

25 So without any more introductions, let's kick this

1 off.

2 Jim?

3 MR. STRITTHOLT: Good afternoon everyone.

4 I've heard Data Basin used a lot this morning. And
5 you'd almost think I have a staff of 300 people to hear all of
6 it. Believe it not, all of the stuff that you see is being
7 generated by 15 people. If we had the climate change piece,
8 maybe add another five. And these people -- it's not me,
9 it's -- I've been fortunate enough to be able to attract a lot
10 of really bright energetic people who really work well
11 together. So it's a combination of programmers and scientists
12 and modelers. And they all get along and they all have a
13 common mission. And that makes a huge difference in some of
14 the things that you're seeing.

15 I'm going to talk a bit about the San Joaquin Valley
16 Gateway and the project more specifically. So I want to let
17 you know kind of how all this works. And there are some
18 general things that the platform does that can be customized
19 or repurposed. And we are now moving into a next generation
20 of adding applications that sit on top of the core system. A
21 lot of this -- a lot of the work that Scott was showing you
22 this morning, whether it's the scenario builder or the climate
23 console, those are all applications that sit right on top of
24 Data Basin with some very specific goals in mind to really
25 translate the science to people who need it delivered in a

1 digestible manner, and that is really not -- it's not a simple
2 task to do that.

3 In this day and age we deal with lots of data and
4 it's becoming an avalanche of data. And I had a funder once
5 tell me that people are dying in an avalanche of rose petals.

6 But the outcome is the same. It smells good but you're still
7 dying from all of that data overload of rose petals; right?

8 And our job is to try to cut through all that to find the
9 information and the knowledge to help people make decisions on
10 things, because that's really what we're trying to achieve
11 here.

12 So in the case of San Joaquin Valley what we're
13 really -- the primary objective in the first pass of the
14 Gateway, why was it -- why was it built, in our Data Basin
15 world Data Basin is the big mothership and we've come up with
16 the concept of gateways or consoles or portals, you can call
17 it whatever you want to call it. These are customized branded
18 systems that allow the content to be tailored to meet specific
19 needs of certain audiences. And everyone has ownership of it
20 and that's part of the beauty. They are all interconnected if
21 the parties choose to be in this particular instance where the
22 primary objective initially is to identify least conflict
23 lands for solar development. And it's their -- it's going to
24 be -- it's being used by a group of stakeholders. There are
25 five different groups that are working in their own way to

1 pull it all together to come up with some initial solutions
2 for it. A lot of the data has been preloaded, it's ready to
3 go. A lot is still -- a few things are still coming in as
4 people see the excitement building around it and what they
5 have to offer, which I think is really valuable. People like
6 you to use the things that they know and they trust, so this
7 is part of that.

8 The people in this -- in these working groups, and
9 I'm going to get to it in just a second, they need access to
10 authoritative data, they need a way to integrate it in an easy
11 fashion, and they need enough collaboration tools that
12 promotes their working process, and that's what all of this
13 has built into it.

14 At the end of this process when hopefully we come to
15 some outcomes, and I know we have another meeting on August
16 28th, that's coming up around the corner, we have another one
17 to follow up probably towards the end of October, and there
18 will be some solution sets presented at that time. So speed
19 is of the essence, but there's a lot of knowledge being
20 brought to bear very quickly. So this is kind of accelerating
21 the whole thing.

22 At the end of this process the Gateway is going to
23 remain and it's going to have some durability functions to it.
24 So people will try to do the low-hanging fruit first, but
25 there are still hard decisions that need to be made and the --

1 and this system will still be there for people to add to and
2 work together as they need to over time.

3 Now as I mentioned, Data Basin in my Data Basin
4 world is the gateways become really important, and they're
5 important for different -- to different people, different
6 institutions for different reasons, but they are all
7 integrated. And for this particular effort on San Joaquin we
8 have actually taken advantage of some of the existing
9 gateways. Pat Lineback was here earlier, so we were able to
10 pull in a lot of the data from this particular gateway and it
11 took two hours to do, not two weeks to do.

12 We have another gateway that was launched just this
13 past July. And this is the very first county gateway for
14 California. It's Kern County. This is Lorelei's gateway and
15 it's absolutely really beautiful, so I wanted to show it. And
16 it's to help -- and it's to help the process and the processes
17 that her county is engaged in. And it's branded for the
18 county. But we were able to pull data from this county into
19 the San Joaquin as appropriate. And they can go back and
20 forth, so they're interchangeable if people desire it to be.

21 So the idea here, so we have -- and then, of course,
22 there's DRECP which you saw earlier. So we have a federal
23 portal. Fish and Wildlife Service is an example. We have
24 others but that's the example. DRECP is state. Kern County
25 is local government. And they're all interchangeable, and

1 people can get access to it all through whatever doorway is
2 appropriate for their process. It doesn't matter to the
3 technology, but it matters greatly to the people who have to
4 use these things.

5 COMMISSIONER MCALLISTER: Could you talk about data
6 standardization to enable those gateways? Because I think
7 that's really important to understand. Like, you know, where
8 there are norms in place that allow --

9 MR. STRITTHOLT: Yes.

10 COMMISSIONER MCALLISTER: -- that two hours to take
11 place versus --

12 MR. STRITTHOLT: Yes.

13 COMMISSIONER MCALLISTER: -- two months; right?

14 MR. STRITTHOLT: The data come from all different
15 flavors, so it's a wide range. We standardize all the data
16 that comes in and we put it into a format that's standardized
17 to make it easy for it to be moved.

18 So we can't control what people do to build, but we
19 can translate it and put it into a standard on our system so
20 it's easy for everyone to see the common background or
21 framework for the information that comes in. That's much
22 easier to do than trying to impose standards on all the data
23 generators. We do it in the translation of it. Okay.

24 I wanted to show there is -- like I mentioned, there
25 are several working groups. This is one of the working group.

1 We have a working group for environmental conservation. We
2 have one for agriculture. We have one for the counties. We
3 have one for the solar industry. And there's a quasi one
4 beginning to build around transmission. More about that
5 another time.

6 I wanted to show you one example. So you have these
7 private working groups. This is the environmental
8 conservation one. Here are all the members of the group.
9 They have access to all the public data. They also have the
10 ability to bring in their own private stuff and not share with
11 the greater audience just yet because they're working their
12 issues. And this is true for all of the grouping, all of the
13 various working groups. Ag has their companion and so on.

14 At the same time we've also rallied together all of
15 the data or large bodies of data. Here's some for the
16 recommended San Joaquin Valley for the farmland and rangeland.
17 We have 99 data sets there. Now it's probably more than they
18 need, but it's everything. And they see what's available and
19 they say, oh, we have five things missing and here they are.
20 And it comes together into a unified place so everyone can see
21 it and utilize it.

22 So if I were to scroll down here, for example, and
23 go to the Farmland Mapping and Monitoring Program here's a
24 setup, here's all the recent for all the eight counties
25 involved. This is a 2012 FMMP data all ready to go, all

1 standardized for people to use. And that's true for lots of
2 things, whether it be croplands or soil types or what have
3 you.

4 Now I can't get through a top without showing you a
5 map, because that's sort of my thing. And I'll try to brief
6 because I know I have about five more minutes.

7 And so this is a work in progress. I'm not going to
8 show you any results yet because the groups are still actively
9 working on them. We are actually working with all of these
10 groups right now separately, trying to represent the values
11 that they have in a way that's meaningful to them and can be
12 communicated to others. That's what we're trying to achieve
13 here.

14 So we're looking at a base map. This is a database.
15 And you saw -- you saw some of Scott's work earlier today.
16 And I loaded some things very quickly just to give you a sense
17 of this. So you can see the basic, most of the counties.
18 We're zoomed a little too close to see them all but you'll get
19 the idea. And just to give you a feel for, well, where is
20 your concentration, all the area you see in kind of that mint
21 green in the middle of the valley, that's our study area
22 primarily. A couple of the groups have spilled over a little
23 bit because they want some context. Others have stayed very
24 strict to that. It doesn't matter for this exercise. That's
25 basically the landscape that we're dealing with here.

1 Now what I'm going to show is there are certain data
2 sets that are now -- these are authoritative data sets and
3 these have been standardized. I just pulled up some of the
4 public lands, different designations. It may be hard to read
5 all of the legends and such, but you can see the different
6 colors. And I should probably zoom in a little bit, give you
7 a little bit closer view. And these orange -- these kind of
8 these purple polygons are all the division private easements.

9 And sure enough, if you go to the information you can click
10 on any of this information and get the records back. That's on
11 the county.

12 If I go -- sorry, I clicked on the wrong one. I
13 want to go to the easement database. It will tell you who --
14 who is the holder, what's it for, when it was established, how
15 long is it going to be in place. Those kinds of -- those
16 kinds of data become really valuable because then you know
17 what you're dealing with. And it's all in one place and it's
18 pretty easy to use.

19 I wanted to just show a couple of examples of some
20 of the data that we've collected over the working groups, just
21 to give you a sample. This is not a conclusion it's just,
22 well, what kinds of data do you put in here, and is -- are
23 these valuable for the question at hand, in this case
24 identifying least conflict solar.

25 Carl will speak a little bit later about the Western

1 Electricity Coordinating Council data. This is the WECC data
2 that was mentioned. And this was a process that he was
3 involved in, I'll let him describe it later, where they've
4 scored the landscape of everything that is -- you can't go
5 there because of legalities. The red areas are places that
6 can't be handled. The green is where transmission currently
7 is with some buffer. And then there's different zones in
8 between of level of sensitivity, and I'll let him describe the
9 rest. But it can be pulled in from the data kicking from
10 them. And they are the ones who understand the drivers behind
11 it and how to best use it.

12 We have other information. We have some of the
13 conservation information. Here's Fish and Wildlife Service
14 Critical Habitat that's going to come up in just a second.
15 And this is always changing. As they make new critical
16 habitat plans it will come and it gets -- it gets produced
17 here and people can utilize that.

18 Conservation groups can contribute their
19 information. Here's Audubon. This is their Important Bird
20 Areas for 2015. It gives everyone a place to contribute the
21 work they've done and everyone can see it together and have a
22 conservation that hopefully will help decisions get made.

23 On the -- on the agricultural side I've got Fresno
24 County kind of zoomed in. We've got it for the whole valley
25 now. Here's the -- I've actually cherry-picked the data and

1 I've highlighted prime farmland, farmland of statewide
2 importance and unique farmland in the different colors of gold
3 and yellow presented here. And we can also include things
4 like salt-affected soils that comes from a different source
5 and we can compare them and have a discussion about those, and
6 even put them in a modeling exercise if the -- if the parties
7 choose to.

8 Transparency is key. Quality of the data is key.
9 And an ability for people to work with it in a way that's
10 comfortable for them socially is also an important thing to
11 think through.

12 Now I suspect over time that it may be desirable
13 that once the process comes up with some conclusions, initial
14 conclusions, there may be a need for some of the kind of
15 applications that Scott showed earlier where you have things
16 that are much easier to drive. Those were targeting certain
17 types of people who won't have the time or the patience or the
18 wherewithal to kind of start from scratch, so to speak, and
19 start with a clean slate and try to figure out what to add to
20 answer questions.

21 So we try to jumpstart that and we tailor it to help
22 them, but we have to talk to them first and ask them, how do
23 you use this to make the decisions you're faced with, and then
24 we tailor the application to make it easy for them. And at
25 any point in time they can go back to the original data and

1 explore it in another way.

2 So with that I will stop and turn it back over to
3 Terry. So thank you.

4 MS. WATT: And turning it over to Lorelei.

5 MS. OVIATT: Thank you. Well, you know, it's been a
6 long seven-and-a-half years of bringing into fruition a lot of
7 projects. So I just want to take a moment to go over our
8 accomplishments. And it is an accomplishment in Kern County
9 that could not have happened without our partners in the
10 private sector in regards to the companies that have decided
11 to invest in California, but certainly the CPUC, the CEC,
12 CAISO are all people, along with, you know, the agencies.

13 So just as a reminder, Kern County is the center of
14 energy in California. These are all things that we do,
15 including the largest biodiesel manufacturing plant.

16 And so back in 2011 we were already processing a lot
17 of projects. And I had this crazy idea to go to the Board and
18 say, what would happen if we just in Kern County had 10,000
19 megawatts in production, and that would include cities, school
20 districts, water districts doing DG, as well as commercial
21 scale. And actually I won't be in production by the end of
22 2015 but I will have over 10,000 megawatts permitted, and
23 we're very proud of that.

24 And the reason that we thought that was a very
25 worthy goal, among other things, were the benefits to the

1 community. It's over 8,000 construction jobs, 1,500
2 operational jobs. A \$25 billion investment of private funding
3 into the community. We're at \$23.2 billion dollars. The Kern
4 County Board of Supervisors didn't waive one fee, and we
5 didn't waive any property taxes. Instead, it was the Planning
6 Department's sweat equity, actually just working harder with
7 our partners to do the environmental impact reports necessary
8 to make these high quality projects, as well as early
9 conversations. We believe in early conversations and we're
10 very excited about RETI 2.0 and where you all are going with
11 your landscape thoughts. Because when an investor comes and
12 has already invested \$10 million into a project and a local
13 government has to tell them, you're in the wrong place, it is
14 not a good thing for California. And there are -- you know,
15 this is power for over 7 million people in California.

16 Now we actually haven't generated \$150 million in
17 property tax revenue because of some exemptions that solar
18 has. But we have generated \$50 million a year in property tax
19 revenues, along with a windfall of \$32 million in sales tax.
20 We discovered that we could capture the sales tax on wind and
21 solar. That was very nice to find out. And we know that
22 other counties are now putting that on as a condition of
23 approval.

24 What have we done in regards to our permitting? We
25 have a wind energy combining district. This is a landscape

1 type of large areas. We have about 60,000 acres in our wind
2 area now that is permitted. And we actually changed our
3 ordinance a couple of years ago, that if you want to put
4 ground mount solar on to use onsite you only need a building
5 permit. So I'm going to show you a picture of some of the
6 projects that we've actually incentivized that way.

7 And then, of course, if you are utility-scale solar
8 we still believe that because of siting criteria and
9 locational issues, you still need a conditional use permit.

10 So this is a picture of our wind area. This wind
11 area, of course, benefitted from the Tehachapi Renewable --
12 Renewable Transmission Line. That line was 12 years into the
13 making, but most of that work was done with the CPUC and not
14 with the local government. We were excited about it. We knew
15 it was coming. We were not really prepared for the onrush of
16 wind and solar projects.

17 We're very proud, however, that because of our WE
18 zoning and because of the way we site, this is an example of a
19 Joshua tree woodlands. These Joshua tree woodlands take
20 hundreds of years to grow. And once you wipe them out they'll
21 never come back. So this isn't going to regrow like an oak
22 tree. And this particular Joshua tree woodlands, for example,
23 was carefully sited such that it will be there forever. We
24 will be generating wind power, we will be generating solar,
25 but this will not be touched. And we are very proud, if you

1 go and look at our wind and solar areas, that we have
2 minimized the impact, don't grade new roads, don't take off
3 all the vegetation. Let's work on landscape-type siting that
4 preserves some of the best things about our communities while
5 integrating renewable energy.

6 This is an example of one of our onsite -- this is a
7 fruit and nut processor. They wanted to generate one megawatt
8 onsite. They don't have enough roof space. And we came to
9 the determination that if under our zoning ordinance you could
10 build a building there, why not them put solar panels? So
11 there are issues with commercial-scale solar, that we require
12 the conditional use permit for things such as bonding and
13 concerns about, you know, their location. But we consider
14 this accessory to the operation. So you can -- you can do as
15 much of this onsite as you want with only a building permit.

16 Because of that change in our ordinance we actually
17 have over -- at last count over 32 megawatts of a variety of
18 projects. Grimway Farms did 4.8 megawatts in a variety of
19 different operations for their organics. Because it is a
20 disincentive to builders to have to go through a conditional
21 use permit process. Between the cost and the California
22 Environmental Quality Act, and just man of the uncertainties
23 of that action, they would prefer not to make the investment.

24 This is one of my favorite projects. It is a one
25 megawatt solar project that is actually powering the pump

1 jacks, electric pump jacks in this oil field. It symbolizes
2 for me a new future for where we are going with the
3 juxtaposition of our technologies and our new technologies.
4 And once again, there was really nothing going on on that
5 disturbed piece of property in the oil field. They wanted to
6 do this solar project. Why should local government be in a
7 position of getting between a business model that could
8 actually move forward what California is working on?

9 Now I wanted to talk briefly -- so those are our
10 accomplishments and we're very proud to talk about that. But
11 I consider the Tehachapi Renewable Project a successful
12 experiment. And the reason for that is both of the major
13 substations are completely within Kern County. So when they
14 designed these substations the idea, of course, was that the
15 renewable energy developers have to get their power to the
16 utility. It's kind of like me buying a car and then being
17 told, you know, you get yourself to the car dealership and
18 we'll get you a new car. But when I get there the gates are
19 locked, and they only let one person in at a time. So we
20 didn't plan for 25 inter-tie connections at Windhub. And we
21 had very strange situations of developers actually controlling
22 the private land and acting as gatekeepers. I'm not going to
23 let you work up to Windhub. I'm going to hold you ransom, or
24 I don't like you, developer, I don't like you.

25 And so the county actually convened a meeting with

1 CAISO, who was gracious enough to come down, and SCE, to get
2 all the developers together to try and sort out, what are we
3 going to do for corridors, how are we going to make sure that,
4 you know, nobody is blocking anybody else? The county
5 actually through a development extracted the entrance to
6 Windhub. So we ended up controlling the entrance so we could
7 make sure that this massive public benefit could be used by
8 everyone.

9 So we would propose that in RETI 2.0 you start
10 looking at your substations need to be bigger, and you need to
11 look at who controls the land around the substations. Can we
12 do something about the private connection lines? They're
13 duplicative. They're inefficient. There's all sorts of
14 market issues about I want to control my destiny so I don't
15 want to share. And yet we have situations where counties have
16 not been happy about having these above ground. And so you've
17 run into issues of cost. You know, undergrounding a 60 kV is
18 a lot different than undergrounding a 250 kV. And those are
19 very important issues that I'm hoping in this next phase of
20 landscape conversations that we look at.

21 And then CAISO, I was commenting to Jim privately
22 that I appreciated I never knew what they did until I became
23 involved in renewable energy. And I realized that they are
24 really the ones that keep the lights on and are trying to
25 balance all of these different uses. However, our current

1 process where a developer goes to CAISO, gets in the queue,
2 puts up this money, gets the cluster, comes to local
3 government and we say, sorry, that's not the right
4 interconnection route. I can't approve that. Can you move to
5 a different substation? The answer was, "Of course not. I
6 have to go back to the queue. I have to move. I have to do
7 all these things."

8 We believe that's backwards. We believe there
9 should be more of a collaborative interest. It puts CAISO in
10 a very difficult position. And it puts the county in a
11 position of being driven by an engineer's viewpoint of what
12 should happen.

13 And which brings us to land use. Future
14 transmission planning until now has been disconnected from
15 land use projections. We think there needs to be a rethink on
16 how that's done. You know, we had to do, and we're proud to
17 say we did them as 12 to 14 a year, we did 85 EIRs to get this
18 accomplishment done for the State of California. We think
19 they should look at CEQA reform for cumulative impacts. If a
20 general plan has an energy element and looks at cumulative
21 impacts, then the site-specific -- the site-specific
22 environmental document should be less than an EIR. We think
23 this is something whose time has come. We have had to do EIRs
24 on ten megawatt projects because of the cumulative impacts of
25 so many renewable energy projects in our -- in our area.

1 And to people who respond, well, you should have
2 stopped everyone and taken three or four years to do a
3 programmatic EIR, we don't think that's the right approach
4 either. We have tax credits that were expiring. We have
5 goals that need to be made. And that sends the wrong message
6 to Wall Street and it sends the wrong message to investors.
7 California needs to send the message that the doors are open
8 and you can invest billions of dollars here on a certain
9 timeframe.

10 Which brings us to our property tax exemption. We
11 definitely support an exemption for reassessment for rooftop.
12 And we would even support for DG that's onsite, distributed
13 generation. But the property tax reassessment for commercial-
14 scale solar is a disincentive for commercial-scale solar for
15 counties. I have 50,000 acres where I could have put
16 something else that generates property taxes. And at the rate
17 that we're going that will be a disincentive, and it is
18 already a disincentive, because counties and communities want
19 to know, why are we doing this? They're all for, you know,
20 the goals. But on a practical level they want to know why
21 we're doing this.

22 And so I leave you with our thought. Our thought in
23 Kern County is the logical place may not be the best place.
24 So from an engineer's standpoint it's the most logical place.
25 From the -- from the biologist's standpoint it's the most

1 logical place. But to the neighbors, it's not. And we live
2 in the land of community input. And local government lives in
3 the land of neighbors. And so we need to continue the
4 conversations about the best place to put things. And the
5 science that you're providing is not going to be complete
6 until we have the conversations about what are the benefits
7 for the local governments' tax base, and what can we do to
8 minimize the impacts for our neighbors, our communities, and
9 the people who are actually going to benefit from this
10 electricity?

11 Thank you.

12 MR. SNELLINGS: You're just so eager,

13 MS. WATT: Heidi Brannon. Apple Valley Multi-
14 Species Conservation Plan and NCP.

15 You're just so eager, Tim. I like it.

16 MS. BRANNON: Well, I want to first start by saying
17 thank you. I am going to share with you. I'm very honored to
18 be here today to share on the town's behalf, I'm their
19 consultant, the Multi-Species Habitat Conservation Plan and
20 Natural Community Plan. It is an evolving plan. And we are
21 still very much in the planning process, so there's nothing
22 really out on the street yet. So everything I'm showing you
23 today is a draft of some sort, administrative drafts. But we
24 are doing good things, we think.

25 The town is located in the heart of Victor Valley in

1 San Bernardino County. So it is just east of the I-15 in
2 Victorville and south of Barstow. So that star on the map
3 sort of shows you generally where it's at. And we have been
4 at this now for quite some time. The town started this
5 planning process in 2007. We were just a straight Multi-
6 Species Habitat Conservation Plan at that point in time. We
7 weren't an NCCP. This NCCP component came on in late 2012.

8 We, over this time, have been tracking very many of
9 the regional plans, including DRECP. There's been several.
10 Our planning area started slightly smaller than this, but as
11 of now we are looking at 220,000 acres that we will be
12 creating this plan -- that will have coverage under this plan.

13 So like the desert, we have a very good mix of
14 public, private, state and federal ownership in our planning
15 are. So we have -- approximately 40 percent is federal BLM
16 lands, about 3 percent is state lands, and the remaining are
17 private lands and local public and utility lands, as well, but
18 those aren't called out so much.

19 It's a multi-jurisdictional plan. The town of Apple
20 Valley is the lead agency. The planning area shown here -- I
21 don't know if the mouse will show -- it's shown in the tan.
22 And then we are also working very closely with the County of
23 San Bernardino. So we are also including the town's sphere of
24 influence which is the dashed yellow line on that map. And
25 that is the area that the town could expand to in the future.

1 And then we are also working with the county to include some
2 other lands that are -- are not in any other planning
3 jurisdiction as a sphere of influence and take -- it will
4 provide coverage for covered activities and species take in
5 those areas, as well.

6 So in total, private lands is about, again, 86,000
7 acres when you subtract out the federal and state lands and
8 the county jurisdiction.

9 So, you know, Lorelei touched on the importance for
10 local communities and jurisdictions. We are -- the town is
11 preparing this because they see the goals of having certainty
12 for the future. It's the same reason the DRECP wanted to
13 proceed. And -- but at the same -- at the same time the very
14 important thing to the town is maintaining the areas rural
15 characteristics, quality of life, and then supporting economic
16 growth and jobs, bringing jobs to the Victor Valley region and
17 the town. So these are -- that's the ultimate goal.

18 Our proposed covered activities are generally
19 anything that's going to support local development that's
20 described in the town's general plan and the county's general
21 plan within the plan area, so within that 220,000 acres that
22 you're looking at. So anything that needs a permit from the
23 town or county, we're also looking at renewable energy, not
24 the utility scale or the large commercial projects but things
25 that are in line with local ordinances, operation and

1 maintenance of public facilities, capital improvements, and
2 then also we'll be building in the land management that's
3 going to be required to implement the plan.

4 So what is -- what does it look like? This is a
5 draft map, sort of. This is going to be further refined.
6 We're working with the wildlife agencies right now on it. So
7 this is all the different land uses and where they kind of
8 fall in the planning area. I want to highlight the two that
9 are called out in yellow, and there's kind of a weird ameba
10 one sort of on this bottom half, and then rectangle on the top
11 half, those are where the town right now allows renewable
12 energy projects to be permitted. It's smaller scale
13 photovoltaics. Anything under 10 acres is a site plan review.
14 It's an administrative project on those two areas. Anything
15 over 10 acres, under 400 acres is conditionally permitted by
16 the Planning Commission and goes through that local approval
17 process.

18 There's other projects, and there's also other uses
19 in those areas. So industrial in the gray area. And then the
20 ameba shape is Apple Valley Dry Lake and it has some real
21 residential in that area.

22 All the colors there are where all the other uses
23 fall. And then the tan is resource conservation. That's
24 pretty much the county's open space designation.

25 So there's -- oh, there's the mouse.

1 So this boundary, and I'll get into this a little
2 bit more in the future, this is -- we're looking at a linkage.
3 Our plan is really going to focus on linkages, and I'll talk
4 about that more in a second, right -- right now.

5 So the landscape-level linkages, the town, when we
6 started looking at everything initially, we're very
7 traditional, looked at our boundaries, and when we pulled back
8 away we heard the conversation changing at the DRECP and in
9 2009 to see how we fit in the wider landscape. And what we
10 found is that we are in a very unique position. We're
11 centrally located at the connection -- at the intersection of
12 three landscape-level linkages. We have this north-south
13 connection here which is the San Bernardino Mountain Granite
14 Connection. It was identified in 2005 by multiple groups.
15 And this is a really critical coastal-desert wildlife
16 connection for big horn sheep and other species. It's
17 critical for Southern California. It was one of 12 identified
18 as critical landscape connection.

19 What we found when we pulled out and started looking
20 at the Desert Tortoise Suitability and Habitat Index and
21 different things is -- you can see it here on this aerial that
22 we have this really nice band of interconnected habitat that
23 was unfragmented, largely from the Desert Tortoise
24 Conservation Area over here. This is Ord Robin (phonetic)
25 Desert Wildlife Management Area to the Fremont-Kramer Desert

1 Wildlife Management Area.

2 And so we started getting out there and ground
3 truthing it and we found that we had this high habitat value.
4 And then the key part of this linkage is we have -- I call
5 this the Wild Wash Linkage. The DRECP identifies as the
6 Northern Lucerne Valley Linkage. We have the Wild Wash. It
7 comes -- flows east-west to the Mojave River right here. This
8 is the only natural undercrossing in the I-15 from Victorville
9 to well beyond Barstow. So it's like -- it's a distance of 40
10 to 50 miles that's really critical for east-west connection
11 the desert, because otherwise species can only get across the
12 15 with culverts.

13 The other thing that we have that's really important
14 here in our area, and it doesn't show up very well on this
15 map, is we are on the Mojave River. And the Mojave Narrows,
16 which is a really critical riparian area for birds, falls
17 within our planning area. It's residence for bird species for
18 like Southwestern Willow flycatcher, but it's also a very
19 important stopover point. And because the town's plan area is
20 220,000 but linkages -- we really feel strongly in the future
21 for conservation it's about the linkages, and the linkages are
22 the most important, we have mapped the linkages outside of our
23 planning boundary so the town's plan can be a building block
24 plan. Because not only does the town need to address its
25 resource issues, but the other communities like Hesperia,

1 Victorville and Barstow also do. And this is something that
2 they can build on, and the county can build on it, as well.

3 So one of the things that we were asked to do is
4 talk about how we'd use the DRECP data to build our plan or
5 how we're -- and we're using it to inform our plan. And this
6 is out of date. It shows our old boundaries and our old
7 linkage design prior to really getting the agencies out there
8 on the ground and ground truthing it. It shows here, which is
9 really interesting, there's some things -- there's things
10 where they don't match up. But I think the really unique
11 thing here and the really neat thing is that our linkage is
12 the -- the ACEC's for the DRECP, the conservation areas are
13 shown in blue here. And then the development focus areas were
14 in the red. This has changed now since the DRECP (inaudible).

15 But the neat thing here is that you saw that our linkages
16 largely overlap. And we got to these linkages two different
17 ways. The DRECP was very model focused and we are very on-
18 the-ground focused. And largely they overlap which was a very
19 nice thing to come to in the end.

20 So we've updated this map, obviously, because the
21 BLM LUPA is moving forward first. And so now the green is the
22 conservation areas. And you can see it still largely
23 overlaps. There's still some discrepancies and we're working
24 closely with the DRECP on making sure that we're consistent.
25 But we've also expanded our boundaries. This is one of the

1 reasons why our boundaries expanded was so that we could take
2 in this eastern edge and really bring in that full ACEC area
3 into our linkage design, and then also include some other
4 really critical lands for desert tortoise.

5 So one of the things that we really want to make
6 sure, the DRECP has done a lot of work. The town has done a
7 lot of work. And the really critical thing we fell is that
8 the conservation strategies are consistent between the two
9 plans. And so the town has really looked closely at the DRECP
10 and its goals and what the town's goals are and to figure out
11 where -- where these things overlap, where we can be
12 consistent, where we can strengthen them for the -- locally.
13 And so we're really focusing on addressing those landscape-
14 level goals and connecting existing conservation areas.
15 That's one thing that was really key in the DRECP.

16 We're also -- the other thing we're doing is we're
17 ground truthing the DRECP baseline data and the biological
18 objectives within our plan area and our -- and in our region
19 and that's -- we're really bringing it down to the local level
20 because the DRECP is at a much higher elevation than we are,
21 and we want to bring it down to make it working on the town's
22 level. And we're also going to be including a lot of things
23 that the DRECP talked about which is environmental education,
24 land management programs, conservation management, and
25 monitoring and adaptive management. And here we think areas

1 for future opportunities and collaboration, and the desert,
2 when you look at it there's a lot of different jurisdictions
3 out there, a lot of different land managers, but it's really
4 one desert. And so we think the future for conservation is
5 not only in making sure that the landscape is connected, but
6 also that we're -- we're providing active management of the
7 linkages and conservation lands that are forming really strong
8 local partnerships to make sure that management is supported.
9 And then also, like Lorelei and others have mentioned already
10 today, that the community is really involved because that's
11 the only way these plans are going to be successful.

12 So I was asked to provide an example of how I've
13 been using Data Basin. And we've been using it a lot of
14 different ways, but one way we've been doing it, we've done
15 our initial species analysis. We've been going through and
16 doing a bunch of different things. So right now we're in the
17 process of working with the wildlife agencies to review. We
18 have 50 special status species that are likely to occur within
19 our plan area; 12 of those are listed. We looked at what the
20 species the DRECP is covering or are addressed or done some
21 sort of modeling for. And we have overlapped that into our
22 analysis and built it in now that the material is available.

23 So for desert tortoise, this is just one example on
24 how we did our species analysis maps at the request of the
25 agencies, is we took half our planning area -- and really,

1 this is the second map of the process. The first map was just
2 overlaying the species models on top of our plan area. This
3 is clipped to our plan area and our linkage design. So this
4 purple here shows the binary model, species models that's
5 DRECP generated. And the yellow is in the occurrence data,
6 either from CNDDDB (phonetic), Eber (phonetic), whatever the
7 species, it's -- the maps I'm going to show you are desert
8 tortoise, and see where they overlapped. And if the -- we
9 found that the binary model captured the occurrence model, we
10 then move forward. But if the binary model didn't capture the
11 occurrence data we went to the continuous model and adjusted
12 it until the occurrence data was fully captured.

13 So once we had that layer done and clipped to our --
14 our species maps, we have now further overlaid the natural
15 community maps that the DRECP generated. Because, again,
16 we're trying to be consistent. We're trying to talk about the
17 species in the same terms. We're trying to talk about the
18 habitat in the same terms. And we figured out what -- where
19 those -- the natural communities fell. And if we have a
20 general list we are using the general level, which is the high
21 broader-based natural community levels. And if we have a
22 specialist species we use the -- a finer level of natural
23 community mapping. So we laid that on top of the model to see
24 how it overlapped. And then once -- we took that one step
25 further then to simply even more so we could see -- based on

1 the species needs we simplified it even further into what was
2 suitable and what was unsuitable potentially. So the green
3 here on this map for desert tortoise shows how much suitable
4 habitat we have in our planning area for desert tortoise and
5 our linkages. And then the gold are areas where the suitable
6 habitat isn't under the model.

7 And so this -- by this process we went and further
8 determined if the species should be covered. So desert
9 tortoise obviously is being covered. We have a lot of
10 suitable habitat for it. And then we have also grouped it
11 into things that we need more information on. Because some of
12 these models, either models weren't available and we did
13 need -- we were looking for more research, or things that are
14 unlikely to cover. The model didn't show that it was there.
15 The occurrences don't -- didn't show that they were there.

16 So with that we are moving forward in our process.
17 We are -- we'll be starting public outreach here pretty soon.

18 And I really wanted to reiterate that the -- all the work the
19 DRECP has done has been really valuable and has helped inform
20 our planning effort in the desert. And then we are definitely
21 looking forward to continuing to use this model, refine the
22 data better so it fits the local level, and working together
23 to ground truth it to make sure that the two plans that we
24 have are consistent.

25 And then we're also -- what we've really learned in

1 doing this process, that it's really important to ground truth
2 the information so -- we have all the models and they all show
3 different things, but to really get out there on the ground
4 and look at the habitat and look at the species and see if it
5 really lines up. Like in our linkages areas, the reasons why
6 they're different is we've gone out on the ground, and some
7 areas where it's shown as an area of critical environmental
8 concern actually are very disturbed areas and the good habitat
9 might be a little bit further away. And so we've -- we've
10 redrawn our boundaries because of that.

11 And then also the other thing, once you ground truth
12 it, is really it brings that plan down to the local level.
13 And this will help ensure that the plan that's ultimately
14 finished and finalized and approved with public input and all
15 these different things really benefits not only the desert and
16 the species and conservation, but it's really going to benefit
17 the communities because the town, they're -- the people live
18 here in the desert because that's -- you know, they love the
19 wide open spaces in the desert and the real character and we
20 want to maintain that for them and build a plan that can be
21 built off, including the linkages and different things and
22 creating this new model of where the plan is a building block
23 that other -- the county and the local communities can build
24 on top of.

25 So that was -- that's my presentation.

1 MR. SNELLINGS: Now can I go?

2 MS. WATT: Tim, now you can go.

3 Tim Snellings, Butte County.

4 MR. SNELLINGS: Well, I thought I would first give
5 the short version of my presentation. You take what Lorelei
6 said, divide it several hundred times, go about 70 miles north
7 of Sacramento, and then you have the Butte County story.

8 So thank you, Lorelei, for speaking so well for
9 counties.

10 Of course, all of you, when you think of energy in
11 Butte County, you think of two things. The first is Sierra
12 Nevada Brewery for your pale ale. I think actually Sierra
13 Nevada may have received a grant from the Energy Commission
14 for some of their projects. They have a fuel cell. They have
15 five acres of solar PV over their parking lot. I mean,
16 they're a very green energy company.

17 The second thing people think of is the -- it's
18 maybe a quiz question for all of you. What is the highest dam
19 in the United States of America? Okay, everybody wants to say
20 Hoover Dam. That is wrong. Lake Oroville is the highest dam
21 in -- in the United States, not just earth filled, any dam.
22 So Butte County -- and one-sixth -- there's six energy
23 generation units in Oroville. One of those generates enough
24 power for 200,000 homes. So that's when there's water, of
25 course. So anyway, that's the other thing to think about.

1 I think we should have a meeting in Butte County
2 sometime. Probably have it at Sierra Nevada would be -- not
3 Lake Oroville.

4 COMMISSIONER DOUGLAS: I'm on board with that.

5 MR. SNELLINGS: Okay. So what I want to talk about
6 is a project we have going on called our Solar Overlay
7 Project. And we have this brand that you're going to see
8 through my presentation called Power Butte (phonetic). And
9 Power Butte is -- our subtext is "A Place for Clean Energy."
10 And I'll walk you through what that is.

11 Power Butte, and you can check this out on our
12 website, power.buttecounty.net, this is our umbrella where
13 we're capturing all of the different efforts we have for
14 energy programs. So we have our PACE programs, which is
15 Property Assessed Clean Energy which is where you can
16 essentially hire a contractor that's in this program, and the
17 cost of installing the solar PV system could be placed on the
18 tax bill. And you make -- when you pay your property taxes
19 each year you pay towards your solar energy facility that's on
20 your rooftop. And it's a very simple way for people to get
21 solar energy on their rooftops.

22 Our Climate Action Plan which we adopted in 2014,
23 that is -- has been a very critical document for us. It sets
24 up dozens of action items for us, one of which is to look to
25 create a solar overlay for Butte County. And that came from

1 the work in our Climate Action Plan which came from our
2 General Plan.

3 We're also looking at community choice aggregation.
4 We're going to call it Community Choice Energy if we go
5 forward with that. Sonoma County and Marin County have been
6 very successful with that. We're looking into -- we're going
7 to begin that exploration project, actually August 25th, we
8 think. And then our Butte County Solar Overlay project, which
9 I'll explain here in just a second.

10 But let me just kind of -- this group I know is very
11 oriented to what's going on around California, but just a few
12 photos.

13 Another thing people think about when they think of
14 Butte County is Butte College. At Butte College they have the
15 goal to be the first grid-positive college in the country.
16 And I've seen articles actually that they've don't this, but
17 they actually don't say that they've done this. So I don't
18 think it's quite happened yet but it's still on track to
19 happen, Butte College.

20 This is an issue that we all talk about and that
21 planners think about a lot when we see these large-scale solar
22 projects, you know, questions of is this farm land? You know,
23 what is farm land? That used to be a really easy question to
24 answer. You know, if something grew on it, it was farmland.
25 Well, is there water? Is the soil marginal? Is it under

1 Williamson Act? Those are very real issues that we have to
2 deal with at the local level.

3 Same thing south of Sacramento, an 88 megawatt
4 system. And it raises all the farmland questions again.

5 I had a couple other slides I took out for some
6 reason, I don't know why, but it was the 30-acre site in San
7 Francisco that's over a water body. It's one of their water
8 supplies. It's a great photo and it shows what's possible for
9 installing solar PV in areas that don't impact farming, which
10 makes me kind of think about, gee, we have a lot of these
11 canals and -- around California we run water through. Why
12 don't we get some smart engineers to figure out how to design
13 solar PV on atop of those? Then maybe we can prevent some
14 evaporation. So there's a lot of -- we're just at the very
15 beginning of this whole issue of solar PV.

16 So we've done -- as we talked about our solar
17 overlay project before we got started, we did a survey of
18 California counties. We have our California County Planning
19 Directors Association that we work with. Lorelei is going to
20 our president in another year or so.

21 Right, Lorelei? Right. I think -- I think you
22 should know that. I think you missed a meeting. Okay.

23 So some of the public concerns that we hear and
24 we're all aware of about the aesthetics and glare, the
25 environmental impacts, ag impacts, land use compatibility,

1 property values, you know, this is the neighbor to the
2 project. They're very concerned about property values, their
3 property value. And then the obsolescence and disposal issue
4 of what happens when the site is, you know, going to turn over
5 in 20 years. Is it going to always be an energy site?

6 Strategies; this is the crux of our project is to
7 try to figure out strategies that we can design into an
8 ordinance, essentially, that will be mitigation measures and
9 become the rules of the county for development standards for
10 large-scale solar PV projects, and I'll talk more about that
11 in a second too. And then the community goals, you know,
12 there's a lot of reasons for doing solar PV projects.

13 The benefits of the solar overlay, and Lorelei
14 touched on this, too, about the first question is really not
15 an easy one to answer for county residents is what is the
16 benefit to Butte County of a solar -- of a lot of solar PV,
17 you know, thousands and thousands of acres? You know, people
18 would like to think, well, the energy is generated right here
19 so we get to use it locally. Well, that's not quite how the
20 grid works. And so that's not likely to happen unless there's
21 some new grid technology that makes that feasible. So that
22 might be something we look at in the future.

23 But certainly being -- promoting renewable energy
24 alternatives and reducing dependence on fossil fuels, I mean,
25 we all get the statewide, the national, the international

1 reasons for doing this, making the grid more dependable,
2 resilient, cutting the cost for red tape, this is what we're
3 about is to create the streamlined process, planning ahead to
4 avoid impacts from new energy infrastructure.

5 You know, if we are smart the thinking is we don't
6 need more transmission lines. I can tell you, in Butte County
7 I don't think we do. We have three sets of transmission lines
8 going right through the county, and I think we've got plenty
9 of capacity there. And so the question is: How do we access
10 that -- that -- those transmission lines?

11 And then the green jobs and stabilizing, actually,
12 our electricity costs which has happened around California
13 with the great work of a lot of people. And then our General
14 Plan and Climate Action Plan.

15 I think this is one of my favorite pictures of
16 what's going on from the local perspective. You know, we
17 build on the foundation of our General Plan. We spent four
18 years writing the General Plan in -- from 2006 to 2010. We
19 then adopted a zoning ordinance to implement the General Plan,
20 and it took two years to write that. From that we write our
21 Climate Action Plan which sets forth building on the
22 foundation of the General Plan and zoning a variety of
23 actions, one of which is the solar overlay. So you can kind
24 of see how all these planning documents fit together. And
25 it's really -- it's really critical that as we think of Power

1 Butte that we remember we're relying on the foundation of the
2 General Plan and zoning.

3 So we have a lot of community involvement, a lot of
4 public workshops. We have survey tools,
5 buttecounty.granicusideas.com. We went to the Planning
6 Commission last week. And it will be to the Board of
7 Supervisors for our project next -- actually, in a couple of
8 weeks, so again reaching out to the public. And this how we
9 do public engagement. We go out into the neighborhoods,
10 invite people to meetings, hear their ideas, hear their
11 frustrations, hear their fears and concerns. They have some
12 great ideas. They have some crazy ideas. And it's really a
13 wonderful process we have in this country at local government
14 to get out there and work with the community, with the
15 citizens.

16 We've drafted a vision for our solar overlay. And
17 again, all we're doing right now is laying the groundwork for
18 the project. So we've drafted the vision. We have some
19 guiding principles that we put together. And again, these
20 provide the underpinning for the next phase of the project
21 which is the mapping. Okay, so it's really easy to just
22 launch into the project because we all want to see the maps
23 right away. And what that does is it just generates conflicts
24 and unnecessary controversy before it's time. We'll have the
25 controversy and that's -- that's normal for the process. But

1 when you have this foundation of guiding principles and a
2 vision of where you're going, and we have our policy makers
3 that have bought into this, they're going to approve this, and
4 they'll modify it and make it theirs in a couple of weeks, it
5 will be the guiding principles for our project.

6 So lastly to wrap up, just a few of the issues,
7 lessons, challenges, goals. You know, engaging with the
8 public is key. You know, here's one of our ideas from the
9 public that we got. Well, I probably wouldn't be as opposed
10 to a large-scale solar project next door to me if I got free
11 power. It sound pretty crazy, bizarre, but who knows, maybe
12 that's on the table. Maybe we put that on the table, or
13 reduce power, who knows.

14 The loss -- the loss of property tax dollars,
15 Lorelei mentioned this. You know, our thinking is that one
16 way or another we're going to work with the solar industry to
17 find out what is the right way to bridge the loss of funding
18 for large-scale solar projects. And there is a fairness
19 factor. I think there's also a statewide opportunity for
20 creating an equal playing field, because right now it's county
21 by county, and nobody likes to do business that way, county by
22 county, trying to cut a deal with a county, playing counties
23 against each other. Nobody wins when that happens. Well,
24 somebody might win but it's not long-term thinking.

25 And then for us, how far can we go pushing this

1 entitlement envelope? You know, our goal is to complete the
2 project-level CEQA so that only an administrative permit is
3 required. What that means is that if we really pull this off
4 for the thousands and thousands of acres that we're going to
5 do this work on, if somebody comes to our front counter and
6 says I'd like to submit an application for 1,000 acres of
7 solar PV we say, oh, is it in our solar overlay? Yes. Okay.
8 Great. We'll take your check, your application. We'll write
9 up the administrative permit. That administrative permit will
10 include all the conditions and mitigations that came from our
11 study and our project and they become conditions on that
12 application. We issue the over-the-counter permit. There's
13 no more CEQA. That's already happened through our project
14 that we're doing right now.

15 Final -- final thoughts as I was sitting here. We
16 took our prime, unique and important farmlands off the table
17 at the beginning. So we're -- we're studying the area that's
18 essentially our grazing lands and other poor soils in the
19 county for this project. We have over 100,000 acres that meet
20 this criteria and for utility-scale solar. So we're excited
21 to see how many thousands of acres this yields.

22 Another issue is PG&E. PG&E is our power provider.
23 We're trying to get information from them. We're having a
24 little difficulty. But that is an issue that we've got to
25 overcome. And we need GIS-level data so that we can do the

1 analysis and do the work we need to do to do the real
2 substation analysis that we need to do about where are our
3 access points to the grid, where is there available capacity,
4 so we've got to get help with that and we'll get there. I'm
5 sure that we'll get a set of information.

6 Third is our biological issues are centered around
7 vernal pools and wetlands. We also have deer herd migration
8 corridors that we need to address. But it highlights the
9 issue that we need to partner with U.S. Fish and Wildlife and
10 the Army Corps of Engineers. Otherwise, we're going to have a
11 process where people can get a county permit but they can't
12 get a federal permit. And we've seen this happen before for
13 some of our large projects in the county where the county has
14 gone through, approved a project in record time, only to be
15 held up for, literally, two years plus at the Army Corps of
16 Engineers. And it's appalling when we don't work together as
17 federal, state and local government.

18 So the vision, if we can place solar PV over cars in
19 parking lots, why can't we build similar arrays over cows?
20 Okay? Yes, you'll need to strengthen the support so that when
21 the cows lean on them they don't fall over. We might want to
22 electrify them, who knows, I don't know. I'm sure there's
23 some innovative engineers and solar companies that can figure
24 out a rack system or system of PV trackers that would
25 accomplish all the following, shade for cows, protection for

1 the vernal pools and wetlands, help the rancher to be
2 profitable, provide green energy to the grid, reduce GHG,
3 support sequestration by retaining the grasses, support
4 distributed generation model for the future, so in the end the
5 goal is green energy, happy ranchers, happy cows.

6 Okay, that's it. Thanks.

7 MS. WATT: All right. And Carl Zichella is going to
8 take us back up to the 30,000 foot level.

9 MR. ZICHELLA: I got into the grassland, huh?

10 COMMISSIONER MCALLISTER: We're going to try to end
11 this session by 2:30, so that would keep us sort of on the
12 same track that we --

13 MR. ZICHELLA: I'll try to --

14 COMMISSIONER MCALLISTER: -- we were on.

15 MR. ZICHELLA: -- pick up the pace then.

16 COMMISSIONER MCALLISTER: So, yeah, Carl, please --

17 MR. ZICHELLA: Yeah. No problem.

18 COMMISSIONER MCALLISTER: -- if you could.

19 MR. ZICHELLA: Yes. Okay.

20 COMMISSIONER MCALLISTER: Thanks very much.

21 MR. ZICHELLA: First of all, thank you for the
22 opportunity to be with you all today. This is a really
23 exciting time here in California. We're making a lot of
24 progress. And I'll just reinforce some of the themes that
25 you've heard and I'll try not to repeat things that have

1 already been said. All right. There we go. Okay.

2 I'm going to skip the NRDC overview because I think
3 most people in the room know we're an environmental
4 organization. We have international offices. We've been
5 around since 1970.

6 I did want to start out just reminding people that
7 things are intensely connected in the Western Interconnection,
8 that's where we live. It's what's called the Western
9 Electricity Coordinating Council Footprint. It's about 11
10 states, two Canadian provinces, and chunks of Baja California,
11 Mexico that are all electrically interconnected.

12 The presentation I'm going to talk with you about
13 today is something that's been developed at the Western
14 Electricity Coordinating Council which is comprised of a
15 number of things. They have a Transmission Expansion Planning
16 and Policy Committee that looks at the system west-wide to see
17 where we need to make improvements for reliability and to
18 avoid congestion, and have a bunch of other subcommittees and
19 workgroups that look at information and data and such.

20 The Transmission Expansion Committee, otherwise
21 known as TEPPC, is the lead transmission expansion planning
22 entity for the west. Now this is important because the work
23 that comes out here, all of the data and a lot of the stuff
24 I'm going to talk with you about in a minute is generated
25 here. It's used in Order 1000 Planning, which is part of what

1 CAISO is involved with, across the Western Interconnection.
2 It's the large interstate transmission lines that will become
3 part of our framework as we go to using more resources from
4 around the western United States. Do an annual study program
5 and congestion studies and the subcommittees and workgroups,
6 of which one is the Environmental Data Workgroup, do a bunch
7 of technical analysis and provide data and develop scenarios
8 to explore what the system will look like into the future,
9 which is a lot of what we're been talking about is how we're
10 going to look ahead.

11 So who does TEPPC serve? We have a number of
12 members of WECC, the obvious transmission owners, state and
13 provincial entities, which is kind of new for them is
14 environmental stakeholders for about the last five years have
15 played a major role at WECC, Native American tribes and, of
16 course, the other general public stakeholders that are
17 involved in the entity.

18 The Environmental Data Workgroup is the entity that
19 put together a lot of the work on transmission and
20 environmental risk analysis. It was founded in 2010 and
21 includes representation, not just of environmental community
22 people, by the way, but a lot of folks were transmission
23 planners, electrical engineers and the like. And we do
24 provide direct input into the transmission expansion planning
25 process.

1 At this point I'd just like to take a second to
2 thank a couple of people who have done this work with me,
3 Byron Wertzowek (phonetic), Pamela Eaton of the Wilderness
4 Society, and also our consultants at -- that WECC has
5 retained.

6 Here's what the Environmental Data Workgroup has put
7 together. We have preferred data sets. It's going to sound a
8 lot like what you heard from Jim earlier. These are data that
9 are publicly available. We review them for quality. They're
10 obviously relevant for transmission planning. We have a risk
11 classification system that shows a low to high scale of
12 relative risks so people planning transmission can look at
13 different alternatives and avoid areas that would cause a lot
14 of problems and delay. We have a methodology by which we
15 compare the alternatives. And we do a review of the study
16 cases that are studied by WECC each year. This is a pretty --
17 a pretty big task.

18 And we also, I should say parenthetically, in our
19 data quality work we do a biannual refresh. Any new data sets
20 that are produced that are relevant get brought in. And we
21 also have all of this information as an open platform.

22 So in the environmental data, this is stuff that I
23 think Jim mentioned, is already in the Data Basin. And I
24 should say, also, it took a couple of hours, no more, to put
25 all of this information in that it took us years to put

1 together at WECC to be dumped into Data Basin. So it's quite
2 an efficient way to convert the information. So the usual
3 areas that you want to try to avoid, areas that are either off
4 limits for statute or regulation or the like, and those go
5 into our preferred data sets. And with those preferred data
6 sets we've organized them into four risk categories, four
7 being the areas you can't go to at all. It sounds a like RETI
8 1.0. In fact, a lot of this work was obviously inspired by
9 and influenced by the work that was done here in California.
10 It's a Category 1 which is the lowest risk. They tend to be
11 existing corridors, roads and those sorts of things.

12 So the benefits of using these data, they're pretty
13 obvious. They reduce cost and reduce delays, which for us,
14 we're looking at carbon reduction goals over a short period of
15 time, a period of a few decades, it's really important to try
16 to get those projects done. And I think we've heard from
17 Lorelei and others, also it takes a lot longer to build
18 transmission than it does to build generation. We've got to
19 figure out a way to avoid that. I've talked about the data
20 quality analysis. And also the fact that these things are
21 available as an open platform for people to use.

22 We've also taken these data and we've done some
23 interesting analysis with them in terms of looking at
24 alternatives. We look at the transmission alternative
25 expansion options, a variety of inputs go into those. And we

1 look at them from the substations that they're likely to
2 connect to. This is more like traditional transmission
3 planning as you connect between substations and you draw a
4 straight line. This is what it might look like. That blue
5 line that you see on this is the actual transmission line
6 between two substations. When you start to -- and the darker
7 areas on the map are the areas of higher risk, more
8 environmental sensitivity.

9 When you start to look at these and you put them in
10 a computer program that we've developed there, it's called our
11 long term planning tool, you can actually then do what's
12 called bending the lines and you can see the various data that
13 have been used to create this transmission option. If you're
14 looking at connecting between those two substations with the
15 least amount of environmental impact, this is what the
16 computer program will actually create is a transmission
17 alternative that delivers the least amount of environmental
18 impact.

19 Now I should say, this is not siting. This is
20 planning. That line is a big line. There's room to move
21 around in that corridor. This is not intended to influence
22 NEPA directly. It's intended to help people get through NEPA
23 more easily, more quickly with better starting points. So at
24 WECC we are not doing siting, we're doing planning.

25 How do you get at some of these data? Well, I think

1 Jim has pointed out at previous meetings I've been at,
2 everybody's got a data viewer, and this is the WECC data
3 viewer. It is an open platform. Anybody can get on and use
4 it. The interface looks very much like Data Basin. You don't
5 need to do it for the San Joaquin project, for example,
6 because it's already in Data Basin and we can use these data
7 to do this.

8 We're actually adding some functionality that will
9 provide something similar to what the long term planning tool
10 can do to bend lines, where you can test different options.
11 It's not quite ready yet, but once it is we'll put it into the
12 Data Basin model, as well. And I think Jim already may have a
13 tool that's similar to that, that we might be able to use
14 while we're waiting for that to be available. But this is
15 where you can find it. It can be found on the WECC website
16 and it's open to anybody. And many, many people use it.

17 The second part of what I wanted to talk with you
18 about is how to apply some of these concepts -- these concepts
19 more broadly. And this goes into the categories of zoning and
20 master planning. This very much a wheelhouse to the counties.

21 It's going to sound like what you've just heard from Lorelei
22 and from Tim. And it involves thinking differently about how
23 we plan.

24 We heard earlier about the handoffs from the various
25 agencies, hear how we're really coordinating well but we're

1 not really thinking together about what our long-term needs
2 are going to be. Our goals are long term so we need to plan
3 for the long term. The planning cycles for transmission and
4 for generation tend to be pretty short. We've planned
5 transmission for portfolios of projects that tend to be ready
6 now or we think are ready now. We need to think about the
7 trajectories we want to stay on for our carbon goals which go
8 to the middle of the century, not ten years from now alone.
9 So we want to think about how we do the development in an
10 orderly way over time. We don't have to build everything we
11 need for 2050 tomorrow. But we need to think about how we're
12 going to do that so that we can make those goals tomorrow.

13 And I want to just point to something Tim said about
14 CEQA in advance. I'll come back to that in a minute. But if
15 you can identify the right areas, study them in advance, then
16 you can treat some of these areas as if they were an
17 industrial park kind of model where you can lease them, the
18 environmental review has already been done, very much like
19 what Butte County is talking about. It's a concept I think
20 that makes an awful lot of sense and I think has been
21 pioneered by some of the interests that are interested in
22 doing solar development in the San Joaquin Valley.

23 The renewable energies, resource zoning, I'm not
24 going to go into that. We talked about the re-launch of RETI.
25 It's a critical part of this. But we have to think about

1 transmission and the zones together. That's what made RETI
2 successful in the first instance. That's what will make it
3 successful in this instance, as well.

4 We heard about scalable infrastructure earlier.
5 This is really important to think about present and future
6 needs, not just what we need tomorrow but can we upgrade the
7 voltage rating on that line from a 230 kV to a 500 kV? Can we
8 add a circuit? Rights of ways are precious. They're very
9 difficult to site. They're the longest part of any
10 transmission planning process and they create the most
11 conflict. If we can get this done right and get the most out
12 of our system as Garamendi Principles, advocate that we do or
13 require that we do, we're going to do this cheaper and we're
14 going to do this much faster and we're going to get the
15 generation we need online when we need it.

16 I talked about some of these already. Use the risk
17 methodologies that have been described for avoiding the
18 conflicts. And then realigning transmission planning. This
19 is something I know that Paul Douglas talked about. There
20 will be a paper released soon about their ideas on it. I
21 think we really have to do things in a much more coordinated
22 way in terms of how we sit down and look at the systems'
23 needs. If we look at the lines, the transmission lines that
24 meet multiple values for us, open up access to pumped hydro,
25 for example, or allow us to export power to neighboring states

1 more easily when we have surpluses, allow us to take in
2 resources from neighboring states when they're in a surplus
3 position, that's the thing that's going to keep driving our
4 costs down. It's within our reach to do it but we have to
5 think about it and plan for doing it now.

6 When we build transmission it improves the power
7 flows in Southern California. We can do more with imports
8 from the states that we are dealing with, Arizona, Nevada,
9 those kinds of states who are now -- excuse me -- getting
10 involved with us.

11 So if anyone needs to get a hold of me, this is how.
12 And if you have any questions, I'm happy to join with the rest
13 of the panel and answer anything.

14 MS. WATT: We have one minute for questions. I'm
15 glad Commissioner McAllister snuck his in for you then.

16 MR. ZICHELLA: I went as fast as I could.

17 COMMISSIONER MCALLISTER: I have another, though. I
18 just quickly want to ask, yeah, I just quickly want to ask,
19 really for the two county representatives, do you care whether
20 an onsite or a site-located project is net metered or not if
21 the consumption -- you know, if it's behind the meter or in
22 front of the meter, or is that not a relevant thing for you in
23 terms of having it be on a site that is under control? And
24 is, you know, say a warehouse or a big site that you -- like
25 the one that you showed, do you care if it's in that metered

1 interconnection?

2 MS. OVIATT: Okay. Now it's on. Thank you.

3 Actually, Kern County does care. That's why we've
4 streamlined it. Our thinking is that if a company can control
5 its energy costs it will stay in California. Maybe it will
6 expand its production. Maybe they'll provide more jobs.
7 Commercial-scale solar, on another hand, takes up space,
8 produces very few permanent jobs, and we like the construction
9 jobs. Depending on the companies, you know, they are long-
10 term investors in Kern County, but we do think there's a
11 difference.

12 COMMISSIONER MCALLISTER: I guess I'm referring to
13 say the picture you showed where they've got parking lot,
14 they've got roof covered and everything.

15 MS. OVIATT: Right.

16 COMMISSIONER MCALLISTER: And presumably that's a
17 net metered, you know, sub-one megawatt, I think you said.
18 So --

19 MS. OVIATT: Right.

20 COMMISSIONER MCALLISTER: So typically that would be
21 net metered. But an analogous situation where the company
22 chose to just have a third party build it there and take
23 advantage of their roof but not have it be net metered, I'm
24 wondering if that is equivalent to you?

25 MS. OVIATT: That is not under our zoning ordinance.

1 COMMISSIONER MCALLISTER: Okay.

2 MS. OVIATT: And so, you know, in our zoning
3 ordinance is where the electrons go. If they go into the
4 company itself --

5 COMMISSIONER MCALLISTER: Right. Okay.

6 MS. OVIATT: -- they're for onsite use, then all you
7 need is a building permit.

8 COMMISSIONER MCALLISTER: Okay. Perfect. That --
9 great. Thanks for that.

10 MR. SNELLINGS: We're very similar, that
11 rooftop, we don't really care what it's for, frankly, if it's
12 on a roof.

13 COMMISSIONER MCALLISTER: Okay.

14 MR. SNELLINGS: But you put it on the ground it --
15 there's some conversation that's going to happen.

16 COMMISSIONER MCALLISTER: Okay. Great. Thanks.

17 COMMISSIONER SCOTT: I had a quick follow up on that
18 same topic, actually.

19 I think, Lorelei, you mentioned that you have 32
20 megawatts now. And one of the biggest projects was I think
21 four-ish megawatts. Did you find that there was kind of like
22 a pent up demand for that once you made that building code
23 change or -- I'm just wondering what the context --

24 MS. OVIATT: Absolutely.

25 COMMISSIONER SCOTT: Yeah?

1 MS. OVIATT: It was absolutely a pent up demand just
2 based on -- you know, for some companies it's because they
3 want to be known as clean energy. The organic growers of food
4 want to say that they're using clean energy. And for others
5 it's really controlling their energy costs.

6 MR. SNELLINGS: If I could add to that, I think one
7 thing we're going to see is projects in cities that want to
8 mitigate in the county. So they don't have the land to do
9 their green energy production where they're expanding, so
10 they're going to look somewhere in the county to do some
11 ground mount to offset their expansion. So we're going to see
12 more of that in the future.

13 COMMISSIONER DOUGLAS: You know, I just had really a
14 comment. I wanted to thank the panel. This has been a really
15 great panel.

16 And, you know, Carl, thank you for the -- bringing
17 the WECC perspective and your work on WECC and RETI 1, and
18 RETI 2, no doubt, and San Joaquin Solar and other work in the
19 state in this area, the DRECP, as well, to some degree,
20 although that job was spread out among NRDC.

21 And it's really great to have the county
22 representatives. You know, Lorelei has always -- has just
23 tremendous achievements and a lot of perspective that's been
24 hard earned from just years out on the ground making it
25 happen.

1 And, Tim, same thing, great to hear from you. Great
2 to hear your perspective. And I am hoping to make it up to
3 Butte County pretty soon, and not just to have a meeting at
4 the brewery.

5 MR. SNELLINGS: Okay. For the record.

6 COMMISSIONER DOUGLAS: For the record, although that
7 may indeed be -- I mean, certainly if you're amenable to that
8 it may indeed be on the itinerary.

9 MR. SNELLINGS: Oh, at the Chico office.

10 COMMISSIONER DOUGLAS: Excellent. In any case, I
11 just found this to be extremely helpful and valuable.

12 You know, Heidi, Jim, thank you.

13 Go ahead.

14 COMMISSIONER SCOTT: I would have to second what
15 Commissioner Douglas said. It's just been fascinating,
16 terrific to hear from all of you. I appreciate your energetic
17 presentations.

18 The question, Jim, that I had for -- I'm sorry, Tim,
19 was when you were talking about the public outreach that
20 you're doing. And I thought that that was really great and
21 interesting to hear about. And I was wondering if there are
22 things that you are doing that helps you capture a broader set
23 of the people in your community maybe than just the folks who
24 live right next to something that they're concerned about and
25 how that's going.

1 MR. SNELLINGS: Sure. We're trying all the social
2 media things, Facebook, Twitter. We're trying online surveys.
3 We've actually had more input from our online survey than at
4 the meetings. We tweet out and hope people re-tweet our
5 announcements about our meetings. So we're taking advantage
6 of the tools as they're available.

7 We also have a Listserv with about 1,000 people on
8 it from our General Plan process that we blast out to pretty
9 regularly.

10 COMMISSIONER SCOTT: Great. The other thought I had
11 just in general is that there's a lot of great ideas that we
12 heard, I think, this afternoon, and also some lessons learned.
13 And I hope that there are other forum, besides the IEPR
14 workshop, where you have an opportunity to share that
15 information with one another, and also with us.

16 MR. ZICHELLA: May I make a quick comment for
17 Commissioner McAllister?

18 The point you made earlier about the distribution
19 system and distributed energy, I think what we're starting to
20 see in terms of the electrical system is a real blending
21 across what used to be distinct lines between the transmission
22 system and the distribution system. There's a lot of work
23 going on in this space from the GridWise Architecture Council
24 and the Electric Policy Research Institute. They refer to
25 this as the integrated grid. And I just wanted to suggest at

1 some point, it's really worth a deeper dive on this. I think
2 it does affect utilization of the system. It does affect the
3 cost of integrating renewables because we can capture some of
4 the benefits of doing that better on the distributed side of
5 the -- of the equation.

6 I just wanted to raise that issue because I think
7 it's a very insightful point you made, and a lot of people are
8 beginning to think about it. The Department of Energy is
9 looking into it and they're modernizing the grid paper that
10 was released last September. It's a big part of that
11 conversation, too, so it's very timely.

12 COMMISSIONER MCALLISTER: Yeah, I appreciate that.
13 And I'm thinking about some of the -- and I absolutely have to
14 third now the sort of kudos to the local governments and the
15 counties and the -- and the jurisdictions within the counties.
16 I mean, you are on the front lines. And I, you know, am
17 always -- I'm constantly impressed at just the level of
18 dedication and how many -- how many hammers you have to pull
19 out on the -- on the different barriers and how effective you
20 are at -- you know, persistent and effective at getting --
21 getting the changes that you need, including at this agency
22 and other agencies. I mean, that's just the nature of the
23 beast.

24 And so I think, you know, we're certainly listening
25 and trying to kind of walk the right path and, you know,

1 juggle all the priorities. But, you know, you really bring
2 just -- just a real -- you keep it real. You keep it real for
3 us and I really appreciate that.

4 So to Carl's point I just -- I guess this idea that,
5 you know, integration sort of -- it needs to happen at many,
6 many levels. So, you know, even at that project level, if
7 there are some, you know, conditions that could be imposed or
8 some, you know, at the -- that are relevant for say the
9 distribution grid or for any -- you know, going a lease-cost
10 path in terms of, you know, being in alignment with our
11 policy. I mean, you know, obviously this will meet
12 resistance. But having some other requirements, you know,
13 okay, we'll invest in energy efficiency alongside or invest in
14 DR technology or, you know, integration technologies if you're
15 going to make this investment, you know, as a condition of
16 approving a given project with a certain profile.

17 So it's going to be contextual. It's going to be --
18 it's going to depend on the particulars of each project. But
19 we do have these multiple goals and you are integrating, as
20 you said really eloquently, you are integrating many, many
21 considerations. And you're sort of -- at the same time you're
22 trying to, you know, bust barriers and make it easy and make
23 it quick.

24 So, you know, I think integrating at all levels, not
25 just at the biggest policy level, you know, statewide and, you

1 know, sort of making sure our silos talk across the top, you
2 know, we have to do that. But they also need to reach across
3 up and down the scale; right?

4 So anyway, just -- just a thought.

5 MR. KENNA: Just a couple of quick comments, and
6 these are mainly just displaying thoughts that were triggered
7 by the presentations. One was -- I think it was Lorelei's
8 perspective on sort of the neighbor overlay. And I thought a
9 little bit about that and our experience with the DRECP and
10 how hard that is, and particular when it's intentioned with
11 time and so that the cognizant sort of commitment to that and
12 how you go about it in a way that captures everything that is
13 relevant and makes sure that people feel heard.

14 The second one is -- I think it was Carl's point
15 about rights of way are precious. Boy, that appeals to a BLM
16 guy. But it led to some thoughts about, you know, how do we
17 create incentives so that we really do optimize the
18 utilization of these linear features, because they are so
19 critical? And how do we make sure that the line we haven't --
20 or we don't need yet is -- still can be put in along an
21 alignment that we've got some infrastructure taking up space
22 in?

23 So I think there's some really good thoughts for
24 additional consideration that came out of this panel. I
25 really appreciate it. Thanks.

1 COMMISSIONER MCALLISTER: Yeah. So you actually
2 said it better than I said it. What triggered that sort of
3 local, you know, potential conditionality or something was
4 really that neighbor overlay. You know, if they don't
5 perceive benefits, you know, the neighbors don't perceive
6 benefits with a given project, well, what benefits might we --
7 might we encourage them to perceive here, you know? What
8 might we create for them that they do perceive in reality? So
9 that's investment in the community. That's local -- that's
10 local, you know, whatever it is, energy efficiency. I'm
11 myopically interested in energy efficiency. But I think
12 there's lots of different ways that that might happen at the
13 local level.

14 So anyway, we're not letting the panel end, so I
15 apologize.

16 But, yeah, Lorelei, go ahead.

17 MS. OVIATT: I appreciate that we're really at an
18 end.

19 I did want to share, you know, the Board of
20 Supervisors was excited about the increased property value
21 from primarily wind, but we had the sales tax. And for the
22 district of Rosamond, Mojave, Tehachapi and Boron, and these
23 are all communities that have declining -- not Tehachapi but
24 Tehachapi Old Town, they have declining main streets, good
25 bones but, you know, if you go there you wonder, you know, how

1 fast can I get out of here.

2 So two years ago we started RENEWBIZ. So \$1.2
3 million of that taxes are actually put back into -- and my
4 department gives out grants for the communities to fix up
5 their facades, their business facades, and it's really made a
6 huge difference. And the community now loves the wind. And
7 it was really a question of what are we getting out of it? We
8 have to look at it.

9 COMMISSIONER MCALLISTER: Right.

10 MS. OVIATT: Many of us think it's beautiful. Many
11 of us think it's wonderful. And the locals now are like, yes,
12 that helped us.

13 So we're trying to be creative in linking. And so I
14 love what you said about energy efficiency or other types of
15 packagings so that people see this holistically --

16 COMMISSIONER MCALLISTER: Right.

17 MS. OVIATT: -- rather than I have to live next door
18 to it but it's going to Southern California.

19 COMMISSIONER MCALLISTER: Yeah. I mean, it's sort
20 of -- so maybe it's the California version of the Alaska oil
21 revenues that gets recycled back to their population; right?
22 So great.

23 Well, we should transition. I'll let Commissioner
24 Douglas --

25 COMMISSIONER DOUGLAS: We should --

1 COMMISSIONER MCALLISTER: -- have the final word on
2 this panel.

3 COMMISSIONER DOUGLAS: Well, we should transition.

4 I was just going to say that, you know, Tim, your
5 comments about public outreach and some of the methods that
6 you tried, and you are undertaking to reach out to the public,
7 you know, Kern County with your General Plan update, you'll
8 have a lot of that, as well, but in the next panel where we
9 hear from a number of counties with planning grants, again, a
10 number of them have tried some pretty innovative steps, as
11 well, to bring the public in. And so I think it will be great
12 to have them speak to that, as well.

13 But anyway, thank you. Thank you all.

14 MS. RAITT: Did you want to take a brief break or go
15 right to the next panel?

16 COMMISSIONER MCALLISTER: I think we need to plow
17 through.

18 MS. RAITT: Okay. Then I'll ask the next panel to
19 join us at the tables and we'll get your name tags up there
20 for you.

21 (Pause)

22 MS. RAITT: All right. Thank you for your patience
23 as we got that set up.

24 So our next panel is on Renewable Energy Planning
25 Grants. And Lori Sinsley is our moderator.

1 MS. SINSLEY: Great. Thank you. Good afternoon.
2 I'm Lori Sinsley, a Special Adviser to Commissioner Douglas.
3 And I'm focused on the DRECP and Renewable Energy Conservation
4 Planning Grants.

5 Briefly, Assembly Bill X113 (phonetic) authorized
6 the Energy Commission to award up to \$7 million in grants to
7 qualified counties to develop a revised rules and policies
8 that facilitate the development of eligible renewable energy
9 resources, their associated transmission facilities, and the
10 processing of permits for eligible renewable energy resources.
11 Qualified counties identified in AB X113 are Fresno, Imperial,
12 Inyo, Kern, Kings, Los Angeles, Madera, Merced, Riverside, San
13 Bernardino, San Diego, San Joaquin, Stanislaus and Tulare. In
14 2012 AB 2161 added San Luis Obispo County as a qualified
15 county.

16 Today's final panel features representatives from
17 Imperial, Inyo, Los Angeles, Riverside, San Bernardino and San
18 Luis Obispo County. The representatives beside me today will
19 be speaking about their county's work that's been funded in
20 part by the planning grants.

21 Our first speaker will be Susie Tae. Susie is a
22 Supervising Regional Planner with the Los Angeles County
23 Department of Regional Planning. She oversees the community
24 studies north section which conducts long range planning
25 efforts, primarily in the Santa Clarita and Antelope Valleys.

1 She's been appointed as a Hearing Officer for Los Angeles
2 County and is formally an elected Board Member of the Los
3 Angeles City Downtown Los Angeles Neighborhood Council. A
4 native of Southern California, she received her bachelor's in
5 geography from the University of California, Los Angeles, and
6 her master's in public administration from CSU Northridge.
7 She is a member of the American Institute of Certified
8 Planners.

9 Susie?

10 MS. TAE: Hi. Good afternoon from behind the
11 monitor. I'm Susan Tae. I'm with L.A. County Regional
12 Planning. Thank you for that introduction. And I'm here to
13 present on the county's renewable energy ordinance.

14 This is just a brief background on what I'll cover
15 today. And very quickly, for folks who may not be familiar
16 with L.A. County, they often think very urban and it is. But
17 we certainly have a lot of areas, including unincorporated
18 cities, and white is the unincorporated areas. And so I'll
19 just quickly scroll through some of the different
20 unincorporated communities of which Department of Regional
21 Planning does planning.

22 This is East Los Angeles, Marina del Rey, Catalina and San
23 Clemente Islands, as well as our Santa Monica Mountains.

24 By far, our largest unincorporated area is the
25 Antelope Valley which is part Mojave Desert and part National

1 Forests. It's about 1,800 square miles or about 65 percent of
2 our planning area. It's also about 45 percent of the entire
3 county land area. And from the image you can also see the
4 overlay of the DRECP boundary which covers most of our
5 Antelope Valley, excluding the forests.

6 And this is just some photos of our valley floor,
7 including, appropriately, the California Poppy. We have the
8 reserve within our unincorporated area. And what you also
9 expect from the desert, spiky things. And our San Gabriel
10 Mountains in the back.

11 So what -- where did this ordinance come about?
12 Really, there were two main reason for why L.A. County felt
13 compelled to really pursue renewable energy planning. And
14 one, and this is a major one, there was a large influx of
15 projects that had come into -- come into be processed within a
16 short period of time. More than 40 applications were filed
17 for utility-scale solar projects and/or wind projects since
18 2010. To date, 12 have been approved totaling about 660
19 megawatts, and of the developed acres on about 5,000.

20 All -- oops. All of these were proposed in the
21 Antelope Valley, as you'll see. And they're clustered
22 primarily on the west side where they have access to
23 transmission, but that's also where many of our existing
24 communities also -- also lie. And as we learned, some of the
25 projects have been developed much better than others. We

1 learned that construction methods are important, water
2 sources, how to clearly identify mitigation compliance. And
3 so -- so we wanted to learn from this process and really apply
4 it going forward.

5 The other key reason is our Antelope Valley Area
6 Plan Update. This is an update to our 1986 plan and it
7 started in 2007. And what the plan was really based on was
8 this rural preservation strategy. So how do we look at the
9 Antelope Valley as a whole and focus development where it's
10 more appropriate and where preservation is more appropriate?
11 And one of these key policy concepts is out economic
12 opportunity areas where we focus development and where it's
13 really based on either existing infrastructure or planned
14 infrastructure for those areas. The other is our significant
15 ecological areas where they represent the county's cumulative
16 biodiversity, and this is where preservation should be
17 emphasized.

18 So this brings us to the ordinance. Like the plan
19 which tried to balance preservation and development, what our
20 ordinance does is balances promoting renewable energy with
21 protecting from impacts to communities and the environment.

22 For those who like to know the ending of our
23 stories, our renewable energy ordinance was approved by the
24 Board of Supervisors just this past July. And we're waiting
25 for the final ordinance language to be adopted.

1 So the ordinance promotes renewable energy in a few
2 ways, in several key ways. It codifies streamlined
3 permitting. So as you -- as we heard from some of our other
4 county agencies, as well, we certainly wanted to promote
5 onsite and structure-mounted solar projects. So whether
6 they're for onsite generation as accessory or whether they're
7 for utility-scale but structure-mounted, they now were changed
8 to a ministerial process. So they simply need a building
9 permit. No planning review would be required.

10 We also did some other improvements to really
11 clarify the definitions, update the zoning, make sure that it
12 aligns with what we know today is the technology compared to
13 our code which is in some -- in some areas quite outdated.

14 The other key component in protecting is really
15 starting with siting. So when we look at utility-scale
16 projects, in addition to updating the zoning, so where
17 projects are appropriate and what areas, our plan policy areas
18 again come into -- come into play, so economic opportunity
19 areas. And what this image shows is our significant
20 ecological areas or our SEAs. Utility-scale projects are not
21 permitted in both of these areas. Again, this is where higher
22 intensity development should be promoted, as well as
23 development preservation promoted as well. Energy generation
24 where it is accessory to uses in these areas, however, is
25 permitted. So it's really the utility-scale that makes that

1 distinction.

2 And in addition to siting, the ordinance also sets
3 development standards for construction, operation and
4 enforcement. Construction in particular was key by setting
5 very clear requirements for dust control, minimizing water
6 use, addressing aesthetic impacts such as fencing and
7 landscaping, and standardizing decommissioning, to name just a
8 few.

9 Our enforcement procedures were also enhanced to
10 ensure that time sensitive violations, such as dust control,
11 could be handled much quicker than our standard 90-plus day
12 notice of violation process. So as you go through the motions
13 in the various letters, you know, the dust has since -- has
14 since stopped but the impacts remain. So quicker enforcement
15 means that the county can be more responsive in those certain
16 situations or work with the appropriate agencies who can.

17 The ordinance sparked a lot of interest in wind, as
18 well, and by interest I mean concern. The county has had
19 onsite or small-scale wind regulations, actually starting
20 since 2002, so we've had some regulations on the books. But
21 two utility-scale wind projects had come in kind of in that
22 wave of applications that came in in 2010. And for these two
23 utility-scale wind projects, they ended up being denied early
24 in the process, but utility-scale wind was not necessarily
25 prohibited in L.A. County per se.

1 So the ordinance has spent quite -- quite a bit of
2 time in developing development standards regarding reducing
3 impacts to birds and bats, establishing setbacks, looking at
4 lighting, looking at specific consultations as necessary with
5 military and other aviation-related agencies. However, due to
6 community concerns and through outreach with the military, as
7 well as other stakeholders, in July our Board did indicate
8 that utility-scale wind would not be permitted in L.A. County.

9 So that will be removed from -- from the ordinance when it
10 comes back.

11 So the ordinance as a whole accomplishes what we set
12 out to do. It's meant to minimize impacts and increase
13 renewable energy. With the juxtaposition it kind of looks
14 like the opposite, but it really is reducing impacts. I tried
15 it a few times. So I wanted to make that clear. It promotes
16 renewable energy. As a countywide ordinance it draws focus to
17 the potential for renewables in our urban areas. So as we had
18 seen through the presentation and through the maps, a lot of
19 the focus had been for utility-scale solar in the Antelope
20 Valley, but there's a great potential for structure-mounted,
21 for accessory solar in our urban areas. So there was a lot of
22 outreach that we took advantage of in really reaching out to
23 the rest of the county for -- for what's possible.

24 It also minimizes impacts. It sets clear baseline
25 standards and expectations for applicants and the community.

1 And it maintains a discretionary process so that further
2 impacts could be studied through CEQA based on specific
3 community impacts, environmental impacts, and those can be
4 imposed through project-specific conditions of mitigation.

5 So some lessons learned or things to take away. One
6 is coordination. Our General Plan Update which is updating
7 our 1980 General Plan, that started by some accounts in 2000.
8 It's a little bit of a legend now in our office, when it
9 actually started. But our AB Plan Update started in 2007.

10 And so what we ended up -- what ended up happening is we had
11 all these long range planning efforts happening concurrently
12 with a very detailed, very specific renewable energy
13 ordinance. So the ordinance in many ways actually relies on
14 these proposed policies that were being considered at the same
15 time as the ordinance. And so big picture, you know, small
16 picture happening at the same time was tough to kind of manage
17 the two.

18 The ordinance also didn't have the benefit of
19 coordinating with other programs. So what you'll see here is
20 just a small screen shot of our general -- our proposed
21 general plan implementation program with the list of some of
22 the relevant programs. But these include an SCA Preservation
23 Program, mitigation land banking, Open Space Master Plan, a
24 Habitat Conservation Plan, and the Agricultural Resources Area
25 Ordinance. So this is, you know, all great stuff that the

1 county intends to do once our General Plan is adopted. But
2 how could our ordinance today have benefitted from some of the
3 work that would have been developed as part of these programs?
4 And certainly going forward, you know, we'll look to this to
5 help guide the county in terms of what is possible for Phase 2
6 of DRECP.

7 The other piece is -- certainly with DRECP, it also
8 highlighted this, the relationship of our ordinance with other
9 projects. And there was just a lot happening in our Antelope
10 Valley, especially those with a state or regional focus. So
11 here is the Caltrans Northwest 138 Corridor Project, as well
12 as the High Desert Corridor which is also through Caltrans and
13 Metro. There's high-speed rail that runs through our area
14 with the various alternatives shown. Southern California
15 Edison's Tehachapi Renewable Transmission Project. And then
16 again, all those renewable energy projects that we had talked
17 about.

18 So as you can imagine the communities, you know,
19 felt like this was a lot. This is certainly more than eight
20 comprehensive, you know, multi, multi-volume EIRs, in addition
21 to the EIRs that the county was proposing for its General
22 Plan, the Antelope Valley Area Plan, and then this Renewable
23 Energy Ordinance. So a lot for the community to absorb at
24 once.

25 The other piece to this that we heard from our

1 Antelope Valley residents was regarding environmental justice.
2 And many of these projects to our constituents, it feels like
3 it goes through the Antelope Valley but it's not actually
4 intended to serve the area. And we may have heard, you know,
5 elements of this with other county presentations, as well.
6 Using utility-scale solar as an example, they see these
7 projects as energy being generated in the AV where they have
8 to bear the impacts, but all the benefits go to the county's
9 urban areas or down, down the hill, you know, over on the
10 other side. So recognizing these concerns and being sensitive
11 to them is critical. Otherwise, when people feel overwhelmed
12 it can come to a point where they say, you know, please stop,
13 just no more -- no more planning.

14 So this leads us to communication, both with the
15 community at large and with decision makers. How can we as an
16 agency make ourselves heard when there's all these projects
17 happening concurrently? One is to be proactive and not
18 necessarily wait for communities, but certainly go out there,
19 meet with them often. It's often more than two hours, you
20 know, for us to drive to some of our communities, and that's
21 one way without traffic. But certainly the appreciate the
22 effort. And I think it shows our commitment that as planners
23 we have to really be on the ground with them. We have to be
24 in their communities and we have to see that we're walking
25 with them through the process, not dictating it to them from

1 downtown or from over the hill.

2 The other part is to be really deliberate, and by
3 this I mean intentional about how we communicate with the. It
4 needs to be in a way that they can absorb it, that it's
5 readily available, and that it's transparent.

6 The other key group in communication was to our
7 decision makers. Our ordinance was 96 pages all in all, and
8 that just happens when you have ordinance language sometimes.

9 But at a quick glance it can be very deceiving. So there's a
10 lot of text about utility-scale solar, there was a lot of text
11 before about utility-scale wind, but where would these
12 benefits? Where was the -- where was the fact that we were
13 promoting onsite and the fact that we were promoting utility-
14 scale structure-mounted solar?

15 Well, the absence of regulation in the ordinance is
16 the benefit. So we were, you know, removing them in order to
17 remove barriers to those projects. But because you wouldn't
18 be able to find them in the ordinance, people felt that it
19 just wasn't clear what really was happening.

20 Two, the ordinance was just one of several county
21 efforts regarding solar. So we as an agency, we were also
22 streamlining our building permit process, as well as
23 incorporating solar on our own county facilities.

24 And then third, this was just a piece, a small piece
25 really of a much larger picture about planning. And I think,

1 you know, a lot of the projects that we've heard today is that
2 the county is contributing its part, but there's a much larger
3 conversation that needs to happen, is continuing to happen
4 about renewable energy planning throughout California.

5 So again, our ordinance was approved. We're proud
6 of the work that we've done and that we've contributed to
7 California's goals. But certainly there's more to come, and
8 we look forward to continuing this coordination. Thank you.

9 MS. SINSLEY Thank you, Susie.

10 So our first two panelists have to leave early.
11 Does anybody on the dais have questions for Susie?

12 COMMISSIONER DOUGLAS: Not at the moment. Thanks.

13 MS. SINSLEY Thank you.

14 Our next panelist is Andy Horne of Imperial County.
15 Andy is Imperial County's Deputy Executive Officer. Andy is
16 an Imperial Valley native. After working in El Centro for
17 more than 25 years in real estate with his father's firm, he
18 was elected to the Board of Directors of the Imperial
19 Irrigation District where he served for eight years, including
20 two as Board President. Andy began work with the County of
21 Imperial in 1997 in the field of natural resources development
22 where he facilitates the development of renewable energy
23 projects within the county. He has also served as Chair of
24 the Imperial Valley Economic Development Corporation, and is
25 also President of the El Centro Chamber of Commerce, the El

1 Centro Rotary Club, the Imperial Valley Board of Realtors, the
2 McCabe Union School District Board of Trustees, and Co-Chair
3 of the Imperial County Centennial Celebration Committee.

4 MS. TAE: And it's his birthday.

5 MS. SINSLEY Andy holds a BA degree in history from
6 UC Riverside and lives in rural El Centro with his wife.

7 COMMISSIONER MCALLISTER: Why are you here exactly,
8 Andy? No, I'm just kidding. Just kidding. Just kidding.

9 MR. HORNE: Well, I came primarily --

10 COMMISSIONER MCALLISTER: We are very --

11 MR. HORNE: -- to hear that glowing introduction
12 that I wrote myself.

13 COMMISSIONER MCALLISTER: We are very happy to have
14 you here --

15 MR. HORNE: Well --

16 COMMISSIONER MCALLISTER: -- and even more so now.

17 MR. HORNE: I would have assumed you could have had
18 somebody edit that. But the last part of it is a little
19 something I'd like to dwell on for a minute, and that's the
20 fact that I was a history major. And given the significance
21 of today's date, if it hadn't been for this, you know, for me
22 being born, I wouldn't be here. But perhaps more
23 significantly, in 1492 this was the date that Christopher
24 Columbus left Spain to head to the New World. And if that
25 hadn't happened, none of you would be here. So isn't it a

1 beautiful thing when a plan comes together?

2 We were, in fact, one of the fortunate counties to
3 apply for and receive funds from the legislation that was
4 described that made it available to us. And I think we have
5 taken good advantage of that and put it to good use. We -- as
6 I said, we had been involved with the DRECP process, and I
7 think Lorelei characterized the, you know, being inundated by
8 project applications. And we were seeing a great deal of that
9 and we quickly realized that we needed some help.

10 We don't have a lot of discretionary resources down
11 there. And so this idea of updating our General Plan had been
12 on the table for some time, but we just didn't have the
13 wherewithal to make it happen. And with those grant funds we
14 have moved forward to update our geothermal -- what had been
15 our geothermal alternative energy and transmission element,
16 and now we're calling it renewable energy and transmission
17 element, along with the corresponding zoning ordinance and the
18 overlay map, and the EIR which we all know is a very expensive
19 and probably the most expensive part of the whole process.

20 And you know what the DRECP planning area looks
21 like. Imperial County, that little corner in the southwest --
22 southeast part of the state. And this is something that
23 really got people's attention was the DRECP map. And it's a
24 little hard to see there, but that red hatched area was, in
25 fact, the development focus area. And it really created some

1 consternation down there about, you know, this idea of, you
2 know, are they just going to pick over the entire Imperial
3 Valley with -- with solar panels or other types of renewable
4 energy? And that's probably an unfair concern or criticism
5 because under our current rules of our Zoning Ordinance and
6 the General Plan you can put solar just about on any farmland
7 down there in the county. And because of the timing mismatch
8 between what DRECP was doing and what we were doing in playing
9 catch-up with the -- with the grant money that we got, we
10 weren't ready to designate those areas. We had told the REAT,
11 the REAT team that -- that, you know, we would preserve our
12 only local land use. But still this map coming out I think
13 created that concern that people looked at and said, hey, you
14 know, these guys are running rush shot over us, they're
15 steamrolling us. I don't agree with that characterization
16 but it had that effect. So it just heightened our awareness
17 of why we needed to move forward with this plan.

18 To give you an idea of what one particular area of
19 the county looks like in terms of projects, this is down the
20 southwestern part of the irrigated area. One might ask, and
21 fairly, if -- why all these projects are in that location.
22 And that little purple dot kind of to the left there in the
23 middle is the Imperial Valley Substation which is the eastern
24 terminus of the Sunrise Power Link. And so when that project
25 was moving forward with its construction and eventual

1 completion a lot of solar developers started looking around
2 for land down in that area. And as you can see they were
3 successful in finding some. This is about 13,000 acres of
4 land. It's -- about half of it has been completed or under
5 construction. About another half -- well, so that leaves
6 about -- about 6,500 acres. But there's another 4,000 that
7 already has PPAs that are going to start construction by the
8 end of this year.

9 So if you're looking for areas that have been
10 impacted by the conversion of ag to solar, there is your
11 postal child right there. And that has really, again,
12 just kind of gotten in people's minds that, well, you
13 know, we're just going to move forward to put solar
14 everywhere. And agriculture, besides being a motherhood
15 and apple pie kind of a traditional way of life, is also
16 the bread and butter of our economy down there. We are
17 rural. We have been trying to diversify our economy.
18 And we knew renewable energy had a potential to help us
19 do that. And so our board members have always been very
20 supportive of this. But at the same time they have to
21 live with a lot of people who are in the ag sector. And
22 this displaces, as has already been pointed out, even
23 with the construction jobs it displaces a lot of
24 permanent agricultural-related employment.

25 So we are -- you know, part of the goal of -- well,

1 so we had -- let me -- let me just -- I think the next
2 slide -- so we had the process kind of sketched out for us in
3 terms of our community participation. This is where we heard
4 a lot of the concerns raised. And this was kind of the order.
5 We had a baseline study. We had a Technical Advisory Group,
6 some of whom are sitting here today, that are -- that worked
7 with us in developing some of the strategies and put inputs
8 into the process. And then again, we had a preparation of the
9 EIR which -- which is now done.

10 We had a lot of community outreach. Besides the TAG
11 group that we put together, we had community meetings
12 throughout the county, the scoping meeting for the EIR. And
13 then we had outreach to special interest groups like tribes
14 and the industry people. So we had -- we hired a consultant,
15 including a PR consultant who helps put this program together.
16 And I think it really paid off in the long run.

17 So we have these elements of what we're doing, the
18 transmission element to be updated, the land use ordinance,
19 the overlay map, and then minor elements in other parts of the
20 General Plan to make sure they were consistent with what we
21 were doing in the Renewable Energy Element.

22 We had several goals that we identified. I just
23 want to call attention to a couple of them. As I mentioned
24 before, the element we had, had the word geothermal in it and
25 it was pretty much entirely devoted to geothermal. And we've

1 had wind, a pretty good size wind project, 265 megawatts.
2 About 2,000 megawatts of solar that's been permitted and about
3 half that is completed now. Not nearly in the Lorelei
4 category, but we're -- we're getting there.

5 And so we needed to make sure that the -- that the
6 element dealt with and took into consideration the potential
7 for other types of technology that we had seen start to be
8 deployed down there. We wanted to, also going before there,
9 to identify areas around the Salton Sea that we thought
10 might -- might be -- have the potential, and we know there is
11 a potential.

12 And for those of you who may not be familiar or have
13 had your head stuck in the sand of the playa of the Salton
14 Sea, that is a very troubled body of water. It's continuing
15 to shrink which, again, you know, kind of the cloud and the
16 silver lining syndrome. The hottest spot -- we sit right on
17 top of the largest known geothermal resource in the country,
18 that's the Salton Sea, well over -- well, the estimates are
19 between 1,500 and 2,500 megawatts of geothermal. Most of it
20 is out -- the hottest spots is offshore in -- under the sea.
21 But as the sea continues to recede those areas will become
22 more available, more accessible for development. And as that
23 playa gets dried up there's a concern about dust emissivity.
24 And we think that by encouraging other types of technology,
25 you know, we could put solar out there, kind of going back to

1 Tim's point. You know, if we could put -- you know, use it in
2 different areas that could have dual benefits we think we
3 might be able to do something out there in that area that
4 could help resolve that problem.

5 And I'll go back to -- Carl and I were having lunch
6 one time with Johanna Wald. And I said, "We could kill two
7 birds with one stone."

8 And she said, "Don't ever use that term in front of
9 me." She was joking and I took it to heart.

10 And then -- and then finally, I think this Goal A
11 just kind of catches it all. I mean, you know, we're trying
12 to do this, at the same time protecting and preserving our
13 agricultural, natural and cultural resources. And so we've
14 done that. We've done landscape-level planning to look at
15 where we'd like to see some of these projects developed and
16 where we wouldn't like to see them.

17 And we're going to use our round two grant that we
18 got to update our Conservation and Open Space Element to more
19 particularly describe where we'd like to see the opportunities
20 or where we believe the opportunities are for conservation and
21 where we want to preserve open space, including in a lot of
22 the agricultural lands. Because that agricultural land has a
23 lot of habitat value, in addition to being a big economic
24 driver.

25 And so we also took a look at the transmission plans

1 and resources. We worked with the IID, with SDG&E, with BLM,
2 these are BLM corridors, the ones that are there on the -- on
3 the upper -- on the right-hand side and along the south side,
4 to make sure that we had looked at that and see what the
5 potential for that was. Suffice it to say, if we're going to
6 get anywhere near what we have the potential for we're going
7 to see -- need to see upgrades in the transmission system.
8 And so we are also looking forward to working with RETI 2.0,
9 3.0, 4.0, how many are we going to have, to get -- to get the
10 answers on how we're going to do that.

11 So this is what we have come up with and this was --
12 and we did not have the luxury that Butte County talked about
13 of, you know, having 100,000 acres of land that was either not
14 prime or statewide importance. Most of the private land we
15 have is agricultural land.

16 But you can see the darker green hatches there are
17 the geothermal resource areas. We've preserved those. They
18 do not have the type of footprint that conflicts with
19 agriculture to the extent that solar does. But we have
20 identified -- we've got about 3 million acres there in the
21 county. About half of that is either BLM or military. And --
22 but we did identify and we preserved about 40,000 acres of the
23 KGRAs, the known geothermal resource areas, and about 35,000
24 acres of solar or what we call renewable energy overlay which
25 certainly should accommodate some additional solar development

1 down there.

2 The DRECP had indicated that about seven -- they
3 were expecting or would -- would see or could forecast about
4 7,000 megawatts out of Imperial County, 2,500 of that being
5 geothermal, including what we're doing now. And so we have
6 enough land there in this overlay to accommodate that. And we
7 think it will have some benefits of the areas around the sea
8 and to avoiding the conflicts with agriculture. We've taken
9 about 450,000 acres of our -- of our ag land, though, and
10 taken it off the table.

11 We had a Planning Commission meeting on July 22nd.
12 The Planning Commission, including two farmers who have
13 consistently opposed every solar project, voted for this plan.
14 We had four people show up. Two of them didn't like it, two
15 of them because we were sacrificing the land of Imperial
16 County for renewable energy, and the other two said we weren't
17 including enough land for solar energy. So we figured that
18 balance there is something that we can always hope to strive
19 for. And then on -- it's supposed to go to our Board of
20 Supervisors in -- on September 22nd.

21 One of the things I want to point out, just a couple
22 of things, one of the -- the collaboration that we've had, and
23 I hate to use this term, but we've been forced to work with or
24 had the great opportunity to work other agencies like BLM, for
25 instance.

1
2 And I'll point to you, Jim, because you've been a
3 real help to us. And your people down there in the El Centro
4 Field Office have been a big help to us. One of the
5 overarching concerns that we've heard is that, well, why can't
6 we just develop all this stuff out in the desert? And so
7 BLM -- and we know why. But there are areas out there that
8 could possibly be that have been identified through the DRECP.
9 And so your folks down there and in Moreno Valley and other
10 places have worked with us to identify areas in the -- in the
11 BLM, in -- on public lands that -- that are going to be
12 designated for potential energy development that will create a
13 real alternative to developing on farmland, and so we
14 appreciate that.

15 There have been some other things. Oh, one of the
16 things I want to mention because there's been a lot of talk
17 about distributed generation, we do have some language in
18 there that can -- will promote continued development of
19 distributed generation on commercial and residential
20 properties. And I don't know if Tim is still here, but he
21 talked about this dream that he had of putting it over top of
22 cattle. And we have a cattle feed yard down there that does
23 have solar panels over the top of it. And you talk about
24 unintended benefits.

25 These are trackers and they sit up above the pens

1 and they move. Well, cattle, as you know, are kind of
2 sedentary and they tend to try to stay in one area and they
3 don't move. And as a result of that their byproducts tend to
4 accumulate. You know, you guys, what I mean by byproducts
5 tend to accumulate in that one spot. But with these trackers
6 they follow the shade back and forth across the pen during the
7 day, and that spreads that stuff out. And so I swear. And so
8 that's been a real benefit of renewable energy development in
9 Imperial County, and probably a very un-artful reference to
10 what I've been talking about for the last --

11 COMMISSIONER MCALLISTER: I would -- I would love --

12 MR. HORNE: -- 10 or 15 minutes.

13 COMMISSIONER MCALLISTER: I would have loved an
14 economic analysis of the co-benefits that you just described.

15 MR. HORNE: I'll work on that.

16 MS. SINSLEY Thank you. Does anybody have any
17 questions for Andy?

18 MR. HORNE: That's great.

19 MS. SINSLEY Okay.

20 COMMISSIONER MCALLISTER: Actually, I do have one
21 quick question. So what -- are you collaborating on these
22 issues across the border? Is there any interest at CFE or in
23 Mexicali? Or is there any reason that -- that you would be
24 engaging with your, you know, colleagues and partners across
25 the border?

1 MR. HORNE: I would say not directly in terms of
2 this grant that we've been working on and the projects that
3 we've been working on. There are -- there are cross-border
4 issues. Air quality; we all share the same basin.
5 Transmission assets; there are transmission lines that cross
6 the border --

7 COMMISSIONER MCALLISTER: Yeah. That's --

8 MR. HORNE: -- there.

9 COMMISSIONER MCALLISTER: That's kind of why I'm
10 asking. But --

11 MR. HORNE: And there have been, you know -- some of
12 these projects have tied into that Mexico gas tie, the ones
13 that come from the gas plants down there in the Mexicali
14 Valley. We haven't had that type of dialogue about how to --
15 I mean, there are wind -- there are energy projects, like the
16 Energia Sierra Juarez, the wind project, Sempra wind project
17 that's down in Baja that come across the line. But -- but I
18 think if -- if we tried to spend some of that grant money on
19 cross-border activities that the -- Pablo Gutierrez would have
20 cut us off, I don't know. So --

21 COMMISSIONER DOUGLAS: Well, Pablo is in here so he
22 can jump up and down. He probably doesn't need to.

23 So I just had one more follow-up question. You
24 know, I neglected to say, but I think -- when Susie presented.
25 But I think that the -- you know, making decisions on small-

1 scale projects, distributed solar and wind projects,
2 ministerial was a -- you know, is going to be a really
3 significant time savings and boost for that kind of
4 generation, you know, similar to what Lorelei was talking
5 about.

6 And I was curious, Andy, I have -- I don't know if
7 I've ever asked you this but, you know, how -- where does the
8 Imperial ordinance go on distributed generation? You
9 mentioned there are some words in there about it.

10 MR. HORNE: Well, we've -- I think there's some
11 state legislation that really, you know, creates that pathway
12 for -- you know, restricts local governments from trying to
13 zone them out or -- or permit fee them out of existence. And
14 we've been very diligent in making sure that our planning
15 department, our building department understand what those are,
16 and we've had some success.

17 I mean, we haven't had nearly the -- the penetration
18 of rooftop solar because we live in the Imperial Irrigation
19 District service territory. And their utility rates are about
20 half of what they are in some of our neighboring utilities.
21 And so that cost-benefit ratio or analysis doesn't usually
22 pencil out. Now it's changing because panel costs have come
23 down. But we've been very careful to put -- like I say, we
24 just -- we put some language just saying that, you know, we
25 encourage the continued development of distributed generation

1 without really going into a lot of detail because they can do
2 it anyway. And we're doing it on a ministerial basis.

3 I think there was one comment made. There is a
4 project, I think it was something that Tim said, we have one
5 project that's rooftop, but they want to sell power back into
6 the grid. We're requiring them to -- to get a CUP because
7 it's not inside the fence consumption.

8 COMMISSIONER DOUGLAS: All right. Thank you.

9 MR. KENNA: Andy, I'm going to resist a comment
10 about spreading. But I do want to say thank you for you
11 acknowledging the work of the -- the BLM folks in the desert
12 and the cooperative relationship with the county. And I have
13 to tell you that I hear the mutual respect in the other
14 direction, so thank you.

15 MS. SINSLEY Our next speaker will be Cathreen
16 Richards. Cathreen is the Senior Planner at the Inyo County
17 Planning Department. She's been with Inyo County for five
18 years. Given that the Planning Department is small her duties
19 cover the range of planning functions, with public outreach
20 and community development being her favorite responsibilities.

21 Before joining Inyo County she was a planner with the City of
22 Vancouver, Washington, Gresham, Oregon, and the Washington
23 State Department of Transportation.

24 Cathreen?

25 MS. RICHARDS: Thank you, and good afternoon. I'm

1 here today to tell you a story. This is a story about the
2 Inyo County's Renewable Energy General Plan Amendment.

3 Inyo County's Renewable Energy General Plan
4 Amendment, or as we affectionately call it the REGPA, was a
5 five-year odyssey spanning from 2010 to 2015. In 2010 the
6 county adopted Title 21, the Renewable Energy Ordinance, and
7 began work on a General Plan Amendment. In 2011 the County
8 Board of Supervisors adopted the REGPA, and then subsequently
9 rescinded it due to CEQA litigation brought forth by
10 environmental groups who asserted that a program environmental
11 impact report, or a PEIR, should have been conducted along
12 with it.

13 Due to the county's involvement in the DRECP we were
14 able to apply for one of the Renewable Energy Planning Grants.
15 The county was awarded the grant in July of 2013. Thank you.

16 A REGPA was adopted on March 24th, 2015, and that
17 makes it just sound simple, doesn't it?

18 In February of 2014, after numerous public and
19 stakeholder meetings, a background report, an opportunities
20 and constraints technical study, Staff brought a draft REGPA
21 policies and draft renewable energy development areas, or
22 RETAs, to our Planning Commission. The RETAs included areas
23 for both wind and solar energy development, and also included
24 caps on the allowed megawatts per RETA per energy type. Staff
25 also provided three alternatives within those RETAs. We had

1 an intense, a preferred and a less intense.

2 And here's a map at our first attempt. Green and
3 everything else is what we called intense. Blue and orange is
4 our preferred. And the area in orange is what we called the
5 less intense.

6 The public hated it. We had a huge turnout of
7 people at that first Planning Commission meeting, standing
8 room only, people who expressed concerns and a general dislike
9 for all of our drafts. We also received many comment letters
10 along that very same vein. Most of their concerns were
11 related to utility-scale development, wind energy and its
12 effect on birds, the Owens Valley and opposition to
13 development of any sort in it, and the effects of development
14 on visual resources.

15 The Planning Commission recommended that the draft
16 REGPA as presented by Staff be taking to our Board for input.
17 Instead of doing that we kind of backed off. Before bringing
18 that to the Board with those recommendations we actually held
19 a few additional meetings with the Board of Supervisors.

20 The first was just an informational workshop. We
21 realized that our public didn't understand general plans at
22 all, and didn't understand why we were proposing an amendment
23 to ours for renewable energy even less. A lot of people from
24 the public attended this workshop and the Board took public
25 comment.

1 We held two more meetings. These were to develop
2 the project description. They were also very well attended,
3 and our Board also took more public comment.

4 During these meetings, including that first Planning
5 Commission meeting, we had yelling, crying, poetry readings.
6 We had a puppet show. We even had the sheriff's department
7 called in at one of them. The local paper portrayed our poor
8 planning director as the devil himself and me as his mindless
9 minion. One of our county supervisors even had threatening
10 messages left on his phone.

11 So based on all of this public input, good and bad,
12 the Board directed the staff to update our project to include
13 that less intensive alternative. Remember the map? That was
14 that area in orange. The Owens Valley was taken out and made
15 the Owens Valley Study Area to be analyzed later.

16 A 250 megawatt cap was imposed on the western region
17 of our county. This is based on the current transmission
18 availability that goes through there right now. The megawatt
19 caps would be accompanied by corresponding acreage caps. Our
20 public found that megawatt cap thing really confused and they
21 just couldn't relate to it at all.

22 No wind energy development. This was based on
23 concerns over birds. And the military was really against it
24 based on the fact that most of our county is in their flight
25 training and test area.

1 We renamed our RETAs SETAs because now they're solar
2 energy development areas only. And all of this stuff was used
3 as the project description for the PEIR.

4 You can see here, just to revisit, the green and
5 pink was our original preferred alternative. And then the
6 area in just pink is what went into the project description.
7 And that area with the diagonal line is the Owens Valley Study
8 Area.

9 So while the PEIR was being developed the county
10 held many discussions with people from NGOs in the community
11 about the SETA alternatives and where maybe we could all meet
12 in the middle. The PEIR was completed in February of 2015.
13 It and modifications to the REGPA were taken to our Planning
14 Commission on March 4th, 2015. Most of the public comment we
15 had at this one was actually positive, and with suggestions
16 for additional changes. The Planning Commission sent a
17 recommendation to our Board of Supervisors that reflected the
18 public's comments and suggestions during that time.

19 And on March 24, 2015 the supervisors held the final
20 REGPA meeting. Public comment was actually very positive. We
21 had environmental groups expressing support for the Planning
22 Commission's recommendation. And the Board did approve our
23 REGPA on that day.

24 Some of the highlights of the adopted REGPA are
25 solar voltaic only. There are caps on the acreages that can

1 be developed for each of our SETAs. Sustainable water
2 practices for development in specific areas are required. The
3 public will be notified at the onset of all solar projects and
4 provided the opportunity to participate at the beginning and
5 throughout the entire process. Mowing will be used on
6 vegetation in lieu of scraping and grubbing within any
7 proposed project footprint. Development is encouraged on
8 already disturbed lands. And the county will be compensated
9 to offset costs for services for any new solar energy
10 development.

11 And I did bring copies of our adopted REGPA. I left
12 them with Le-Quyen. So if anyone is interested in seeing the
13 whole thing, she has those.

14 And finally, here are the areas we ended up with as
15 SETAs. They're in orange. And as you can see, they are quite
16 a bit less than what was used in the project description, and
17 a lot less than what was in our preferred alternative when we
18 started all of this.

19 Just to recap the amount of public outreach effort
20 that went into this REGPA, altogether we held 29 public-type
21 meetings and what felt like a million phone calls and one-to-
22 one conversations with people. We really believe that this
23 effort to engage our public and work with our public is why
24 the REGPA was adopted, and without a lawsuit, most
25 importantly.

1 So the organizers of this workshop asked that we
2 include some lessons learned. There were many. Here are a
3 few.

4 Listen. The public is very passionate about issues
5 that can affect where they live. Ignoring their concerns is
6 counterproductive.

7 Remember, renewable energy facilities can have a
8 huge impact on the areas in where they're built. Be sensitive
9 to this.

10 Find allies. Allies might be people you never
11 expected. Ours ended up actually being environmental groups.

12 Be open to change. We all approach this type of
13 work with really good intentions in mind, but we'll likely
14 need several versions before it's in a state where the
15 majority will accept it.

16 And so where are we now? The county applied and was
17 awarded a second grant from the Energy Commission. Thank you
18 again. This grant is funding a study of the Owens Valley
19 Study Area. That was that area you saw on the diagonal line
20 earlier. This is to help us define the appropriateness or
21 inappropriateness of solar voltaic development within it.
22 This work includes GIS data collection effort, this is
23 primarily vegetation mapping, to supplement the area in the
24 Owens Valley that's not within the DRECP boundary and was not
25 studied as part of the DRECP effort. We're also collecting

1 and mapping visual resources data, working directly with the
2 tribes in hope of identifying cultural resources and
3 landscapes. And we are also working, hopefully, to have all
4 of this work integrated within the DRECP's Data Basin
5 platform.

6 We've had our first round of public meetings and two
7 tribal meetings so far, and none of them have been awful yet.

8 We are also still working with Energy Commission
9 staff on an MOU to define the county's role in implementing
10 the DRECP in a manner that will be in coordination with our
11 REGPA.

12 The organizers also ask that we include some
13 thoughts on what maybe the Commission could have done to help
14 our planning effort. This might be out of the Commission's
15 wheelhouse. I know you've heard it several times already
16 today but I'm going to go ahead and say it as well, the solar
17 property tax issue, it's very, very hard to sell solar energy
18 facilities to the public who, for the most part, find them
19 extremely ugly when there is little to no benefit to the
20 community in which they're sited.

21 I'm sure you've noticed all those wonderful scenery
22 pictures that I included today. I didn't do that just so the
23 slide is really hard for you to read. And I also didn't do it
24 just to take advantage of this captive audience to show off
25 our beautiful county. But instead, this was to show off what

1 our public holds so dearly, why it matters, and why without
2 tangible benefit it is so difficult to sell solar facility --
3 energy facilities to the public.

4 I would have to say that also a fact sheet that we
5 could have had in our hands to share with our public would
6 have been extremely helpful, covering information about things
7 like what do these facilities really do to property values. I
8 mean, we heard things on both ends of that argument. How many
9 birds are really killed and/or subject to the lake effect?
10 Why can't all of our energy needs be served by rooftop solar
11 and located right where the energy is going to be used? And
12 how many permanent jobs do solar voltaic facilities really
13 create? That's just a smattering of our frequently asked
14 questions. And having those answer readily and consistently
15 available, I think really would have helped us.

16 That concludes my presentation. I did have a
17 questions slide, and I know you're not taking them right now,
18 but it did have one more pretty picture. Thank you.

19 COMMISSIONER DOUGLAS: Thank you, Cathreen. Just as
20 switch places, I just wanted to note, I agree, the county did
21 just a fantastic amount of public outreach on the grant. And
22 in the DRECP world, of course, I went there for a public
23 meeting with the community on DRECP, but we had every one of
24 the Inyo County Board of Supervisors in that meeting. And so
25 I know that a number of the supervisors were very involved in

1 these discussions, as well. It was a pretty heavy lift.

2 MS. RICHARDS: Oh, there we go. I just want to say,
3 our supervisors really were awesome in this whole process.
4 They got beat up pretty bad for a while there.

5 MR. KENNA: Thank you for opening with Alabama
6 Hills.

7 MS. SINSLEY Thank you.

8 Juan Perez is our next panelist. He is Director of
9 Riverside County's Transportation and Land Management Agency.
10 He oversees that agency which consists of the Transportation,
11 Planning, Building and Safety, and Code Enforcement
12 Departments. He's been with Riverside County for 14 years,
13 and previously worked in both the public and private sector in
14 the public works and engineering field. Juan is a
15 registered -- is registered as a civil engineer and a traffic
16 engineer in the state of California.

17 MR. PEREZ: Thank you, Lori.

18 Good afternoon, everyone. Thanks again for having
19 me. I appreciate the opportunity to come in and tell you a
20 little bit about Riverside County. We're in the first year of
21 our Renewable Energy Grant, so we wanted to provide you with
22 an update as to where we're at now and where we see the grant
23 progressing into the future.

24 So first, a little bit about Riverside County.
25 We're about 7,400 square miles. We like to say we're about

1 the size of the state of New Jersey to put it in perspective,
2 so a very large land mass to plan around. Our population is
3 about 2.3 million. We're projected by the Department of
4 Finance to, within the next 30 to 40 years or so, actually,
5 become the second most populous county in California in that
6 time. So it's a county that has experienced significant
7 growth and will continue to see significant growth. So it is
8 very important that we tie renewable energy development as
9 part of that.

10 A little bit about the county. We have been a
11 leader at the forefront of renewable energy. Those of you
12 that -- everybody's gone to Palm Springs, right, at one point
13 or another. And as you go on Interstate 10 you see very large
14 wind farms that are in the San Gorgonio Pass area. We also
15 have some very large-scale commercial solar projects in
16 Riverside County. The McCoy Project that was approved earlier
17 in the year, by itself it's up to 750 megawatts, about 4,700
18 acres in total, including both federal and non-federal land.
19 And we do have a smattering, also, smaller hydroelectric,
20 biomass, biogas facilities that are tied mainly to utility
21 development.

22 So a little about our grant. We are in the first
23 year of our grant program. One of the key aspects of it, and
24 I won't go into all the details of it, but one of the key
25 aspects is mapping. You've heard a lot today and you've seen

1 a lot of great examples of the power of mapping. And we
2 really wanted to have as a deliverable, I would say, two --
3 two to three main things.

4 One is really good solid mapping of utility
5 infrastructure, both where it is now and where -- where it can
6 be and should be in the future, to help with the goal of
7 furthering renewable energy development.

8 The other one is, of course, that we put policies
9 into our General Plan to foster good and appropriate renewable
10 energy development that's balanced with other community needs,
11 and I do want to highlight that. And, of course, that to a
12 great degree depends on balancing that with open space needs
13 and the need to maintain critical habitats throughout the
14 county.

15 I should mention that Riverside County has actually
16 had a very good history. We have two very large Multi-Species
17 Habitat Conservation Plans that -- one has been in effect
18 since 2003 out in the western county, and the eastern county
19 covering the Coachella Valley more recently than that. And
20 the DRECP actually would be the third large plan that between
21 the three would actually cover the entire county in one form
22 or another in some form of a Habitat Conservation Plan. And
23 that is no mean feat considering, again, 7,300 square miles of
24 county, as I was mentioning.

25 So the DRECP coordination work has really been a

1 very valuable and important part of this grant. And I really,
2 really want to thank Commissioner Douglas, Terry with the
3 Governor's Office, John Kalish with our local BLM office,
4 they've all been -- really have gone out of their way to reach
5 out to Riverside County and include us in the discussion.

6 You've heard a lot about different models, you know,
7 technological and fancy models. But I think to me the
8 greatest model that's coming out of this is the model for
9 dialogue that we have here between federal, state and county,
10 local agencies as to how we work together to tackle the tough
11 challenges. And they won't be easy and there will be areas of
12 disagreement and there will be areas of compromise, like with
13 anything else we have to do. But I think at the end of the
14 day the discussion has come a long, long ways. And I want to
15 thank the Commission and all involved in that.

16 Andy mentioned a little bit about the importance of
17 the Salton Sea. So when we looked at applying for this grant,
18 again, we wanted to really leverage the benefit as much as
19 possible to Riverside County. Certainly, renewable energy of
20 its own is tremendously critically important. But there are
21 also issues that we see as being very, very important, and one
22 is the Salton Sea because of the potential health effects of a
23 receding sea.

24 And one of the things we wanted to do with our
25 grant, and specifically, is to focus on how can we help foster

1 good renewable energy development around the Salton Sea in a
2 way that is complimentary to the sea restoration efforts,
3 really provide, if you will, a one-stop shop. But if you're
4 looking to come into the Salton Sea as a potential energy
5 partner you don't have to go hunt around for different utility
6 companies, different state and federal agencies for where
7 their lines on the map are. And the county can help be the
8 repository of that data source to really foster that and
9 really be able to help people make informed decisions, and
10 also provide that information to the public. And you've heard
11 a lot from the other counties about just the critical
12 importance of the public's involvement in these processes;
13 they care, they're very engaged, and they want to be part of
14 the planning process.

15 The other thing we do want to do is work on our
16 General Plan, which is an evolving document, to really capture
17 a lot of the latest happenings in renewable energy. We're
18 always, you know, a few steps behind the technology, if you
19 will. So it is important that we periodically update our
20 plans to be able to keep up with them or catch up to that as
21 best as we can, and at the same time really look ahead. And
22 that's -- and that can be a challenge in large-scale planning,
23 but that's -- that's the key here.

24 And I mentioned the importance of having those
25 transmission corridor maps. You know, where does it make

1 sense to site facilities? And really have that be an
2 interactive discussion, too, with our utility companies.
3 Where does it make sense to have the development where there
4 should be a dialogue about sizing -- providing transmission
5 facilities there. So it is a very much interactive dialogue.

6 I don't have lessons learned because we're still in
7 the process. So I'll come back, if you'll have me next year,
8 and tell you a little bit more about those. But there are a
9 number of things that we have identified to date that I think
10 are very important.

11 I mentioned ongoing coordination. If nothing else I
12 think there's a great tremendous dialogue going on, on a
13 monthly and sometimes even more often than that basis. And
14 it's not just a dialogue, it is a sharing of mapping and other
15 critical information to help us collectively make the most
16 informed decisions that we can. We do, as I mentioned need to
17 work on expanding policies in our general plan. And then
18 again provide that information to help the Salton Sea
19 restoration which is really critically important, not just to
20 Riverside, not just to Imperial County, but all of Southern
21 California in particular because of the effects on air quality
22 potentially.

23 And there's another ancillary benefit I want to
24 touch on. Again, to me this is -- really this grant is about
25 leveraging, okay, leverage resources. Yes, we have tremendous

1 need and interest on the renewable energy side. We've coupled
2 that with conservation planning. We've coupled that with the
3 Salton Sea restoration. But there's a fourth leg in that
4 stool in my perspective, and that's the opportunity to look at
5 infrastructure planning in nearby surrounding communities.

6 In Riverside County we have many disadvantaged
7 communities bordering the Salton Sea that lack basic
8 infrastructure. So not just a trifecta, whatever you call
9 going for four hear, but really there's an opportunity to work
10 in partnerships to go beyond even the renewable energy
11 component to really make a very tangible difference in
12 people's quality of lives. And I think maybe getting back to
13 some of the earlier comments from the other speakers, you
14 know, how do we help the public see the benefits of renewable
15 energy in their backyard. And I would submit that in
16 Riverside County this is part of that by being able to put us
17 in a position to apply for grants and other things to help
18 those disadvantaged communities.

19 So with that I'll be happy to take questions. And
20 again, I want to thank you the CEC for our grant. And I look
21 forward to being part of this discussion with you for -- for
22 years to come. Thank you.

23 MS. SINSLEY Thank you, Juan.

24 We have two speakers left. One of our final
25 panelists is participating by WebEx. That would be Tom Hudson

1 who is the Director of the Land Use Services Department at San
2 Bernardino County. Tom leads a team of 150 professionals
3 focused on planning, building and safety, code enforcement,
4 mining, fire hazard abatement, and land development. Tom's
5 career has been devoted to community-based economic
6 development. He has 30 years of consulting experience across
7 16 western states, serving over 200 communities, counties,
8 tribes and state governments. He's been the director of three
9 community development nonprofits and served on state-level
10 boards in Hawaii, Washington and Idaho, as well as the
11 National Rural Development Partnership.

12 Tom?

13 MR. HUDSON: Good afternoon. Can you hear me okay?

14 MS. SINSLEY Yes.

15 MR. HUDSON: Okay. Well, I'd like to start by
16 saying I'm actually quite a bit taller than I look. Sorry
17 that I can't be with all of you this afternoon physically. I
18 want to share with you a progress briefing on our Renewable
19 Energy Element for the County of San Bernardino General Plan.

20 We're in a two-phase process. The first was just
21 very recently completed. That's a policy framework for the
22 Renewable Energy Element. And the phase that we're just
23 getting into now is looking at a combination of comprehensive
24 costs and benefits analysis, cost recovery option study and
25 how to balance the benefits for the county. I think you'll

1 hear from me quite a number of the same key findings and
2 concerns that you've heard from other panelists. And I must
3 say, I thank the other panelists for their insights. I've
4 been taking lots of notes.

5 Next slide. It looks like we missed one. No, I
6 guess not. I thought -- I heard we were going to have the
7 maps included, so I'll go without that.

8 But pretend that you can see the state of
9 California. We are in the southeast section of it. We're the
10 largest county in the United States, and bordering Nevada,
11 Arizona, and five other counties. We've got about 2.1 million
12 people in our county. And we're divided both geographically
13 and I think to a degree by lifestyle and culture into three
14 different regions. We call them valley, mountain and desert.

15 The valley region is in the -- in the southwest
16 corner. It's where our largest population is. It's where the
17 county seat is located in the City of San Bernardino. Then
18 it's surrounded by an ark of mountains, the San Bernardino
19 Mountains, and they go almost to the center of our southern
20 border with Riverside County. And then the largest part of
21 our county is also the least populated, and that's our high
22 and low desert region.

23 About 81 percent of the county is owned by the
24 federal government. And that has a substantial impact on what
25 we do and how we operate at the county. We're constantly

1 about partnerships and collaborations. About another four
2 percent is in municipal government control. And then a
3 substantial amount of the rest is undevelopable. So what is
4 actually developable land is quite small and, consequently, a
5 major concern for our county government in terms of strategic
6 planning.

7 Most of the industrial-scale opportunities in -- are
8 in the desert here in the county. And for a number of reasons
9 over the years there's been an increasing amount of resistance
10 to this large-scale development, along with let's say a
11 history of a lack of trust in government that I think
12 increased until recent years. Our current CEO and Board of
13 Supervisors have done an extraordinary job of beginning to
14 rebuild that collaborative environment and sense of trust in
15 government.

16 And I must say that I think the -- this -- the
17 wonderful grant that we received from CEC for the work that
18 we're doing with the Renewable Energy Element is also making a
19 substantial contribution, and I'll come back to that in just a
20 moment.

21 In 2012 the county completed a countywide vision
22 that is very substantial and based upon a tremendous amount of
23 collaboration with the public and a wide range of
24 stakeholders, so much so that many other entities are using
25 it, as well, to guide their efforts. It certainly drives

1 everything we do in land use services. And so as a result
2 we've looked very carefully at its priorities with regard to
3 the environment, conservation, renewable energy. And in that
4 context it became very clear that we needed to enhance our
5 regulatory system to reflect advances in renewable energy
6 technologies, as well as our own recent experience in
7 renewable energy development around the county.

8 In early 2013 we began that process. And the
9 priorities that you see up on the screen at the moment are
10 those that we've embraced most closely in moving forward.

11 While all of these are very important, I think that
12 at the core is a point identical to what you heard from other
13 panelists, and that is to engage the public meaningfully as
14 collaborators and partners in the process. We have through
15 this program created a tremendous amount of interest and,
16 frankly, concern about renewable energy in the -- in the
17 county, people wanting to make sure it goes the right
18 direction as we refine our regulatory systems.

19 And so one of the things that we did to expand
20 beyond the -- all of the efforts in public meetings, and I
21 think we had 21 altogether around the county focused on
22 renewable energy since we've started this process, we also
23 wanted to get into digital engagement. You know, being 20,000
24 square miles and larger than nine different states, we've got
25 a spatial challenge. It's difficult for people to get to

1 meetings no matter how hard you try. You'd have to have an
2 extraordinary budget to be truly comprehensive. So digital
3 outreach was something that we focused on.

4 You see Spark Forum on the screen. If you go to
5 sparkforum.org you'll see a recent effort that we went through
6 in Phase 1. This is still alive and we're still working to
7 expand on our experience with it as we prepare to move into
8 the second phase of work.

9 The Spark Forum is a way to do public town hall
10 meetings, as well as create access to information. We have
11 the equivalent of a digital library where people can check
12 information out. And they can also donate information. We're
13 all emphasizing what we consider our in-house mantra, and
14 informed majority will make a good decision. And we know that
15 there are very good, very well informed nonprofit
16 organizations and other interest groups out there that have
17 information that should be accessible to everybody else.

18 That part I think is starting to succeed. But it's
19 been a slow process of getting people aware of and used to
20 dealing with each other in a digital format. We've got a ways
21 to go, but I'll get back to that in a few moments.

22 In February of this year we completed the Phase 1
23 framework. And it was fascinating to me to see how getting to
24 our ends-oriented issues, the decision making framework was so
25 valuable to the process. We focused on purpose, values, goals

1 and standards for development. And in that effort we were
2 able to see wherein we actually stood with regard to the views
3 and concerns of the public, and I'll come back to that, as
4 well, as I get to lessons learned.

5 So now we're just about to start into the second
6 phase of work. But before I get there, if you'd go to the
7 next slide, I want to speak to the lessons learned for -- for
8 just a few minutes.

9 That first point is about ends and means. You know,
10 if you don't have an agreement or an understanding of each
11 other's ends, where you really want to go, anybody in a group,
12 including this county, it's very difficult to agree on how to
13 objectively measure means, different types of tools, whether
14 it be design tools or locations tools or performance tools
15 linked to regulation of renewable energy programs. So by
16 relatively early in our process, getting to ends, these
17 policies, goals, guidelines and so on, we made, I think, a
18 tremendous advance in building a better rapport with the
19 public.

20 In a number of our early meetings we would have
21 people who really wanted to take over the meeting because they
22 had real concern that we were not listening. In one
23 particular meeting where we had well over 200 people in
24 attendance it was -- I think it could be couched as a number
25 of members of the audience just took over the meeting.

1 Now as it happened, and this relates to one of our
2 other lessons about managing information, someone immediately
3 before the meeting put a full-page ad in a local newspaper
4 talking about a particular project that didn't have anything
5 to do with the county. It was on federal land and it was a
6 transmission corridor. And so the house was packed with
7 people thinking they were going to be able to talk about the
8 transmission corridor. It made it quite difficult.

9 So having the ends, when people -- on February -- or
10 in the middle of February when we had our first meeting about
11 where we thought the public wanted to go and where we wanted
12 to go, we got excellent feedback from many people and far less
13 concern from the people who are, let's say, most antagonized
14 by the county's efforts in recent years. People who had been
15 traditionally against what we were doing and fearful that we
16 just weren't getting it wrote to us and said, you are
17 listening. And I think it opened up a lot of new doors that
18 are helping us in a number of ways now. And I'll get to that
19 on the next slide.

20 Embracing local activism I think is one of the most
21 important lessons learned, and that is there are a lot of
22 people who are organized, well informed, and want to be
23 heavily engaged in processes like this. I think in that -- in
24 a case like that what we've tried to do is to provide them as
25 much information as we have available. We want to be very

1 transparent. And at the same time we want to make sure that
2 they know their information can be shared with us and with
3 each. And that digital outreach has helped us but it's not
4 there yet. We need to do considerably more to advance that
5 cause so everybody feels like they're being heard.

6 The misinformation item is, you know, sometimes
7 people just don't have the facts. And other times there are
8 people out there who have a particular agenda and they bend
9 the facts in their direction. We -- so we need somebody very
10 proactive in making sure that people have information. And if
11 there's anything that comes out where we may disagree with the
12 material that's being presented by others, we want to, I'd
13 say, politely and proactively work with the group to
14 understand each other and at least know where we disagree.

15 The show and tell point that I've got on this slide
16 really refers to showing people what's going on in other parts
17 of the world or even here. You know, there are wonderful
18 activities related to community based-community generated
19 renewable energy, as in Colorado and Iowa. Those kinds of
20 activities need to be seen by people, so we're not just
21 talking theory all the time.

22 I think that's one of the reason why Lancaster is
23 very popular these days for people to go take a look at their
24 CCA program.

25 Optimizing local benefits I won't go into anymore,

1 except to emphatically agree that we need to be able to create
2 a better balance on the benefits side of the ledger.
3 Everybody that we talk to or nearly everyone we talk to at the
4 local level talks about how their -- the quality of their
5 lives, especially in the high desert, are not being
6 significantly improved, whereas they've got all kinds of
7 concerns about how there may be declines or negative impacts
8 on them.

9 COMMISSIONER MCALLISTER: And, Tom, I -- Tom, just
10 one second.

11 MR. HUDSON: Yes.

12 COMMISSIONER MCALLISTER: I need to step in just to
13 interrupt. We're kind of running out of time, but I want to
14 let you finish but with -- after a brief reprieve.

15 Jim Kenna needs to leave us at -- he has a
16 commitment at 4:00 that he has to call into. So I wanted to
17 give Jim the opportunity to just say a couple of words and
18 thank him for being here.

19 MR. KENNA: Well, thank you.

20 MR. HUDSON: All right, I'm going to just start when
21 you -- when we start again I'll start with the last bullet on
22 the page. Go ahead.

23 COMMISSIONER MCALLISTER: That's great. Thanks very
24 much.

25 MR. KENNA: Okay.

1 COMMISSIONER MCALLISTER: Sorry about that.

2 MR. KENNA: So thank you for letting me break in.
3 And let me say, also, I wouldn't normally step out. I'd just
4 sort of ride out the -- the rest of the meeting. But it's a
5 fire call related to the Rocky Fire. So it is kind of
6 important for me to step out.

7 But I didn't want to leave without saying a couple
8 of thank yous, particularly, let me begin with the CEC. I
9 think this, the grant program at the county level has been
10 incredibly productive. The kinds of conversation and
11 collaborative work that it has facilitated I think you've seen
12 evidence of today. And certainly I think it's been a benefit
13 to the relationship, even with the Bureau of Land Management
14 mangers at the ground level. The county and the manager can
15 sit down together.

16 And you've heard a couple of counties mention
17 specific managers. And so I wanted to bring up or emphasize
18 this specific relationship because I think it's really
19 important. The -- Michael Picker talked about the Bureau of
20 Land Management has this sort of -- for a federal agency it's
21 a kitchen table kind of approach to problem solving. And the
22 relationships at the local level are really important. And
23 you heard Andy talk about Tom -- Tom Zale in Imperial County,
24 and John Kalish came up in Riverside County, the lead
25 managers.

1 In Kern you have -- they're sort of straddling two
2 offices. And I know Lorelei has the relationship with Gabe
3 Garcia on one side, and then Carl on the other side at the
4 mountain that works well.

5 In San Bernardino County the lead manager is Katrina
6 Simons. And Mike Aarons over on the Needles side of the
7 county. And then in Inyo there's three managers that play a
8 little bit, but Steve Nelson has been out in front and leading
9 that relationship.

10 So I really want to thank the counties, too, because
11 the relationships in all cases that I just mentioned I think
12 are really healthy. And the dialogue is vibrant and you're
13 able to come to conclusion and share data back and forth.

14 So I don't know who said it at this point, but
15 that's a relationship that's worth buying into, worth
16 continuing and worth building upon. So thank you.

17 COMMISSIONER DOUGLAS: Well, thank you, Jim. And I
18 just have to jump in and, you know, thank you and BLM, as
19 well. I mean, I remember when I was new on the Commission. I
20 don't think I knew anyone at BLM. And I think we've gotten to
21 a point where Jim and I, you know, have each other's cell
22 phone numbers and don't hesitate to use them on weekends and
23 whenever needed. And I happen to know he was dealing with
24 fire issues yesterday, because otherwise he might have been at
25 dinner.

1 But in any case, you know -- you know, Juan, you
2 said in your presentation, you know, you talked about how in
3 some sense maybe the most important model we're working on
4 here is the model of collaboration and the model of state,
5 local, federal, real information sharing, real collaboration
6 and planning around how we want this to look and how we are
7 going to fit together. And, you know, BLM is a critical part
8 of this, and so thank you, Jim.

9 MR. KENNA: Thank you.

10 COMMISSIONER MCALLISTER: Okay. With that, Tom, I'm
11 going to ask you to speed it up just a little bit. I know
12 you're coming to the end. We have one more speaker, and then
13 I want to leave room -- I want to get in a few questions, at
14 least. And we have a couple blue cards, as well, for public
15 comment. So go ahead, Tom. Tom, you still there?

16 MR. HUDSON: Yeah, I'm sorry. I'm here.

17 COMMISSIONER MCALLISTER: Great. Go ahead. So we
18 need to --

19 MR. HUDSON: All right.

20 COMMISSIONER MCALLISTER: We have one more speaker
21 after you, and then we have some public comment, as well,
22 so --

23 MR. HUDSON: All right. Thank you.

24 COMMISSIONER MCALLISTER: Thanks.

25 MR. HUDSON: I'll just touch on a couple more

1 points, I think.

2 One thing I'd like to emphasize is the opportunity
3 that appears to be there for substantially increased
4 participation by industry in this public dialogue. As Karen
5 says, we really need a collaborative environment and a sense
6 of partnership. There's a tremendous amount of antagonism
7 among communities in our county toward industry. And I think
8 it would benefit industry to be more visible, more heard, and
9 at the very least clarity that -- that the concerns of the
10 citizens are getting to them and vice versa, their -- their
11 knowledge and good experience which is very valuable, gets
12 into it.

13 Next slide. The -- just two things I'll touch on
14 here. Informed dialogue; we found that if you're going to
15 believe in an informed majority makes a good decision, then
16 you've got to have more access to the regulatory -- sorry, to
17 the technologies that are out there.

18 The picture on the top left came with a complaint
19 from a concerned citizen about sand that's blowing out of a
20 renewable energy that happens to be a solar site onto a
21 highway. And through access to our system's history of aerial
22 photography in the area we showed that this is a long-term --
23 you see the white box in the middle of the lower photograph --
24 that's a long-term wind corridor that has been blowing sand
25 through there for generations, and it wasn't the site itself.

1 On the other hand we often find the public does have
2 great information that we'd like to have. And so it's getting
3 that information into the digital dialogue so that more people
4 have access to it.

5 The one item -- last item I'll touch on here is
6 community choice aggregation, and also distributed generation.
7 Local production for local consumption is something that is, I
8 think, having a great deal of interest in our county. Many
9 people want to see more of it. A number of interest groups
10 have reached out to the city of Lancaster which has been very
11 gracious in supporting all of our questions and interests.
12 We've been there ourselves. I think there's a lot to be
13 gained there.

14 And next slide. I'm just going to just conclude
15 with -- with something where I'd appreciate feedback now or
16 later, and that's the last item. We're talking with CEC right
17 now about the possibility of having or hosting a community-
18 scale renewable energy conference that would get into things
19 like CCA and distributed generation and so on. We're thinking
20 very seriously about hosting one here, and we'd love to know
21 what you think about it.

22 Thank you all for your time, and thanks for your
23 insights.

24 COMMISSIONER MCALLISTER: Thank you very much, Tom.

25 COMMISSIONER DOUGLAS: So, Tom, I -- this is Karen.

1 I just had one really quick question before we get to the next
2 speaker, and that is could you just briefly tell us a little
3 bit about the digital outreach and, you know, to what degree
4 has that expanded your ability to connect with people in the
5 county. Is it a big change, incremental change? How has that
6 -- how has it worked out?

7 MR. HUDSON: Thank you for that question, Karen.

8 Initially, when we were doing our research on
9 expanding to digital outreach we were hearing, let's say,
10 experience from some of the consulting firms out there of
11 about a seven-to-one ratio. You're going to reach seven more
12 people per person you're currently reaching by going to
13 digital. We have not had that extensive of positive
14 experience yet. But we have found that we're reaching a lot
15 of people who are not engaged in the past.

16 We're also finding that by having a digital library
17 that anybody can access and get information to and from, a lot
18 of the interest groups that are already highly informed are
19 helping us, informing us and vice versa. I think we're --
20 we're giving them better information. So that part has been
21 very good.

22 Another part of digital outreach for us is just
23 making our regulatory system more accessible. We now have
24 interactive layer zoning -- or, sorry, layered zoning material
25 that anybody can reach any time of day, 24/7. We're posted

1 all of our permit applications for all projects past and
2 present so that people can see what they are, where they are,
3 what's -- what kind of technology, what kind of acreage, what
4 kind of megawattage and so on. So again, trying to focus on
5 access to information.

6 Making it more easy to use, that is the outreach
7 with citizens, is a real trick. We had a number of goals,
8 like managing for civility, or managing so that if people
9 voted on anything we knew where they were from. And some of
10 those things just became too disruptive and made people too,
11 let's say, suspicious of process. So in our next phase of
12 work in the future we're going to be more open. We won't be
13 able to track quite so easily. But I think more important to
14 ensure that people can trust the process.

15 I'll stop with that.

16 COMMISSIONER DOUGLAS: All right. Thank you, Tom.

17 COMMISSIONER MCALLISTER: Yeah. So I like your idea
18 of doing a conference of that nature. Obviously, we'll have
19 to do some dialogue. But if there are some interesting issues
20 we have to work out with offsite solar in terms of code, for
21 example, if we're going to hit Z and E goals (phonetic) and
22 sort of the multi-jurisdictional aspects of community-scale
23 solar. So I think there's a lot of meet there that we
24 could -- we could chew on.

25 MR. HUDSON: Thank you.

1 MS. SINSLEY Great. Thank you.

2 Our final speaker is James Caruso who is a Senior
3 Planner with San Luis Obispo County Department of Planning and
4 Building. James has more than 30 years of local government
5 planning experience. His varied career has included oil spill
6 remediation, the rebuilding of Avila Beach -- Avila Beach,
7 natural resource damage assessments, nuclear waste storage,
8 water and energy policy, and climate change. James has led
9 the county's work on land use planning and groundwater
10 management. Currently he is working on county energy policy.

11 MR. CARUSO: Hi. Good afternoon. I'm going to be
12 very, very fast.

13 COMMISSIONER MCALLISTER: Sorry to squeeze you at
14 the end here.

15 MR. CARUSO: The Sheraton asked me to check out at
16 4:00, so I'm not going to make it. All right.

17 So what did -- what did we do? We did the Renewable
18 Energy Streamlining Program, it's called the RESP, another
19 acronym. It's based on the county's Conservation and Open
20 Space Element that was adopted in 2010. It's about 100 pages
21 worth of redline and strikeout legislative draft changes to
22 our General Plan and our Land Use Ordinance and our Williamson
23 Act Rules of Procedure.

24 To -- in our county's effort we first had to define,
25 what is streamlining? What are we trying to do? And we

1 decided to take it as far as we possibly could and we
2 attempted to change what are heretofore discretionary land use
3 permits into ministerial permits. We were too stupid to know
4 what we were trying to do was impossible. However, we did sort
5 of succeed, and I'll talk about that for a little bit.

6 What does -- if you're not a land use planner, I can
7 say the difference between ministerial and discretionary
8 developments is night and day. Discretionary developments we
9 know can take years. There's tremendous amounts of
10 uncertainty. They get the pesky public involved, so you can
11 never tell what they're going to say. And you're never going
12 to be able to tell how your politicians are going to react to
13 what the public says, regardless of whether the public is
14 right or not.

15 So we have an incredible increase in certainty of
16 the result. I'm being a bit facetious. We did know what we
17 were doing. And the first thing we did was we focused not on
18 utility-scale, because you cannot streamline utility-scale
19 development, we focused on distributed generation. And we
20 focused on 160 acres. We didn't necessarily focus on
21 megawatts, we focused on acreage. We believe it's important
22 to focus on acreage because you never know how many megawatts
23 are going to fit on an acre in the future.

24 The other thing we did was a programmatic EIR. The
25 way the programmatic EIR worked, it worked in conflict with

1 the ordinance writing. We had an ordinance team and we had a
2 CEQA team. They battled for a year-and-a-half. What
3 eventually happened was the county Zoning Ordinance was
4 written so that the mitigation -- what normally are mitigation
5 measures in an EIR became parts of the county Zoning Ordinance
6 that regulated smaller scale renewable development. So it was
7 a back and forth. We did, I think, six iterations. It got a
8 little bit vicious at the end as we were running out of time.
9 But we did make it. The Board of Supervisors adopted the RESP
10 on March 24th.

11 I did mention the 100 pages of redline strikeout.
12 March -- I don't even want to think how long it's been, but it
13 hasn't even been codified yet in the county ordinance, that's
14 how large it was.

15 So what is the -- what did we do? We created a
16 renewable energy combining designations, an overlay. And it
17 ended up being a ten-mile radius circle around each of the
18 substations in the county. It provides for a ministerial
19 process, if you're lucky enough or you're smart enough to find
20 the right piece of land. You also must meet those performance
21 standards. We called them performance standards. In the EIR
22 they -- they would be called mitigation measures. And we
23 always had to remember that this was an alternative to use
24 permit, a conditional use permit or administrative permit. It
25 wasn't a matter of can you build it or not. It was a matter

1 of can you do it ministerially or do you have to go down the
2 discretionary road.

3 I do want to add that the RESP is applicable only to
4 the inland areas, and that's obvious why. You can't deal with
5 the Coastal Commission on a streamlining project. They don't
6 believe it in. It would be a waste of money and time. And
7 plus, we would probably just antagonize them more than we
8 usually do.

9 So there it is. Those are the -- the black areas
10 are our renewable energy combining designations. The big
11 white -- white areas are either sensitive resource areas,
12 feral land. Los Padres National Forest is in there. Prime
13 farm land, both state and federal definitions of prime
14 farmland are in there, the coastal zone, and of course the
15 cities. Everywhere else is fair game.

16 One of the other things that we focused on, and this
17 is what the ag community in our county really cared about, we
18 have uses in the county that require a lot of onsite power in
19 the ag areas. They are wineries. And these aren't mom and
20 pop wineries, you know, 500 cases, 5,000 cases, these are
21 500,000 case wineries, million case wineries. This particular
22 one, and I wish I had blown it up, that's about a three acre
23 ground-mounted facility at J. Lohr.

24 This is another one, if you can -- that's the
25 runway, 24-Left, at San Luis Obispo Airport. So when you fly

1 into the airport you overfly this winery, Tolosa, which is a
2 million gallon -- million case winery with a five acre ground-
3 mounted accessory solar. We call it accessory because it's
4 accessory to the facility. It uses all the power onsite.

5 The Farm Bureau, usually very, very involved in our
6 county in land use and planning, once we assured them that we
7 were going to allow over-the-counter approval of the large
8 accessory solar facilities, they went away and didn't really
9 participate in the rest of the program, which was probably a
10 good thing.

11 So what did we learn? We learned that we have a lot
12 of problems with policy alignments, not only in the state but
13 in the county. Our own problems are in agriculture, also
14 biological resources.

15 One of the things that we -- we also discovered was
16 that in the world of streamlining, permit streamlining, if you
17 have to do say a streambed alteration agreement with
18 California Fish and Wildlife Service, there goes your
19 streamlining. You're not going to get a ministerial permit
20 through Fish and Wildlife Service because you're not going to
21 be subject to CEQA. More streamlining the -- more
22 streamlining equals less resource protection is what the
23 public told us, is what the agencies told us and how we -- how
24 we focused on the RESP.

25 The other thing we learned, which it shouldn't be

1 unusual, is that the public, individuals, agencies, state and
2 local, they exist to protect the prerogatives. And by moving
3 permits from ministerial -- the discretionary world to the
4 ministerial world threatened people's prerogatives.

5 Here in California we give people entry into the
6 land use permitting process. Sometimes we might give them too
7 much entry into the land use permitting process to the point
8 where at least our public believes it's their prerogative to
9 weigh in on just about any subject. So when we -- we went to
10 this idea of ministerial we had a lot of pushback. California
11 Native Plant Society, Audubon Society, Sierra Club, all the
12 usual folks pushed back.

13 So what are some of the other things we learned?
14 The biggest limit we have was infrastructure. We're at the
15 end of the road for PG&E. It's the end of their service area.
16 Our substations were at capacity. We had something under 100
17 megawatts of capacity left on the existing substations, and
18 PG&E had no plans to update it.

19 One of the things that we also did is we cast a
20 large net. And that's why those renewable energy combining
21 designations are ten miles wide. Within those ten miles we
22 figure we've got to hit somebody who has the right piece of
23 land, wants to do something with solar, has the right
24 exposure, doesn't have critical habitat on the site, and has
25 the right exposure. We'll find out if we're true -- that's

1 true.

2 We also prepared the programmatic EIR so it's
3 available for use in future projects, which is another part of
4 the streamlining aspect of this for projects that don't get
5 the ministerial permit.

6 And the last thing we did is we actually got this
7 thing instituted in Williamson Act lands. There are limits,
8 ten acres is the limit. There's also in the chart that tells
9 you how to do this, there's 14 footnotes in that table just
10 for renewable energy allowance on Williamson Act land. So
11 there's a lot of restrictions on that. I don't know if anyone
12 is ever going to use the streamlining permit process on
13 Williamson Act land. It turned out to be rather difficult.

14 A couple of other things. If anyone is looking for
15 real-time data on distribution -- on PG&E's distribution
16 system, don't expect it. We have an excellent relationship
17 with PG&E at the local level, yet someone in San Francisco, at
18 least they blame San Francisco, refused to allow the county
19 real-time data on the -- the distribution system. And that
20 really did constrain what we were able to do.

21 And the last thing I wanted to mention is that we
22 did start this process with a landscape-level analysis. And
23 one of the things we learned about the landscape-level
24 analysis is that's great for 1,000, 10,000 foot look down.
25 But when you're dealing with projects -- sports' analogy --

1 when you're in the trenches like an offensive lineman, in the
2 local agency doing land use permitting you need to look at the
3 site. So while your landscape scale analysis might not have
4 come up with all the critical habitat, when you get on the
5 ground in your 2.2 million acre county you find all sorts of
6 things that your landscape level analysis did not find, and
7 you've discovered that you've sent someone down the wrong road
8 because you didn't have the correct information.

9 Anyway, that's it, I think. Yes, it is. Thank you.

10 COMMISSIONER DOUGLAS: James, thank you for being
11 here. And we hope you get back to your hotel quickly. Sorry
12 about that. We didn't realize you had that time constraint.

13 COMMISSIONER MCALLISTER: Should we -- should we
14 call his hotel and say, no, really, he was here?

15 So, okay, thanks for that panel.

16 I guess any questions for this -- this panel from
17 the dais?

18 COMMISSIONER DOUGLAS: You know, I think I've asked
19 mine.

20 COMMISSIONER MCALLISTER: Yeah. I've kind of gotten
21 through my main issues, as well.

22 But reminder, date for public comment, Heather, is
23 it the 17th?

24 MS. RAITT: August 17th.

25 COMMISSIONER MCALLISTER: The 17th. So everybody,

1 also, if you do want to make a public comment, we have two
2 blue cards, but please fill one out and bring it up here as
3 quickly as you can. And then we'll wrap it up. So thanks
4 very much.

5 COMMISSIONER DOUGLAS: All right. So I'll call the
6 names on the blue cards.

7 And actually, I talked to the Nature Conservancy.
8 They've done some -- just thank you to the panel. It was
9 fantastic. And great work on the planning grants.

10 And with that, let me start with the Nature
11 Conservancy. They have a couple slides. Actually, they've
12 done some work that will be I think very helpful as we move
13 into RETI 2.0.

14 Go ahead.

15 MS. BRAND: So, Karen, I was thinking of switching
16 my game plan and just doing a couple of brief remarks, given
17 the time.

18 COMMISSIONER DOUGLAS: I think that will be great.
19 Go ahead.

20 MS. BRAND: Excellent. Okay. So I'm Erica Brand,
21 California Energy Program Director for The Nature Conservancy.

22 And so as Karen mentioned, and Scott did earlier
23 today, we just released a study with Energy and Environmental
24 Economics, E3, called Integrating Land Conservation and
25 Renewable Energy Goals in California. And I was really

1 excited today to hear all of the remarks about data and
2 needing data to make good decisions, good policy, and
3 especially the emphasis on scenario-based analysis to be able
4 to analyze the tradeoffs.

5 And so that was really the focus of the study that
6 we just completed. We wanted to try to find a way to analyze
7 the land and water use implications of different 2030 RPS
8 scenarios, and also the costs. And so a couple of the points
9 I'll talk about here, let's see, so we did this modeling
10 exercise. The study just came out last week. And we analyzed
11 four different 2023 RPS scenarios, a 33 percent in-state, 40
12 percent in-state, 50 percent in-state, and 50 percent WECC-
13 wide. The -- we used two different models, one called the
14 Optimal Renewable Energy Build-Out Model, and then we also
15 used the RPS Calculator Version 6.0 that the PUC discussed
16 this morning, and it was released for public comment.

17 And so a couple of the really quick takeaways from
18 the study that I want to share, and I think the -- the one
19 that is the most important is that the study really provides
20 land use and conservation impact and water use data that's
21 important for comparative scenario analysis. When we're
22 thinking about different pathways to build out our renewable
23 energy future, they're going to have different land and water
24 impacts. And so the ability to compare those, model them,
25 understand how much land they might need, what type of land,

1 how much water, is helpful to informing policy decisions.

2 And then the second piece is the cost information.
3 And so we used the RPS Calculator. It reported the costs for
4 the different portfolios. And we found that for most of the
5 scenarios that we studied the cost premium for different
6 environmentally preferred build-outs was minimal. And so this
7 data is all available in the report that we have just
8 finished.

9 And I think the recommendation that I want to leave
10 this group with, and I'll be putting more, including the
11 study, in written comments so everyone has access to them, is
12 that using scenario-based analysis with ecological
13 considerations can help our state achieve multiple goals. And
14 TNC's really interested in finding solutions that achieve
15 goals, renewable energy, climate, natural resources, costs,
16 and those of the community. So we're at a time when we have
17 really great data, really great analytical tools. And the
18 data indicate from our study that we can achieve a 50 percent
19 portfolio with a low impact to natural habitats and at a low
20 cost premium. So if we can build our future in a way that
21 achieves multiple goals, we should. It's the best path
22 forward. Thanks.

23 COMMISSIONER DOUGLAS: Thank you, Erica.

24 I've got two cards. Chris Ellison?

25 MR. ELLISON: Good afternoon. I will do my very

1 best to keep it in the three minutes. Christopher Ellison,
2 Ellison, Schneider and Harris on behalf of Duke American
3 Transmission Company. Duke American, or DATC, is the majority
4 owner of transmission rights on Path 15. They are the
5 promoter of the Pathfinder Transmission Project, to bring low
6 cost wind to California. And they are the sponsor of right
7 sizing the San Luis Transmission Project, which hopefully I'll
8 have time to get back to in a moment.

9 Given the amount of time I just want to commend a
10 couple of comments that I thought were particularly
11 significant. But before I do that I want to commend all of
12 you for this hearing. I certainly agree with the comment
13 about federal-state-local government coordination. And I
14 certainly agree with Tom's comments about including industry
15 in that, as well. I know that DATC would be anxious to
16 participate in any opportunity to do that.

17 I particularly want to single out Commissioner
18 Douglas for her work with the San Joaquin Valley Solar
19 Initiative because we've been very involved in that, and I
20 think she's done some great work on the transmission side of
21 that.

22 We're going to submit significant written comments.

23 I hope you have time to take a look at them. Along with
24 those I would urge you to take a look at the white paper
25 submitted by Carl Zichella which we agree with 100 percent. I

1 also agree 100 percent with what Carl had to say here today.
2 And when you have a major southern utility, a major Midwest
3 utility, and a major environmental group all saying the same
4 thing, I think that says something.

5 The -- the other point that I wanted to -- oh, by
6 the way, I also want to commend the staff, the Energy
7 Commission staff for their right sizing questions. We're
8 certainly going to respond to them. But we're very pleased to
9 see those questions being brought forward. Those are the
10 right questions, we think.

11 And lastly, Jim Kenna made a couple of points that I
12 think deserve some emphasis. One is that you need to use
13 judgment and grayscale analysis in addition to all these
14 wonderful tools that we've heard about today, and these are
15 wonderful tools. But at the end of the day people,
16 particularly in your positions, need to exercise judgment.
17 And when you're talking about transmission planning it's easy
18 to lose the forest for the trees. That forest in my mind
19 consists of a couple of things. One is transmission costs are
20 actually a very small percentage of the customers total bill.
21 And if you focus on emphasizing just holding your transmission
22 investments down, you can actually raise the customer's bill
23 because the transmission investments often reduce the
24 generation costs which are a much larger portion.

25 The second point is the transmission is very

1 difficult to build, but it's even more difficult to permit and
2 plan. If you don't build enough, if you don't plan enough,
3 the consequences of that are much greater than if you err on
4 the other side. And judgment really involves balancing of
5 risks. That's really what we're talking about here. And I'm
6 not suggesting that people should build anything that's not
7 needed. But on the other hand if you're looking at the risks
8 I think those are the risks.

9 The other point that Jim made along with judgment
10 was that there are some decisions that will not wait, that
11 timing is important.

12 And let me end with this, the San Luis Transmission
13 Project is the People's Exhibit A of that. The federal
14 government is building a 230 kV transmission line. They are
15 well into their environmental review process for that. They
16 will have to make a decision next spring as to whether to
17 build it at 230 or right size it to 500. That decision cannot
18 wait much longer than next spring. There are lots more I
19 could say about this topic that we'll put in our written
20 comments.

21 But I will simply emphasize, that's the window of
22 opportunity to make that correct decision. And I think almost
23 everything that you've heard today, particularly from Carl and
24 others, suggests that right sizing that last use of the last
25 corridor space on the backbone of California's transmission

1 project is a very prudent decision. Thank you very much.

2 COMMISSIONER DOUGLAS: Thank you. I've got -- I've
3 only got one other card. I know that there are more people
4 from the public here who might want to speak, but don't,
5 obviously, feel obligated. We're here. And just fill out a
6 blue card or come up after this.

7 So, Michael, and I'm sorry, I can't quite read your
8 last name.

9 MR. BOCCADORO: Boccadoro.

10 COMMISSIONER DOUGLAS: Boccadoro. Got it.

11 MR. BOCCADORO: Yeah. Thank you very much. Michael
12 Boccadoro on behalf of the Agricultural Energy Consumers
13 Association.

14 And just to kind of pick up where Chris left off, we
15 would also like to associate our comments with those of Mr.
16 Zichella. So if it blows your mind to have a couple of
17 utilities and an environmental group, how about agriculture on
18 top of it.

19 The San Joaquin Valley is a very, very, very
20 significant opportunity. Agriculture has long time been the
21 economic engine of the San Joaquin Valley. That's going to
22 change in the future. It's going to still continue to be a
23 very important part of the economy in the San Joaquin Valley,
24 but it's no longer going to be able to be that engine. And in
25 large part that's because of water scarcity, both surface

1 water and groundwater in this state. And ag is going to
2 continue, continue to be in food processing and food
3 manufacturing and continue to be a very vital economic
4 resource in the valley, but we're going to need to find a new
5 driver. And that new drive is renewable energy.

6 And just to pick up on the right sizing questions,
7 we very much appreciate those questions because those it's
8 directly applicable to the example that Mr. Ellison just put
9 in front of you. The San Luis Transmission Project has
10 tremendous support from the agricultural, the water community,
11 county governments and elected officials throughout the San
12 Joaquin Valley because they all correctly recognize that it
13 will help to unlock the renewable energy potential of the San
14 Joaquin Valley. We cannot afford to miss that opportunity, as
15 Mr. Ellison stated.

16 No area of the state needs economic development more
17 than the San Joaquin Valley. High, high rates of
18 unemployment, double digit. Exceptionally high rates of
19 poverty that exceed 25 percent in some of the southern
20 counties in the valley. And outside of Kern County and the
21 good work that they've done in terms of developing, the other
22 seven counties have not seen their fair share. And it's time
23 that we unlock that potential.

24 There's a conference next week on that very topic, I
25 know the Energy Commission staff is participating in that,

1 entitled Unlocking Renewables in the San Joaquin Valley. It's
2 a summit, very important. But this is topic you're going to
3 hear a lot about in the future. And it all initiates with the
4 San Luis Transmission Project. We'll need more transmission
5 beyond that to unlock the full potential. But the San Luis
6 Transmission Project is a tremendous start.

7 Thank you.

8 COMMISSIONER DOUGLAS: All right. Well, thank you.
9 And I do not have any more cards. I don't see anyone moving
10 to the podium at the moment.

11 So, Heather, do you want to --

12 MS. RAITT: Well, we don't have anybody on WebEx.
13 But if we could just open the lines briefly and see if anyone
14 on the phone wanted to make a comment. If you're on the
15 phone, please mute your line unless you'd like to make a
16 comment. Okay.

17 I think we're good.

18 COMMISSIONER MCALLISTER: Okay. So I think we're
19 going to wrap with a few comments from the dais just to sort
20 of put the bow on the day and remind people that it's --
21 August 17 is your written comments. You know, the public
22 comments and the panelists and, you know, I see a lot of
23 expertise in the room that, you know, didn't necessarily
24 speak, as well. So would just ask you to make your comments
25 as concrete as possible. And suggestions are more than

1 welcome. You know, for example, the projects that you're
2 interested in, you know, certainly try to back that up with
3 data and, you know, present the case. So that's what the
4 record is for, it's for -- to support decision making.

5 So I think I'm going to not -- since we've gotten
6 behind I'm going to not make too many comments, but this has
7 been great. And I want to commend Commissioner Douglas and
8 the IEPR team for sort of visualizing this and putting it
9 together. I'm the lead on the IEPR, but the topics kind of
10 come from the Commissioners. I'm doing -- I have a lot of
11 energy efficiency in here this year. But on transportation,
12 Commission Scott, and on various issues other Commissioners
13 weigh in and shape these events. So I'm appreciative today
14 for Commissioner -- for Commissioner Douglas' leadership.

15 You know, with that I think I'll just -- I'll just
16 hold off and let Commissioner Douglas -- or let Commissioner
17 Scott and then Commissioner Douglas talk.

18 COMMISSIONER SCOTT: If that's okay, I'll let you
19 have the last word.

20 COMMISSIONER DOUGLAS: Go ahead.

21 COMMISSIONER SCOTT: Okay. So I would echo what --
22 what Commissioner McAllister said. This is been a fantastic
23 day. I think we've gotten a lot of great information. And he
24 and I were thinking about how this is such a great example of
25 good government at work, and just across the board from local,

1 we had some state examples, we had regional examples, we had
2 federal examples. And it just really is a great model. And I
3 think Juan mentioned it as well. And I think in this space,
4 having good government at work is just invaluable.

5 One of the themes that I heard and wanted to repeat
6 back, because I think I heard it from every person from the
7 counties, was making sure that we talk about how we're
8 bringing benefits to the communities where the renewables or
9 the transmission is located and really think about how do we
10 communicate that story. And I think each and every one of you
11 said that, and so I wanted to repeat it back so that you know
12 that we heard it.

13 And the other thing that I was really impressed
14 with, I'm the public member here at the Energy Commission, I'm
15 always trying to think about ways to engage the public. And
16 each of you as you went through and talked about the work that
17 you're doing, whether under an Energy Commission Planning
18 Grant or not, to engage the public, to reach out with them, to
19 really make sure that they know and understand what's going on
20 in this renewable energy and conservation planning space I
21 think is so impressive. And so I appreciate you bringing
22 those examples to us here at the Commission.

23 I wanted to also thank Commissioner Douglas for her
24 leadership, and all of the counties for their leadership, and
25 our federal partners, and for our engaged stakeholders. I

1 mean, without everyone having their sleeves rolled up and
2 being in the trenches this would be -- this is -- this is
3 already relatively complex and difficult to do. But it would
4 be so much harder without really engaged thoughtful partners.

5 Let me see. So, yeah, I just wanted to say I think
6 the planning in this space is impressive. I think the data
7 that we've collected and the tools we have to use that data
8 and really make that work for us, it's just -- we're really
9 poised right now. I think we're very well positioned for RETI
10 2.0. I think we're ready to meet the 50 percent renewables in
11 a well-informed way. And I think the type of data and
12 information, partnerships that we have right now is something
13 we would have loved to have in place with those ARRA projects
14 came through. And so I think we'll be ready for the -- for
15 the next -- the next set. So I think we're really well poised
16 for going forward.

17 COMMISSIONER MCALLISTER: Okay. Thanks for that.

18 I'll put a finer point on the public sort of benefit
19 side of this. You know, it's not just about messaging.
20 That's absolutely important. You know, where those benefits
21 exist we need to -- we need to trumpet them from the
22 mountaintops. But it's also about generating those benefits.
23 I mean, it's about the nuts and bolts of generating benefit
24 for the local communities.

25 I mean, when you build an airport somewhere or when

1 you've got an airport in an urban area, you know, you have --
2 you replace -- you go in there and you replace all the windows
3 for the impacted houses and you insulate. You know, you deal
4 with noise issue because that's -- that's a factor that's
5 important for the local community.

6 And so getting that level of, I think, agreement and
7 sort of consensus on a path forward really does -- it is a
8 give and take. And so to the extent that we have impacts that
9 are -- that are unmitigated in the -- in a direct project
10 itself or, you know, indirectly, I think there are a lot of
11 ways we could think about mitigating impacts in these counties
12 and actually bringing real benefits and economic benefits and
13 sort of local impacts that are meaningful to the citizens that
14 live there. So I think that I wanted to just build on what
15 you said on that -- in that regard.

16 And I really did appreciate the distribution -- or
17 the sort of slight tangent we made on, you know, integrating
18 at the smaller level. I guess I was thinking, you know, we
19 have RETI with a T. Well, if we drill down granularly and
20 more and more granularly we're going to end up with REDI with
21 a D, and that D is going to be distribution. And that's where
22 we're going with technology and investment. And so at some
23 point we're going to have a bottom up meeting the top down,
24 and hopefully they're going to match. So we really need to
25 work on all of these aspects.

1 So sorry, I -- now I'll pass to Commissioner
2 Douglas.

3 COMMISSIONER DOUGLAS: Well, you know, thank you,
4 and thanks for maybe giving me the last word on this, at least
5 for the moment, not certainly for the issue, because there
6 will be a lot of -- a lot of work. And everyone here has a
7 place in this and is going to contribute to this.

8 But I find myself really reflecting on the
9 achievements and the challenges and the work of the last
10 years. And really going back to gearing up to meet the
11 challenge of AB 32 and knowing that renewable energy was a big
12 part of it, and wondering if we were going to be able to get
13 it together to permit in California, and working hard, state,
14 local and federal, to make that a possibility and a reality,
15 and having the private sector take their chance on California
16 and help us make it happen, and working collaboratively with
17 the environmental groups to also take a chance on California
18 and help us make it happen.

19 And at the same time, you know, we in the state
20 realized the importance of landscape-level planning and of
21 having a larger perspective, and beginning with RETI 1.0 and
22 DRECP and good work from RETI 1.0 going into the WECC. And,
23 you know, all of the -- and local governments in their way
24 with the issues that they faced, gearing up for the same set
25 of challenges and working with the state and the federal

1 agencies on the same set of challenges.

2 And, you know, we're now in a place where we are
3 serious about 50 percent. You know, we have -- we have gone
4 to a place where 33 percent, which once seemed so high, is --
5 you know, it's not all built but it's definitely all
6 permitted. And, you know, we are moving past it and we are
7 gearing up for 50 percent. And as one of our earlier speakers
8 said, it will not stop there. And so we are in a fundamental
9 transition. And bringing the land use and the community
10 engagement and, you know, just building on the new models and
11 tools that we've developed to get from 2006 and AB 32 passing,
12 or even earlier with the RPS, you know, to where we are today.

13 And I think, you know, again, back to what Juan
14 said, you know, new models and tools, both in the area of data
15 and planning and the ability to share information and
16 collaborate that did not exist in the same way, you know,
17 even, you know, even four or five years ago. You know, even
18 when we started the DRECP, you know, we didn't have this set
19 of models and tools available to us. But the opportunities
20 that it opens, you know, and yet you can't collaborate if you
21 don't have someone to collaborate with.

22 And as importantly, you know, over the years that
23 we've all been doing this work and kind of in these trenches
24 together, we have learned to work together in such different
25 ways. And I really think that as we move forward into RETI

1 2.0, you know, and as we finish out the DRECP, you know,
2 especially Phase 1, the BLM portion, the dialogues with the
3 counties in the DRECP area about, you know, what additional
4 overlay or work might make sense to really bring this
5 together. Build on the San Joaquin Solar Effort that is going
6 to be, I think, so fundamentally important in our ability and
7 our knowledge and our engagement in that region.

8 And then working beyond San Joaquin, you know, we
9 have a work plan in front of us, and it's ambitious but it's
10 doable. And I think that we have the experience behind us to
11 know, you know, basically how to do it. And a lot of it is
12 just the hard work of getting together, sharing information,
13 working. You know, we've had -- we've heard a lot from
14 counties. We've had a tremendous amount of county leadership.
15 It's been great to see all of -- all of you here today and to
16 hear from you today. We've worked with some cities that have
17 done some really innovative stuff. And the City of Lancaster
18 came up. They've done incredibly innovative work. And there
19 are many others.

20 You know, we at the Energy Commission have started
21 facilitating some county-to-county conversations. And I think
22 we're going to have to figure out a new format for these
23 conversations because they are, I think, going to grow as
24 interest grows. And it's really -- we learned so much from
25 each other.

1 We've been doing -- and this came up in some of the
2 county presentations -- a lot of tribal outreach, as well.
3 Commissioner Scott has been with me for some of that. And,
4 you know, that's another group that's not always used to
5 being, you know, called early in a process. And it's another
6 real potential for just moving forward with different ways of
7 working together that we have over time and experience, and
8 sometimes from doing things the wrong way and then turning
9 around and figuring out that the right way is easy, learned
10 how to do.

11 And so I just want to thank everyone who is here and
12 everyone who has been a part of this effort and say that I'm
13 looking forward, as we all are, to working with you going
14 forward. This is a nice chance to reflect on the past and
15 what's been achieved. And it's also, of course, as I think
16 told Lorelei over dinner, of course, the next sentence is
17 always what's next? And we all -- and we know we have that
18 kind of laid out for us, both in terms of the governor's goals
19 and 50 percent and the long-term climate goals, and also the
20 RETI 2.0 effort. So I think we're -- we're all ready to go.
21 And thank you all.

22 COMMISSIONER MCALLISTER: All right. So I think
23 we -- that's a wrap. Thank you very much.

24 (The Meeting of the California Energy Commission
25 Lead Commissioner Workshop on Landscape-Scale Environmental

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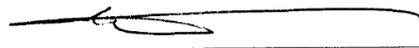
Evaluations for Energy Infrastructure Planning and the
Strategic Transmission Investment Plan adjourned at 4:45 p.m.)

REPORTER'S CERTIFICATE

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 20th day of August, 2015.



PETER PETTY
CER**D-493
Notary Public

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I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.



MARTHA L. NELSON, CERT**367

August 20, 2015