

STAFF WORKSHOP
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)

Preparation of the 2008 Integrated
Energy Policy Report Update and)
The 2009 Integrated Energy Policy)
Report)

Transmission Issues for 33 Percent
Renewables by 2020)
_____)

) Docket No.
) 08-IEP-1B
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DOCKET

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CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

WEDNESDAY, JULY 23, 2008

9:33 A.M.

ORIGINAL

Reported by:
Peter Petty
Contract No. 150-07-001

COMMISSIONERS PRESENT

Jeffrey Byron

STAFF PRESENT

Judy Grau

Laurie tenHope, Advisor

Roger Johnson

Donna Parrow

ALSO PRESENT

John Ballance
Consortium for Electric Reliability Technology
Solutions/Electric Power Group

David Le
California Independent System Operator

David Barajas
Imperial Irrigation District

Mohammed Beshir
Los Angeles Department of Water and Power

Traci Bone
California Public Utilities Commission

Tony Braun
California Municipal Utilities Association

Linda Brown
San Diego Gas and Electric Company

Jane Turnbull
League of Women Voters

Jorge Chacon
Southern California Edison Company

Bob Doyel
Bureau of Land Management

ALSO PRESENT

Mark Esguerra
Pacific Gas and Electric Company

Arthur Haubenstock
BrightSource Energy

Andy Horne
CSAC

Steven Kelly
Independent Energy Producers Association

John McCaull
Geothermal Energy Association

Gary Munsterman
United States Air Force Regional Environmental
Office

Dave Peck
Division of Ratepayer Advocates
California Public Utilities Commission

Dennis Peters
California Independent System Operator

Dariush Shirmohammadi
Oak Creek Energy Systems

Johanna Wald
Natural Resources Defense Council

Forrest DeGroff (via teleconference)
Carbon Consulting Company

Shannon Eddie (via teleconference)
Large Scale Solar Association

Madeleine Aldridge
eSolar

I N D E X

	Page
Proceedings	1
Introductions	1
Opening Remarks	1
Judy Grau, CEC	1
CEC Staff Presentation	4
Overview, Status, Efforts, Purpose	4
Judy Grau, CEC	4
Recent Transmission Scoping Studies, High Levels of Renewable Penetration	13
John Ballance, Consortium for Electric Reliability Technology Solutions/Electric Power Group, LLC	13
David Le, California Independent System Operator	23
Questions/Comments	34
Roundtable Panel Discussion	36
Laurie tenHope, Moderator	
Panel 1 - Utilities and Agencies	38
Mohammed Beshir, LADWP	40
David Barajas, IID	50
Tony Braun, CMUA	55
Mark Esguerra, PG&E	62
Jorge Chacon, SCE	65
Linda Brown, SDG&E	71
Dennis Peters, CA-ISO	77
Traci Bone, CPUC	84
Bob Doyel, USBLM	89
Roger Johnson, CEC	93

I N D E X

	Page
Roundtable Panel Discussions - continued	
Panel 2 - Key Stakeholders	106
Open Group Discussion	106
Johanna Wald, NRDC	
Dariush Shirmohammadi, Oak Creek Energy Systems	
John McCaull, Geothermal Energy Association	
Arthur Haubenstock, BrightSource Energy	
Jane Turnbull, League of Women Voters	
Gary Munsterman, USAF	
Andy Horne, CSAC	
Dave Peck, DRA, CPUC	
Afternoon Session	159
Panels 1 and 2 Discussion Session	159
Laurie tenHope, Moderator	
Public Comments	208
Next Steps	211
Closing Remarks	212
Adjournment	212
Certificate of Reporter	213

P R O C E E D I N G S

9:33 a.m.

MS. GRAU: Welcome to the Energy Commission's Staff workshop for the 2008 Integrated Energy Policy Report on transmission issues for 33 percent renewables by 2020.

I'm Judy Grau with the Commission's Engineering Office, and I work on the Commission's strategic transmission planning program.

Before we get started I'd like to read the housekeeping rules. Most of you are probably familiar with the room, but if you are not, the closest restrooms are right outside these doors; you can see them back there. There's also a drinking fountain. Snack bar is on the second floor under the white awning.

And lastly, in the event of an emergency and the building is evacuated, please follow our employees to the appropriate exits. We will reconvene at Roosevelt Park, which is diagonally across the street. And please proceed calmly and quickly, again following the employees with whom you are meeting, to safely exit the building.

And one more thing, the double doors out here, the glass doors to exit the building are for

1 the staff only. And if you go through it and
2 don't have a badge you will set off the alarm.
3 So please use the main exits by the guard.

4 For those of you who are listening on
5 the webcast who wish to call in, please note that
6 the activation of the call-in number has been
7 delayed until about 9:45, so please try back again
8 at that time.

9 The call-in number is 1-888-566-5914.
10 The passcode is IEPR, and the call leader is
11 Suzanne Korosec.

12 I hope you have all had a chance to pick
13 up the handouts that we have on the back table.
14 There should be a workshop notice, a workshop
15 agenda, a staff presentation, presentation by John
16 Ballance of the Electric Power Group and a
17 presentation by David Le of the California
18 Independent System Operator.

19 In addition, one of the invited
20 panelists, John Viola, who represents the Alliance
21 for Responsible Energy Policy, will not be able to
22 participate today, but he has provided written
23 comments for consideration in today's discussion.
24 And those are also on the back table.

25 Following my presentation we will hear

1 from John Ballance and David Le. We ask that the
2 audience here in the room and on the phone please
3 wait until both presentations are finished before
4 we take comments or questions on those two
5 presentations.

6 I would like to note that these two
7 transmission scoping studies are being presented
8 today to set some policy-level context. And we're
9 not here today to debate the assumptions and the
10 specific outcomes and numbers and details today.
11 But we just want to use these to provide some
12 concrete examples of the magnitude of the issue
13 we're dealing with.

14 And then we will move to the heart of
15 the workshop, which is the panel discussions. And
16 Laurie ten Hope, who's the Advisor to Commissioner
17 Byron, and parenthetically Commissioner Byron is
18 the Chair of the Integrated Energy Policy Report
19 Committee, so Laurie ten Hope, his Advisor, will
20 be serving as our moderator for the panel
21 discussions.

22 And then following the panel discussions
23 and moderated session, we will have public
24 comments from members of the public either here in
25 the room or on the phone.

1 So, once again, we will now start my
2 presentation. As part of the Energy Commission's
3 biennial Integrated Energy Policy Report process
4 the Energy Commission has produced a companion
5 biennial document called the strategic
6 transmission investment plan, or STIP. And we've
7 produced that biennially since 2005.

8 And in the 2007 STIP we highlighted
9 transmission for renewables as one of the most
10 important policy areas. The recommendations on
11 this slide and the next are all discussed in
12 chapter 2 of that 2007 STIP.

13 The over-arching recommendation is that
14 stakeholders should develop a map for renewables.
15 And at that time, the Renewable Energy
16 Transmission Initiative, or RETI, was just getting
17 underway. But the Energy Commission saw this as
18 an important vehicle for the development of such a
19 roadmap.

20 And so we recommended that the Energy
21 Commission participate actively in RETI and vet
22 and integrate those results into the next IEPR and
23 strategic plan cycle.

24 Having been granted the authority to
25 designate transmission corridors on nonfederal

1 land, through the passage of Senate Bill 1059 in
2 2006, the 2007 STIP recommended that the Energy
3 Commission leverage its power plant licensing
4 corridor designation authority, environmental
5 expertise and transmission planning and policy
6 experience to help guide renewable resource
7 development in California. And there's a link to
8 our 2007 STIP at the bottom of the slide.

9 Some of the major recommendations are
10 that the Energy Commission should work with the
11 PUC and the California ISO to resolve issues
12 associated with the California ISO's
13 interconnection queue. Another is that the CPUC
14 should continue its generation procurement and
15 transmission certificate of public convenience and
16 necessity processes.

17 With respect to the renewables
18 integration barriers the 2007 STIP recommended
19 that staff continue directing research by the
20 Consortium for Electric Reliability Technology
21 Solutions, CERTS, aimed at addressing means to
22 remove transmission system integration barriers to
23 renewable generation development.

24 Now I would like to briefly address some
25 of the major transmission initiatives and

1 supporting initiatives that are underway. Since
2 each of the panelists in panel number 1 is
3 involved in or is spearheading many of these
4 initiatives, I will only touch on them briefly
5 here, and leave it to the panelists to provide the
6 depth and perspective needed for our conversation
7 today.

8 The first one is RETI, the Renewable
9 Energy Transmission Initiative. RETI is a broad,
10 stakeholder-driven renewable transmission
11 initiative that's in the process of identifying
12 and ranking competitive renewable resource zones.

13 The phase 1B results should be available
14 in the August to September timeframe. This will
15 be followed by the phase two effort of developing
16 conceptual transmission plans.

17 Next, the Western Electricity
18 Coordinating Council's transmission expansion --
19 policy committee, TEPPC, published its final 2008
20 synchronized study plan on June 12th. The goal of
21 the study plan is to produce a report in early
22 2009 that will address the transmission
23 implications, both magnitude and location, of
24 significant levels of renewables penetration in
25 the western states.

1 The Western Governors Association
2 western renewable energy zone's effort was
3 launched on May 28th. It has similar goals and
4 objectives to California's RETI effort in terms of
5 identifying renewable zones and the transmission
6 to access them. But on a western states basis.
7 However, as it started quite a bit later, it's not
8 as far along as the RETI effort.

9 On May 15th the California ISO filed
10 with the Federal Energy Regulatory Commission, the
11 FERC, a petition for waiver of certain provisions
12 in its tariff relating to the large generator
13 interconnection procedures and interconnection
14 study agreements as the first step in a two-step
15 process aimed at allowing the California ISO to
16 more efficiently manage its interconnection queue
17 and be consistent with the development of
18 timelines of transmission assets needed to insure
19 reliability, as well as compliance with
20 California's renewable portfolio standard.

21 The tariff waiver was approved by FERC
22 on July 14th subject to the second step of the
23 Cal-ISO filing a tariff amendment by the end of
24 July.

25 As I noted earlier, the Energy

1 Commission received transmission corridor
2 designation authority in late 2006. We have Roger
3 Johnson of the Energy Commission Staff as a
4 panelist today. And he will explain more about
5 the process and activities being undertaken.

6 In March the PUC initiated an
7 investigation/rulemaking on its own motion to
8 actively promote the development of transmission
9 infrastructure to provide access to renewable
10 energy resources in California. And I will leave
11 it to the PUC to fill us in on the latest details
12 of that proceeding.

13 On May 29th the U.S. Department of
14 Energy and Bureau of Land Management issued a
15 notice of intent to prepare a programmatic
16 environmental impact statement, or PEIS, to
17 evaluate solar energy development.

18 The Energy Commission intends to become
19 a cooperating agency in this effort to streamline
20 utility scale solar development. To that end the
21 Energy Commission has formed an interagency
22 working group of federal and state agencies to
23 assist the DOE and BLM in the preparation of the
24 PEIS. In addition, the Energy Commission filed
25 scoping comments in that proceeding last week.

1 The Energy Commission licenses thermal
2 power plants greater than 50 megawatts, as many of
3 you know. Last week the Commission approved the
4 City of Victorville hybrid project which has 513
5 megawatts of gas-fired capacity and 50 megawatts
6 of solar.

7 We currently have four solar projects in
8 review totaling 1577 megawatts. These include the
9 400 megawatt Ivanpah Solar Tower, the 177 megawatt
10 Carrizo Energy Solar Farm, the 250 megawatt Beacon
11 Solar Energy project, and the most recent project,
12 the Sterling Solar II project filed on June 30th.
13 And that at 750 megawatts.

14 Expected in August is the City of
15 Palmdale's hybrid gas/solar plant, which will have
16 50 megawatts of solar capacity, and Sterling's
17 Solar Thermal I is expected in December.

18 And, again, I put website links to all
19 of the initiatives I'm talking about for those of
20 you who are not familiar with them to do some
21 catching up.

22 The Commission's Public Interest Energy
23 Research, or PIER, program has several major
24 components including the transmission research
25 program. Recognizing that the renewables

1 integration effort cuts across several PIER
2 program areas, the Energy Commission Staff is
3 holding a staff workshop on Thursday, July 31st,
4 that will seek comments and identify emerging
5 technologies that will aid and increase the use of
6 renewable energy resources in California.

7 Topics of that workshop include
8 transmission technology research, storage for
9 renewable integration, smart grid for renewable
10 integration and improved wind and solar
11 forecasting. And that workshop notice and agenda
12 have been posted to our website.

13 We recognize that there are several
14 supporting initiatives that other entities are in
15 charge of, or are charged with participating in,
16 and we have several members of panel one who can
17 speak about the CPUC rulemaking proceedings on
18 continued implementation of the renewable
19 portfolio standard, and the relatively recent
20 rulemaking to integrate and refine procurement
21 policies.

22 In addition, we hope that the publicly
23 owned and investor-owned utilities here today will
24 speak about their own initiatives, and how they
25 affect or are affected by the other initiatives we

1 are discussing today.

2 And so, just in summary, the purpose of
3 the 2008 and 2009 Energy Report efforts, this is
4 considered an off-year in terms of the effort we
5 do on the odd years where there's a full spectrum,
6 but we have focused on renewables as one of the
7 major issues to work with on this update here.

8 And so we would like to use this year to
9 identify the status and progress to date of the
10 recommendations we made in our 2007 IEPR and
11 strategic plan. And then develop a plan of action
12 or course correction, as necessary, to direct the
13 2009 effort. And that's primarily what we'd like
14 the panels to speak about, kind of where we are,
15 where we're going, are we on the right track to
16 get there.

17 And here's a next-steps slide. I
18 included the workshop we had two days ago on
19 renewables. Many of you may have been here for
20 that, also. And that workshop covered topics such
21 as the impact of contract delays or cancellations
22 on meeting RPS goals, potential wholesale and
23 renewable price impacts, potential impacts on
24 natural gas demand, supply and price. And
25 environmental concerns with developing large-scale

1 renewable facilities and mitigation strategies.

2 Then we have today's workshop, the
3 second of the three staff workshops planned in
4 this cycle. July 29th is the due date for written
5 comments. As I mentioned, on July 31st we have a
6 workshop on emerging technologies for integration
7 of renewables. That's the third leg of the three-
8 legged stool we have here.

9 Then on August 21st the IEPR Committee
10 will hold a workshop on achieving higher levels of
11 renewables in California's energy system. And
12 this will meld together all the results from the
13 three workshops we've already had, plus all the
14 comments we've received, and the record we've
15 developed.

16 And then on September 11th we anticipate
17 releasing selected chapters of the Commission's
18 Draft 2008 IEPR Update, followed two weeks later
19 by an IEPR Committee hearing, also selected
20 chapters, which would likely include the
21 renewables chapter. And then finally, November
22 3rd, release the Committee final; and November
23 19th would be the business meeting scheduled for
24 adoption of the report.

25 And so with that, we'll now be turning

1 it over to John Ballance with CERTS Electric Power
2 Group. We had hoped, and we had noted in our
3 workshop notice that we would have a PIER report
4 published before this workshop. Unfortunately, we
5 had some delays and that report is not out yet.

6 But it will be posted in August, and all
7 of you who are on the energy policy listserver
8 will receive notification when that report is
9 available.

10 Just one second while we call in now
11 that it's past 9:45.

12 (Pause.)

13 MR. BALLANCE: Good morning. I'm here
14 to present the results of a renewable resource
15 integration scoping study on strategic
16 transmission operations and reliability issues,
17 which was done by the CERTS/EPG group for the PIER
18 project.

19 This scoping study was to identify
20 transmission and operational issues for the timely
21 integration of renewables looking farther out into
22 the future than most of the activities have looked
23 so far.

24 The resource mix and need scenarios that
25 we developed for this project are to scope the

1 issues; they're not meant as a forecast or
2 definitive estimate, so as Judy mentioned earlier,
3 this was to get an illustration.

4 The key findings from the report are
5 that California needs to integrate between 23,000
6 and 40,000 megawatts of new renewable capacity
7 over the next 20 years. Our scoping study focused
8 on a mid-range number of 30,000 megawatts of
9 additions in order to look at the transmission
10 issues.

11 The major load centers in the state are
12 served via transmission gateways that connect the
13 load centers to the bulk power system. The bulk
14 of the new renewable resources are likely to be
15 located remote from load centers. That shouldn't
16 come as a surprise to anyone.

17 The renewables integration, to be
18 successful, will require three elements. The
19 connection of the renewables to the backbone grid,
20 upgrades of the backbone grid to the transmission
21 gateways, and finally, the expansion of the
22 transmission gateway capacity to be able to
23 deliver this power from the backbone grid into the
24 load centers.

25 By our scoping estimates approximately

1 two-thirds of the 30,000 megawatts that we used as
2 a basis for our assessment, or 20,000 megawatts of
3 the new renewables capacity, is likely to be
4 delivered into the grid surrounding the L.A. Basin
5 transmission grid. L.A. Basin grid being the
6 definition used by the California ISO in their
7 local capacity requirement studies.

8 The scoping study, therefore, is going
9 to focus on the L.A. Basin gateway expansion to
10 give a delineation of the transmission capacity
11 and operating issues associated with integrating
12 renewables successfully in that area.

13 First of all, looking at the resource
14 need, the top line here indicates the energy
15 requirements based on the Energy Commission
16 forecast for energy in 2020 and 2030.

17 The second box represents the range of
18 alternative RPS scenarios expressed in billions of
19 kilowatt hours, with 2020 goals of 20 percent and
20 33 percent, and 2030 looking at 33 and 50 percent
21 RPS goals.

22 And at the bottom we've got the
23 equivalent capacities of renewable resources that
24 would be necessary to meet those respective goals.

25 As we looked at the year 2030, 22 years

1 from now, we see a total capacity addition or
2 total capacity requirements ranging from 30- to
3 46,000 megawatts necessary to meet the RPS goals.

4 With an existing capacity of a little
5 over 6300 megawatts right now, that means capacity
6 additions in the range of 23,000 to 40,000
7 megawatts are going to be required to meet the
8 goals by 2030. A midrange estimate of those
9 capacity additions is 30,000 megawatts; and that's
10 used for the scoping study.

11 We developed a representative mix of
12 renewable resources to satisfy the 30,000 megawatt
13 mix of additions as shown in the box here. You
14 will note that we assumed, correctly or
15 incorrectly, that biomass and solar photovoltaic
16 would be distributed within the load centers, with
17 the photovoltaic largely anticipated to be rooftop
18 solar.

19 As we look now at the generation queue
20 and many of the evolving technologies, we see
21 photovoltaic may very well also turn out to be
22 central plant technology, which would alter these
23 assumptions.

24 We next looked at a possible
25 distribution of those renewable resources -- can

1 you see that all right -- around the state, and
2 placed them into three rough categories. The
3 northwest and northern Nevada, northern and
4 central California, and the L.A. Basin and the
5 extents to the east of the L.A. Basin.

6 And what we find is even taking out the
7 assumption of distributed biomass and solar
8 photovoltaic, that approximately 20,000 megawatts
9 of new renewable capacity would connect to the
10 area which bounds the L.A. Basin, and would
11 therefore affect the L.A. Basin transmission
12 system in order to meet the renewables goals by
13 2030.

14 Turning to the load areas, that's where
15 the renewable energy ultimately has to be
16 delivered, the Cal-ISO has identified ten locally
17 constrained load serving areas. Five of these
18 load serving areas, the Greater Bay Area, the
19 Greater Fresno, L.A. Basin, Big Creek Ventura and
20 San Diego, those five areas comprise 87 percent of
21 the state's load.

22 Based on the previous slide we see that
23 approximately two-thirds of the renewable capacity
24 will have to be delivered into the area designated
25 as the L.A. Basin grid, which is the gray area

1 surrounding the L.A. Basin. I don't know if it
2 shows up on the slide.

3 This illustrates the major gateways for
4 moving renewable power into the Los Angeles Basin.
5 Antelope Mesa and Vincent Mesa, Vincent Rio Hondo
6 up at the top left of the chart would be the
7 principal gateways for the delivery of wind energy
8 from the Tehachapi area into southern California.

9 The Lugo Miraloma gateway would be the
10 principal delivery for between 5000 and 7500
11 megawatts of solar and wind from the region up
12 north and east of Lugo Substation.

13 The Palo Verde Harquahala-Devers path
14 would be a contributor for 2000 to 4000 megawatts
15 of wind. And the Coachella Ramon Mirage gateway
16 would be the source of approximately 4000
17 megawatts of geothermal and wind energy in the
18 Imperial Valley.

19 And then finally, the San Diego San
20 Onofre gateway is the major interface between the
21 southern California systems and the San Diego
22 system. And to move power north or south that
23 gateway has to be evaluated.

24 This illustrates a rough distribution of
25 where the resources would come into the various

1 gateways coming into the L.A. Basin. And I should
2 note that the first item, the wind, 1500 megawatts
3 is 1500 megawatts in addition to the existing
4 proposed 4500 megawatt Tehachapi system. So this
5 would take the total wind deliveries out of that
6 region to approximately 6000 megawatts.

7 As we look at the capacity of the
8 existing L.A. Basin to import power, it's limited
9 to a little bit over 10,000 megawatts right now.
10 To accommodate what would approach 20,000
11 megawatts of new renewables deliveries, that
12 transmission gateway capacity would have to be
13 doubled to tripled simply to move the power into
14 and through the transmission grid in the L.A.
15 Basin area.

16 Moreover, the shutdown of any of the
17 generation within the L.A. Basin grid would
18 further increase the need to expand transmission
19 gateway capacity simply to replace that capacity.

20 Just as a note, to put things in
21 perspective, if the goal of achieving 33 percent
22 renewables was achieved in the year 2030, the
23 total energy production requirements from the
24 nonrenewable resources connected to the grid right
25 now would be the same in 2030 as they are today.

1 That is, the nonrenewable resources will have the
2 same level of need as they do today. They only
3 diminish when we move beyond the 33 percent RPS
4 goal up to 50 percent, at which point they
5 diminish about 25 percent.

6 So, any shutdown of this local
7 generation would increase the requirement to
8 import additional energy through these
9 transmission gateways.

10 Looking then at the transmission
11 gateways, these are the issues and the key action
12 items that will be necessary. In order to meet
13 the RPS goals we're going to need to add
14 approximately 20,000 megawatts of renewables just
15 connected around the L.A. Basin area.

16 The transmission gateway capacity will
17 have to be expanded by 10,000 to 20,000 megawatts
18 over its present capability of 10,000 megawatts.

19 Lead years to do that kind of
20 transmission expansion are probably five to 15
21 years. Additionally, the local networks inside
22 the immediate gateway transmission paths will have
23 to be dramatically upgraded, including
24 improvements to the fault current within the grid;
25 upgrades of breakers; remedial action systems.

1 Everything that would be necessary to dramatically
2 increase the capability to import energy.

3 The nomogram capacity import limits into
4 the southern California systems would need to be
5 adjusted so as to be able to expand imports by
6 10,000 to 20,000 megawatts.

7 Regulation and ramping requirements
8 would increase both because of an increase in
9 load, and increase in the use of intermittent
10 resources, so there would be a need to develop and
11 procure additional regulation and ramping. With
12 anticipated continued use of the existing
13 generation, this means that we'll have to develop
14 additional storage, demand management tools, and
15 automatic load controls in order to satisfy the
16 additional regulation and ramping requirements.

17 And finally, in order to support the
18 increased nomogram requirements, there'll be a
19 need to add capacitors and dynamic voltage devices
20 throughout the grid to support these higher levels
21 of imports.

22 Now, obviously shutdown of any of the
23 existing local generation that provides any of the
24 ramping regulation and voltage support services
25 would adversely impact this list, and require more

1 to be done.

2 And all of these same issues will need
3 to be addressed in the other major load areas as
4 we try to bring more and more power into these
5 constrained load centers.

6 And finally, the transmission links
7 between the regions, between the Los Angeles area
8 and San Diego and north into the northern
9 California system, would need to be expanded to
10 move a substantial portion of these renewables
11 into both northern California and the San Diego
12 region.

13 Based on these findings our
14 recommendations are as follows: A transmission
15 gateway capacity needs to be expanded in a timely
16 manner in order to support timely integration of
17 renewables.

18 The transmission owners and the Cal-ISO
19 need to move the planning horizon out to 15 to 20
20 years. It's presently being moved out; this
21 recommends moving it out even farther in order to
22 define the long-term transmission gateway
23 requirements, the long-term transmission
24 requirements from the gateways into the load
25 centers, and to define the inter-regional

1 transmission requirements between the three major
2 load areas.

3 The Cal-ISO needs to provide the
4 utilities and the Public Utilities Commission with
5 guidance on the resource attributes that will be
6 necessary to provide operability for the power
7 system. How much regulation and ramping is going
8 to be necessary in 2030 so that the load-serving
9 entities can procure those resources in advance.

10 And finally, policymakers need to
11 support early planning and upgrades of the
12 transmission gateway capacity and the transmission
13 upgrades within the local areas in order to afford
14 deliverability to the load centers, perhaps in
15 advance of the actual renewable development. We
16 believe that this effort will be aided by the
17 ongoing RETI efforts that are currently underway.

18 Thank you.

19 MS. GRAU: Is David Le available? There
20 he is, okay.

21 MR. LE: Good morning. My name's David
22 Le. I'm from the California ISO. And thank you,
23 John Ballance, for the good introduction to the
24 need of the ISO to identify transmission need for
25 renewable.

1 Recently we looked at the potential for
2 the, you know, the transmission to meet the 20
3 percent as well as the 33 percent renewable need.
4 And we developed a conceptual transmission plan,
5 I'd like to stress that, this is a preliminary
6 effort this time. This effort is to be supported
7 further in the RETI process.

8 We identified the preliminary
9 transmission plan to enable the IOUs to meet the
10 33 percent RPS goal. We did not look at the POU,
11 public utility, per se, so the additional need for
12 accommodating that for the public utility would be
13 a lot higher.

14 The conceptual transmission plan that we
15 developed is to the writing process currently
16 going on at this time. Also for 30 percent RPS
17 goal and also this is needed to accelerate the
18 ready transition from identifying the -- the
19 competitive energy resource area into conceptual
20 transmission planning process.

21 The purpose of the presentation today is
22 to provide an estimated magnitude of the
23 transmission capacity additions for the IOUs,
24 mainly for three major IOUs within the ISO-
25 controlled jurisdiction to meet the California 33

1 percent RPS goal.

2 And then secondly, what are the
3 potential RPS compliance results for the
4 connection of different renewable resource mix.
5 For that I meant what is the implication for
6 connecting different type of resources, solar and
7 wind versus solar, wind and geothermal, with
8 different capacity factors.

9 This is an overview of the projection of
10 the RPS requirements for the IOUs between 2020 to
11 2030 for meeting a 33 percent RPS goal. The green
12 bar represent the projected total renewable energy
13 in gigawatt hour. Requirements for the IOU within
14 the ISO to meet that 33 percent goal.

15 This figure was the derivation of the 20
16 percent figure from the CEC forecast. And we did
17 a linear regression and brought it up to 33
18 percent for the IOU only.

19 In previous presentations some of the
20 audience mentioned that it was a little bit low,
21 but notice that this was especially for the IOUs,
22 so the numbers for the whole state would be a lot
23 higher.

24 The red bar represents the projected RPS
25 energy with implementation of additional

1 transmission projects under the best study case --
2 under the worst -- oh, the green bar is projected
3 RPS energy with implementation of additional
4 transmission projects for the best case scenario.

5 The best case scenario refers to the
6 connection to geothermal resources, as well as
7 wind and some solar generation.

8 The gray bar represent the RPS energy
9 with implementation of additional transmission
10 projects under the worst case scenario. For worst
11 case scenario what we meant is with a load
12 capacity factor for the CSP, concentrated solar
13 power. You would have, you know, lower RPS energy
14 goal, you know, meeting that.

15 So, in the case of the green bar, if we
16 were to be able to connect to the geothermal
17 resources within the Imperial County, and also if
18 we are able to bring transmission line to Nevada
19 to access geothermal resources, we would be able
20 to meet the 33 percent from 2020 and beyond 2030
21 timeframe.

22 Under the other scenario, the worst case
23 scenario, we would be able to meet the 33 percent
24 for the IOU through 2028 timeframe. But not 2029
25 and 2030.

1 The preliminary transmission evaluation
2 identified six 400 kV transmission projects needed
3 to meet 33 percent goal for the IOU. The
4 bottomline is the base case scenario. We can meet
5 the 33 percent goal for the area beyond 2030.
6 Worst case scenario we're going to meet it through
7 2028 only.

8 This is a geographic map of the area
9 where we envisioned the expansion of the renewable
10 transmission projects would take place. I'd like
11 to caution that there are some other ongoing
12 regional transmission projects at this time, such
13 as TransWest Express spearheaded by APS. If that
14 project is to materialize, it would contribute to
15 meeting the RPS goal and lessen the need of
16 development of the transmission within the state.

17 It's not surprise that the area for the
18 renewable transmission projects are in southern
19 California. And also borderline with Nevada and
20 Arizona. Nevada has large potential for
21 geothermal resources. That's where we are
22 envisioning that a transmission line would go to
23 Nevada. And southern California has large
24 potential for wind and solar energy, as well as
25 geothermal in Imperial County. So that's where

1 most of the transmission projects are concentrated
2 in this region.

3 This table summarizes the preliminary
4 conceptual transmission plan that we envision at
5 this time. This needs further fine-tuning and
6 also additional study would be needed to determine
7 the extent of the scope of the project, as well as
8 the fine-tuning of the cost estimate of these
9 transmission projects.

10 In summary, the six transmission
11 projects bring a total of about 10,000 megawatt of
12 additional capacity, transmission capacity, to the
13 state. And depending on where the renewable
14 resources are connected to the estimated energy
15 contributed by the renewables are between 39,000
16 to 46,000 gigawatt hour.

17 The estimated cost for the transmission
18 projects at this time is between \$6- and \$7
19 billion. And I'd like to stress that this is the
20 planning level cost estimate. Which means that it
21 is a plus or minus 50 percent cost estimate at
22 this time. From what we've seen it tends to be on
23 the plus side.

24 (Laughter.)

25 MR. LE: This table summarizes the

1 resources in renewable-rich area. This is very
2 similar to the table that John Ballance presented
3 earlier. This information is taken from the CEC
4 Staff reports.

5 I'd like to thank the CEC Staff for
6 contributing a lot of good information for us to
7 proceed on this evaluation. Without the
8 information from the CEC Staff, it wouldn't have
9 been realized.

10 You can see that on the first column
11 you have different resource type and locations.
12 Wind in Tehachapi, Imperial Valley area, eastern
13 Mojave, western Mojave, Imperial County. Solar in
14 Imperial County and San Bernardino County and in
15 Riverside County. And geothermal in Imperial
16 County most likely development.

17 The number tends to be a little bit
18 smaller than what was presented in John's
19 presentation. What we look at was the estimated
20 total developable capacity at this time. So we
21 take a little bit of a conservative approach to
22 that.

23 Geothermal, State of Nevada. This
24 number seems to be low, but it was taken from the
25 DOE report, as well as some of the other reports

1 from the State of Nevada. So, we're looking at
2 that, and the numbers may seem to be low; it may
3 be a little bit higher. At this time we're having
4 about 1200 megawatt of developable capacity for
5 geothermal environment.

6 On the right-most column we have the
7 resource assumptions for the Tehachapi
8 transmission and Sunrise Power Link projects.
9 These are the projects that we developed in
10 conjunction with the PTOs to meet the 20 percent
11 RPS goal.

12 The next several slides shows the
13 conceptual preliminary transmission plan for the
14 different projects that I mentioned earlier.

15 So the first one is the constraint new
16 substation and loop into existing Southwest Power
17 Line. This preliminary transmission project is
18 already under development within San Diego Gas and
19 Electric Company.

20 For this project we envision that it
21 would connect approximately 1051 megawatt of wind
22 generation. This number is taken directly from
23 the queue.

24 The second project would be to expand
25 the proposed midpoint substation and construct two

1 new 500 kV lines. Midpoint substation is a
2 substation that's going to be midpoint between
3 Palo Verde and Devers. And it is a project under
4 development at this time by Southern California
5 Edison.

6 With this project we envision that it's
7 going to be able to connect approximately 2400
8 megawatt of solar generation and 500 megawatt of
9 wind generation. We haven't done much of a
10 evaluation of diversity, of different resource
11 type at this time. But based on historical data
12 we think that we can utilize the diversity between
13 solar generation, which tend to peak around 2:00
14 to 3:00 p.m. in the afternoon. And 500 megawatt
15 of wind generation tends to pick up after 5:00
16 p.m., after the peak load.

17 The third project is to upgrade the
18 existing WECC path 42, which is between Edison and
19 IID. And construct a new 500 kV location
20 constrained resource interconnection facility from
21 the Salton Sea area to Devers Substation.

22 And also with this project we envision
23 that it's going to connect approximately 1800
24 megawatt of geothermal generation in the Salton
25 Sea area.

1 This may overlap the project under
2 development by L.A. Water and Power at this time.
3 So if the project developed by L.A. Water Power
4 was to proceed, we may collaborate and look at
5 that potential for some, you know, potential
6 collaboration in using that project.

7 So further development will be needed
8 for that, you know, for minimizing the over-
9 building of transmission projects for that area.

10 This is the other project between PG&E
11 and Southern California Edison. Currently PG&E's
12 proposing a central California clean energy
13 transmission project that is located between
14 Midway and Vincent Substations.

15 We are looking at various options for
16 that project. And with this project we envision
17 that it can connect approximately additional 1200
18 megawatt of wind resources in the Kern County
19 area.

20 The other project would be going east of
21 the Lugo Substation. This is to convert the
22 existing 230 kV lines east of Lugo to a double-
23 circuit tower line, or a plus or minus 500 kV DC
24 line.

25 The purpose of this project is to access

1 solar generation, as well as potential for
2 connection of additional geothermal generation in
3 Nevada.

4 The last project that we look at is a
5 new 500 kV line north of Lugo Substation. We have
6 large potentials of wind generation development
7 north of Lugo Substation. With this project we
8 envision that approximately 1200 megawatt of wind
9 generation would be connected to the ISO grid.

10 That concludes the presentation.

11 MS. GRAU: Thank you, David. And also,
12 thank you, John. And first of all, before we open
13 up the phone lines for any questions on either of
14 these two presentations, we'd like to ask if
15 anybody in the room has any questions, to come up
16 to the -- our usual dais has been moved, but this
17 little corner table here with the chair, by the
18 court reporter, if you have any questions for
19 either John or David. Anyone in the audience
20 first.

21 Okay. Do we have anyone on the phone
22 who would like to ask a question? Okay, thank
23 you.

24 THE OPERATOR: Thank you. To ask a
25 question from the phone press star 1, please.

1 Record your name. Once again, press star 1 for
2 questions.

3 MS. GRAU: Okay, I'm not hearing any.
4 We will move on then.

5 Yes, I'm sorry? All right, thank you.

6 THE OPERATOR: We do have a question
7 from the phone. We have Forrest DeGroff. Your
8 line is open.

9 MR. DeGROFF: Yes, thank you. Is there
10 any consideration being given to the potential
11 winds offshore, wind resources, off northern
12 California coast? I believe it's in the proximity
13 of the Point Arena area.

14 And the necessary transmission lines
15 which would be required to carry the power to the
16 central grid.

17 MS. GRAU: Do we have anyone in the room
18 who can respond to that question?

19 Okay, could you come up to the
20 microphone, David. One second, please.

21 MR. LE: David Le from the ISO.
22 Currently we do not have a lot of, you know,
23 resources coming from the offshore wind. But, as
24 you know, the resources coming into the Cal-ISO
25 generation queue is dynamic.

1 And our plan is preliminary at this
2 time. If there is a large potential of the wind
3 resources to be developed offshore, we'll consider
4 that.

5 MS. GRAU: Do we have any follow-on
6 questions from anyone on the phone? Okay.

7 THE OPERATOR: We're showing no
8 questions from the phone. Actually we do have,
9 I'm sorry. Shannon Eddie, your line is open
10 Shannon Eddie, your line is open; would you get
11 onto your line, please.

12 MS. EDDIE: Thanks. This question is
13 for John. On your fifth slide you talked about
14 solar PV being primarily a distributed gen, but
15 you were going to be looking at utility-scale PV.
16 Is that true? You guys are going to be factoring
17 in the utility-scale PV pretty soon?

18 MR. BALLANCE: No. What I was trying to
19 indicate was that under our assumption for the
20 distribution of renewables coming into the state,
21 we assumed that the solar photovoltaic was rooftop
22 solar.

23 If it turned out to be central plant
24 located out in the Mojave, Daggett, Barstow area,
25 it would basically have the same contribution as a

1 solar thermal in the next column, or new row down.

2 MS. EDDIE: Great. Thanks for the
3 clarification.

4 MR. BALLANCE: Sure.

5 THE OPERATOR: Okay, and at this time
6 we're showing no questions from the phone.

7 MS. GRAU: Okay, thank you very much.

8 Okay, what I would like to do, just
9 showing on this slide is a summary of the major
10 initiatives which I spoke about in my
11 presentation. This is just again to refresh us
12 all, get us all on the same page.

13 So now in light of these initiatives
14 plus those that you may be involved in and would
15 like to talk about today, and what you have heard
16 with the context study from both John Ballance and
17 David Le, we would like to move into the panel
18 discussion part of the workshop.

19 And first, before anybody gets up, let
20 me explain the groundrules and the questions.

21 First, the questions for panel 1, which
22 are the utilities and agencies. We'd like to ask
23 what is your role in relation to these and the
24 other transmission initiatives to accomplish the
25 33 percent renewables goal.

1 Will the existing initiatives be
2 sufficient to remove the major transmission
3 barriers to the achievement of the 33 percent goal
4 by 2020. And if not, what is missing.

5 And collectively, are these initiatives
6 complementary or incompatible. And why.

7 As I mentioned earlier, Laurie ten Hope,
8 Advisor to Commissioner Byron, will be our
9 moderator. And so, what we would like to do is
10 each member of panel 1 will have five minutes to
11 give prepared remarks.

12 And we would like panel 2 members also
13 to join us around the table, but they will just be
14 listening to panel 1 at this point. But they
15 should be considering what they have heard when
16 it's their turn for their group panel discussion.

17 We will begin counter-clockwise around
18 the table, so at the far end we'll begin with
19 panel 1. And you will be seated in the order in
20 which you appear in the agenda, so panel 1.a.
21 through j. And then panel 2.a. through j. around
22 the table.

23 And, Laurie, do you feel a need to take
24 a break before we begin the panel, or do you just
25 want to go right into this.

1 Okay. All right. So, what we'd like to
2 have all those who are on either panel 1 or panel
3 2 find your seat around the table, and then we
4 will get started with panel 1.

5 (Pause.)

6 MS. tenHOPE: Could I ask everyone to
7 take their seats?

8 MS. GRAU: Excuse me one second. Excuse
9 me. We just realized we've run out of handouts in
10 the back of the room. If I could get a show of
11 hands of how many people need a set. Okay.

12 All right, I will go up and make about
13 20 more copies.

14 (Pause.)

15 MS. tenHOPE: Good morning. It looks
16 like we have a couple of panel members that might
17 be showing up later.

18 I'm Laurie ten Hope. As Judy said, I'm
19 Advisor to Commissioner Byron. But today I'm
20 wearing a different hat as a neutral facilitator
21 of the discussion today. So, my job is to keep
22 the conversation lively, but to also try to give
23 everybody an opportunity to speak. I don't think
24 a dynamic conversation is going to be a problem
25 with the group that we have assembled here today.

1 As Judy said, we're going to hear from
2 two panels. We're going to start with members of
3 utilities and agencies that are either
4 spearheading transmission initiatives for
5 renewable access, or active participants.

6 And talk about what your role is and
7 provide some insights on what's, you know, what's
8 working, what's missing, and you know, what your
9 individual organizations' responsibilities are for
10 addressing and solving this renewable problem.

11 So we're going to start with five
12 minutes apiece. And I just want to reiterate for
13 the panel 2, you have been given basically the
14 same questions as panel 1, and may have prepared
15 some remarks. But we're also interested in your
16 spontaneous reactions when you hear panel 1. And
17 we'll allow some dialogue among you, so it's a
18 little more conversational than, you know, than
19 strictly presentations.

20 So we're going to start first -- well,
21 let's first do introductions for everybody. And
22 also so that people on the phones can try to make
23 some association with voice and name.

24 And then when you do speak it would be
25 helpful to people on the phone if you stated your

1 name again so that they can track the
2 conversation.

3 So, Mr. Beshir.

4 MR. BESHIR: Mo Beshir with the Los
5 Angeles Department of Water and Power. I work in
6 the planning and development. I head the
7 Department's planning and development activities.

8 MR. BARAJAS: David Barajas, Imperial
9 Irrigation District. I work in system planning,
10 transmission planning. And also development
11 projects for the Irrigation District.

12 MR. BRAUN: Tony Braun, Counsel to the
13 California Municipal Utilities Association. We
14 are the statewide association that includes all of
15 the public power entities in California.

16 MR. ESGUERRA: Mark Esguerra from
17 Pacific Gas and Electric Company. I am
18 responsible for the transmission planning at the
19 company.

20 MR. CHACON: I'm Jorge Chacon, Southern
21 California Edison. I work in the transmission
22 planning department. And we are -- in particular
23 my role is with the integration of generation
24 resources, both renewable and nonrenewable.

25 MS. BROWN: Linda Brown, and I oversee

1 the transmission planning and generator
2 interconnection studies for SDG&E systems.

3 MR. PETERS: Dennis Peters, External
4 Affairs Manager with the California ISO. Most
5 recently I've been very involved in the generator
6 interconnection process reform.

7 MS. BONE: And I'm Traci Bone; I'm
8 Transmission Permitting Advisor to CPUC
9 Commissioner Dian Grueneich. And I act as her
10 Designee on the Western REZ Initiative, as well as
11 the RETI initiative here in California.

12 MR. DOYEL: Good morning. I'm Bob Doyel
13 with the Bureau of Land Management out of the
14 California State Office here. I work in the lands
15 division.

16 MR. JOHNSON: Good morning. I'm Roger
17 Johnson with the California Energy Commission. I
18 manage the transmission corridor designation
19 program.

20 MS. tenHOPE: That concludes panel 1.
21 But let's go ahead with the introductions for
22 panel 2, as well. Steven Kelly is not here at the
23 moment, from IEP.

24 MS. WALD: Good morning. I'm Johanna
25 Wald from the Natural Resources Defense Council,

1 NRDC, in San Francisco. I'm one of two
2 environmental representatives on the RETI, and
3 CoChair of the environmental workgroup of RETI.

4 MR. SHIRMOHAMMADI: Dariush
5 Shirmohammadi with Oak Creek Energy Systems.

6 MR. McCAULL: My name's John McCaull;
7 I'm the Western States representative for the
8 Geothermal Energy Association.

9 MR. HAUBENSTOCK: Good morning. I'm
10 Arthur Haubensstock with BrightSource Energy. I'm
11 involved in both the RETI process, as well as with
12 the western REZ process.

13 MS. TURNBULL: Good morning. I'm Jane
14 Turnbull. I'm the Chair of the Energy Committee
15 for the League of Women Voters of California.

16 MR. MUNSTERMAN: Gary Munsterman with
17 the Air Force Regional Environmental Office. And
18 we work at the Marines, Navy, Army with agencies
19 that might affect military mission in California.

20 MR. HORNE: My name's Andy Horne. I
21 work with the County of Imperial in doing natural
22 resources development, primarily working on
23 renewable energy projects down there.

24 I also represent CSAC, the California
25 State Association of Counties on the RETI

1 stakeholder steering committee.

2 MR. PECK: I'm Dave Peck from Division
3 of Ratepayer Advocates, or DRA. We're an
4 independent organization within the CPUC that
5 represent the ratepayers in utility matters.

6 COMMISSIONER BYRON: Hi, I'm
7 Commissioner Jeff Byron. And if I could, I'll
8 usurp, take my opportunity to just make a few
9 remarks at this time, because I plan to be fairly
10 quiet while you're all conducting this panel.

11 First of all, with the microphones. Let
12 me help you all out. Just from a little
13 experience. You want to use the big one. Ignore
14 the little ones.

15 (Laughter.)

16 COMMISSIONER BYRON: And just leave them
17 on. Just leave them on, that'll keep it easy for
18 everyone. The other mikes are for our scribe so
19 that he can -- our court reporter can keep track
20 of the dialogue.

21 I wanted to thank the early presenters
22 for excellent presentations. I think it sets the
23 stage very well and shows all the tremendous work
24 that's going on throughout the state on
25 transmission issues.

1 It seems pretty clear to me and to all
2 of you where we're headed. And certainly the
3 leadership that we've seen in our Legislature and
4 the Governor's Office has taken us to a high
5 renewables percentage.

6 And it's been the policy of this
7 Commission for awhile now that that number is 33
8 percent. The number's not important, it's the
9 direction we're headed. So that's reassuring to
10 see that we're now all on the same page in that
11 regard.

12 And I thank you all very much for being
13 here today. This is an extraordinary group of
14 folks.

15 I Chair the Integrated Energy Policy
16 Report. We're going to be taking this issue on
17 this year, as well as next year. It's extremely
18 important. And I hope to be able to join you here
19 today at least through the noon hour, depending
20 upon how long it goes.

21 And I'd like to dispel any notion as to
22 why I'm not sitting at the dais. Some people
23 thought it might be because you'd all ignore me if
24 I was sitting up there.

25 (Laughter.)

1 COMMISSIONER BYRON: The real reason is
2 the cookies are here at the table.

3 (Laughter.)

4 COMMISSIONER BYRON: And so I just
5 wanted to let you know that I wanted to join you
6 just in the event that there were a question of
7 clarification or two that I might have.

8 But otherwise, I really look forward to
9 hearing from you. And I'll turn it over to my
10 very capable Senior Advisor, Ms. ten Hope.

11 MS. tenHOPE: Two comments. One, I
12 apologize that I have my back to the audience, but
13 I can't face both of you.

14 And we have a comment from the audience
15 if people could please speak up into the mike.
16 Some of you are soft speakers and it's hard to
17 hear.

18 So, we're going to start with your
19 opening comments.

20 MR. BESHIR: Mo Beshir from Los Angeles
21 Department of Water and Power, again. First,
22 thank you for giving the opportunity to come here
23 and discuss and dialogue about some of the
24 transmission challenges and meeting the RPS goals
25 we all have to meet.

1 Number one, I guess what I would --
2 first I would like just to talk of something about
3 my company, LADWP. We've been very aggressively
4 pursuing renewable resources. We have a goal, of
5 course, like many of you, 20 percent to meet by
6 2010. As well as, of course, higher goals beyond
7 2010. By 2020 we have internal goals meeting 35
8 percent, about 2 percent higher than what is
9 proposed for the state, I suppose.

10 But we've been aggressively pursuing
11 development of renewables because we are
12 vertically integrated as of now, and we hope to
13 continue to be that way.

14 And as part of that we have internal
15 developments of renewables we are working on. We
16 have development of 120 megawatts of wind in the
17 Tehachapi, which is the largest municipally owned
18 wind project under development today.

19 We also have other projects lined up
20 along the Pine Tree project, which is that's what
21 it's called. Associated with this Pine Tree
22 project we have transmission developments going on
23 to connect the wind project to our grid, which is
24 a LADWP transmission 30 kV line going to the Inyo
25 system.

1 We are a participant in any forums,
2 RETI. I am in that steering committee, as well as
3 we are participating all those other forums to
4 develop transmission, as well as support
5 development of renewables.

6 We also have internal development of
7 transmissions. We've been working on developing
8 at least three major transmission initiatives we
9 have internal to LADWP with other partners, as
10 well.

11 One is what we call the STS upgrade
12 southern transmission system upgrade, the upgrade
13 of our DC line coming from Utah to southern
14 California. We are working on an upgrade of 480
15 megawatts going from 1920 to 2400 megawatt. That
16 project is ongoing. We have three challenges.

17 I guess that's probably one of the
18 things you may want to hear is the challenges we
19 have. But small contractual -- and working with
20 our partners trying to get that additional 480
21 megawatt capacity.

22 That is connected, as well, to wind
23 development we have working with other partners in
24 Utah. So we are contracting for 185 megawatt of
25 wind development with FirstWind, which is being

1 developed in Utah, which is expected to be coming
2 into operations by 2009, 2010 period. So the STS
3 upgrade is major transmission initiative.

4 We have another transmission initiative
5 called Barren Ridge (phonetic) Renewable
6 Transmission. This is an extension of our
7 existing 230 kV lines. We plan to build two
8 additional double-circuit 230 kV line from a
9 station called Barren Ridge, which is connecting
10 our wind as well as many solars. Beacon, I guess,
11 was mentioned earlier, is expected to be connected
12 to our Barren Ridge station. So that is a major
13 extension.

14 We are in the environmental process. We
15 have done our scoping meeting. And we hope to be
16 working on our draft environmental documents in
17 the next year. Things seem to be going very well
18 for us at this point. We have done major
19 processes as far as alternative evaluations and
20 what-have-you, and we are happy on that.

21 Of course, as a measure of discussion,
22 as David Le mentioned, was the Greenpath project,
23 Greenpath North project LADWP's pursuing. We have
24 originally 500 kV transmission. We've gone
25 through WECC rating process. Joint project with

1 IID as participants. We are reconfiguring the
2 project to see maybe as opportunities maybe up to
3 30 kV undergrounding because of some environmental
4 and local issues we have to deal with. That is
5 ongoing right now.

6 I think the kind -- we have, as a
7 measure of issues we are also working, but one of
8 the things I think maybe for the panel and for
9 everybody to consider is historically LADWP and
10 the other municipalities, we have worked on joint
11 project development concept.

12 Most of our major transmissions we have
13 today are based on joint project ownership with
14 other municipalities, as well as with other IOUs.
15 That seem to be in jeopardy today and is causing
16 us some difficulty in pursuing some of our
17 projects. We would like to hope, and from economy
18 of scale point of view, and was, I guess, David Le
19 actually mentioned it earlier was we'd like to
20 work together to really access some of this major
21 geothermal resources. And that heightens our
22 joint development concept. And I think it's
23 really going to have difficulty going forward for
24 all of us.

25 I think I -- more to these, but I guess

1 I can probably stop at this point.

2 MR. BARAJAS: And, again, thank you for
3 the opportunity to participate in this workshop.
4 IID Board has been always a strong proponent of
5 renewable energy projects and to facilitate the
6 energy needs of California.

7 IID right now has projects that are
8 being funded by the IID Board and authorized by
9 the IID Board. And that will facilitate, that
10 will, the general transmission plan to IID is
11 mainly to serve load. But there's always have
12 been considered the facility of export of
13 renewable energy resources to California.

14 So we try to combine internal
15 transmission plan with the two goals. And meaning
16 load and meaning the export capacity for renewable
17 energy projects that we're expecting coming
18 online.

19 Right now IID has 230 kV collector
20 system running from the southern portion of IID up
21 to the northern area. I think one of the first
22 presentation was mentioned that Ramon Coachella
23 Valley, Ramon Mirage is one of the gateways to the
24 L.A. basin. So IID has interconnection; and that
25 interconnection IID's covering the export up to

1 550 megawatts of geothermal generation.

2 Some of the internal projects of IID
3 that we have is Midway Bannister line; it's a 230
4 kV line project that will interconnect to this
5 collector system. And this thing is something
6 like the chicken and the egg. I mean IID, there's
7 always transmission versus generation, or
8 generation tracking the transmission.

9 The IID Board took the initiative to
10 build a 230 kV transmission line 32 miles from the
11 collector system into the Salton Sea. Basically
12 where the majority of that geothermal resource
13 area is located.

14 This is in anticipating to promoting
15 interconnection of a small generators into this
16 230 kV line, and connect it to this gateway up to
17 Devers to (inaudible) area.

18 And also mentioned by IID is that
19 there's potential project that was mentioned by
20 Mr. Le about upgrade path 42. And a 500 kV line
21 between Devers and the Salton Sea area. IID has
22 been always promoting the upgrade of path 42.

23 Path 42 is limited between Coachella
24 Valley and to Devers, only 30 miles, but we have
25 extra capacity from Coachella Valley into the

1 Salton Sea, into the southern portion of area.
2 There's extra capacity in the range of 1000
3 megawatts.

4 So, IID has been promoting the upgrade
5 of path 42. And really, I think, we're looking
6 forward to work with California ISO and partner
7 with Southern California Edison to upgrade this
8 project and open this gateway to the northern area
9 of California.

10 And in addition, IID have another
11 initiative that is working together with
12 (inaudible) Department of Water Power is that
13 Coachella Valley-Devers 2 project. And Mr. Le
14 mentioned that it will be good to work with us in
15 order to avoid duplicity and over-build
16 transmission. And definitely we support that.

17 IID has been always supporting the three
18 concepts that we need to optimize the system,
19 transmission system. We need to upgrade the
20 transmission system and try to do it on the same
21 footprint of the transmission lines in order to
22 minimize the impacts on the environment. And as a
23 third option will be to build transmission lines.

24 But definitely IID has existing
25 transmissions and right-of-ways that can be

1 optimized upgrading the transmission lines and
2 facilities this export have to California, okay.

3 This is one of the projects also. IID
4 is working right now in upgrading their
5 transmission export capacity into Imperial Valley
6 Substation. We definitely support a 500 kV line
7 coming out from Imperial Valley Substation. But
8 at the same time we're increasing export
9 capability between IID and Imperial Valley
10 Substation, you know.

11 So the progress that we have in mind are
12 always consider increasing export/import
13 capability also to IID.

14 As far as the barriers that we have
15 seen, we need to be always projects that we will
16 include inter-balancing authorities like this 500
17 kV line between Devers into the Salton Sea. Is to
18 involve the two balancing authorities to work
19 together and to optimize and get the most
20 financial, and the best financial plan. And avoid
21 duplicity of projects.

22 And like I mentioned, and this Coachella
23 Valley-Devers 2 we are considering, will be
24 sufficient, in addition with path 42, to meet the
25 needs of California in this gateway basin of

1 Coachella Valley-Ramon Devers.

2 And other potential barriers that
3 already mentioned, too, is that joint projects.
4 And we need to be more open to facilitate these
5 kind of projects, you know. The concept of joint
6 projects.

7 I think that it needs to be balanced. I
8 mean there's tariff issues, regulatory issues.
9 And we need to try to work on these in that way.
10 And projects like these will benefit the renewable
11 transmission. During projects IID's always in
12 promoting joint projects, is open to participate.
13 But first we're trying to do always this, optimize
14 existing transmission system.

15 MS. tenHOPE: Thank you.

16 MR. BARAJAS: Thank you. I got too much
17 -- we got a whitepaper, I mean, and would leave
18 more information, excellent information, we'd like
19 to share with the groups, okay.

20 MS. tenHOPE: Okay. If you could
21 provide it to Suzanne and we could docket it and
22 provide it to all the copies. Okay. So it'll be
23 circulated among the parties.

24 You've both mentioned joint planning
25 process. And I think this is a theme we'll come

1 back to in the moderated session in the end. And
2 be looking for, you know, what's needed. I mean
3 do we need another initiative, do we need, you
4 know, what's the solution here to some of these
5 problems. So I'm sure we'll revisit that.

6 Mr. Braun.

7 MR. BRAUN: Sure. Thank you, Laurie.

8 Excuse me. Tony Braun; I'm Counsel to the
9 California Municipal Utilities Association, CMUA.
10 That is the statewide association. I'd hoped to
11 drag my other ready participants, SMUD and NCPA,
12 to the panel today, but they have scheduling
13 conflicts. But I notice there's an opportunity
14 for written comments, and as they have direct
15 input to me, I hope to channel that to you to
16 supplement the record as need be.

17 Municipal utilities, over the past
18 couple decades have a very strong history of
19 successful buildout of transmission
20 infrastructure. There was the southern
21 transmission system, the California/Oregon
22 Transmission project, the DC tie, the
23 Mead/Adelanto and Mead/Phoenix projects.

24 These are all interregional projects of
25 substantial size that municipal utilities have

1 worked both with each other and with other
2 utilities within and without the state to get
3 these things done.

4 So there is a history, a track record of
5 success. And so I think that we look at some of
6 these numbers and they look pretty daunting. But
7 I don't think that we take from that that these
8 things can't get done.

9 We'd like to give a few overarching
10 remarks and then talk about the specific issues
11 that you raised, Laurie, for the agenda.

12 The RETI process. To back up a little
13 bit in history when the municipal community first
14 saw the RETI process, I think a candid assessment
15 is that we were concerned. There's a lot of
16 subregional planning and other planning efforts
17 going on out there. And, frankly, as I just
18 noted, we've had a fairly good track record of
19 getting transmission built. And we were a little
20 nervous that the RETI process was going to slow
21 things down.

22 However, based on feedback that I've
23 gotten from my members I think that our
24 observations today have been that the RETI process
25 has had many benefits. Not to mention it has

1 gotten a lot of first stakeholders under the same
2 umbrella, working towards common policy and
3 analytical objectives.

4 Also, I can report that our members
5 think that the analytical work that has been done
6 through the RETI process has been excellent. And
7 so I think that while we still want to make sure
8 that the analytical work to identify the -- and
9 other transmission priorities doesn't slow down
10 projects that are already in the pipeline. We
11 don't see any evidence today that that's going to
12 occur. And so we really think that RETI has been
13 a constructive development, and continue to work
14 through that process.

15 Mo and David had talked about what's
16 going on in the southern part of the state as far
17 as transmission upgrades. My northern California
18 clients, through the Transmission Agency of
19 Northern California, have gone to their alphabet
20 soup projects, most notably the Zeta project,
21 which is a 500 kV buildout ultimately that would
22 interconnect the northeastern parts of California
23 and Nevada into central California, and
24 potentially the Bay Area.

25 My understanding is that these projects

1 will be coordinated as part of the phase two of
2 the RETI analysis. And so we're fully coordinated
3 in that effort, and we look forward to working
4 through that forum.

5 One of the observations that's already
6 been in some of the slides up there is we've
7 obviously got a lot of people at the table. RETI,
8 which we think has been a constructive
9 development. We have the TEPPC group through the
10 WECC. The subregional planning processes, which
11 are too numerous to mention within the west.

12 The ISO obviously has its own
13 transmission planning initiatives. We've got the
14 Western Governors Association and the DOE. We
15 have CPUC transmission rulemakings that Traci
16 perhaps could speak to.

17 There's a lot of cooks in the kitchen
18 here. Perhaps we're in a transitional phase, and
19 that's a necessary process to go through. But we
20 would hope that ultimately the planning process is
21 streamlined. We see ideally that because
22 renewable development is a westwide issue, that
23 the transmission planning needs to be spearheaded
24 under an umbrella, a westwide umbrella.

25 We see TEPPC as very well suited to do

1 that. We see the subregional planning groups,
2 which transmission providers are required to
3 participate in under order 890, promulgated by
4 FERC. We see that as a natural evolution to where
5 this process is going. We have a lot of
6 analytical work to get there, but see that as an
7 end goal.

8 And so you mentioned are these groups
9 compatible or incompatible. I think the answer
10 would be yes. They are compatible in that there's
11 a lot of work to do right now. But ultimately if
12 we want to get this to a coordinated direction,
13 this needs to be streamlined and consolidated.

14 Quick points. One, on the presentations
15 this morning, I was very heartened to hear Mr.
16 Ballance's group's observations about the need to
17 build out instate generation to deliver to the
18 load centers. This is something that we've
19 struggled with.

20 Mr. Ballance mentioned very briefly the
21 local capacity requirements that are on all those
22 entities within the ISO footprint. This is the
23 buildout of transmission in the local areas. Has
24 the dual benefit of delivering the renewables that
25 we're looking for, but also reducing potentially

1 local capacity costs within those areas in the
2 short term.

3 And so perhaps there's a silver lining
4 that there's additional transmission. We've
5 always been a little bit concerned that there's
6 been an emphasis on the long lines that go to the
7 areas where we know the renewable generation is,
8 remote to load. But not an emphasis on the timing
9 of when the local facilities are going to get
10 built out to enable the renewable energy to be
11 delivered.

12 So I'm glad to see that. I would ask a
13 question. I've seen some numbers in the study
14 that Mr. Ballance summarized. And some of the
15 numbers in the ISO's study, particularly in the
16 renewable capacity numbers, they are orders of
17 magnitude different. And I'd like to -- perhaps
18 we can get some exchange on that.

19 Finally, joint ownership, let me get
20 more specific on this, because it's been raised
21 twice. In the paradigm that the ISO operates, a
22 transmission owner gets one of two things for
23 building transmission. It gets a rate of return,
24 or it gets what will be termed a congestion
25 revenue right, essentially a financial hedge

1 against congestion risk for the delivery of the
2 resource.

3 Municipal utilities don't generally
4 build transmission for a rate of return. They
5 build it to allow themselves to meet the load-
6 serving obligations for their customers.

7 They also, I think, would be hard-
8 pressed to build just a transmission in a
9 speculative way as a congestion hedge.

10 We have to different paradigms for some
11 of the larger municipals that operate in a
12 vertically integrated manner, and which build
13 transmission to serve load. And in the ISO
14 paradigm we've got PTOs that are essentially
15 building, for the most part right now, for a rate
16 of return.

17 These two paradigms need to be married.
18 There have been questions about how we can do
19 this, to jointly build transmission. In fact,
20 there are quite a few examples currently in the
21 system where this works.

22 The California/Oregon Transmission
23 project, which is a transmission project built by
24 the federal government and my clients. PG&E has
25 rights on that. It is not even within the ISO

1 footprint, but the ISO has scheduling rights over
2 that. And it is treated as part of the ISO-
3 controlled grid for purposes of running their
4 market. Though that segment of the line that is
5 allocated to PG&E. There are Edison/L.A.
6 arrangements which translate in a similar fashion.
7 For the DC tie there are arrangements on many of
8 the lines that go to the desert southwest.

9 So there are practical, real-world
10 examples of how these two worlds can coexist and
11 how joint ownership can coexist. And our hope and
12 our thought is that we can build upon those
13 examples to facilitate and arrange how durable
14 arrangements can be made to allow publicly owned
15 utilities and the IOUs to go forward as they have
16 done for decades, to build long, high voltage,
17 expensive interregional transmission.

18 Thank you.

19 MS. tenHOPE: Thank you for your
20 comments. And I took special note of your
21 optimistic statements that this transmission can
22 be built.

23 Mark.

24 MR. ESGUERRA: Hi. I'm Mark Esguerra,
25 Pacific Gas and Electric. I just want to restate

1 my role in relation to the initiatives surrounding
2 the renewable goal, is to manage the planning and
3 coordination of electric transmission facility
4 expansion for PG&E.

5 In regards to renewable goal teams I
6 lead are responsible for insuring that these
7 facilities are planned, coordinated and
8 constructed in a timely and cost effective manner
9 to interconnect renewable generation.

10 As you guys may be well aware, PG&E is
11 involved in a number of initiatives. I think
12 David Le talked about some transmission that we're
13 interconnecting to the south to PG&E. We've been
14 involved closely with the GPPR (phonetic) and the
15 RETI process, and we're also spearheading some
16 work on the -- front in terms of the regional
17 integration renewable project.

18 The question on will the existing
19 initiatives be sufficient to remove the major
20 barriers. I believe that the existing initiatives
21 are very helpful in removing the transmission
22 barriers to achieve a 33 percent goal.

23 One thing we'd like to see more of,
24 obviously, is to get more information on where and
25 when the development of these renewables will

1 occur. Because it would greatly assist, and it
2 echoes in a lot of the comments that were talked
3 about earlier, about better coordination of the
4 long-term planning of not just only trying to
5 interconnect renewables, but to be able to
6 optimize for transmission investments in order to
7 also address reliability concerns concurrently at
8 the same time.

9 So, as you know, interconnecting a bunch
10 of generation can create different issues as
11 interconnecting a bunch of load. And some of
12 those issues may overlap. And you don't have to
13 build redundant transmission facilities. As much
14 as possible optimize that grid by coordinating
15 those efforts.

16 Are the initiatives compatible or
17 complementary. First thing I think there's a lot
18 of initiatives, I think everyone realizes that.
19 And for the most part we believe that those are
20 complementary.

21 Some things that would come out
22 obviously is longer term, even longer term
23 planning that what we have today. Looking
24 further, I believe John Ballance mentioned that,
25 making a recommendation of looking 15, 20 years

1 out. Starting that process earlier would give the
2 utilities more of an opportunity to look further
3 out to be able to better integrate all these
4 efforts from a planning, environmental,
5 reliability, location of constraint resources to
6 be able to factor those all in the mix.

7 The timing of how fast some of these
8 initiatives can occur, being able to execute and
9 produce deliverables is something that we want to
10 pay close attention to, particularly with the RETI
11 and the RIR. Because those really will determine
12 what type of upgrades and when we should be moving
13 forward and working with the agencies, so.

14 Thank you.

15 MS. tenHOPE: Mr. Chacon.

16 MR. CHACON: Yes, good morning. Jorge
17 Chacon, Southern California Edison. I wanted to
18 first of all thank everybody for the comments.
19 The two presentations I think were well on point.
20 It does lead into helping me explain a little bit
21 what some of our activities at Edison involve, and
22 where I see this thing heading. And where, I
23 think, we need to refocus a little bit.

24 To begin with, Southern California
25 Edison has been an active participant in the RETI

1 process. As you all may know, we submitted the
2 advice letter filing that got the RETI process
3 initiative going. And we're very actively
4 involved and assisting as best as we can.

5 In terms of transmission projects for
6 integrating renewable resources, there are four
7 projects that we are currently looking at. One of
8 which has already been approved by the PUC, the
9 Antelope transmission project.

10 The other, Tehachapi renewable
11 transmission project, is the second half or the
12 complementary portion to enable Tehachapi
13 integration of up to 4500 megawatts.

14 Collectively those two projects get to
15 the improving the gateway, as Mr. Ballance
16 indicated, south of Vincent down to the L.A.
17 Basin. It does provide for a new 500 kV line from
18 Vincent to the Rio Loma area. The design of that
19 project has been -- is one such that it can be
20 further expanded at the appropriate time to
21 further increase the ability to increase the
22 gateway transferability.

23 The other projects, the Devers-Palo
24 Verde 2, we're still working with the ACC on that.
25 But we did file an advice letter petition to

1 modify that particular project to enable us to
2 integrate renewable resources in the midpoint
3 Blythe area.

4 And concurrent with that project, it
5 does afford the ability to improve the gateway out
6 of Devers, as one of the four gateways that Mr.
7 Ballance identified.

8 And then the fourth project is the
9 Eldorado/Ivanpah project, which will enable
10 Arizona, Nevada area integration of renewable
11 resources there.

12 What is missing, I think, in all of
13 this, and I think the presentations get to the
14 point, new wire is going to be needed. And I
15 think it is -- you know, we can all look at
16 performing power flows till our faces are blue.

17 But the real issue is going to be siting
18 of that transmission facility. How do you get the
19 wire from the high desert, from the Arizona area,
20 from the Nevada area, from the various area, even
21 through the central valley for the PG&E project.
22 How do you get those wires sited appropriately
23 such that we can get the thing built.

24 I think, you know, to float an idea and
25 say we can build this project, the ISO

1 presentation's got some lines on a map. But lines
2 on a map don't equate to something being
3 permissible.

4 And I think what we're missing is the
5 siting of transmission. I think, at the end of
6 the day, whether we can meet the 33 percent
7 objective is going to center on whether or not we
8 can build transmission.

9 There's a lot of numerous overlapping
10 issues and numerous forums. It's really hard for
11 any one of us to follow. You know, the comment
12 was made too many cooks in the kitchen. And I
13 think I agree with that. There's a possibility of
14 creating confusion when you have too many cooks in
15 the kitchen.

16 One activity may lead you down a path
17 that's not concurrent with another activity. And
18 so while under most circumstances they probably
19 are complementary, there is a risk of them being
20 opposing, you know, where we're being pulled to
21 different sides.

22 The other thing I think we're missing is
23 the transmission grid operations aspects of what
24 happens with 33 percent. Mr. Ballance talked a
25 little bit about the ramping rates, about the

1 reserves. And I think we're focusing a lot on
2 simply the energy, but not focusing enough on what
3 is it going to take to allow us to operate the
4 grid.

5 And I think it's important to not lose
6 sight of the reality of we can't operate the grid,
7 we can't meet 33 percent. And so siting and
8 operability, I think, are the things that, in the
9 most part, are more important than putting lines
10 on a map at this point in time.

11 There is a tool, the facet tool that was
12 developed under the IEPR, which would allow us the
13 ability to start weighing costs of siting
14 transmission. Everybody knows that when you site
15 a new line you get the NIMBYs, the "not in my
16 backyard".

17 And so the reality is you're going to
18 have to put the wire in and we're going to have to
19 make tradeoffs, whether we go through a forest or
20 whether we go through a viewshed, or whether we go
21 through somebody's backyard. At the end of the
22 day I think the siting piece is going to be the
23 piece that's going to be more daunting than
24 anything.

25 At this point in time I think those will

1 be my comments. I do note that there is a post-
2 discussion afterwards, so, thank you very much.

3 MS. tenHOPE: Can you just expand on the
4 siting slightly, on whether you think there's a
5 process missing? Or you're pointing out that
6 that's where the rubber hits the road, and it's
7 the --

8 MR. CHACON: Well, we do have a process
9 in place. I mean the CEC's got the corridor
10 process in place. I think it would be very
11 beneficial if we can get corridors identified
12 through that process of how we can get from say
13 the north of Lugo area down to the L.A. Basin.

14 I know that in the past we've talked
15 about the corridor initiative. And as I
16 mentioned, there's way too many initiatives for me
17 to follow, so I don't know where that particular
18 initiative sits.

19 There is somebody within our company
20 that is following that initiative, that has more
21 details. But if we can get a corridor identified
22 where you can have the environmental groups and
23 the public and the approvers, you know, the PUC,
24 the CEC, all in line with this is the best
25 corridor, recognizing that there are going to be

1 impacts that will have to be mitigated.

2 But at the end of the day that's the
3 best corridor, I think it facilitates the
4 permitting of the facility and makes the 33
5 percent target goals more achievable.

6 So I think there is a process in place.
7 I just don't know how far along that process is
8 at, whether it's looking at the right things.

9 MS. tenHOPE: Ms. Brown.

10 MS. BROWN: Hi. Linda Brown with San
11 Diego Gas and Electric. I'll start out with each
12 question.

13 What's our role in relation to the
14 transmission initiatives. First, we're active in
15 almost every single one of them, if not all of
16 them. As all of you know, we've been very active
17 in trying to license the Sunrise Power Link to get
18 the renewables out of the Imperial Valley while
19 being able to also, at the same time, meet the
20 reliability needs.

21 it's interesting that we started this
22 process looking at what the best transmission
23 alternative was in 2002 with the group that a lot
24 of us in this room were in. We filed in 2005.
25 We're still in the licensing process. So,

1 needless to say, we've been very active in trying
2 to get transmission licensed.

3 Will the existing initiatives be enough
4 to remove the barriers. I think that we have to
5 keep in mind that initiatives, by themselves, do
6 not remove the barriers. We can look at every
7 single one of these initiatives, but I think we
8 all have a really good idea of where the
9 transmission barriers are.

10 The hard part, as Jorge referred to, is
11 getting things sited, and keeping everybody happy.
12 We've got to have concern for the environment and
13 the environmentalists and we also have to look at
14 long-term, where we put the next transmission.
15 Does it meet with expandability in the future.
16 What's it going to do to the long-term grid.

17 So, in my mind I think it's great we're
18 in these rooms and we're looking at all these
19 different initiatives, but it's still not clear to
20 me in the end how we expedite the licensing.

21 For example, in Redding when we come out
22 and say, okay, this is the first priority, we
23 really are starting at square one again when we go
24 through the licensing process. And that's the
25 part, to me, that I think we really need to focus

1 on, how we expedite that.

2 We also need to make sure that the
3 developers are assured that the transmission's
4 going to be built. Because that is where the
5 barriers are today. The developers are saying,
6 tell me where to go; I want to put this wind
7 generator on, or I want to build a solar farm, but
8 I don't know where to go.

9 I do believe that the Cal-ISO's
10 generator interconnection process reform will help
11 in the future. I don't think it's going to help
12 us with our 2010 goal of 20 percent. I think that
13 we were a little bit too late in the process.

14 I do think the clustered approach going
15 forward is a great idea, but for those that think
16 it's going to solve the 20 percent goal by 2010,
17 I'm not optimistic for that.

18 What's missing in all of these
19 initiatives. I think there's three things that
20 are missing. One is, I think, one thing we
21 haven't mentioned at all today yet is the way we
22 treat the deliverability of resources.

23 Today we give -- the Cal-ISO gives
24 priority to existing resources. I think that will
25 provide a barrier to the new generators that are

1 coming on, especially the renewables. So I think
2 we're going to have to look at, you know,
3 different ways to provide RA contracts to
4 encourage new development.

5 I think both Jorge and Mark has
6 mentioned the operational studies. Not only do we
7 have to be thinking about the ramp rates. But the
8 other thing we're forgetting to think about is
9 these old generating units retire. We've got
10 rotating mass out there that really provides a lot
11 of stability in the grid.

12 As those go away we've got to be very
13 proactive. And I think WECC is taking a proactive
14 stance there in looking at putting a lot of
15 dynamic support on the system to help relieve
16 that.

17 And then the third thing I think Mark
18 had also mentioned was, as we're looking at these
19 renewable efforts we have to make sure that it's
20 combined with looking at the reliability and
21 economics of the transmission system.

22 You all remember a few years back when
23 Miguel Mission 2 was like the most important
24 project to get done. Because what happened was
25 the generation showed up before the transmission.

1 And we had just extreme costs to the ratepayers.

2 So we want to make sure we're proactive
3 in getting that transmission built before the
4 generation.

5 Are the existing initiatives
6 complementary or incompatible. I think I counted
7 the initiatives that Judy had put up on the slide,
8 and there were ten plus the 11th one was the
9 additional ones that the PTOs and the publicly
10 owned utilities are doing.

11 In my opinion, it's impossible to
12 coordinate that many initiatives down to the
13 details. I'm going to give a really good example,
14 something that happened already a couple meetings
15 ago.

16 We've got a technical group that was
17 looking at all the assumptions, and then we have
18 the environmental group. And the environmental
19 group came out with these maps that were shown
20 what's really sensitive.

21 And if you really look at where the
22 renewables are and what's really sensitive, it's
23 going to be very hard for us, as a state, to come
24 up with great solutions that don't make some
25 people unhappy.

1 The Salton Sea was one area where there
2 was very limited little space where you could get
3 transmission out, if you went through the level 1
4 and level 2. So, it's great we're all in the same
5 room talking, but you still don't have a solution
6 to that.

7 Laurie, you had asked a question back to
8 Jorge about the siting process. And I'll give one
9 other example of just one other thing. I think
10 the siting process, we have to keep in mind the
11 big picture.

12 When you're looking at routing, certain
13 routes will give you wind, solar and geothermal at
14 the same time. Whereas, if you, you know, take
15 one route that maybe there's one public entity or
16 somebody that doesn't want a route, we're going to
17 have to make some hard decisions. It's not going
18 to be easy from a licensing process to keep
19 everybody happy.

20 But I think that the tough decisions are
21 going to have to be made if the state is serious
22 about going to 20 percent, 33 percent, 50 percent,
23 the decisions are tough for us ahead.

24 MS. tenHOPE: Thank you. Dennis.

25 MR. PETERS: Thank you, Laurie. Dennis

1 Peters with the California ISO. And in terms of
2 our role in 33 percent renewables goal, you've
3 heard it mentioned here a few times, primarily the
4 generation interconnection process, and I'll talk
5 a little bit about kind of the status of that,
6 Judy mentioned that in her opening presentation.

7 Of course, our role in transmission
8 planning for the California ISO control area,
9 generator interconnection process reform. Just to
10 give you a little bit of a background as to how we
11 got to where we are.

12 FERC determined what the process was for
13 generation interconnections back in 2003. That
14 process, of course, was designed under a different
15 set of assumptions. The assumptions back at that
16 time were that generators were primarily going to
17 connect to areas of the transmission system that
18 had available capacity, that they would be close
19 to load and they'd primarily be traditional
20 fossil-fired plants.

21 Certainly a lot has changed since 2003.
22 We put our process in place in 2006. FERC gave us
23 the approval to do that. The explosion of
24 renewables in our interconnection queue, just to
25 kind of take you through the years, 2006, January

1 2006 there were 5700 megawatts of renewable
2 projects in our queue.

3 In 2007, that number jumped to 12,000.
4 In January of this year that number is at 42,000
5 megawatts. And today it's at nearly 70,000
6 megawatts of renewables projects in the generation
7 queue. Compare that with an ISO peak load of
8 approximately 51,000 megawatts.

9 So, FERC recognized that this process
10 was a problem, not just in California but around
11 the entire country. And so the ISO initiated a
12 stakeholder process in January of this year. We
13 just completed that process. It's really kind of
14 a two-step part to clearing the queue and coming
15 up with a more efficient process going forward.

16 Our Board just approved our proposal
17 going forward. We'll be filing that with FERC
18 next Monday. We hope to get approval on that by
19 the end of September, and implement that in
20 October.

21 The other piece that Judy had mentioned,
22 we just got approval on a waiver request we filed
23 with FERC on May 15th. We got approval for that
24 on July 14th. What that allows us to do is to
25 carve out certain projects that are far enough

1 along in the process that as FERC had ordered in
2 March to consider late-stage projects.

3 So of that 105,000 megawatts of
4 generation interconnection projects in our queue,
5 we've carved out about 22,000 megawatts that will
6 proceed under the existing rules. These are
7 projects that were far enough along that we don't
8 think that the existing process would
9 substantially delay getting studies completed.

10 Since we're talking about renewables,
11 those 22,000 megawatts of projects, about 12,000
12 of those are renewable. Of those 12,000,
13 approximately 4400 connect, or could connect to
14 the Tehachapi project. And approximately 1700
15 could connect or be facilitated to connect with
16 the Sunrise project.

17 I know we're talking about 33 percent,
18 but I just want to mention that we've looked at,
19 and in fact, David Le presented just a portion of
20 his report that was completed. It is available on
21 the ISO's website. It's focusing on what's needed
22 for 33 percent.

23 What we've looked at is if these
24 projects that are moving through our queue and
25 could connect to what we've approved as

1 transmission for Tehachapi and Sunrise, if those
2 were sited and licensed we could meet the 20
3 percent RPS with those projects. And that would
4 take us through to, I believe, 2018, or 2019,
5 depending on the mix of projects.

6 So that whole effort is moving along.
7 It's been a huge effort and we appreciate all the
8 stakeholders involved in it at the CEC, the CPUC,
9 as well as generator-owners and the IOUs all
10 participating in that process. What we've come up
11 is a unique process that will facilitate us
12 getting, you know, projects connected.

13 We've been very involved in the RETI
14 effort, a member of the steering committee. We're
15 looking forward to what comes out of phase one of
16 RETI, which is the identification of the better
17 renewable energy zones. We believe that that
18 information will inform both our generation
19 interconnection process and our transmission
20 planning process.

21 In terms of the generator
22 interconnection process, the way it informs that
23 process is that when we're studying areas that
24 have, you know, numerous projects that have
25 applied. And, for example, you have an area that,

1 particularly in some of these areas like Tehachapi
2 or out in the Mojave Desert you have, you know,
3 projects that are say 20, 25 projects all in one
4 area, the CREZ is to identify what's, you know,
5 kind of a maximum amount that could be connected
6 in that area. And it will help us limit our
7 studies so that we don't over-build or over-plan
8 transmission.

9 The CREZ is to also help inform the
10 transmission planning process. In fact, the ISO's
11 leading the effort on the phase two of RETI, which
12 is the conceptual transmission process. The
13 conceptual transmission planning to reach these
14 CREZs.

15 The area where that informs our process
16 is in the unified planning assumptions, the study
17 plan. And we believe that some of the, you know,
18 early planning work that's going on now with phase
19 two will help us inform the planning process as
20 early as next year.

21 In terms of some of the challenges that
22 we see going forward, another effort that we
23 undertook last year, and it was mentioned this
24 morning earlier, is a renewables integration study
25 determining what are the operational needs to

1 integrate.

2 In this report we looked at just 20
3 percent. And what's needed for 20 percent is
4 additional ramping capability, additional
5 regulation. We don't know yet what that takes for
6 33 percent. We know it will be more. We don't
7 know if it's linear. But that effort is underway
8 right now. We hope to have results on that by the
9 end of the year.

10 One thing that we have to keep in mind
11 is other policy objectives that can affect our
12 ability to meet those operational needs. One such
13 policy initiative, of course, is the Water Board's
14 efforts at eliminating once-through cooling.

15 The plants that provide the operational
16 capability to support renewable integration, many
17 of those are once-through cooling plants. So,
18 that's something that we need to keep in mind
19 going forward. And since this discussion is
20 really around transmission, the reason I bring
21 this up is not only for the operational needs to
22 meet that, but also potentially if plants retire
23 and the solution or the mitigation for that is
24 additional transmission. Again, we're talking
25 about siting and approving additional

1 transmission.

2 Some of our early studies, just
3 preliminary results, indicate that could be in the
4 billions of dollars. And, of course, this gets
5 to, of course, the other challenge that's been
6 raised here. And we would also raise that as the
7 challenge of siting and permitting. We know that
8 takes time.

9 David mentioned in his presentation six
10 major 500 kV transmission projects. If we're
11 going to have transmission to connect renewables
12 by 2020 at a level of 33 percent, we've got to
13 start working backwards and say, well, if we need
14 that transmission by 2020 what needs to be
15 happening right now in terms of getting
16 transmission into that approval process.

17 I appreciate the comments that were
18 mentioned before about joint projects. And
19 certainly, you know, the ISO, there have been
20 mentioned load -- it was mentioned in earlier
21 comments some successful efforts at that.

22 One that wasn't mentioned was, of
23 course, path 15, which was a joint project that's
24 been very successful. We are very open to working
25 with the publicly owned utilities to look for

1 joint opportunities. And we think that the RETI
2 effort is an opportunity where we can all talk
3 about that.

4 So, I've probably talked longer than you
5 expect, so I'll stop there.

6 MS. tenHOPE: I'm going to move on so we
7 can conclude our first panel and get to our
8 conversation. Traci.

9 MS. BONE: I'll try and talk fast, which
10 isn't hard for me.

11 MS. tenHOPE: That's okay. No, I don't
12 want to rush the last few people, but --

13 MS. BONE: That's okay. The CPUC's role
14 in this whole thing is that we are the state
15 agency that permits the transmission lines for the
16 investor-owned utilities.

17 Commissioner Grueneich, who I work for,
18 is the assigned Commissioner on all of the CPUC's
19 major transmission lines cases, as well as on the
20 RPS transmission OII.

21 On behalf of the Commission she has been
22 at the forefront of the creation and maintenance
23 of at least three of the five big transmission
24 initiatives that I counted from the morning
25 presentation, RETI, Western REZ and the CPUC's RPS

1 transmission OII, obviously.

2 Commissioner Grueneich participates also
3 in several supporting initiatives, including the
4 Department of Energy's Electricity Advisory
5 Committee. And WECC's Transmission Expansion
6 Planning and Policy Committee, also known as
7 TEPPC.

8 Commissioner Grueneich is one of the six
9 members of the RETI Coordinating Committee which
10 oversees the work of RETI and insures that it
11 stays on track. She is also on the Western REZ
12 Technical Committee which oversees the work of
13 that effort.

14 In my work for the Commissioner on
15 transmission issues at the CPUC, I have three
16 primary responsibilities. I act as the project
17 manager de facto, not de jure, on all of the
18 transmission permitting cases before the CPUC to
19 insure that they stay on track. And this means
20 I'm constantly working to keep the staff
21 accountable to the schedule and to try to avoid
22 unnecessary delays by applying lessons learned
23 from one case to the next.

24 I'm also tasked with constantly looking
25 at opportunities for permit streamlining. And how

1 to implement those processes, and to instill that
2 culture in the CPUC Staff. And I think we've been
3 very successful there to the extent that the staff
4 has taken on their own initiatives to start
5 coordinating the development of a proponent's
6 environmental assessment at the same time that
7 we're talking about putting together the draft
8 EIR. And to try and overlap those efforts more.

9 I also act, as I mentioned, as the
10 Commissioner's designee on RETI and REZ and TEPPC.
11 With regard to RETI and Western REZ I work to
12 insure that those projects are moving along as
13 speedily as possible. And that they are producing
14 information that is relevant to decisionmakers,
15 such as the CPUC.

16 Will the existing initiatives be
17 sufficient for us to break the transmission
18 logjam. I think, I'm actually very optimistic. I
19 think that the existing initiatives, particularly
20 RETI and the ISO's queue reform, are very
21 exciting. And I think that they're going to go a
22 long way towards breaking what we perceive today
23 of as the transmission logjam.

24 I also think that we have everything in
25 place to do transmission right in California. And

1 that we really need to focus next on real
2 meaningful statewide transmission planning. And
3 this goes back to the joint projects that Tony
4 mentioned, as well as Dennis.

5 I really appreciated Tony's remarks
6 about RETI, and particularly his comment that he
7 felt like that provided an umbrella for a lot of
8 interests to be working together. And that was
9 certainly one of our big goals in creating RETI
10 and really encouraging the municipal utility
11 participation in it.

12 When we have all of the players in the
13 room we can do statewide transmission planning; we
14 can do joint projects. And so I'm hoping that
15 this umbrella that we've created in phase one of
16 RETI will continue on into phase two as we start
17 to talk about conceptual transmission plans.

18 When you asked about new initiatives, I
19 think that one of the big things, and this was
20 actually something that I was talking about with
21 my carpool pals this morning, is that we are going
22 to have to focus on how to bring the federal
23 agencies along with us.

24 We are not operating as business-as-
25 usual. We are moving very quickly. The federal

1 land use management agencies, for example BLM, is
2 very willing to work with us, but they don't have
3 the staff resources and the money they need to
4 expedite permitting.

5 And so we need to work with them to get
6 them the resources they need. And that's
7 something that we should probably talk about
8 offline at some point. Because they're going to
9 need to keep up with us. A lot of these projects
10 are going to be located on BLM lands, and that
11 project siting is going to need to happen in a
12 timely manner. As well as the transmission
13 projects that need to be sited in those corridors.

14 Another thing that probably people
15 aren't really going to mention today is that, and
16 this is really my own personal opinion, and not
17 that of the CPUC's, but I think that what is
18 missing from the discussion of 33 percent
19 renewables is adherence to the loading order and a
20 real focus on quantifying how much cost effective
21 energy efficiency is out there. And the same for
22 distributed gen.

23 And I want to make sure that we get as
24 much of those resources as makes sense from an
25 economic perspective. And so I would like to see

1 more focus on that, also.

2 Are the initiatives complementary. I
3 think absolutely. And the reason is because we
4 all have come together in the RETI forum, all the
5 state decisionmakers, the CEC, the CPUC, the ISO,
6 the municipal utilities are all in RETI.

7 And we are having RETI influence all of
8 our own independent initiatives. We are
9 constantly asking in RETI what do I need from RETI
10 to make my initiative work. What do I need from
11 RETI to make my organization work. And whether
12 it's ISO queue reform, CPUC transmission
13 permitting or the CEC corridor designation, we are
14 all getting information from RETI that's going to
15 be valuable to those initiatives. And I see
16 Dennis, thankfully, is nodding his head yes.

17 So I think they're very complementary
18 and we're going to continue to look for ways to
19 make them work for us.

20 MS. tenHOPE: Thank you, Traci. Mr.
21 Doyel.

22 MR. DOYEL: Thanks, Laurie. My name's
23 Bob Doyel. I'm the Branch Chief for the Lands
24 Division at the California State Office of the
25 Bureau of Land Management.

1 We at the BLM are stewards of the public
2 land. We manage over 15 million acres of public
3 land in California, which is about 15 percent of
4 all the lands in California.

5 BLM is a multiple use mission. It is to
6 sustain the health and productivity of the public
7 lands for the use and enjoyment of the present and
8 future generations.

9 The Bureau accomplishes this by managing
10 such activities as outdoor recreation, livestock
11 grazing, mineral development and energy
12 production.

13 BLM issues right-of-way grants for such
14 things as renewable energy facilities, such as
15 windfarms, solar facilities and transmission
16 lines. These lines cross BLM land. We do this in
17 accordance with the federal Land Policy and
18 Management Act of 1976.

19 California BLM has a mandate to
20 proactively promote renewable energy to meet the
21 California state RPS goal of 20 percent by 2010,
22 and 33 percent by 2020. Currently California BLM
23 has 75 solar applications, which is about 590,000
24 acres. We have 94 wind applications on public
25 lands, which is about 700,000 acres. So that's a

1 total of 169 renewable energy applications in the
2 State of California for about 1.3 million acres of
3 land. That's a pretty good relationship to what
4 we're talking about transmission.

5 As part of our ongoing effort to
6 increase domestic energy production and insure
7 greater energy security the Department of Energy
8 and the Bureau of Land Management have initiated a
9 joint solar programmatic environmental impact
10 statement. We talked about that a little earlier.

11 Our agencies believe that preparing this
12 programmatic EIS is a critical step in evaluating
13 the extent to which public lands with higher
14 renewable energy potential may be able to meet the
15 nation's need for renewable energy.

16 The BLM already has over 125
17 applications in the pipeline for solar right-of-
18 ways. And the energy potential for these sites is
19 enormous, about 70 billion watts of electricity
20 and over 20 million average American homes that
21 would be sustained on a sustained basis.

22 The joint EIS that will be overseen by
23 the Department of Energy's Argonne National
24 Laboratory will assess the environmental, social,
25 economic impacts associated with solar energy

1 development on BLM and managed public lands in six
2 western states, Arizona, California, Colorado,
3 Nevada, New Mexico and Utah.

4 The joint PEIS will also evaluate the
5 number of alternative management strategies to
6 determine which present the best management
7 approach for the agencies to adopt in terms of
8 mitigating potential impacts and facilitating
9 solar energy development while carrying out their
10 respective missions.

11 Preparation of the solar programmatic
12 EIS is a multistep process. We anticipate that
13 the solar energy PEIS will be completed in
14 approximately 22 months. The process will include
15 public and agency scoping, coordination and
16 consultation with federal, state, local agencies
17 and tribal governments; publication of the draft
18 PEIS, public review of the draft PEIS and
19 publication of a final PEIS.

20 The draft is scheduled to be issued in
21 the spring of 2009; and the availability of the
22 draft PEIS and dates of the public meetings
23 soliciting comments will be announced in the
24 Federal Register, the local media and on our
25 website. Comments on the draft will be considered

1 in preparing the final PEIS.

2 BLM's overall goal is to promote and
3 support both the President's national energy
4 policy and the Energy Policy Act of 2005 by
5 providing federal lands be available for potential
6 development, expansion and improved reliability of
7 the interstate electrical transmission system.

8 Thank you for the opportunity to be here
9 today.

10 MS. tenHOPE: I'd just like to ask
11 whether you think that the processes that exist
12 currently are complementary with your mission, or
13 if there's something missing for what you would
14 need.

15 MR. DOYEL: No. I think what I've heard
16 today, it is complementary with our mission. We
17 have a member on the RETI Committee and we have
18 been working with CEC real close to establish some
19 MOUs to try to make these initiatives move right
20 along.

21 So, I think it's fine. I think it's
22 working.

23 MS. tenHOPE: Roger.

24 MR. JOHNSON: Thank you, Laurie. As I
25 introduced myself this morning, I'm Roger Johnson.

1 I manage the transmission corridor designation
2 program. That's been since November of last year.
3 This is a new program for the Energy Commission.

4 For the 22 years prior to that I worked in
5 power plant licensing here at the Commission.

6 The corridor designation program was
7 developed to provide a bridge between transmission
8 planning and permitting. We're looking to look
9 for opportunities that designate corridors for
10 those transmission lines that would be identified
11 for long-term needs; not necessarily short term,
12 which should go straight to a CPCN.

13 So we think that the RETI program, the
14 RETI process is going to provide us with some
15 opportunities to identify those longer term needs,
16 and perhaps do a designation on those.

17 A designation can occur two ways: A
18 utility, a -- utility can bring us a designation
19 request, or the Commission can designate on its
20 own motion. So if we see a need and no one's
21 stepping up, we can go ahead and designate a
22 corridor.

23 As far as the program, we've staff it
24 with half the staff that we were provided. We'll
25 finish the staffing this year. We've done

1 regulations for the program; those are on the
2 website. So we have our regulations in place.
3 We're just waiting for an application.

4 Other areas that the Commission Staff --
5 I'm going to talk about all the Commission Staff
6 activities that are going on to support these
7 initiatives.

8 As Bob mentioned, we have an MOU with
9 the Bureau of Land Management. That's for joint
10 permitting for solar thermal projects on BLM land.
11 We developed this MOU to provide for a single
12 process that will end up with two separate
13 permits.

14 These projects being proposed on BLM
15 lands must have a right-of-way lease from the BLM,
16 as well as a permit from the Energy Commission.
17 So we're working those projects jointly. We're
18 going to come out with a joint document and
19 hopefully two permits in the same timeframe.

20 Also this will provide consistency for
21 permitting projects through the State of
22 California and all BLM field offices.

23 The Commission has also recently
24 proposed an MOU with BLM, waiting on signatures,
25 to be a cooperating agency in the federal solar

1 PEIS that's just begun here in California and in
2 the western states.

3 As part of that we put together a
4 federal and state agency working group to help
5 assist BLM, DOE and Argonne Labs with this PEIS
6 process. We're hoping that the agencies can
7 provide additional support, essentially providing
8 RETI information to inform the PEIS.

9 BLM has recognized the fact that some
10 additional corridors might have to be identified
11 in this PEIS that weren't identified in the recent
12 368 process for looking at federal corridors in
13 California. So that'll be a positive input into
14 the PEIS.

15 Recently agencies filed scoping
16 comments. We filed ours last week. And one of
17 the significant comments that we suggested to BLM
18 and DOE was the need to supplement this PEIS with
19 information that would allow it to be a CEQA-
20 equivalent document produced in California by the
21 Energy Commission, the PUC and local agencies, to
22 expedite permitting in the future.

23 If we have a good programmatic EIS that
24 we can tier off of, we should be able to expedite
25 permitting of solar projects as well as

1 transmission corridors that are identified in that
2 document. So that's something we want to work
3 with the federal agencies on, seeing if they can
4 accommodate California's request.

5 Other activities. I think Jorge
6 mentioned this. The Energy Commission's PIER
7 group is putting together this, it's called a PATC
8 model, Planning Alternative Transmission
9 Corridors. This has been a multiple-year project;
10 we're almost done. We've got a steering committee
11 meeting next month, and we're actually going to
12 start training staff on how to use this model.

13 This is a great model and I'm excited to
14 have it available at this time, because I think it
15 could help RETI, it could help transmission
16 corridor, it could help anybody evaluate
17 essentially alternative sites and corridor and
18 route segments.

19 It's a GIS-based model, so it's only as
20 good as the information we put into it, but with
21 that model you can ask the model to essentially
22 compare polygons for sites; and you can ask it to
23 look at route segments. It's a very powerful
24 tool, just provides comparisons. It still takes a
25 brain to make the decision, but the model provides

1 a lot of good manipulation of the data.

2 And finally I think that the Energy
3 Commission Staff believes that all these
4 initiatives that been identified are
5 complementary. And we see an important role for
6 staff here to try to make sure that they all are
7 worked, kept together and working forward towards
8 the same goal.

9 So we have multiple staff that are
10 assigned to each of these initiatives and we think
11 that's a role that we can play, is making sure
12 that we're all informed and we're keeping all
13 moving towards the same goal.

14 Thank you.

15 MS. tenHOPE: Thank you, Roger. And
16 thank you to all the members of panel one. I'm
17 sure that this has stimulated questions among
18 panel two, and it's given me several questions I'd
19 like to follow up in the moderated session.

20 I would like to check in with the panel.
21 This took a little longer than we anticipated. My
22 preference would be to take a break, a short
23 break, a ten-minute break and come back with panel
24 two. And then do a late lunch. Does that work
25 for our panel members?

1 I see general yeses. Okay. So, let's
2 take a ten-minute break and return at five minutes
3 to 12.

4 (Brief recess.)

5 MS. tenHOPE: If some of you want to
6 continue conversations, would you mind stepping
7 outside of the hearing room so that we can hear
8 the panel members?

9 Okay. We have most people back. Thank
10 you very much for coming back and working through
11 what is most of your lunch hours.

12 What we plan to do is to give panel two
13 ample time to respond to the same questions. So
14 we anticipate going about 45 minutes. Then we'll
15 take a lunch break and hopefully all of you can
16 return and we'll have the moderated discussion
17 after lunch. Just don't want to short-change the
18 dialogue here.

19 So, again, the panel two questions are
20 up on the board. They're the same as panel one.
21 We're interested in your stakeholder perspective
22 on the initiatives you've heard. You know,
23 particularly whether, you know, you agree with
24 some of the challenges, or what's missing, or have
25 a different perspective on what kind of

1 improvements need to be made for us to be able to
2 achieve this goal of building transmission to our
3 renewable resources.

4 We're going to run the second panel a
5 little bit differently. I'm going to look for
6 people to speak, and speak for a couple of minutes
7 in response, but I also want you to interact with
8 each other.

9 So, if one of your colleagues on the
10 panel says something you want to agree with or
11 provide a different perspective, please feel free.
12 And then --

13 MR. SPEAKER: Is that why we have these
14 sharp objects?

15 (Laughter.)

16 MS. tenHOPE: And I will play a little
17 more moderator role here to try to keep your
18 comments shorter, and to make sure that everyone
19 has an opportunity to speak.

20 So I'll look for a volunteer. Which of
21 you would like to start? Johanna.

22 MS. WALD: Thank you. This is Johanna
23 Wald for those on the phone. And if I could just
24 give a very brief background of NRDC. We're a
25 national nonprofit environmental advocacy

1 organization.

2 We have a long history of involvement in
3 energy policy and decisionmaking in the State of
4 California. And an equally long, if not longer,
5 record of advocacy for protection of public lands
6 within this state. And both of these efforts have
7 come together to work towards finding solutions to
8 deal with the challenge of global warming.

9 We at NRDC -- let me back up and say, I
10 recognize that the focus of this discussion
11 isn't -- transmission, but I would like to
12 endorse, and I know my energy program colleagues
13 would want me to endorse, what Ms. Bone said about
14 the need for greater emphasis or continuing
15 emphasis on energy efficiency and on the
16 importance of getting renewable distributed
17 generation online in order to meet our global
18 warming and RPS goals.

19 The focus of this workshop is on
20 transmission. We recognize that we will need more
21 transmission to meet our RPS goals. But, of
22 course, it's not just any transmission. It's
23 smart transmission. It's transmission that's
24 needed, and it's transmission that takes into
25 account the environmental impacts, the

1 environmental costs of the needed transmission
2 lines.

3 Environmental concerns about
4 transmission for renewables, and indeed, about
5 renewable generation are real, and they are
6 legitimate. And the answer to the problem of
7 siting, or the challenge of siting both kinds of
8 projects is to consider those impacts in an open,
9 transparent and thorough way.

10 We are at least cautiously, if not more,
11 optimistic. So more than cautiously optimistic
12 about our ability to meet the 33 percent RPS goal.

13 MS. tenHOPE: You're more cautious or
14 more optimistic?

15 MS. WALD: No, we're cautiously
16 optimistic --

17 (Laughter.)

18 MS. WALD: Thank you, thank you for
19 helping me say what I meant to say.

20 That we can make this 33 percent goal in
21 large part because of RETI, with which we are
22 intimately and intensively involved, because that
23 process is a process that is designed explicitly
24 to insure that environmental costs are taken into
25 account, upfront, in the beginning of the process.

1 Very broadly speaking the advantage of
2 the RETI process for siting of both transmission
3 and generation projects is that it will steer us
4 all away from those areas that are known to be
5 especially sensitive, or to contain unique
6 resources, toward areas which at least appear to
7 be more appropriate for development.

8 It is not a substitute for any kind of
9 environmental review or analysis, but at least
10 will serve to indicate the places that look like
11 they are more likely to be able to do what needs
12 to be done for us to meet our RPS goal.

13 I absolutely agree with the comments
14 earlier, that doing this will take hard decisions.
15 We face hard choices for people who care about
16 taking public lands. We face a very bad choice.
17 The choice is not between protecting public lands
18 and doing something about global warming.

19 Public lands, and indeed other lands,
20 all lands are going to be, and indeed are already,
21 being affected by climate change. The choice is
22 what is the smartest, most effective thing that we
23 can do to meet the RPS goals which will help us
24 deal with climate change.

25 So, let me just say something about the

1 timing. The RETI process has a very -- I think
2 the timing concerns are legitimate. The RETI
3 process has a very ambitious schedule. We are all
4 working extremely hard to meet that schedule, to
5 deliver the work products that were called for.

6 I think one of the challenges, although
7 I know that that isn't one of my questions, is not
8 just about funding for federal agencies to bring
9 them along. I mean it's funding for other
10 agencies and, indeed, other participants in the
11 process. But I would like to acknowledge that, I
12 mean the Energy Commission, we would not be where
13 we are were it not for the Energy Commission now.
14 And we need to keep that agency and all the other
15 agencies involved to the degree to which they have
16 been in order to, I think, achieve the potential
17 of the process.

18 And we need to get more, at least one
19 more, agency involved in this process, which is
20 the Department of Fish and Game. Because if we do
21 not have their input at the front end, we could
22 potentially run into problems further down.

23 So, I think I will stop with that.

24 MS. tenHOPE: Thank you. Other members
25 of the panel want to add to or provide another

1 perspective?

2 MR. SHIRMOHAMMADI: My name is Dariush
3 Shirmohammadi; I'm representing Oak Creek Energy
4 Systems. I also represent wind developers. On
5 the RETI steering committee. I've been heavily
6 involved in the discussions related to Cal-ISO.
7 Gipper, or interconnection generation mentioned,
8 reform process.

9 And I must say that I must acknowledge
10 the help that I get from CALWEA in everything I
11 do. They are very good at helping us with our
12 representation of these activities.

13 My comments, and each time somebody
14 invites me to these sessions and asks me
15 especially to be brief, because probably
16 (inaudible) what I end up doing, but I'll try my
17 best. I'll try my best to be brief.

18 My issue is that we need a lot more
19 fundamental reform of all the processes involved
20 in coming up with transmission, I mean
21 transmission. Doing more of what has marginally
22 worked in the past -- eventually if you do a lot
23 of -- you work very hard at anything you get
24 something out of it probably.

25 But we need very fundamental rethinking

1 of every step of the way when it comes to planning
2 and investing and building transmission.
3 Especially, and the timing, because of the
4 renewable revolution, I guess I should call it,
5 the timing for that fundamental thinking is now.

6 Otherwise, in about five to ten years
7 from now we'll be still wondering what we should
8 be doing. And should we have 15 committees
9 looking at renewable transmission, or five
10 committees. And all that.

11 Too many different, for example, reform
12 being -- Cal-ISO was one of those fundamental
13 changes. Although towards the end, this phase
14 two, caused me a lot of heartache. RETI has been
15 a good step forward as far as I'm concerned. And
16 along the way, based on flexibilities of folks
17 involved, it has become even better.

18 Bottomline is we need regional planning,
19 real regional planning, not spoken regional
20 planning. TEPPC is spoken regional planning.
21 Unfortunately, still RETI is one, as well. We are
22 blessed in California to have California ISO who
23 has some authority to regional planning. Although
24 I guess they should use it even more effectively.

25 But the regional planning the way we do,

1 for not only California, in most part of the
2 country, are not regional planning yet. They are
3 original get-together and chit-chat and
4 discussions. There's some good stuff comes out of
5 them, but there's no authority to order regional
6 transmission to be developed.

7 We need a fundamental rethinking of
8 transmission criteria. Deterministic transmission
9 planning, for example, we do now forces us to
10 over-build transmission and create areas to
11 interconnect renewable resources. We need to
12 modify that. And we need to think about how to
13 modify that, as opposed to try to sort of finagle
14 around that and so that we get some transmission
15 built, or, you know, we get some renewable
16 resources to interconnect with the system.

17 We need to fundamentally change the
18 permitting process. We should not go back and
19 reopen everything that has been restudied by 15
20 other agencies again during the permitting
21 process. We need to streamline it so that at the
22 end of time we don't spend five, six, three, even
23 three years, during the focusing on the permitting
24 process after the engineering studies, very
25 massive engineering studies, are done.

1 We know through the permitting. We find
2 out that permitting cannot work. You send things
3 back to engineering. Another two years,
4 thousands, millions, billions of dollars are
5 additionally spent, and back to permitting again.

6 We need to rethink transmission
7 investment. I see the dilemma that the some of
8 the IOUs have, PTOs have, that they cannot spend a
9 lot of money on transmission. They cannot take
10 risks, especially ratepayers' risk, on
11 transmission.

12 But there are others who are unwilling
13 to take that risk for the rate of return.
14 Especially during those times where the PTO,
15 either because of the issues with financial
16 situation that was called credit rating, they do
17 not want to invest. Or they think the investment
18 is risky. And, of course, investing ratepayers
19 money, so they have to be careful when they do
20 that. So I cannot blame them for --

21 MS. tenHOPE: Dariush, could I -- I'll
22 come back to you, but --

23 MR. SHIRMOHAMMADI: This was my last
24 point, by the way.

25 MS. tenHOPE: Okay.

1 (Laughter.)

2 MR. SHIRMOHAMMADI: So these are the
3 things I think we need to go and on a fundamental
4 level look at.

5 Doing more of these discussions or
6 regional planning and so on, although it's good,
7 may not be getting us as far as we need to go.

8 MS. tenHOPE: Good food for thought.
9 Thank you.

10 MR. HAUBENSTOCK: This is Arthur
11 Haubenstein for BrightSource. And I'd like to
12 second what Dariush said. I was very pleased to
13 hear the discussion of the various joint efforts
14 that were mentioned by IID and by Tony Braun.
15 There's a great deal to be done.

16 And this is a very exciting time, you
17 know, the ISO talked about the number of megawatts
18 that are in its queue; the tremendous interest
19 that's happening. And the reawakening to what the
20 issues are, not just within the ISO, but in all
21 the other control areas.

22 We're very excited. The solar industry
23 is very excited to be a big part of the 33 percent
24 target here. And we very much want to make sure
25 that the transmission issues don't become the

1 bottleneck.

2 It's very important for renewables to
3 achieve its promise. And the benefits that
4 California will gain from reducing its reliance on
5 fossil fuels will only happen if renewables are
6 actually delivered to California. And right now
7 the delivery to California is really very much the
8 issue.

9 We think that there's tremendous promise
10 in RETI and in all these initiatives of bringing
11 the right people to the table so they're all
12 working together towards a common goal. I think
13 there's tremendous amounts of effort that are
14 happening at all these different entities.

15 We've been pleased with certain aspects
16 of the ISO's generator interconnection process,
17 commonly known as Gipper. And the, for example,
18 what they're doing right now, I know, with the
19 various different PTOs, participating transmission
20 owners, are doing right now to accomplish the
21 first stage of that by going through the serial
22 group is tremendous. And that we all know that
23 they're working very hard.

24 But if you look at the Gipper overall,
25 you realize that it's really taking an older

1 approach and trying to force it into the task and
2 the challenge that's ahead of us.

3 Instead of trying to work across all the
4 transmission planning efforts, and involving other
5 regional players, it's still taking a cost
6 allocation primary focus rather than an
7 optimization of transmission focus.

8 If transmission optimization, doing
9 transmission in an efficient and economic way, was
10 really the priority, instead of doing two studies
11 we'd be doing one study and we'd be getting
12 results much faster, having a much better
13 opportunity to assure that we can achieve the
14 state's 33 percent goal. So it's a good step in
15 the right direction, but it's not going far
16 enough.

17 RETI has been tremendously helpful in
18 making sure that all the various different
19 interests are actually aware of each other's
20 issues. And instead of dealing with them in
21 series and finding we have problems.

22 I was just talking a few minutes ago in
23 the hallway about how to address some of the
24 farmland concerns, for example, that would
25 otherwise have come up at some point down the line

1 in the transmission planning study. That's not
2 what we need to be doing with things.

3 We need to be figuring out what the
4 issues are now and working on them. RETI is a
5 predecessor to the western REZ. The western REZ
6 is going to build on all of these different bits
7 of information and processes that are established
8 for RETI in order to make a western solution.

9 And it's really an original solution
10 that's necessary. If the renewable resources are
11 going to come to California, bring their energy to
12 California, it's only going to happen through
13 regional planning.

14 I'd like to quote, if I could --

15 MS. tenHOPE: Can I just ask -- I'm
16 sorry, go ahead and finish your quote.

17 MR. HAUBENSTOCK: Yeah, I'd like to
18 quote, if I could, from the western REZ; it's
19 actually from the working plan, not the charter.
20 But it says that: Original renewables market
21 providing multistate access to the most economic
22 renewable resources across the western
23 interconnection provides opportunities for
24 economies of scale, pairing resources on a single
25 transmission system to achieve optimal line

1 loadings, more liquid markets and a more robust
2 regional transmission system, intentionally lower
3 costs than state-by-state markets, and
4 attention" -- this is, of course, very
5 important -- "and attention to environmental
6 siting considerations at a relevant ecoregional
7 scale."

8 I'd also like to second what Johanna was
9 saying. None of this is going to happen unless
10 there are enough resources in the agencies that
11 actually have to do this work, to do it in an
12 efficient and focused way.

13 We are very appreciative, the solar
14 industry is, of all the work that BLM and DOE are
15 doing on the solar PEIS, for example. But they
16 have a tremendous amount of work. They have a
17 large number of applications and they have to have
18 a method to work through them in a way that can be
19 manageable.

20 That's not going to happen without more
21 resources. We'd really like to see -- Buckminster
22 Fuller once said that if you are in a shipwreck
23 and a piano top floats by, then you're going to
24 grab the piano top. And that's your best way to
25 make sure that you stay alive.

1 But a piano top is not what you might
2 design to fulfill that task. And we are here at a
3 very important time in California's history and
4 what California may be able to do for its future.
5 We need to design a transmission planning process
6 that will focus towards the future and not try to
7 solve yesterday's problems.

8 MS. tenHOPE: Do you envision that
9 planning process being something that's a
10 consensus-oriented voluntary process? Or
11 something like Dariush was saying, somewhere there
12 needs to be authority for making the final
13 decision and getting something built?

14 MR. HAUBENSTOCK: It's clear that we
15 need to revisit the whole series of decisions that
16 have to be put into place in order to build
17 regional transmission.

18 I think that the western REZ, which is
19 built on consensus, poses a very good place to
20 identify the issues and to figure out where reform
21 is needed. And reform can follow from the ideas
22 and concerns that are raised through RETI, through
23 REZ and these other areas.

24 In my mind there will be need for state
25 and probably federal legislation to make sure that

1 we are doing this in the most optimal way.

2 But we have a terrific group of
3 different interests, different parties here. We
4 can use their ideas and come up with a process
5 that will work more expeditiously that way.

6 MS. tenHOPE: Thank you.

7 MR. McCAULL: My name's John McCaull. I
8 was brought on in January by the Geothermal Energy
9 Association. And so my -- the trade association
10 is one of my clients. I'm new to the field. I
11 come from the land use environmental world. And
12 so all of a sudden I realize why they hired me,
13 because what's happening in RETI is directly
14 relevant to my experience, and moreso every day.

15 I have to say, though, that the other
16 reason why I was hired is these guys sitting next
17 to me get all the pub, and the need for geothermal
18 to be seen as an integral part of the mix of
19 renewables is really important.

20 I don't think the numbers we saw this
21 morning were dramatically too low. We know that
22 we can get near-term geothermal out of Imperial
23 County and northern Nevada into California pretty
24 readily if we can solve the transmission problems.

25 There are other resources out there. It

1 struck me recently that this kind of sector-by-
2 sector representation is critical, because each
3 industry has its own trade group and competitive
4 issues.

5 But the companies that I work for are in
6 the wind and solar and they're integrated across
7 the board. So there's kind of a -- the more I
8 talk with folks on my left and right here, the
9 more I see common issues that we face, and also
10 the need.

11 The integration isn't just planning;
12 it's between these three resource bases and what
13 they each bring to the table. So, as we develop
14 CREZs and as we try to both look at the economics
15 of those CREZs and their benefits to the grid, we
16 have to realize how they actually support each
17 other. So that's kind of -- I'm seeing that
18 starting to happen. I hope we can make that an
19 explicit goal.

20 I also have to say that on the federal
21 side, the Bureau of Land Management is in the
22 middle of its public comment period on their
23 programmatic environmental document for geothermal
24 leasing across the western states. Again, we're
25 just not getting the publicity that we should, but

1 it is happening in Sacramento on July 30th. A
2 week from today there'll be a hearing in
3 Sacramento on the BLM programmatic for geothermal
4 leasing.

5 And we see a lot of good coming out of
6 that. Bottlenecks being removed. And, again, a
7 tieback to the Energy Policy Act of 2005 that says
8 we should be managing federal lands to help meet
9 renewable goals.

10 I was basically told when I got the job,
11 focus on RETI. And where it's going, in my
12 opinion, is that there's so -- just done a
13 fantastic job on the modeling, on designing the
14 system for analytics, to look at different
15 renewable energy zones.

16 But to me, this is not a theoretical or
17 modeling effort. It is that we better come up
18 with the next big deals that the state should be
19 focusing on. And that the fact that all the folks
20 here are the ones who would be in front of the PUC
21 or the Energy Commission or the ISO, debating the
22 pros and cons of those projects.

23 And we need to resolve the ones that are
24 already on the table, as pointed out by the ISO
25 study. But the next big renewable projects, I

1 hope that we tee them up in a way that the
2 stakeholders have bought in, frankly.

3 And I personally -- and we've been
4 talking a lot about private lands in the last two
5 weeks because so much focus and attention has been
6 on the federal landbase for siting technologies
7 and transmission, but there's some unique
8 opportunities on private lands. I'm not talking
9 about small farms, either. Whether it's the west
10 side of the San Joaquin Valley or Imperial County,
11 there's some opportunities.

12 But RETI is not -- at least the people,
13 the right people, again are around the table. But
14 we have to have a different kind of dialogue
15 around how we talk to local government, how we
16 talk to the regions to try to get some of this
17 stuff looked at, the private landbase.

18 So, I'm, like Traci was saying, I'm very
19 optimistic because I think everybody gets it, that
20 we can do something here.

21 My final point is I do think the SB-1059
22 process is sitting there waiting for us to give
23 you the ones that we tee up. Shouldn't that be
24 the appropriate next forum to get to the next
25 level of detail in planning.

1 MS. tenHOPE: Jane looks anxious to
2 speak.

3 MS. TURNBULL: Good afternoon. I'm Jane
4 Turnbull; I'm with the League of Women Voters.
5 The League is definitely a factor in the energy
6 arena. We've been active since the crisis of
7 2000/2001. And we don't intend to go away.

8 So this whole issue of energy
9 reliability is a vital concern of ours. We
10 certainly are also very concerned about AB-32 and
11 in support of the state in meeting the commitments
12 that have been made with AB-32.

13 And we see this whole transmission grid
14 concern as part of resource adequacy. And the
15 vital importance of reliable energy as part of the
16 economic base of the state.

17 But reliable energy also has to come
18 with an acknowledgement of the concerns about
19 environmental protection. So the two have to be
20 balanced.

21 The transmission grid is the backbone of
22 the electric system in the state. But the system,
23 itself, is changing really quite rapidly at this
24 point in time. We are looking toward a demand
25 side management, some very major changes coming as

1 a result of smart grid.

2 So, distributed generation is something
3 that really needs to be factored in along with the
4 transmission grid. We just can't look at the grid
5 in and of itself, but it has to be part of a total
6 distribution system for the support of reliable
7 energy in the long term.

8 The League has supported the development
9 of transmission corridors. We think anticipatory
10 planning is the way to go. We would like to see
11 it continue as part of what Traci mentioned as
12 meaningful statewide planning.

13 We really have to have a view of what
14 the state needs overall, and we certainly do see
15 the state as part of a larger region. You know,
16 California may think of itself as quite unique,
17 but really it is not quite unique.

18 But regional planning is also something
19 that needs to be done within the state. And the
20 League is supporting statewide planning, but based
21 upon local regional planning.

22 In acknowledging the importance of
23 regional planning we are also acknowledging the
24 reality of NIMBYism. And NIMBYism can be a very
25 destructive force. And if it isn't acknowledged

1 upfront, and if the tools are not put in place to
2 deal with it, we're going to be in a stalemate
3 that lasts for many years.

4 So, I think there's some lessons to be
5 learned. Certainly San Diego has been a lesson to
6 all of us in terms of Sunrise. Because the
7 problems that have occurred there and the
8 polarization of the situation there is something
9 that we don't want to see repeated again and
10 again.

11 So, at this point the League is very
12 supportive of the fact that local counties are
13 going to be putting energy elements into their
14 general plans. This is a new phenomena that
15 counties have not had to address in the past. And
16 they probably don't really know exactly how
17 they're going to go about doing it.

18 But our Attorney General has indicated
19 that he wants to be sure that our counties do look
20 at energy and the impact of energy planning on
21 greenhouse gas emissions in the long term, as
22 something that has to be taken into account.

23 So, the League has -- we have 70 local
24 leagues around the state. Our 70 local leagues
25 are willing to work with local counties and

1 attempt to get them to develop effective energy
2 elements in their general plans.

3 Hopefully that will take into account
4 not only the generation needs for the local areas,
5 but also the components of transmission and
6 distribution that will be a part of the overall,
7 you know, generation base.

8 The 33 percent renewables is a very
9 exciting challenge. It is something that can be
10 done, but it isn't going to be done easily. And I
11 think we'd all like to streamline this process but
12 if we don't get good information through to
13 everyone, and so that everybody's on the same side
14 of the fence, we're not going to make the process
15 that we really need.

16 MS. tenHOPE: Do you have suggestions
17 for what kind of initiatives or processes might
18 help with NIMBYism and the polarization that you
19 were speaking of to get more people on the same
20 page, as you outlined?

21 MS. TURNBULL: Well, I think the
22 opportunity to bring local government into this
23 planning process should be looked at as an
24 opportunity. They're going to have to actually
25 come to understand how the overall energy system

1 relates to greenhouse gas emissions at the local
2 level. So there is a direct link there.

3 And, you know, I think the League would
4 be willing to work with the counties and develop
5 advice to the counties in terms of how, together,
6 a general plan that would be responsive to the
7 greenhouse gas issues. And take into account the
8 electric system.

9 MR. HAUBENSTOCK: If I may, on the
10 NIMBYism issue, I think RETI's most important
11 success to date has been getting the parties to
12 the table. Getting the right people from all
13 walks of not only the energy industry, but the
14 environmental industry, other local governments
15 involved in the discussion.

16 I do think that it's important to try to
17 increase the inclusion area aspect of RETI to make
18 sure that smaller local governments are involved,
19 and the people who might be affected by some of
20 the conceptual transmission plans that RETI will
21 come up with, hear about it first as it's being
22 developed, and don't just see the end result.

23 So, I'm hopeful that RETI can accomplish
24 some of these concerns.

25 MS. tenHOPE: Thank you.

1 MR. MUNSTERMAN: Gary Munsterman with
2 the Air Force Regional Environmental Office. And
3 as I mentioned in my introduction I'll try to
4 speak for our sister military agencies.

5 As well, I think most of you probably
6 know that the military's had a significant and
7 long-standing training/testing process within the
8 state, especially in the interior south.

9 What you may not know is that
10 surrounding and connecting the installations that
11 we have there, is designed air space that's been
12 assigned to the military. And it's in those areas
13 that we have concerns about particularly wind
14 energy facilities, as well as transmission. And
15 collectively we've been working on that with the
16 industry and with counties and the BLM.

17 And in that same vein we've been
18 participating in RETI and the western REZ, the CEC
19 transmission and just about every opportunity
20 because we think it's really important to engage
21 early on so as to not be an impediment to the
22 shooting at the 33 percent goal.

23 As these conceptual models, it's really
24 at that level where the conceptual corridors are
25 laid out, that the military is going to be able to

1 better define whether there is a potential
2 conflict with mission requirements.

3 So, we're very supportive of some of the
4 suggestions earlier on on going for the conceptual
5 to more of the specific. And we have some of the
6 same concerns as the environmental community,
7 because we don't have as much land to state that
8 we're responsible for as the BLM, but we do have
9 significant habitat resources on our
10 installations. And we would have a concern about
11 displacement of populations onto our installations
12 that we create barriers for future training and
13 testing requirements on installations.

14 The military's really not one to speak
15 to the overlapping planning processes and
16 authorities because we certainly have more than
17 enough of our own.

18 (Laughter.)

19 MR. MUNSTERMAN: But there are a number
20 of processes. And I think wherever the industry
21 and the regulatory community want to take that,
22 we're going to stay engaged in terms of merging
23 the processes.

24 I've learned a lot here today in terms
25 of how some of these things relate and getting the

1 viewpoints of the panel members as to how you see
2 them connecting.

3 We think that dialogue is important. We
4 think there's probably a need for the renewable;
5 the RETI process is a good model, a good
6 springboard. Perhaps need to bring a few more
7 players to the table to start addressing some of
8 the broader regional or perhaps subregional issues
9 that we're seeing out in the Mojave with, when it
10 comes right down to it, it's competition for
11 surprisingly its pretty limited landbase.

12 Most everything is getting carved out
13 and spoken for out in the Mojave, and the military
14 has a lot of needs. It's important testing and
15 training asset. So we're going to stay engaged,
16 whatever process takes shape.

17 So appreciate the opportunity. We've
18 had a good working relationship through the CEC
19 and the BLM. Appreciate the opportunity to be
20 here today to share some of our views.

21 MS. tenHOPE: Thank you. We tend to be
22 going in a row, even though we were going to mix
23 it up here.

24 MR. HORNE: Well, this is supposed to be
25 an orderly process.

1 (Laughter.)

2 MR. HORNE: I'm Andy Horne. I live in
3 Imperial County; I'm here representing California
4 State Association of Counties.

5 Really, I sit on the RETI stakeholder
6 steering committee. And after today's session and
7 my comments I'm probably in serious jeopardy of
8 losing that position.

9 Because the first question there as to
10 whether or not the existing initiatives are
11 sufficient to address and remove the barriers, my
12 analysis or my observation is I don't think so. I
13 think we're at risk, at least, of falling short of
14 that mark. And I'll try to explain a little bit
15 why.

16 I think a couple of the projects that
17 have been mentioned that we're familiar,
18 intimately familiar with down in Imperial County,
19 are the Sunrise Power Link and the DWPIIV
20 greenpath northwest project.

21 These people should be held up in public
22 if we really believe in this idea of renewable
23 energy and addressing climate change and other
24 issues. They should be held up as heroes. And
25 yet, in turn, they have been publicly strung up

1 and flogged for the idea, the temerity to bring
2 forward a project of building these ugly
3 transmission lines across pristine wilderness.

4 And, you know, there are tradeoffs, as
5 was talked about. And, you know, we just need to
6 figure out a way to overcome those. And I'm not
7 sure we're on that track, based on the current.

8 Now, those projects, in all fairness,
9 got out of the box before they had the benefit of
10 having this great RETI cloak draped over them and
11 get all that protection.

12 But I think we have, at least an
13 example. And those examples have demonstrated
14 what's missing, in my opinion. And that is a
15 specific legislative and regulatory reform agenda
16 to be developed out of this process.

17 I think there are some good ideas that
18 have been discussed. One here today, and I had it
19 written down here, and Jane talked about it. And
20 that was the idea, and perhaps it would be as
21 important as us here in Sacramento talking about
22 how we're going to fix this from the top down, but
23 maybe working from the ground up.

24 Imperial County, and we're somewhat
25 unique, I think, has renewable energy and

1 transmission corridor elements built into its
2 general plan. I think we're one of the few
3 counties, if not the only one, that has both those
4 elements.

5 And I, for once in my life, probably
6 agree with Jerry Brown, the Attorney General, if
7 he's willing to require that. That's the kind of
8 reform -- and, you know, we have housing,
9 affordable housing elements are required, I think,
10 in the general plan. Why? Because that's
11 important public policy priority for our
12 communities and for our nation.

13 And we should have, it seems like, the
14 same sort of importance placed on the idea of
15 developing renewables. And so perhaps we should
16 require those types of elements to be built in at
17 the local levels so that people at the local
18 level's going to understand the importance of how
19 that fits into the broader regional and national
20 picture.

21 You know, I think under the current
22 framework that we have, we're talking about
23 removing barriers. Those barriers are proving to
24 be alive and well. And we need to recognize that
25 even with the competing interest of environmental

1 concerns and land use, and certainly down in our
2 area when we talk about water use, and I know CEC
3 has always harped on that -- excuse me,
4 Commissioner Byron --

5 (Laughter.)

6 MR. HORNE: But we understand those.
7 And we understand they have to be addressed. But
8 I think there's a big difference between
9 identifying issues for the purpose of developing
10 workable alternative and mitigation for those
11 concerns, as opposed to identifying issues for the
12 purpose of killing projects. And that's what
13 seems to be the modus operandi today.

14 And I say, we're familiar with that down
15 there. We, in Imperial County, call ourselves the
16 Persian Gulf of renewable resources.

17 (Laughter.)

18 MR. HORNE: The only difference is we
19 have more conflict down there and --

20 (Laughter.)

21 MR. HORNE: -- we're committed to
22 overcoming it. And I'm really happy to be a part
23 of the process to accomplish that.

24 The second question there had to do
25 with, you know, whether or not these initiatives

1 that are currently being undertaken are either
2 complementary or incompatible. And I heard Tony
3 Braun talk a little bit about it. Some of the
4 other people have already mentioned that.

5 Judy's slide, which I'm sure she'll
6 destroy after this, showing all those different
7 efforts, certainly has sparked some discussion.
8 But I would call them, rather than complementary
9 or incompatible, redundant. As has been
10 mentioned, there are just too many stakeholders,
11 and I hate that word. I've already heard players,
12 I think that's a lot more sexy to call ourselves
13 players than stakeholders.

14 (Laughter.)

15 MR. HORNE: Stakeholders is so trite.
16 But we need to get those players all working
17 together. And I think that was the hope of RETI
18 at the outset. And somebody already mentioned
19 that, that we could get all the players at the
20 table and work collaboratively. And I think we
21 have done that to a great degree.

22 But I think what's missing is, and this
23 goes to this, you know, the various efforts that
24 are going on of defining -- I did this early on.
25 They asked us to come up with what we expected to

1 get out of the deal, defining what an initiative
2 is. And that is what RETI is all about. It's
3 supposed to be an initiative.

4 And I looked it up in the dictionary,
5 and I'm paraphrasing because I can't remember, but
6 it was something like a plan to carry out an
7 action.

8 (Laughter.)

9 MR. HORNE: That was in the dictionary.
10 Wasn't supposed to be funny, but that's what it
11 was.

12 (Laughter.)

13 MR. HORNE: But when we got done going
14 through that exercise, one of the coordinators of
15 RETI said, well, the goal really is to develop a
16 report that cannot be ignored.

17 And I think we, as a society, have
18 developed an infinite capacity to ignore reports
19 like that.

20 (Laughter.)

21 MR. HORNE: And if that's the result of
22 RETI, then it would, I think, been a failure. I
23 think I'm cautiously pessimistic that we can get
24 beyond that. I'm afraid we might be headed for
25 that, but I'm hopeful, and I do remain honestly

1 hopeful. Maybe this will resurrect my membership
2 in RETI, that we can develop more than a report.
3 That we can, in fact, come up with a plan to carry
4 out an action which would be the development of
5 the framework within which we can accomplish the
6 goals that the Legislature has set out, and the
7 CEC and the CPUC, and ISO are trying to carry out.
8 And the local agencies have an interest in. And
9 that would be a success.

10 MS. tenHOPE: Thank you. You see
11 yourself as a rebel, but I think there's several
12 themes there that have resonated with other panel
13 members throughout the day.

14 And I'd just comment that there's so
15 much consensus around solving this problem and
16 translating what's been started through these
17 processes into action. And I'm looking forward to
18 the discussion after lunch on, you know, what the
19 elements of that action would be. What do we
20 specifically need to do.

21 Dave, you're out --

22 MR. PECK: After Andy's talk, I'll try
23 to be a little bit more upbeat.

24 (Laughter.)

25 MR. PECK: Again, I'm Dave Peck from

1 DRA. And our mission is to obtain the lowest
2 consumer rates consistent with safe and reliable
3 service.

4 In terms of this workshop DRA serves
5 many roles. We're a member of the RETI
6 stakeholder or the RETI players --

7 (Laughter.)

8 MR. PECK: We participate in all the IOU
9 procurement and review groups and comment on
10 renewable energy PPAs. We're also an intervenor
11 on the long-term interests of the ratepayers,
12 specifically of the long-term procurement planning
13 proceeding, RPS, and the high voltage transmission
14 applications.

15 In transmission applications we focus on
16 reliability and benefits, economic benefits and
17 state policy initiatives. And we also provide
18 modeling and critical analysis to the record.

19 DRA, in general, is very encouraged by
20 the amounts of renewables transmission planning
21 that we've talked about today. And we're
22 optimistic that the efforts are going to translate
23 into the proverbial steel-in-the-ground.

24 We feel the initiatives discussed today
25 are complementary as long as there is a lot of

1 coordination and collaboration between the
2 individual initiatives as they progress, so that
3 we maximize the synergy of these efforts and
4 minimize the duplication.

5 But we're already starting to see
6 evidence of this coordination with the recent CPUC
7 transmission investigation which focuses also on
8 the RETI efforts. And we envision even more
9 coordination as RETI phase two -- as we proceed
10 into RETI phase two, along with the ISO
11 interconnection queue reform efforts.

12 And we see the RETI process as informing
13 the CPUC and transmission applications. So, we're
14 seeing evidence of that coordination and we're
15 optimistic that will continue.

16 And to get to the 33 percent renewables
17 is going to require full cooperation and
18 coordination of all the major agencies so we can
19 minimize the bottlenecks.

20 One thing that we are concerned, we hear
21 a lot of folks today talking about the permitting
22 process and issues with that. And we want -- DRA
23 feels we shouldn't be using the 33 percent
24 renewables deadline to circumvent the transmission
25 planning process. We have a transmission planning

1 process that balances reliability, economic
2 benefits and policy.

3 And in that process we're also insuring
4 we try to minimize the environmental damage. And
5 we feel this process shouldn't be circumvented.

6 But is there room for improvement?
7 Definitely. Traci earlier mentioned the
8 overlapping processes in the permitting. Another
9 good example is the RETI, where the attempt is to
10 propose projects that minimize environmental
11 damage upfront rather than finding out what the
12 environmental damage is in the middle of the
13 permitting process. DRA also supports maximizing
14 right away.

15 DRA also recommends that we change the
16 process so that we inform the public as early on
17 in the process as possible, even before the
18 application is applied for. Public outreach is
19 critical and we need to get the local communities
20 and local groups to buy into this much earlier
21 than we're doing today.

22 Another thing that we feel would help
23 would be more complete applications from the
24 developers that fully flesh out the reliability
25 benefits, the economic benefits, rather than

1 having to redo and add these things after the
2 process has started.

3 With all those, the challenges DRA sees
4 is that as we take on this 33 percent RPS
5 challenge, the magnitude of the problems are going
6 to grow. And the low-hanging fruit will have
7 already been eaten. And we'll be looking at more
8 challenging projects and more expensive projects.
9 And that's just going to be the reality of the
10 situation.

11 And as we move to 33 percent RPS goals,
12 the issues of intermittent resources and the
13 impact of integrating these resources in the
14 aspect of the location, timing, local RA
15 congestion and the actual resource type become
16 bigger issues for us to deal with.

17 And though the -- another big issue we
18 see is that though the CEC, ISO and CPUC share
19 much of the authority in permitting transmission
20 process, there's a lot of other agencies at local
21 and federal levels that don't share the same
22 goals, same state goals. And they need to provide
23 permits, as well. And that's a challenge that
24 we're not sure how we're going to meet. And
25 probably a number of these initiatives will focus

1 on that.

2 The last thing is the actual -- this
3 hasn't been talked about much yet, but the
4 viability of the actual renewable projects,
5 themselves, is an issue. And transmission
6 projects with economic and policy benefits
7 sometimes hinge on the certainty of renewable
8 projects. But if these projects fail to
9 materialize or are delayed substantially, what
10 we're going to be left with are stranded costs and
11 under-utilized lines.

12 Thanks.

13 MS. tenHOPE: Thank you, Dave.
14 Commissioner Byron, as honorary member of the
15 panel, do you want to make any comments.

16 COMMISSIONER BYRON: Thank you. This is
17 a marvelous discussion and I apologize for
18 interfering. I've got to leave in about ten
19 minutes, but if I could, I'd like to just also
20 listen to your feedback on a hypothesis, if you
21 will.

22 And if I could just ask to go down
23 quickly. Let me just set this up. You know,
24 listening to all of you, clearly this an extremely
25 complicated process. Some of you have been

1 involved in this for literally decades. Some
2 behind me for perhaps longer than a few decades.

3 MR. SPEAKER: (inaudible).

4 (Laughter.)

5 COMMISSIONER BYRON: And, you know, I
6 just -- and they will be for decades to come, I
7 hope.

8 (Laughter.)

9 MR. SPEAKER: We started at the age of
10 five, by the way.

11 COMMISSIONER BYRON: But just to
12 summarize quickly. State agencies and
13 Commissions, we tend to get very enamored with our
14 initiatives and our rulemaking processes. Make-
15 your-round-peg-fit-in-our-square-hole kind of
16 attitude. And our initiatives, our plans to take
17 action -- I like that.

18 And, of course, the munis have a
19 tremendous track record on transmission. I
20 sometimes wonder why they're at the table with us
21 because they can go it alone. But I'm very glad
22 to hear the remarks that I did hear today and that
23 I've heard elsewhere.

24 The IOUs have their problems, as
25 demonstrated by some of the ongoing projects. Of

1 course, they're used to being regulated, but
2 they're also used to getting what they want.

3 The public, many individuals and
4 organizations represented here at the table
5 serving the public interest, some serving the
6 private interests, we all have different
7 perspectives. And perhaps we assess the problems
8 from a different point of view.

9 So, now having said all that, doesn't it
10 all come down to a single issue. This is my
11 hypothesis I'd like your feedback on. Doesn't it
12 all come down to the environmental issue? And
13 clearly the visual is part of that, as well.

14 And I'd be really interested in your
15 feedback on that, if you don't mind, just going
16 right down the order. I'll give you a few seconds
17 more.

18 I'm struck by the fact that transmission
19 lines are extremely easy to build. These are not
20 complicated structures. I mean I'm an old
21 structural engineer. These are easy, okay.

22 They're safe. They're a known
23 technology. And, in fact, for the most part, they
24 don't produce any greenhouse gases.

25 So, what's the problem? What's the

1 problem?

2 So, I guess I'd like to hear from you.
3 Do you agree with that hypothesis or do you have a
4 countervailing argument. that it really comes down
5 to the environmental issues and making sure that
6 we address those in a thorough and complete way.

7 Mr. Beshir, do you mind going first?
8 Just take a sentence or two, because I don't want
9 to take up all the time. You've got other things
10 to discuss. And I know everybody's hungry for
11 lunch.

12 So just take a sentence or two and just
13 go right down the line, if you don't mind. Do you
14 agree or disagree with that hypothesis. Go ahead
15 and grab the mike.

16 MR. BESHIR: I agree with you a hundred
17 percent. But, of course, there is associated
18 issues which come along which I can -- in the
19 process, for instance, greenpath north, when we do
20 say we want to build a transmission, people would
21 like to see what kind of resources you going to
22 put on it, and where the resources are, and what.

23 So the resources components come into
24 play, as well as the transmission. But, as far as
25 the people who are impacted, it's really

1 environmentalists, it's really aesthetics, it's
2 essentially is impacting their way of life.

3 COMMISSIONER BYRON: Thank you.

4 MR. BARAJAS: I'm agree transmission
5 lines are easy to build. The only difficulties
6 basically where to build it and when to build it,
7 actually.

8 I mean we need to, all we understand
9 that building transmission lines, and naturally
10 optimize these transmission lines something else,
11 you know.

12 And basically we know the impacts of
13 building a transmission line. But definitely we
14 need to inhouse perspective is basically when to
15 build it and where to build it is something more,
16 is very important, too.

17 They can -- environmental issues, and
18 all these are something like -- that happen in any
19 project, you know. But at the same time, I mean,
20 I think from the technical standpoint is how we
21 want to use these line.

22 COMMISSIONER BYRON: Thank you.

23 MR. BRAUN: Commissioner, based on what
24 I hear from Mo and from the TANC folks, the people
25 that are actually on the ground, I think the

1 answer to your question is yes, for what we're
2 talking about in the immediate future of things we
3 know we want to build and we're out there.

4 I would add the additional observation
5 that when we're talking about tens and tens and
6 tens of billions of dollars in investment,
7 eventually money is going to become an issue.
8 That rates can't be infinite. And so we need to
9 really, in fact, at some point in time we're going
10 to run into an obstacle there, just where we want
11 rates to be and also are there better places to
12 spend our money.

13 COMMISSIONER BYRON: Right. I agree.
14 But, I assure you, the dollars that will be
15 invested in the transmission will pale by
16 comparison in the renewables generation cost to
17 build 30,000 megawatts. It'll pale by comparison.

18 Please go ahead, Mr. Esguerra.

19 MR. ESGUERRA: Yeah, it's various
20 comments that we've been hearing, I echo what Dave
21 Peck had mentioned before. It's really a where
22 and when to build. I understand that you
23 mentioned that the costs are going to be minuscule
24 compared to renewables, but it is going back to
25 that question. Do you want to build the assets of

1 those to use, and use full at that moment. Or do
2 you plan to over-build.

3 COMMISSIONER BYRON: Thank you.

4 MR. CHACON: Jorge Chacon. I think for
5 the most part that's probably a fair assessment,
6 environmental is going to be the biggest issue. I
7 think there will be some instances where the
8 environmentally preferred option may not be the
9 more publicly accepted option, in which case
10 environmental is first to decide, or --

11 COMMISSIONER BYRON: So are you saying
12 the environmental option is different than the
13 publicly --

14 MR. CHACON: Yeah. There may be some
15 cases where --

16 COMMISSIONER BYRON: Don't you think
17 they're actually the same?

18 MR. CHACON: Well, no. I mean, you
19 know, if you have an existing corridor and you
20 want to upgrade the corridor, environmentally the
21 corridor's already disturbed, and therefore it's
22 the --

23 COMMISSIONER BYRON: I see.

24 MR. CHACON: -- environmentally
25 preferred option. But the people that live around

1 that corridor may tell you no way, no how.

2 And so for the most part I think the
3 issue is yes, but there will be some circumstances
4 where you may find some opposition.

5 COMMISSIONER BYRON: Thank you.

6 MS. BROWN: I would tend to agree, but I
7 think we have to define the environmental issues.
8 Because sometimes it literally is somebody's
9 backyard or one very wealthy community that can,
10 you know, make a bigger issue of something than it
11 really is.

12 So, that's why I think it's great that
13 we have the environmental people on the RETI
14 process, where they're really trying to say okay,
15 here are. So I think defining what environmental
16 means maybe helps answer that question a little
17 more.

18 COMMISSIONER BYRON: It's a broadly
19 defined term. My hypothesis is that is the issue.
20 Is there anything else that trumps the
21 environmental concern, be it visual, land use,
22 someone's backyard, as you say.

23 Thank you.

24 MR. PETERS: Dennis Peters. I would
25 agree with many of the things that have already

1 been said. I mentioned in my comments that one of
2 the biggest challenges we see going forward is the
3 timing of getting things built. And certainly
4 environmental issues seems to be the greatest
5 issue in terms of getting these sited. So I would
6 agree with your hypothesis there.

7 And certainly the cost issue is
8 something that we need to think about. But
9 that's, you know, as you mentioned, Commissioner
10 Byron, transmission is probably the smaller part
11 of all this effort at renewable integration.
12 There's so many other issues to consider.

13 But, of course, our, you know, certain
14 reliability and certainly times where
15 environmental issues affect, where maybe the most
16 reliable location is for a transmission line. So.

17 COMMISSIONER BYRON: Right. Ms. Bone.

18 MS. BONE: Commissioner, I was going to
19 disagree with you. Because I feel like the money
20 is a huge issue. And I share many of the same
21 concerns that Tony raised.

22 But then I realized that if we could
23 take all of these transmission lines and drop them
24 in the ground like we do with fiberoptic cable,
25 that we'd pay a lot of money to do that.

1 And so the end game is, yes, you're
2 right, the environment is the trump card. But
3 there are a number of other cards in the deck or
4 in your hand. And I think that everybody here has
5 articulated those very well.

6 MR. DOYEL: Yes, sir. And I agree,
7 also, being a multiple use organization, the
8 environmental effect is probably the most
9 important. But there are other effects, offroad
10 vehicles, cultural issues, other issues that are
11 going to affect along the way, also.

12 But all of that comes back, I think, to
13 the environmental issue. Because that's what we
14 really look at when we decide how we're going to
15 manage our public lands.

16 COMMISSIONER BYRON: Yes, the offroad
17 vehicles folks, we're certainly beginning to see
18 them now in our siting cases for these large solar
19 projects.

20 MR. DOYEL: And there's a lot of them
21 out there.

22 MR. JOHNSON: Commissioner Byron, you
23 put me in a tough decision because I manage the
24 environmental office here at the Commission.

25 But that also includes the land use

1 unit. And I think the environmental is important,
2 extremely important, but we now how to mitigate
3 environmental impacts. It's the land use
4 concerns, I think, that are the true problems
5 here.

6 For every project there's an alternative
7 alignment. And so why are you picking my
8 community, go over here to this other community.
9 It's the same desert, you know, it's just that if
10 there's fewer people to be affected.

11 And those are the -- these long
12 transmission lines, these high-voltage lines, they
13 don't drop off power on their way. They have --
14 you have an origination and an end point. And all
15 those communities in between are just being
16 impacted.

17 Altruistically, you know, we're
18 improving the environment, but they don't get that
19 personal in it, you know, they get the impact.

20 COMMISSIONER BYRON: Right.

21 MS. WALD: Yes.

22 (Laughter.)

23 COMMISSIONER BYRON: I would expect no
24 less, Ms. Wald.

25 MS. WALD: But, I do want to emphasize

1 we need to define environment broadly, and I mean
2 we have not, for example, mentioned native
3 American concerns.

4 COMMISSIONER BYRON: Right.

5 MS. WALD: And I'm very excited that
6 we're going to have the representative of the
7 Native American Heritage Commission joining the
8 RETI process beginning with the next meeting.
9 And, you know, those are real and legitimate
10 concerns that need to be factored into the
11 equation.

12 COMMISSIONER BYRON: Right.

13 MS. WALD: Into the siting issue.

14 MR. SHIRMOHAMMADI: I just want to say I
15 agree with your a hundred and ten percent. Since
16 everybody said something in addition to that, I'm
17 going to say a couple more words.

18 Transmission is a cinch to build. And
19 if you build it, if you're not totally
20 incompetent, it always pays for itself. So those
21 two issues, economics and difficult to build, are
22 nonissues. Environment is the only issue.

23 COMMISSIONER BYRON: Thank you.

24 MR. McCAULL: Yes, I also agree. I
25 think there's three things we need to do. You

1 need to let the RETI environmental working group
2 screening process keep -- let Johanna and her
3 colleague, Carl Zachella, have been fantastic in
4 terms of hanging in there and bringing the
5 environmental community to the table so we can
6 just let that dialogue. We can do a lot of good
7 work for you, I think.

8 We need to -- I know that there's been
9 some discussion with the Department of Fish and
10 Game and the Energy Commission on doing a more
11 programmatic approach to habitat conservation, the
12 tools are out there. Go for it. Please, get that
13 process underway. I think it will help a lot in
14 terms of how to mitigate systematically.

15 And then this issue around local
16 agencies, you know, AB-32 calls for regional
17 climate plans, it doesn't put a huge onus on local
18 government. But we have to get local land use
19 agencies engaged here.

20 And some of these tradeoffs around
21 environmental issues are going to become tradeoffs
22 around private farmland versus habitat. And we
23 can sort that out, but we can't do it without
24 local participation.

25 MR. HAUBENSTOCK: With change, even

1 climate change, comes opportunity. it seems to me
2 we need a third paradigm. We had vertically
3 integrated utilities. We've had deregulation. In
4 both of those paradigms environmental issues and
5 economic issues were often not viewed as anything
6 other than adversary.

7 And here we have RETI, we have the
8 environmentalists at the table, we have people
9 actually talking to each other and try to have
10 agreement on the front end so we don't have
11 surprises on the back end.

12 Yes, environmental issues are huge and
13 they have to be dealt with. But I think we have a
14 great opportunity here to actually work together
15 and to make progress more quickly if we really do
16 it in a coordinated way.

17 And if we do it in a coordinated way, we
18 should optimize the transmission solutions and
19 reduce the overall expenditures. Make sure that
20 we're planning transmission, that even given a
21 certain amount of renewable failure, will actually
22 be used and will be a great investment for
23 California.

24 COMMISSIONER BYRON: Thank you.

25 MS. TURNBULL: Yes, but. I think RETI

1 is, I think, an incredibly important step in the
2 right direction. But I'm also glad that Roger
3 Johnson mentioned the wonderfully powerful tool
4 PACT. I've been on that steering committee and I
5 think to have the opportunity to actually engage
6 in the process of having to site a transmission
7 line is a very exciting process.

8 My grandson, who is going into fifth
9 grade, would have a wonderful time with that game.
10 I think if every fifth grader in the state had to,
11 you know, involve himself or herself in the
12 process of siting transmission lines, and seeing
13 what the tradeoffs are --

14 COMMISSIONER BYRON: Are you suggesting
15 we're not smarter than a fifth grader?

16 (Laughter.)

17 MS. TURNBULL: Actually some fifth
18 graders are pretty awesome.

19 (Laughter.)

20 MS. TURNBULL: But, no, I think if a
21 fifth grader can handle this kind of challenge, we
22 should be able to, as well.

23 COMMISSIONER BYRON: Thank you, Ms.
24 Turnbull.

25 MR. MUNSTERMAN: Environmental issues,

1 broadly defined, agree. Yes, that it comes down
2 to the environmental.

3 COMMISSIONER BYRON: Thank you. I don't
4 expect a short answer --

5 MR. HORNE: Well, I'm not going to
6 disagree with everybody --

7 COMMISSIONER BYRON: -- Mr. Horne.

8 MR. HORNE: -- else this time, but no, I
9 think it is the biggest issue, maybe not the only,
10 but what you said, I think, doesn't it all boil
11 down to that. That certainly is the biggest issue
12 confronting us.

13 And I think in that regard we're the
14 victim of our own success because as a society
15 we've done a very good job educating people about
16 the importance of protecting the environment,
17 protecting, you know, our resources, protecting,
18 you know, everything that we have come to value.

19 And in this case we've created really a
20 quandary of now balancing the need to protect the
21 microenvironment of a transmission corridor
22 against a macroenvironmental issue like climate
23 change.

24 And that's the education process we need
25 to now embark on, convincing people that even

1 though there are important environmental issues,
2 there are maybe broader bigger environmental
3 issues that we're going to have to -- that we're
4 going to be able to solve by maybe creating a
5 little bit of an impact along this corridor, or
6 along several corridors, perhaps, that we may not
7 like.

8 But the alternative, I don't think
9 anybody is suggesting -- I've seen any credible
10 suggestions that we can solve this climate change
11 issue without increasing renewable energy
12 generation which I think is going to result in new
13 transmission being necessary.

14 MR. PECK: DRA, of course, thinks that
15 the environment matters and it's a big issue in
16 this. But again we'd like to focus that early
17 upfront public outreach is going to help. And
18 complete applications from the developers are also
19 going to help.

20 You mentioned that the IOUs are used to
21 getting what they want, and possibly that might be
22 the reason we don't always get full and complete
23 applications with all the economic benefits, all
24 the reliability benefits clearly identified
25 upfront.

1 So, we think there's also other issues,
2 as well.

3 COMMISSIONER BYRON: Well, thank you all
4 very much. And I apologize for usurping the
5 process here. And I'll turn it back over to you.
6 But, thank you, and I very much appreciate your
7 being here and for participating in these panel
8 discussions. Very helpful to the IEPR Committee.

9 MS. tenHOPE: Thank you to panel number
10 two. I hope you'll just hold with me for just a
11 couple of minutes here, and then we'll take a
12 lunch break.

13 First, I would like to get a show of
14 hands of the panel members that would be able to
15 return after lunch and participate in a 30- to 45-
16 minute session discussion to follow up on what
17 we've heard so far.

18 So, we'll lose John -- okay, we might
19 lose you. Who else do we lose? All right, put up
20 your hands if you can come back. Giving a
21 confusing message here.

22 Okay, a pretty good participation. I
23 appreciate that.

24 We have one panel member who was unable
25 to come today, John Viola. And he did submit

1 comments. They're out on the outside for you to
2 pick up. And we said that we would read the
3 highlights for the panel and the audience.

4 John is with the Alliance for
5 Responsible Energy Policy. And I'm just going to
6 read a few sentences from here, not the entire
7 letter.

8 AREP is very appreciative of the
9 invitation to attend and regret that they will not
10 be able to participate in person. They believe
11 that there are vital barriers to transmission that
12 are not receiving adequate consideration by all
13 the processes that have been outlined today. And
14 see that agencies are in a rush to permit utility-
15 scale transmission projects.

16 CEQA and NEPA require all viable
17 alternatives must be considered before encroaching
18 upon undisturbed public lands. And AREP believes
19 California's rush to identify CREZs and permit new
20 transmission lines have failed to adequately
21 consider distributed generation and demand side
22 management alternatives.

23 There are additional points in terms of
24 a centralized power grid, compromises our national
25 security. Power lines have been causal or

1 contributing factors to wildfires. And proposed
2 utility-scale projects and transmission lines
3 compromise millions of acres and consume our
4 precious water resources.

5 Their recommendation is that the process
6 of fast-tracking these projects be postponed until
7 a comprehensive and adequate assessment of
8 distributed energy generation and demand side
9 management is completed.

10 I encourage you to pick up the comments,
11 for other parties to file their comments, as well.
12 And when we come back for the moderated session,
13 if you would like to respond to each other,
14 include John Viola's comments, as well.

15 I'm sure you'll have plenty to think
16 about over lunch. I think that several of you put
17 some interesting ideas on the table in terms of
18 joint planning, streamlining, siting, education,
19 involving local governments. I look forward to a
20 lively discussion on some of those items.

21 I suggest we take a 45-minute break, and
22 resume at 2:00.

23 MS. GRAU: Is 45 minutes enough for
24 folks, or would you prefer an hour?

25 (Parties speaking simultaneously.)

1 MS. GRAU: We have the court reporter
2 until 3:00 today.

3 MS. tenHOPE: Raise your hands for 45
4 minutes. Raise your hand for an hour.

5 MS. GRAU: All right, --

6 MS. tenHOPE: All right, so --

7 MS. GRAU: -- 2:15.

8 MS. tenHOPE: -- 2:15.

9 MS. GRAU: Thank you.

10 MS. tenHOPE: Thank you very much.

11 (Whereupon, at 1:14 p.m., the workshop
12 was adjourned, to reconvene at 2:15
13 p.m., this same day.)

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1 AFTERNOON SESSION

2 2:19 p.m.

3 MS. tenHOPE: Thank you for returning
4 after lunch and for spending longer with us today
5 than we thought we were going to spend. But we've
6 had an active discussion and a lot of useful
7 information that each of you has put on the table.

8 And now we have a chance to interact
9 between the two panels. And there were a couple
10 of questions that were sent to you in advance.
11 They're posted. What are the critical links among
12 the initiatives, and what are the critical next
13 steps.

14 I thought before we moved to those, I
15 would just ask more of an open-ended question.
16 Did anyone have any "aha moments" this morning?
17 You listen to someone, you go, that's it. Or I
18 hadn't thought of that. Any gems you want to
19 share with the rest of the group?

20 MR. BRAUN: Laurie, I have a question,
21 and maybe it can be held, but either I didn't
22 understand something and -- was a caveat, I'm a
23 lawyer -- but the number on David Le's slide about
24 the capacity to meet 33 was somewhere in the 90 --
25 9000 megawatts and change of additional renewable

1 capacity. And the number in Mr. Ballance's slide
2 was somewhere in the neighborhood of 30,000, that
3 was the assumption, I think.

4 So, that's a huge difference, even if
5 the ISO's was only focused on the ISO balancing
6 authority, that doesn't begin to explain the
7 difference. So I thought --

8 MS. tenHOPE: I think Dennis can help
9 us. I did have a short conversation with John
10 Ballance and Vicram (phonetic) as they were
11 leaving. And they used different end points,
12 looking at 2020 versus 2030. And you'd have
13 significant load growth between those.

14 But, Dennis, perhaps you want to jump in
15 and answer that more directly.

16 MR. PETERS: Yeah, it probably helps to
17 look at the whole report. David was just trying
18 to focus on the 33 percent.

19 And so if you go to the report you'll
20 see what everything is based on. And it is just,
21 you correctly, you know, observed. It was just
22 for the IOUs. I think David mentioned that in his
23 presentation. And I think the 9000 was the
24 incremental amount --

25 MS. tenHOPE: So it was --

1 MR. PETERS: -- above 20 percent.

2 MS. tenHOPE: -- for the IOUs and it was
3 in 2020, is that right?

4 MR. PETERS: Correct.

5 MS. tenHOPE: 33 percent in 2020, and
6 John Ballance's was 33 percent in 2030?

7 MR. PETERS: If I recall. I think
8 that's --

9 MS. tenHOPE: For the whole state?

10 MR. PETERS: Yeah.

11 MS. BONE: And it's the incremental
12 above --

13 MR. PETERS: -- incremental amount, yes.

14 MS. BONE: -- 20 percent, so it's not
15 the whole --

16 MR. PETERS: That's --

17 MS. BONE: -- 33 percent amount.

18 MR. PETERS: Right.

19 MR. BRAUN: The ISO, the 9000 --

20 MR. PETERS: Right.

21 MR. BRAUN: -- is the incremental
22 amount?

23 MR. PETERS: Incremental amount, and 20
24 percent to 33 percent for the ISO.

25 MR. SHIRMOHAMMADI: I heard John saying

1 that his stuff is also incremental. Could we say
2 that one of them made a mistake and we can go
3 correct it?

4 MR. PETERS: Well, you know, we -- the
5 scenarios he put together we utilized capacity
6 factors based upon the CEC's numbers. And 27
7 percent for wind -- I'm sorry, for solar; 37
8 percent for wind and 90 percent for geothermal.

9 And, you know, also utilized the
10 forecast for, you know, load and, you know, and
11 then calculated the numbers to be 20 percent, 33
12 percent. I think our numbers are correct.

13 MS. tenHOPE: Johanna.

14 MS. WALD: I'm going back to your "aha"
15 question. And it occurs to me I was struck by the
16 fundamental truth of what Andy Horne said. And I
17 think Jane said it in a different way.

18 About the urgency of educating everybody
19 about climate change and what we need to do to
20 address it. And what it means in terms of what
21 we've decided as a state to do to address it.

22 The RETI people know that my partner,
23 Carl Zachella, and I have been doing what we can
24 to educate the environmental community about this.
25 But it's much more than the environmental

1 community.

2 It's everybody in California really
3 needs to understand the nature of the problem and
4 the choices that we face in terms of addressing it
5 and the consequences of the choices that we have
6 made.

7 And to recognize for all of us that the
8 choices are, if not bad, they're hard. And that
9 we all have to participate in coming to the
10 solutions.

11 MR. HAUBENSTOCK: And that's exactly the
12 reason why shortcuts that lead to surprises in the
13 long run are detrimental. We have an unequalled
14 opportunity to work with the community at large
15 and to get backing by significant portions of the
16 community for transmission projects, when in the
17 past transmission projects were always seen as
18 somebody else's problem.

19 Everybody recognizes, or should
20 recognize, that these are necessary solutions to
21 the climate problem that we all will bear if
22 something's not done in the very near future.

23 If education is done, if people are
24 brought into the process early enough to be part
25 of it, and not finding themselves affected by it

1 after the fact, and become a part of what will
2 hinder progress, then we can really make the best
3 use of this opportunity.

4 I am only worried that by not being
5 inclusive enough in the short term, we will fail
6 in the long term. And we can't afford to fail.

7 MS. tenHOPE: Who do you think the key
8 recipients of that education are? Jane mentioned
9 counties. Is it general public? Is it key
10 parties versus key stakeholders?

11 MS. TURNBULL: Laurie, I think the
12 reason I raised or put counties first is because,
13 in fact, the cities are in such opposition. They
14 really, I think that they find their authority
15 challenged at this point in time.

16 If we could bring the cities in, as well
17 as the counties, we would have a much stronger
18 position overall. But at the moment, I think the
19 concept of their losing some of their land use
20 authority is very frightening to the cities.

21 In fact, I think what the Energy
22 Commission has proposed in terms of the addressing
23 the land use issues and the relationship between
24 land use and vehicle miles traveled and greenhouse
25 gases is incredibly important. And it would be

1 important to bring the cities into that dialogue.

2 And if they come into that dialogue
3 perhaps they would be willing to come into the
4 dialogue involving energy planning, including
5 transmission planning.

6 MS. tenHOPE: Any other comments on the
7 education outreach aspect. And, you know, whether
8 you think it's useful. And also then, who would
9 do this?

10 MR. CHACON: I have a question, or I
11 guess a comment. In thinking about what is being
12 discussed, at the end of the day when an IOU, be
13 it Edison or PG&E or San Diego, files for a CPCN,
14 someone's not going to be happy.

15 And I am almost 100 percent sure that
16 we're not all going to look at each other and say,
17 well, we were all in unanimous agreement because
18 there's going to be somebody that's going to sit
19 there any say, I wasn't in the room to agree with
20 what you guys agreed upon.

21 And so while the education is a good
22 exercise, it still doesn't solve the when you have
23 a real transmission plan and a real line drawn
24 that says, okay, this is the route. You're still
25 going to have to deal with the general public and

1 all of the opposition that comes with it.

2 And I don't think we're going to be able
3 to turn around and say we all agreed. And maybe
4 we will, but, you know, I don't know, maybe we
5 will. Maybe that'll facilitate things.

6 But I think at the end of the day
7 someone's going to have to make the difficult
8 decision in any event.

9 MR. JOHNSON: Laurie, I think the
10 strategic investment plan tool part of the IEPR is
11 a good opportunity to inform the public about
12 these projects. That's where all the projects are
13 being vetted, as far as being found to be needed.

14 Especially for a corridor designation.
15 Any kind of project that goes through a corridor
16 designation needs to be identified in the
17 strategic plan. So there's an opportunity to
18 inform the public about these projects way in
19 advance of them going to a CPCN.

20 MS. tenHOPE: So would you envision
21 community outreach on the plan to -- I mean
22 something beyond the typical state noticing that
23 says we're having a workshop, that would be more
24 targeted?

25 MR. JOHNSON: I think that's something

1 that phase two planning group right now for RETI
2 is talking about. What kind of public outreach
3 should be included in that plan development.

4 And I think there is talk. We just had
5 one meeting so far to develop the plan for phase
6 two, where you develop the transmission plan for
7 RETI. And so public outreach is going to be part
8 of that discussion.

9 MR. HAUBENSTOCK: Jorge, Arthur
10 Haubenstock, again. You're absolutely right. No
11 matter what we do some people are going to be
12 unhappy about it. And we will hear about it.

13 But the purpose of exercises like RETI,
14 like the western REZ, like the all too many major
15 initiatives that we have -- I'm very glad you
16 didn't list the minor initiatives in addition to
17 the major initiatives, because you would have
18 needed several more slides.

19 The purpose of that is essentially
20 regulatory due diligence. The regulatory agencies
21 that are involved need to show that all these
22 concerns were addressed and people had the
23 opportunity to bring their concerns to these
24 processes.

25 In order to solve the large problem that

1 we have ahead of us, in a timely and efficient
2 way, we've got to do much of the processing
3 upfront. People will always say yes, I wasn't
4 there, I didn't have the opportunity. But that
5 just underlines the need to do as much outreach as
6 we practically can ahead of time.

7 MR. CHACON: And I don't disagree.
8 That's why I continue to say that I think the
9 biggest obstacle is the siting of transmission.
10 Because, you know, I can do a power flow, you
11 know, and say okay, this is what we need. And I
12 can identify this, what we all want. I can
13 integrate renewables from this area and bring it
14 down to the basin. No problem. And then I file a
15 CPCN and we have all kinds of problems.

16 And so I mean I think education is a
17 good step. I think the easiest thing is if we can
18 have a designated corridor where we can start
19 providing this information to the communities and
20 saying, coming your way soon, a new transmission
21 line to integrate renewable resources.
22 Understanding that there are environmental
23 impacts, that there are maybe microenvironmental
24 impacts, but at the end of the day it's for the
25 betterment of the community as a whole.

1 It will put the issues upfront earlier
2 in the game as opposed to when you come with the
3 real CPCN application, with the real project. And
4 give people that, you know, you have to answer
5 data requests. They are, you know, the due
6 diligence or due process. I mean they are
7 afforded the due process of law.

8 I don't think anybody in here is going
9 to say, well, we're sorry, we had this RETI
10 exercise and you didn't show up.

11 I mean I think at the end of the day we
12 have to deal with the reality. And so how we do
13 this is really, in my mind, the most credible
14 thing, the most important thing that the RETI
15 exercise can come out of, and whether it's out of
16 the RETI exercise or the corridor designation
17 exercise, or any of these other venues that are
18 ongoing, you know, 10 or 11 or whatever,
19 initiatives that we have ongoing, somewhere along
20 those initiatives we have to get this thing done.
21 Otherwise, the RETI is simply going to be another
22 exercise. And I still have to do the CPCN and
23 still have to answer to the general public and we
24 didn't get very far.

25 MR. SHIRMOHAMMADI: See, when it comes

1 to this education -- talked About, you can educate
2 a homeowner or somebody who sends his kid to a
3 elementary school as much as you want about global
4 warming. The moment they see that 500 kV line
5 hanging over the home, that education goes to
6 zero.

7 I think there is a two-stage process
8 here. Education for institutional, these are
9 NIMBYism -- I'm using the word NIMBYism, whatever
10 the name is, demonstrated by, you know, groups who
11 don't want lines hanging over some sensitive area
12 or, you know, some small corridor in the desert or
13 whatever.

14 The idea there would be we're solving a
15 much bigger problem, as Andy mentioned, through
16 this arrangement. And there are ways we can
17 mitigate that.

18 When it comes to dealing with the
19 public, and livelihood of someone, the way to
20 engage the process is to select, as everybody's
21 talked about, is to select these corridors ahead
22 of the time, before even the transmission, based
23 on what can be built, where it can be built, how
24 the homes that are going to develop in there, that
25 area are being configured, and so on. So that you

1 have the corridors ready.

2 And you may pick some corridors in areas
3 which will never build transmission, so be more
4 careful not to do that. But you will have some of
5 those.

6 But pick those corridors and make sure
7 that people are aware of what may be happening in
8 the future so that they don't build their homes
9 and schools coming through these corridors. And
10 it's for transmission, and eventually they get
11 built.

12 So, education is, to me, is mostly
13 applicable for institutional basically barriers to
14 building transmission.

15 MS. tenHOPE: Who does this education?
16 I mean some people have mentioned RETI, this would
17 be an outgrowth of RETI. Some of you do your own
18 education when you have individual lines, as Roger
19 mentioned.

20 Our corridor process, is this something
21 that you would envision being more organized as a
22 future step of something like RETI, or do you feel
23 like each of you individually take responsibility?

24 What are your thoughts on who?

25 MR. SHIRMOHAMMADI: I've always felt

1 that this business is central. And in some ways,
2 not central in the sense of a politburo makes all
3 the decisions. It's central process which through
4 a stakeholder process manages the whole thing and
5 brings it home.

6 In the case of education I think the
7 responsibility should be passed along to
8 institutions like Sierra Club, NRDC, who have
9 credibility with the constituents. And they can
10 put the issue in perspective.

11 But they will work with the probably
12 essential entity who said, can you help with the -
13 - while they go to Cal-ISO and say, you take care
14 of reliability and economic issues dealing with
15 design and plan transmission.

16 They would go to entities such as NRDC
17 and ask them to deal with the educational issues.

18 MS. WALD: Thanks for that vote of
19 confidence, Dariush.

20 (Laughter.)

21 MS. WALD: But we can't do it all. And
22 it isn't just certain environmental institutions
23 that we need to engage in this effort. This is
24 something that is going to affect everybody in
25 California one way or the other, and in some cases

1 in multiple ways.

2 And I think it might not -- it's not
3 limited to the responsibility of the people and
4 the institutions that are in this room now. It's
5 something I would argue that we need to talk to
6 the schools about doing; it's something that we
7 need to talk to various other institutions in the
8 state to engage them in the task of letting people
9 know what is at stake, and what is going to
10 happen.

11 It is absolutely true that you're not
12 going to get everybody at the end of the day to
13 agree. But what you want to do is make sure that,
14 in very crass terms, that the number of people who
15 disagree is pretty small. The smaller the better.

16 MR. CHACON: I agree.

17 MS. WALD: And the way you do that is, I
18 would argue, is even before you start building a
19 line; maybe even before or simultaneously with,
20 but not necessarily connected to, you start
21 designating corridors. You make sure that the
22 audience, the real audience and the potential
23 audience, knows why you're doing what you're
24 doing. The more, as Arthur said, the more you do
25 upfront, it's really true, the more you do upfront

1 the fewer the problems you will have at the end.

2 MS. TURNBULL: I'd like to add one thing
3 to that. I totally agree with Johanna, but I
4 think it's also important to recognize that
5 reliable electricity is not just transmission
6 lines. It's an entire system which includes the
7 distribution system. And it includes energy
8 efficiency just as much as it includes the new
9 renewables.

10 So the challenge is to get the public,
11 which probably means the school children, to
12 understand the complexity of the system and what
13 the tradeoffs are, and what the opportunities are.

14 And, you know, lay it out as a game
15 puzzle, you know, SymElectric, or something like
16 that.

17 (Laughter.)

18 MS. TURNBULL: Which, you know, does put
19 the complexity of the issues out there and lays
20 them out in good order. And makes it very clear
21 that there are going to be some very difficult
22 decisions to be made, and some of them are going
23 to be unpopular. But that's how life is.

24 MR. HAUBENSTOCK: To respond to the
25 written comments that were made by the -- I always

1 get their acronym wrong -- the Alliance for
2 Responsible Energy Policy, it's going to take
3 demand response; it's going to take distributed
4 generation and all of the renewables that are
5 needed for 33 percent if we're going to have the
6 effects on climate change that we really need as a
7 society.

8 We need it all. It's not a question of
9 either/or. We need it all. And we do need to
10 have, make sure that the population at large
11 understands what the issues are.

12 But in the near term, if Jorge stands up
13 in front of a group of people in the CPCN hearing
14 by himself, he's going to get fried. And that's
15 not going to help the problem.

16 You know, we do need to take the
17 broadest group of different interests that stand
18 behind what comes out of the RETI process, the
19 western REZ process, the other initiatives and say
20 yes, actually we did all agree that this was the
21 thing to do. And, yes, we did try to take your
22 issues into consideration. And to the extent
23 you've got issues that we didn't consider, we can
24 focus on those. But there was a process that went
25 through; we did carefully consider all this.

1 And it's time that we have to move on.

2 It won't completely end the process and we
3 shouldn't be trying to short-cut the process. But
4 we should be trying to do as much work upfront as
5 we can.

6 MS. tenHOPE: I thought I'd throw out
7 another question. I mean, several of you -- I
8 didn't hear anyone say we need another initiative.
9 I heard, you know, we have several initiatives.
10 Several people mentioned we need to streamline.

11 Do you have specific thoughts on how you
12 would streamline, what you would eliminate? You
13 know, how this would become more effective and
14 facilitate your active engagement where it would
15 really matter.

16 MS. BROWN: I'll go first. I think one
17 thing that would help the streamlining process
18 takes away the environmental issues, but is when
19 we come to the issue of need, that the need
20 deference is either given to the ISO and/or in the
21 LTPP, where once the need of a project has been
22 defined, we're done with that for the CPCN
23 process.

24 Because I think you could do that
25 upfront, get it done. And then you're not

1 litigating need at the same time you're doing all
2 these environmental issues.

3 MR. CHACON: I'd like to add a little
4 bit to that. I think in addition to need, if we
5 in RETI are looking at CREZs, then by definition
6 at the end of the day we all should be looking at
7 viable alternatives to those CREZs.

8 And when we file the CPCN we should not
9 be looking at yet more alternatives to the viable
10 alternatives that were already developed for a
11 CREZ if we do our due diligence, and we do our
12 homework correctly.

13 Because supposedly in the RETI process
14 we have all the appropriate entities, the
15 environmentalists, the ISO, the regulatory
16 agencies, the PTO, the developers. And so I
17 think, to some extent, I mean there is a
18 tradition, our historical way of doing things has
19 said, you know, the PTO submits a CPCN and we have
20 to redo everything just to make sure that
21 everything was right.

22 And I know we're working towards
23 resolution, or towards making modifications to
24 that process, which is a good step. But I think
25 if we do things right, out of the RETI process,

1 when we come up with viable options, we should be
2 done. That's my perspective.

3 MS. tenHOPE: Mohammed.

4 MR. BESHIR: Well, by the way, I guess
5 the municipalities or the publics, we have a
6 different process, other than the CPCN. So --

7 MS. tenHOPE: Do you mind speaking up
8 just a little?

9 MR. BESHIR: We have, I guess we do go
10 through CEQA and NEPA -- the project, but we don't
11 really have like a CPCN going through the CPUC for
12 transmission permitting.

13 I don't think -- I guess, just talking
14 about it, I'm just trying to reference this to
15 projects we already have. And the kind of
16 difficulties we are going through some of the
17 projects.

18 And, in fact, the same projects are the
19 ones which may be even identified in a more --
20 identified through the CREZ process, or through
21 the RETI process. Specifically, I guess, you've
22 heard David Le kind of stressing the need for that
23 greenpath-like, or, you know, supporting the
24 greenpath or working together on the greenpath
25 north project issues, more of the Tehachapi

1 projects.

2 So this already projects we already have
3 with or without the RETI process. What are -- I
4 mean I'm just trying to see if how the RETI
5 process is going to make my life easier. And I'm
6 not sure it's going to make it any easier. In
7 fact, we're going to have more projects to build,
8 more transmission to build. And I see all the
9 major transmissions, we have on the process, they
10 aren't really going through, you know, a hard time
11 right now.

12 So, I'm not even pointing to any
13 particular reason why they are going, but they are
14 going through a process. And that is really a
15 tough process to go.

16 So, I think maybe in a prospective way,
17 going through, you know, the daily life of a
18 transmission project and trying to see the pieces
19 we have to go through, each one of them. And see
20 if there are anything we could do to mitigate.

21 In fact, I like when you're talking
22 about education and the outreach process. And
23 with the projects we have, I mean we identified as
24 the legislators are one group of entities we do
25 outreach. And we try to get concurrence with

1 projects with environmental group. I was just
2 saying the group level. And, of course, the local
3 communities.

4 And they all have different challenges.
5 And sometimes I think it really becomes very
6 daunting thing, process to go, especially if all
7 those three entities are on the same side. And
8 they are really fighting a big fight.

9 And it appears at times there is some
10 sympathy thing going on, at times, between the
11 environmental and the legislators, and the
12 legislators and the local communities. And case
13 in point was the greenpath north. County after
14 county pass the resolution opposing the
15 transmission line. Whether it comes, or it has
16 major impacts to that county or not. It's really
17 a sympathy type issues. And I think those are
18 really the things we really need to account.

19 There is also issues with the
20 environmental group. There are local
21 environmental group, and there are national
22 environmental group. And there are many
23 environmental group.

24 And times the need and the interests,
25 and their issues are different. And it's really

1 hard to -- and de facto opposing. Case in point,
2 we have a national organization which was
3 supporting a project. The local organization was
4 not. And so how do you really, I mean if there is
5 a platform of that organization is the same, how
6 do you handle that? I mean, it's really
7 becoming --

8 So I think we really have to work out, I
9 mean, the RETI process likely does bring all the
10 different groups. But I think we really have to
11 come up with a process on how to handle the
12 process, itself.

13 At the end of the day we are trying to
14 build the transmission. And we have projects
15 right now, going through a process. We are really
16 having difficulties. And I guess I probably am an
17 optimist most of the time, but in this case I
18 guess I'm really trying to see, you know,
19 document, you know, about 300-, 400-page document
20 at the end of the day. Whether that's going to
21 help me build a transmission projects or not.

22 MR. HAUBENSTOCK: I think it's fair to
23 say that there have been some very unfortunate
24 case studies on how not to do major transmission
25 projects. And that part of those case studies has

1 to do with who you involve upfront and the extent
2 to which you use climate change, which is a
3 tremendous motivator, as an explanation for
4 transmission project, without having involved the
5 folks who have other concerns that may be more
6 local or more regional.

7 I'm not trying to point any fingers at
8 all, but I do think that opportunities to have
9 wider environmental support were missed because
10 people were not involved earlier on.

11 And I think that's actually one of the
12 reasons why RETI was brought into being, was to
13 respond to those kinds of concerns and to try to
14 avoid having those kinds of problems in the
15 future.

16 That doesn't mean it's going to be easy
17 to do. And it doesn't mean you're going to
18 eliminate opposition. But if you plan for that,
19 and you actually look at not just the climate
20 change issues, but also the local and regional
21 issues. And you get an opportunity for people to
22 weigh in before you announce what the project's
23 going to be, then the likelihood of resistance is
24 somewhat less, and the appreciate of the
25 regulatory agencies for the due diligence that

1 went into it will be that much higher.

2 It'll be a lot easier for the
3 administrative agencies to say, yes, you have a
4 concern, but there are also these other concerns
5 that were considered upfront, and these are
6 reasons why we need to move forward quicker.

7 MS. WALD: And I actually think that
8 RETI will be more of a help to you than you think,
9 because it will, at the very least, indicate, we
10 hope, the places where you ought not to be
11 looking, right upfront, to build your transmission
12 lines, or to site your project. That is something
13 that RETI is doing, can do and is doing, and is
14 going to continue to do.

15 However, we're not doing NEPA analysis
16 or CEQA analysis. We are not actually looking at
17 doing the kind of alternatives analysis that one
18 would want to have done before picking a route.
19 And we're not doing the kind of baseline
20 environmental analysis.

21 Basically we are using publicly
22 available data right now that we can get in order
23 to figure out where the environmental red flags
24 are, and where do they appear not to be.

25 But, we're not creating the kind of

1 documentation that you would want to have in order
2 to say this is where we're going to go, and we
3 don't need to look at any other alternatives,
4 either.

5 MR. CHACON: I agree. I think what I
6 was trying to say is at the end of the day we'll
7 have the ability to select appropriate routes and
8 the alternatives necessary consistent with CEQA
9 and NEPA. And we would be performing the
10 environmental analysis required to develop an
11 environmental assessment for the filing of a CPCN
12 for those alternatives which we would presumably
13 have already talked about in the RETI forum.

14 In other words, we're not going to be
15 routing a line to a area that we identified is a
16 no-no to begin with.

17 And so when we do that and we file the
18 CPCN, sometimes we, in that sense, recreate the
19 wheel and develop yet more alternatives on top of
20 those alternatives. And go and examine yet more
21 options.

22 And so what I'm saying here is that, you
23 know, there is a due diligence. And I recognize
24 that the PUC's got the responsibility to insure
25 that what we did, that we did our homework

1 correctly. And has the due diligence to insure
2 that our things are reviewed thoroughly.

3 But to create more alternatives on top
4 of viable alternatives sometimes may create more
5 time delay.

6 And so I'm just suggesting that through
7 this process if we can identify those viable
8 alternatives so that we can do our homework,
9 submit the CPCN and have the PUC consultant go
10 ahead and evaluate the CPCN, as they are supposed
11 to. Not suggesting we shortcut the thing and not
12 look at it. But that we do it in -- viable
13 options upfront so that we can do our homework
14 upfront and expedite the process. And so, that is
15 one issue.

16 The other issue that comes to my mind in
17 listening to the discussion of putting on map
18 areas that you shouldn't go through, one of the
19 concerns that comes to me is if there is a viable
20 CREZ, but I have to cross an area that maybe I
21 shouldn't be crossing, and there's no other way,
22 someone's going to have to make a decision as to
23 how valuable that CREZ is if I have to site
24 transmission through areas that maybe people don't
25 want me to site a transmission.

1 Fortunately, it's not like renewable
2 where you can avoid having to cut through an area
3 if I have to go through it. And so, under those
4 circumstances is where I'm looking at somebody
5 helping us. Okay, we really don't want you to go
6 through here, but we recognize that this is a
7 difficult decision. And if you have to go through
8 this area to get to this CREZ that's been
9 identified as a viable cost effective best
10 resource area, then maybe this route, or maybe
11 this route, or maybe this route.

12 And that's what we want to look at. And
13 so, I mean I understand that everybody -- that we
14 want to minimize the environmental impacts. There
15 may be circumstances or certain situations where
16 you have to cross a transmission line through an
17 area that maybe is not preferred because the
18 resources are on the other side.

19 MS. WALD: Well, can I just respond to
20 that by saying I see RETI as the first of multiple
21 steps. And I'm a transmission newby here, if
22 anybody didn't figure that out already. I'm very
23 much new to this issue.

24 But I see RETI as the first of multiple
25 steps, no more than necessary, of course, but

1 multiple steps that will provide us a way to make
2 sure that the people who are concerned understand
3 that we have engaged in as rigorous analysis as we
4 possibly could, given the time and the stage in
5 the process that we were at, to insure that the
6 final choice that we make is the best choice of
7 all the alternatives that are available.

8 That's the most and the best we can ask
9 for. And, you know, I see this process as
10 integral to getting to that input.

11 MS. tenHOPE: I'd like to close the
12 workshop with each of you having an opportunity to
13 quickly answer these two questions. And I'd ask
14 you to do your top one or two items, just quickly.
15 We'll do a roundrobin.

16 So you've listened for the day. What do
17 you think our critical next steps are? The
18 critical things that need to happen either by a
19 subset of this group, or directed to the Energy
20 Commission or any other agency here.

21 I'm going to start with Mohammed, and
22 we'll go quickly around.

23 MR. BESHIR: What are the critical
24 links, more the initiatives?

25 MS. tenHOPE: You can skip. You can

1 answer one or the other. I mean, you may think,
2 you know, it's not critical links, it's, you know,
3 blow up the boxes and --

4 MR. BESHIR: We did discuss, I guess, it
5 was -- or some people felt too many initiatives or
6 less initiatives.

7 I think for me the RETI initiative,
8 which is really going on right now, does seem to
9 be the most advanced of all the initiatives, as
10 far as I can see, getting us to what we need to
11 do, even though for what I was saying, the only
12 other way I have some reservation. But I think
13 that's really the main thing I see going.

14 One issue is that initiative, of course,
15 is the phases we have. We have phase one B, we
16 have the 1A we just starting on, B we haven't even
17 finished. I'm not sure what the end result is
18 going to be.

19 We going to have the same thing at the
20 phases here when we start discussing the phase two
21 or phase three of that project. Because we are
22 really in the early stages.

23 So that's really what I see. But I
24 think one thing which is really missing here, I
25 think also part of the critical steps, is we

1 really need to go back and see what are we doing,
2 what we are not doing right, or what are we
3 missing. We are having problems in projects we
4 have today.

5 Because with all the things we do, the
6 issues where we are facing difficulty with
7 permitting this transmission, I don't think they
8 are being addressed. And somebody really needs to
9 go, maybe as part of the initiative, we need to
10 come up with a scope of this nature. But we
11 really need to go back and see lessons learned, or
12 issues of that nature, to come up and analyze what
13 we could do different to get this projects
14 developed.

15 MS. tenHOPE: Thank you. Next steps.

16 MR. BARAJAS: I think one of the
17 critical links some of these initiatives is
18 communication. And I was listening a lot of --
19 everybody mention about credibility. I mean,
20 education outreach.

21 I think that the most important is
22 getting the -- from our customers. Knowing the
23 customer is to understand that what we're doing is
24 the best for them.

25 And we, between all of us, I mean

1 sometimes we come out with (inaudible), all this
2 goes to the media. And in the end, I mean the
3 actual ratepayer decide it is really, project is
4 really needed.

5 So the first thing that they try to do
6 is oppose the project. So I think that I like the
7 idea of do the process upfront, communications. I
8 mean it needs to be. I think these and RETI is
9 good. But at the end we cannot come out with a
10 major massive transmission line and not inform the
11 public what we're doing and why it really is
12 needed.

13 I mean all this greenhouse gas,
14 everything is good. But I think in the process
15 upfront to be communicated, get that from our
16 customers. And we don't have to debate and fight
17 between each others for different alternatives. I
18 like the idea that we need to choose the best
19 alternative. But sometimes we don't agree with
20 which would be the best alternative, you know.

21 And I think we need to learn from this
22 experiences working together and try to come out,
23 I mean, agendas and try to come out what is the
24 best for actually our customers, not for us.

25 And I know there's special interests, I

1 mean there's business to do. But at the end, I
2 mean, we fair. And some the best alternative will
3 be the -- I don't see the transmission line -- but
4 sometimes the best alternative is not good for
5 some of us, you know. And at a certain point we
6 all going to have to agree.

7 We still debating, and media, and we're
8 not going to get the trust from our customers.
9 And all that's probably is what -- position.

10 MS. tenHOPE: Tony.

11 MR. BRAUN: I'm going to stray from
12 script, but still answer your questions. One,
13 don't fix what's not broken. So let's not slow
14 down what may be going forward well with these
15 efforts.

16 The critical links probably aren't among
17 these initiatives. I think the point that we
18 didn't touch upon enough today was what Traci
19 raised, and that is that we need to link up this
20 policy with energy efficiency and demand side
21 management. That is the critical link. I don't
22 want to spend 10, 20, 30 billion dollars of my
23 customers' money on a project that's not the most
24 cost effective expenditure of the money.

25 And then the most critical next step for

1 insuring success is, based on what I'm looking at
2 the maps that David Le presented, is solving the
3 issue of joint ownership. A lot of those projects
4 are projects that our folks are already either
5 engaged in doing, or are doing a similar project
6 that might not be appropriately sized because of
7 the lack of the ability to work with the ISO on
8 these projects.

9 So I'd say that given what I see in the
10 ISO's maps, that is a critical next step that
11 needs to be solved.

12 MS. tenHOPE: Thank you. Mark.

13 MR. ESGUERRA: Okay. One of the
14 critical links here, what I see in the theme I've
15 been hearing about throughout the whole day and
16 all these processes is that we need to bring more
17 people upfront to hear all the issues that are
18 going on, to get a more coordinated plan.

19 From the transmission owner perspective
20 we definitely would like to get more information
21 early on so we could help integrate that. But I
22 think trying to eliminate some of the redundant
23 processes are in place, trying to reevaluate need.
24 And where one entity thinks it's great and another
25 entity doesn't see it. And you have to go back

1 through the whole iteration again, it takes a lot
2 of time, energy and resources and money at the end
3 of the day.

4 So bringing people to the table much
5 earlier; being able to share this information and
6 trying to find ways to streamline the process by
7 eliminating redundant activities.

8 MS. tenHOPE: Jorge.

9 MR. CHACON: For Southern California
10 Edison I think our biggest need is going to be the
11 identification of new corridors. I mean you look
12 at the ISO queue and there's 70,000 megawatts in
13 there, of which 90 percent is probably in our
14 service territory.

15 You look at Mr. Ballance's presentation,
16 16,000 for 20 percent by 2010; 26,000 for 33
17 percent by 2020, you can't bring that in within
18 existing corridors. Going to need new corridors.

19 And it's going to take awhile to get
20 those new corridors. If we want to meet a 2020
21 timeline, we need to start now.

22 So as far as I think for us, our biggest
23 number one issue is going to be identifying new
24 corridors to bring power from the Victorville
25 area, from the Pisgah area, from the further

1 expansion of Tehachapi.

2 Most of our resources, as Mr. Ballance
3 indicated, outside the L.A. Basin. To get the
4 power in we're going to have to build wire from
5 the outside into the basin and need new corridors.
6 So, that's my number one issue.

7 MS. tenHOPE: Linda.

8 MS. BROWN: I could just ditto a couple
9 things like communication. But one thing people
10 haven't mentioned is one of the critical links
11 among all these initiatives is resources. People
12 resources.

13 We really have to be -- I'm going to
14 take Andy's thing where he said he thinks some of
15 these are redundant. It's taking up a lot of
16 resources for everybody to be involved in all of
17 these initiatives.

18 So I think we're all feeling it. So I
19 want us to be cognizant of somehow streamlining
20 that.

21 Next steps. I think this transmission
22 OIR that's at the Commission right now was
23 something that was tried a few years ago and kind
24 of just never happened. But identifying the steps
25 that after things get to there, and they're in the

1 licensing process, how you expedite that licensing
2 is going to be a key.

3 And I guess just close with what I said
4 earlier, that initiatives, by themselves, aren't
5 going to bring us the transmission.

6 MR. PETERS: I guess just first in
7 response to, you know, Tony's comments, I think,
8 you know, we agree there needs to be collaboration
9 on joint projects. The ISO is very open to doing
10 that.

11 The only piece that, you know, we want
12 to insure is that ratepayers in the ISO control
13 area want to know that any lines that we take on,
14 or take participation in, that they're vetted
15 through our process so that they're the least-
16 cost/best-fit for our ratepayers. So I just offer
17 that.

18 In terms of the critical next steps, I
19 think I mentioned this when I had my opening
20 comments, and that is, you know, you look at what
21 we're going to need for 33 percent by 2020. We've
22 got to work our way back from there and see what
23 all the milestones are between now and then in
24 order to get there.

25 We need to start planning these

1 projects, getting them approved, getting them
2 through the CPUC process. And if you look at how
3 long, you know, we don't even have all the
4 transmission yet for 20 percent, and here we're
5 talking about anywhere from \$6- to \$10 billion
6 worth of projects, six large 500 kV projects. And
7 that's just sort of conceptual right now.

8 So I think that's the critical next step
9 is work our way back from 2020 and determine what
10 we need to do between now and then, year by year,
11 to get there. Or else we're going to wind up
12 where we are with 20 percent not there by 2010.

13 MS. tenHOPE: Thank you. Traci.

14 MS. BONE: The obvious next step in RETI
15 is as soon as the resource assessment is done in
16 the next few months, the parties start moving to
17 conceptual transmission plans based upon the RETI
18 recommendations. And so I would hope that that
19 would be moving along, and that we will get things
20 done in time to get into the next ISO planning
21 process.

22 And that that's going to include joint
23 projects, statewide planning that involves all of
24 the participants.

25 I think the other thing that we haven't

1 really talked about here that I personally
2 consider as a next step on my agenda, is to
3 understand better technological solutions to some
4 of these environmental issues.

5 For example, I was briefed last year on
6 a product, HVDC -- 500 kV lines that can be put in
7 the ground like fiberoptic cable. And I
8 understand that these do present some
9 technological challenges, and some financial
10 challenges, but we need to be looking harder at
11 these new products and understanding what they
12 mean, and understanding whether they are options
13 to some of these issues.

14 MR. DOYEL: I agree there are a lot of
15 initiatives out there, and I think all of those
16 have their benefits. We in the Bureau are
17 involved in several of those initiatives.

18 Everything I've heard here I agree with,
19 although I'm kind of in a little different
20 atmosphere, not dealing with transmission lines,
21 more with land.

22 But I think staying engaged with those
23 is important. You know, I've been in the lands
24 and the real estate industry since 1970. And in
25 real estate we say location, location, location.

1 And in this business we need to say communicate,
2 communicate, communicate. Because that's what
3 I've heard all day today is people need to talk
4 and teach and stress where we're going so
5 everybody knows what the end is that we want to
6 get to.

7 So, that's all I think I have to say.

8 MS. tenHOPE: Thank you. Roger.

9 MR. JOHNSON: I'd just like to address
10 the critical next steps to insure success. And
11 I've jotted down four of them I believe would be
12 critical.

13 And that's for the RETI phase 1B and
14 phase 2, to inform the BLM/DOE programmatic EIS
15 about FERC sites and transmission corridor needs.

16 And then RETI phase 2, the transmission
17 plan, begin to inform the public about the
18 transitions needs and also identify for those
19 counties that are doing energy elements to a
20 general plan. So what corridor needs the state
21 sees are important, so they can include those in
22 those new electricity elements or energy elements
23 in their general plans.

24 And then RETI phase 2 also needs to
25 identify projects that would benefit from corridor

1 designation, those long-term projects that aren't
2 the critical short-term projects, that those that
3 would benefit from corridor designation, which
4 then could and should provide for an expedited
5 CPCN at the PUC.

6 And finally the BLM/DOE programmatic EIS
7 be completed and be useful to allow the State of
8 California and local agencies to tier off of it,
9 to provide expedited permitting for these
10 corridors and projects.

11 MS. tenHOPE: Thank you. Johanna.

12 MS. WALD: I would say three critical
13 next steps. One is to make sure that there are
14 adequate resources and attention available to all
15 participants including agencies, to see the
16 critical initiatives through to the next phase and
17 to the end, including RETI.

18 Two, I would say make sure that the
19 effort necessary to link these initiatives is, in
20 fact, made. In other words, the sort of like what
21 Linda was saying, that initiatives aren't going to
22 link themselves unless people actually make it
23 happen. And I think we need to do more along that
24 line.

25 Sort of as an outsider it seems to me

1 that there's still somewhat or a lot of agencies
2 or entities doing what they know how to do, and
3 what they've already done. And they need to -- we
4 need to all do a better job of third
5 communicating, which includes educating and
6 broadening our constituencies.

7 MS. tenHOPE: Dariush.

8 MR. SHIRMOHAMMADI: Given neither of
9 these initiatives can reach everybody, given that
10 some institutions think that they have to do
11 something, I'm not surprised we have parallel
12 initiatives, redundant initiatives.

13 The unfortunate part of -- the good part
14 is that, you know, they provide forums to educate.
15 The bad part of it is when you see one
16 transmission solution coming out of one
17 initiative, and another transmission solution
18 coming out of another, solving supposedly the same
19 problem, or looking at different problems.

20 So, in some ways if we have to have
21 these redundant initiatives, they should be fairly
22 well coordinated so that we don't come up with
23 different contradictory results.

24 However, I think what we can do, during
25 my short spiel, I mentioned a few areas. What

1 these initiatives all are trying, basically are
2 doing the same thing. We're doing a traditional
3 approach and are doing it in a more open fashion.

4 But there's some fundamental components
5 of this process are broken. We know that planning
6 is broken. Gipper solved itself in many ways, but
7 it still has to be fixed. The permitting process
8 is broken. The transmission investment issue is
9 broken.

10 My suggestion is rather than trying --
11 all these initiatives try more of the same thing,
12 but a different flavor, is to focus these
13 initiatives on solving these specific problems.
14 And in that way you'll have an over-arching
15 initiative, say called RETI, for example, if it be
16 that. And then you have multiple initiatives
17 taking care of.

18 For example, probablistic planning. For
19 example, opening transmission investment
20 opportunities. Things of that nature which would
21 allow for us to get the most back for our
22 activities.

23 MS. tenHOPE: Thank you. Arthur.

24 MR. HAUBENSTOCK: Transmission should
25 not be the limiting step that prevents the state

1 from getting its 33 percent target. And if RETI
2 and all the other initiatives are going to be
3 anything other than yet another one in the series
4 of forgotten reports, we really do have to very
5 carefully establish what the links are between the
6 RETI report and other reports, and the ISO
7 municipal transmission planning.

8 You know, we also have to look at how
9 those reports are going to coordinate and make
10 more efficient the licensing and permitting
11 requirements for a variety of agencies. We have
12 an opportunity to, instead of having a multitude
13 of initiatives that are going to take resources
14 away from where we need them most, in transmission
15 planning, optimized transmission planning at that.
16 We have the opportunity to do that, but it's going
17 to take some thought and it's going to take
18 careful design.

19 MS. tenHOPE: Jane.

20 MS. TURNBULL: I guess I'd like to start
21 with a plea that we again focus on educating the
22 public. And don't assume that the public has a
23 comprehensive understanding of why this is
24 important.

25 Right now the public doesn't really

1 understand what 33 percent renewables
2 implementation is going to entail. They think
3 it's a great concept, but what's involved is
4 something, in terms of the details, is just
5 generally not appreciated.

6 And it also is not appreciated by the
7 local communities, because they're all for
8 reducing greenhouse gas emissions, but if it
9 involves changing the way things are done, well,
10 it may not be quite so popular.

11 So, again, we have to go back to putting
12 in place a preface that explains why this whole
13 issue is important.

14 Then we have to look at, you know, how
15 the loading order meshes with transmission.
16 Everybody's happy with the state's loading order,
17 but transmission is about the fourth point down
18 the list. And not to say that it is not
19 important, but somewhere along the line the link
20 has to be made between all the components of the
21 loading order, again so that the public has an
22 understanding in terms of what the roles of each
23 component is.

24 They also have to understand who is
25 playing what kind of role in the decisionmaking

1 process. There are three state agencies. Most
2 citizens do not know what the role of the ISO is.
3 They very often confuse what the PUC and the
4 Energy Commission may be doing. And in terms of
5 how the three actually work together to make this
6 process an effective process is a phenomenon that
7 is above the awareness level of most of the
8 public.

9 It doesn't mean the public is dumb, it's
10 just that this information has not been generally
11 made available to the public. So this whole
12 decision process and what's included in the
13 decision process should be laid out in very simple
14 terms.

15 And I think the final point that's
16 really important is the public has to understand
17 what the implication of failing to meet the
18 climate change goals is. Because right now they
19 are not necessarily willing to bite too many
20 bullets. And if they fail to bite those bullets,
21 we're going to have some incredible problems for
22 decades ahead.

23 MS. tenHOPE: Thank you. Gary.

24 MR. MUNSTERMAN: A couple of
25 observations and comments, several of which mirror

1 what Roger mentioned earlier. RETI will inform
2 these, particularly these broader scale planning
3 initiatives that we heard about today.

4 The other point which I agree with is
5 that it seems like, from what I know about the
6 transmission corridor designation, that that might
7 be a good outcome that would follow on the
8 conclusion of RETI.

9 Also, Jane had a comment earlier, and as
10 I recall the corridor designation, it defines a
11 role for local government. And we spent some time
12 talking about education. I think that's a good
13 place for that to occur, both in terms of
14 comprehensive energy planning, but also in terms
15 of the local government role and corridor
16 designation.

17 One of the concerns I have is that how
18 does that work when you have multiple
19 jurisdictions that a corridor would go through.
20 And possibly I think something that might need to
21 be looked at is, is there some kind of regional
22 structure may require authorization that would
23 force local governments to collectively work
24 together, much like they do for transportation
25 planning within regions.

1 Because that's, I can see where Southern
2 California Edison, as well as the other utilities,
3 are going to have a problem making it happen.

4 MS. tenHOPE: Thank you. Dave.

5 MR. PECK: Just a couple things. We'd
6 like to see RETI, the mission of RETI stay on
7 course and on schedule. There's aggressive goals,
8 and we would like to see that the results turn up
9 the most cost effective renewable energy results
10 and implementation of those in a priority order.

11 We think that it's critical that the
12 RETI, as the RETI results are developed, that we
13 quickly assimilate those into our CPUC processes.
14 And we see that happening through the CPUC
15 transmission investigation and that type of
16 coordination.

17 And then finally, just early outreach
18 for any transmission projects. And complete
19 applications when they're filed with the CPUC.
20 That's it.

21 MS. tenHOPE: Thank you. We're going to
22 move to public comments, but I first want to thank
23 all the panel members for your time, for your
24 thoughts, for your suggestions. I was very
25 useful.

1 I've talked with staff at the breaks and
2 they really appreciate the suggestions that you've
3 brought to the table. And I hope it's the
4 beginning of ongoing conversations on these
5 topics, some of the ideas that you've put forward.

6 I'm sure that Judy will mention written
7 comments, so if, you know, you're so inclined we'd
8 be very interested in your written comments to
9 these questions. And if you're able to develop
10 some of these ideas a little further on
11 streamlining or process recommendations, it would
12 be very much appreciated.

13 Thank you, it's been fun and
14 educational. I'll turn it back to Judy.

15 MS. GRAU: Thank you very much, Laurie,
16 for your excellent job moderating these panels and
17 keeping it all on track.

18 Panelists, if you do need to leave,
19 please do so. I know I kind of promised a 3:00
20 ending time. So go ahead, feel free to leave.

21 However, we still have a public comment
22 period, so if we have folks first in the room, and
23 then we'll go to the phones. You've all been very
24 patient, so if you have something to say you can
25 come up either to the podium or to one of the

1 chairs --

2 MS. tenHOPE: Or right here.

3 MS. GRAU: -- that aren't occupied.

4 MS. tenHOPE: I'll vacate.

5 MS. GRAU: Thank you very much, Laurie.

6 So, first of all, do we have any public
7 comments, anyone in the room who would like to
8 speak further.

9 Okay, -- I'm sorry, we have a comment.

10 Yes.

11 MS. ALDRIDGE: Yeah, just --

12 MS. GRAU: You need to come to a mike.

13 MS. ALDRIDGE: I have to come to the
14 mike?

15 MS. GRAU: Yeah.

16 MS. ALDRIDGE: Okay.

17 MS. GRAU: Thanks. Please identify who
18 you are.

19 MS. ALDRIDGE: Yes, hi. Madeleine
20 Aldridge with eSolar, a solar developer coming out
21 of California.

22 And just a couple comments, and starting
23 from one of the things I noticed this morning, was
24 in some of the presentations I noticed one thing
25 that was lacking was any comment about not meeting

1 the 2010 goals.

2 And it just surprised me that it was
3 just taken as a given that there's no meeting
4 those goals. And seems to me if you look at the
5 work that's being done here, the folks that are in
6 the room, that it seems likely if there was a bit
7 of a more press that something might be done.

8 I think what we've seen before is that
9 when policy is put in place by either the CPUC or
10 even the CEC, things can get done a lot faster.
11 And although this initiative process is really
12 good and very good for the future, I think there's
13 some great plans coming out of this coordinated
14 group, is that without the policy behind it to
15 force the goal, we're not seeing the result coming
16 out that we'd like to see.

17 I think originally the 2010 goal was
18 probably more meant for a baseline, not a ceiling.
19 And we're not even meeting that. And I think that
20 that's really disappointing.

21 Just a couple comments on potential
22 solutions, too, is that I think that there's been
23 a lot of talk about feed-in tariffs. You know,
24 getting transmission is very important, but until
25 we have the generators out there knowing that

1 they're going to have assurity to be able to
2 interconnect, and be able to sell their power on
3 the grid, you're going to have a lot of
4 uncertainty from developers, as well as building
5 transmission when there's no final commitment that
6 the power's going to be purchased at the end of
7 the day.

8 So just that one comment. And, you
9 know, it seems to me that if there's more focus on
10 a policy basis to put out there to make it happen,
11 tell the utilities to make it happen, then I'm
12 sure that they'd find solutions.

13 MS. GRAU: Thank you. Do we have anyone
14 else in the room who would like to make a comment?

15 Okay, let's go to the phones.

16 THE OPERATOR: If you would like to ask
17 a question on the phone line, please press star 1.

18 (Pause.)

19 MS. GRAU: Okay. Looks like we don't
20 have anyone on the phone.

21 MS. SPEAKER: Apparently they just
22 (inaudible).

23 MS. GRAU: Oh, I'm sorry. Excuse me?

24 MS. SPEAKER: Forrest DeGroff.

25 MS. GRAU: Forrest DeGroff. Okay. Go

1 ahead.

2 THE OPERATOR: Forrest DeGroff, your
3 line is open.

4 (Pause.)

5 THE OPERATOR: Hello, Forrest DeGroff,
6 your line is open. Do you have your mute button
7 on?

8 (Pause.)

9 MS. GRAU: Okay.

10 MS. SPEAKER: He's dropped off.

11 MS. GRAU: Okay, he's dropped off. All
12 right. Okay, thank you very much.

13 With that we will conclude the workshop.
14 And I would just note, again, the next steps that
15 I mentioned earlier. We had one workshop on the
16 21st. This one is now concluded, this is the
17 second one.

18 We have a date for written comments of
19 July 29th. So if you have not gotten a chance to
20 say anything here, or you think of something
21 later, or you have mused over this and have some
22 thoughts to put together coalescing things people
23 have said, please provide them to us.

24 And, again, we have a staff workshop on
25 the 31st on emerging technologies. We heard a fed

1 mentions of things that might be on the rise and
2 that could help, especially with operational
3 integration issues. So we do hope that you will
4 attend that workshop also, and participate. Like
5 I said, the notice and agenda have already been
6 posted on our website.

7 And then the IEPR Committee workshop
8 August 21st is coming up. And then after that
9 releasing draft chapters for your review and
10 comment for the IEPR Committee hearing on
11 September 25th.

12 So, thank you all so much for your
13 participation. We really appreciate it. And
14 anything else that anyone would like to say before
15 we sign off?

16 Okay, thank you all very much for coming
17 today.

18 (Whereupon, at 3:25 p.m., the Staff
19 Workshop was adjourned.)

20 --o0o--

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I, PETER PETTY, an Electronic Reporter,
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I further certify that I am not of
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