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JOINT COMMITTEE WORKSHOP
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:

Preparation of the 2009 Integrated)
Energy Policy Report)

Transmission Planning Information)
And Policy Actions)

Docket No.
09-IEP-1D



ORIGINAL

CALIFORNIA ENERGY COMMISSION

HEARING ROOM A

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

MONDAY, MAY 4, 2009

9:30 A.M.

CALIFORNIA REPORTING, LLC

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Reported by: Mary Clark, CERT*D 214

1 COMMISSIONERS PRESENT

2 Jeffrey D. Byron, Commissioner,
3 Presiding Member, IEPR Committee, Siting Committee

4 James D. Boyd, Vice Chair,
5 Associate Member, IEPR Committee

6 Susan Brown, Commissioner

7 SPEAKERS PRESENT

8 Suzanne Korosec, IEPR Lead

9 Judy Grau, Mark Hesters, Grace Anderson
10 Strategic Transmission Planning Office

11 Chris Tooker
12 Engineering & Corridor Designation Office

13 Rich Ferguson, Dave Olson
14 Center for Energy Efficiency & Renewable Technologies

15 Carl Zichella
16 Sierra Club

17 Paul Didsayabutra
18 California Independent System Operator

19 Richard Bayless
20 Northern Tier Transmission Group

21 Bill Chamberlain
22 Chief Counsel

23 PANELISTS PRESENT

24 Chuck Najarian, Moderator Session #1

25 Tony Braun
California Municipal Utilities Commission

PANELISTS PRESENT CONT.

Juan Carlos Sandoval
Imperial Irrigation District

Jim Shetler
Sacramento Municipal Utility District

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Kevin Dasso
Pacific Gas & Electric

Patricia Arons
Southern California Edison

Linda Brown
San Diego Gas & Electric

Karen Edson
California Independent System Operator

Nancy Ryan
California Public Utilities Commission

Roger Johnson, Moderator Session #2
Energy Commission Corridor Designation Program

Chloe Lukins
California Public Utilities Commission

Jurg Hueberger
Imperial County

Johanna Wald
Natural Resources Defense Council

ALSO PRESENT

Arthur Haubenstock
BrightSource Energy

Zarl Zichella
Sierra Club

ALSO PRESENT

Gary Munsterman
Air Force Western Regional Environmental Office

Laurie Tenhope, Advisor

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P R O C E E D I N G S

1
2 MS. KOROSK: -- and policy actions. This
3 workshop's being conducted jointly by the Integrated
4 Energy Policy Report Committee and the Siting Committee.
5
6 Transmission's obviously a major issue in
7 California today with our need for electricity continuing
8 to increase along with our population and with the need to
9 access renewable resources to meet our greenhouse gas
10 reduction goals. Transmission's also a national issue.
11 There's legislation currently being drafted to give FERC
12 the authority to site high priority national transmission
13 lines with the goal of expanding the national transmission
14 system, trying to shorten the average five-to-seven year
15 sitting timeline, addressing uncertain cost allocation
16 mechanisms and providing access to renewable resources
17 that are often located in remote and unconnected areas.
18
19 The results of today's workshop will feed into
20 the Energy Commission's Strategic Transmission Investment
21 Plan, which the Energy Commission develops and includes as
22 part of its IEPR. The Energy Commission develops the IEPR
23 every two years in odd-numbered years and in that report
24 we assess major energy trends and issues that are facing
25 California, making energy-related policy recommendations
to ensure reliable, secure and diverse energy supplies,
conserve resources, protect the environment, enhance our

1 economy and protect public health and safety.

2 Judy will be getting more background on the
3 Strategic Transmission Investment Plan, but just briefly,
4 in 2004 Senate Bill 1565 added a requirement to the Public
5 Resources Code for the Energy Commission to adopt a
6 Strategic Plan for the state's electricity transmission
7 grid that recommends actions to ensure reliability, to
8 relieve congestion and to help meet future growth in
9 electricity loads and generation and to include that plan
10 in the biennial IEPR.

11 Just a few housekeeping items before we get
12 started. Restrooms are out the double doors and to your
13 left. There is a snack room on the second floor of the
14 atrium at the top of the stairs under the white awning,
15 and if there is an emergency, please follow the staff as
16 we evacuate the building to Roosevelt Park, which is
17 kitty-corner to the building, and wait for the all-clear
18 signal.

19 Today's workshop is being webcast, and for
20 parties who are listening in on the webcast who wish to
21 speak during the public comment period, the call-in number
22 is 888-566-5914 and the passcode is I-E-P-R. The webcast
23 recording will be made available almost immediately after
24 the workshop on our website, and then will be replaced by
25 the written transcript once that is completed, which is

1 about ten working days after the workshop.

2 Just a reminder for those of you who are going
3 to be speaking during the public comment period, if you
4 could give the court reporter your business card after
5 you're done speaking, we will assure that your name is
6 spelled correctly in the transcript.

7 And with that, Commissioners, I'll turn it over
8 to you for opening remarks.

9 COMMISSIONER BYRON: Good morning everyone, my
10 name is Jeff Byron, and I chair the Integrated Energy
11 Report Committee as well as the Siting Committee. With me
12 is my associate member and vice chair of this Commission,
13 Commissioner Boyd -- I should say associate member of the
14 IEPR Committee. And to his right is my adviser Laurie Ten
15 Hope and all the way to the right this morning is
16 Commissioner (inaudible) Susan Brown. We're hopeful that
17 Commissioner Douglas, who is also on the Siting Committee
18 with me, will have opportunity, I should say Chairman
19 Douglas, will have opportunity to join us throughout the
20 day as well.

21 If I may, just a couple of opening remarks.
22 This is one of a series of workshops that we'll be doing
23 over the next number of months for the Integrated Energy
24 Policy Report. This one's an extremely important one. As
25 you all know, because there's a lot of expertise sitting

1 in the audience here today, there's a great deal of
2 renewed interest and importance associated with
3 transmission infrastructure. Of course, it's never really
4 gone away. There have been people at this Commission and
5 throughout the state that have been working on these
6 issues for a long time. The Energy Commission has a team
7 of very dedicated and accomplished professionals that are
8 going to be putting together our Strategic Transmission
9 Investment Plan over the next number of months, and the
10 STIP, as we refer to it, has also had renewed and elevated
11 importance, and I'll mention the obvious.

12 I think you all know that the governor's office
13 has announced an effort to reorganize energy in the state
14 and there is pending legislation to do just that. A lot
15 of that has to do with transmission siting. Now,
16 regardless of what you think about how that may proceed,
17 renewables and the interest in moving to a high percentage
18 of renewables in this state is really what's driving this
19 along with, of course, now increased visibility at the
20 federal level. There's at least two bills that are
21 pending at the federal level on transmission
22 infrastructure that may affect us in a significant way.

23 As I mentioned, the integration of renewables,
24 but there's maybe a third factor, at least in my mind,
25 that's extremely critical, and that is the land use issues

1 in California are becoming more and more crucial.
2 Environmental concerns have always been with us, but now
3 we're running out of land. We're running out of regions
4 where we can put transmission (inaudible) where we can
5 build the necessary renewables that we need, so it's a
6 really critical time in California's transmission
7 infrastructure plan.

8 I wanted to mention one other thing, again,
9 perhaps the obvious. There's been a lot of discussion
10 about conditioning of transmission lines, even at the
11 federal level, making them all renewables, and I guess I'd
12 like to go on the record right now that you can no more do
13 that than you can require grocery stores to put fat-free
14 potato chips on their shelves and get rid of all the other
15 ones. We've got integration issues. We've got storage.
16 We have got a growing population. Even though our per
17 capita energy usage remains flat, there is an increased
18 demand for electrification, and Commissioner Boyd is
19 (inaudible) of that as well as he also recommends that we,
20 among other things, move to electrify the transportation
21 sector.

22 Now, we can only get so much renewables built
23 close to the load, so we're going to need large,
24 centralized renewables and we're going to need them in all
25 their forms -- solar, wind, geothermal, biomass, and we're

1 going to need the transmission lines that will bring those
2 to the load centers.

3 So, the 2009 Strategic Transmission Investment
4 Plan is a very important document, and this is not a turf
5 issue between the agencies. Everybody's working on
6 transmission in one way or another. We welcome
7 cooperation and the involvement of our fellow agencies in
8 the state government. We're interested in the
9 perspectives of the developers and everyone who has a
10 vested interest in this. There are some very dedicated
11 folks here today that have been working on this for a long
12 time. It's a critical issue. Today is information
13 gathering.

14 I'd like to thank the staff ahead of time and
15 all the attendees who got up so early to be here this
16 morning.

17 Commissioner Boyd, do you want to add anything?

18 VICE CHAIR BOYD: Thank you, Commissioner
19 Byron, and good morning everybody and welcome and thank
20 you all for being here, the dedicated core of people who
21 care about this subject.

22 Commissioner Byron really has framed the issue
23 well and has put a lot of the problems back on the table,
24 but, yeah, I have a few things to say.

25 I've been at this way too long. It's not just

1 the seven plus years I've been here as a Commissioner, but
2 it goes back to the electricity crisis, which I,
3 unfortunately, found myself deeply involved in. I didn't
4 have gray hair before that occurred but --

5 I mean, transmission was identified then as
6 oops, one of the main things we got to deal with, and we
7 had a big, just to keep it clean, contest over fixing
8 Path 15, which got fixed a year or two later than it could
9 have but got fixed, but ever since then we've known
10 transmission is a problem. The first Integrated Energy
11 Policy Report, the requirements for which was an outcome
12 from the electricity crisis and I think one of the finest
13 pieces of legislation to emanate from the electricity
14 crisis, identified transmission. That may be something we
15 need to get to. I happen to have chaired that in the two
16 subsequent -- or been involved in two subsequent hypers.
17 Always the Integrated Energy Policy Report has referenced
18 this, and we've all sat and watched the population and the
19 economy of the state grow, and we're going through a
20 painful cycle right now that actually, maybe, is giving us
21 a tad of breathing room.

22 We all know there's no middle of nowhere
23 anywhere left in California because of that population
24 growth, so siting is a very significant and serious
25 problem for us, not just for transmission, but for

1 virtually anything and everything, and we've got to
2 struggle with that.

3 Also, now it is the 21st century. We ought to
4 be capable, by now, of solving that problem. We recognize
5 it. We recognize we -- it and everything else is part of
6 a system, but, boy, do we still struggle with our -- what
7 I've come to call tribal turf instincts, and it really
8 makes it tough to attack this as a systems problem. So,
9 hopefully, we can all work together and figure out how to
10 work together and how to come up with the optimum system
11 that meets California's needs, minimizes, at best, the
12 environmental and aesthetic impact. Because, frankly, if
13 we don't work it out, and if California can't, we usually
14 find ourselves in the front of most issues, if we can't
15 work it out, it will get worked out for us, and we'll just
16 sit and watch it being worked out, and we probably won't
17 be happy about it because it probably won't fit the
18 California view of what the future should be or the
19 California lifestyle or what have you.

20 Hopefully, Commissioner Byron, you will sit here
21 and read real meaningful solutions to this seemingly
22 intractable dilemma of what to do with transmission since
23 we have a number of vested interest agencies who think you
24 would rather do it myself, run it myself, or what have
25 you, and we need to solve that problem. So, I look

1 forward to the beginning of yet another, but the new and
2 most successful effort to come up with some answers.

3 Thank you.

4 MS. KOROSSEC: Okay. We'll begin with the
5 presentation by Judy Grau from our staff.

6 MS. GRAU: Good morning. I'm Judy Grau with the
7 Commission's Strategic Transmission Planning office, and
8 before I get into my presentation, I'd like to give you a
9 few changes to the agenda. So, if you all have your copy
10 of the agenda in front of you, on the first page, Dariush
11 Shirmohammadi will not be with us this morning. He's in a
12 joint presentation with Rich Ferguson and Carl Zichella,
13 so it will just be the two of them, and then on the second
14 page of your agenda, on the afternoon session number one,
15 our first panelist, which says Jim Caldwell, at LADWP, Los
16 Angeles Department of Water and Power, he will be replaced
17 by Tony Braun of the California Municipal Utilities
18 Association.

19 And then down further on page 2, session 1, the
20 stakeholder questions and feedback, again, Dariush is not
21 here, so you can cross his name off the list of the
22 confirmed participants. Thank you.

23 Okay. So I want to start by laying out the
24 agenda for the day, and first in the -- this is sort of a
25 road map for where we're going today. The general focus

1 of the morning is to present the relevant transmission
2 information that will serve as the basis for the afternoon
3 policy discussion. So, first, I'll be giving a short
4 presentation that provides some context for the
5 development of our biennial Strategic Transmission
6 Investment Plan and outline the development steps for the
7 2009 Strategic Plan, which, as Susan mentioned, is a
8 companion document to the 2009 Integrated Energy Policy
9 Report or IEPR.

10 Following my presentation, we'll hear from Mark
11 Hesters and Chris Tooker of the Energy Commission staff.
12 Each of them will summarize the load-serving entities'
13 responses to the Energy Commission's transmission forms
14 and instructions, and Mark will summarize the responses
15 for the electrical path related questions, while Chris
16 will summarize the responses for the corridor questions.
17 The utility responses to our forms and instructions are
18 one piece of data that we will be using in the Strategic
19 Plan process.

20 We'll then hear about California's Renewable
21 Energy Transmission Initiative or RETI, from Rich Ferguson
22 of the Center for Energy Efficiency and Renewable
23 Technologies, who is the co-coordinator for the RETI
24 effort, and joining him will be Carl Zichella from the
25 Sierra Club, who is one of the two environmental

1 representatives on the RETI stakeholder steering
2 committee.

3 And then Paul Didsayabutra of the California
4 Independent System Operator or Cal ISO will give us an
5 overview of the Cal ISO's 2009 and 2010 transmission
6 plans, and then we'll hear about some of the regional
7 transmission projects and regional planning initiatives
8 from the trio of Grace Anderson of the Energy Commission
9 staff, Rich Bayless of the Northern Tier Transmission
10 Group and Phil Chamberlain of the Energy Commission staff.

11 After the lunch break, we will move into the
12 heart of the workshop, the roundtable panel discussions.
13 The first session will address the issue of facilitating
14 coordinated transmission planning to achieve the state's
15 renewable policy goals. Chuck Najarian of the Energy
16 Commission staff will serve as the moderator.

17 We have representatives from utilities, the Cal
18 ISO and the California Public Utilities Commission, or
19 CPUC, as Panelists who will address the questions in the
20 workshop agenda. We've also invited key stakeholders to
21 come up to the microphone and ask questions of and provide
22 feedback to the Panelists after their initial roundtable
23 discussion. We will then offer the Panelists the
24 opportunity to make closing statements if they wish.

25 Second session of the afternoon will address the

1 issue of how to value environmental decisions and
2 transmission planning via a programmatic approach. Roger
3 Johnson of the Energy Commission staff will serve as the
4 moderator. This Panel includes utility, regulatory,
5 environmental and local government representatives. We do
6 not have an invited list of key stakeholders to ask
7 questions of the Panelists, but invite anyone in the room
8 or on the phone to provide feedback to or ask questions of
9 these Panelists.

10 And, finally, we will take comments from members
11 of the public either in the room or on the phone on any of
12 today's topics at the end of the workshop.

13 So I want to begin by providing some context for
14 our efforts today and the rest of this 2009 cycle. Then
15 I'll briefly describe some of the key recommendations from
16 our most recent Strategic Plan, the 2007 edition, as well
17 as transmission-related recommendations from the off-year,
18 2008, IEPR update, and then I'll talk a little bit about
19 where we're heading with the 2009 Strategic Plans and some
20 next steps.

21 And, as Suzanne noted earlier in her
22 presentation, in September of 2004, the governor signed
23 Senate Bill 1565, which added Section 25324 to the Public
24 Resources Code and it states that The Energy Commission in
25 consultation with the California Public Utilities

1 Commission, California Independent System Operator,
2 transmission owners, users and consumers shall adopt a
3 Strategic Plan for the state's electric transmission grid
4 and include it in the Integrated Energy Policy Report.
5 The Strategic Plan shall identify and recommend actions
6 required to implement future investments needed to ensure
7 reliability, relieve congestion and meet future load
8 growth, future growth in load and generation, including
9 but not limited to renewable resources, energy efficiency
10 and other demand reduction measures.

11 And so, as part of the Energy Commission
12 biennial IEPR process, the Energy Commission has produced
13 a companion document entitled the Strategic Transmission
14 Investment Plan since 2005. The purpose of the Strategic
15 Plan is to identify the transmission investment
16 impediments to achieving state policy objectives and to
17 identify recommendations by parties, including state and
18 local agencies, investor-owned and publicly owned
19 utilities, environmental and stakeholder groups and the
20 public. The value of the Strategic Planning process is
21 its ability to bring together these key stakeholders in an
22 open forum that allows for these impediments and recommend
23 actions to be vetted for the committee's consideration.

24 In the 2007 Strategic Plan, we highlighted
25 transmission for our renewables as one of the most

1 important policy areas. The overarching recommendation is
2 that stakeholders should develop a road map for
3 renewables.

4 At that time, the Renewable Energy Transmission
5 Initiative, RETI, was just getting underway, but the
6 Energy Commission saw this as an important vehicle for the
7 development of such a road map, and so we recommended that
8 the Energy Commission participate actively in RETI and vet
9 and integrate the results from RETI into the next IEPR and
10 Strategic Plan cycle.

11 Having been granted the authority to designate
12 transmission corridors on non-federal land through passage
13 of Senate Bill 1059 in 2006, the 2007 Strategic Plan
14 recommended that the Energy Commission leverage its power
15 plant licensing and transmission corridor designation
16 authority, environmental expertise and transmission
17 planning and policy expertise to help guide renewable
18 resource development in California.

19 In the 2008 IEPR update, one of the five major
20 topic areas analyzed was the physical, operational and
21 market changes necessary for California's electric system
22 to support a minimum of 33 percent renewables by 2020.
23 More specifically, the report noted that there are major
24 barriers to achieving this goal, including the need for
25 transmission additions and upgrades to access renewable

1 resource areas. The report made three key recommendations
2 in this area.

3 First, the Energy Commission should work
4 collaboratively with IOU's and publicly owned utilities in
5 the RETI Phase 2A activity to develop conception
6 transmission plans that will inform the 2009 IEPR and
7 strategic transmission plans processes and provide this
8 information on potential high-priority transmission
9 projects and corridors that may be necessary in the future
10 to achieve these higher levels of renewables penetration.
11 The RETI Phase 2 results, together with information on
12 planned transmission projects and corridor needs that will
13 be collected through the 2009 IEPR process will help
14 identify opportunities for joint project collaboration.

15 Second, to promote joint transmission project
16 opportunities, the Energy Commission should use the 2009
17 IEPR and 2009 Strategic Plan processes as forms to
18 identify and evaluate regulatory or policy changes that
19 would reduce both the legal and market obstacles to joint
20 projects development.

21 Third, the Energy Commission should work closely
22 with stakeholders in the development of the RETI Phase 2
23 conceptual transmission projects to ensure that land use
24 issues and environmental concerns are evaluated and
25 considered.

1 And so now a little bit about where we're going
2 from this point.

3 First, the IEPR committee released its scoping
4 order for the 2009 IEPR on January 9th. The scoping order
5 directs the 2009 Strategic Plan to do four things. First,
6 it shall identify and evaluate regulatory and policy
7 changes that would reduce barriers to transmission
8 projects, including joint investor owned and publicly
9 owned projects. Second, it shall identify near-term
10 transmission projects that will ensure reliability,
11 relieve congestion, provide increased access to renewable
12 generation and meet future load growth, and this goes back
13 to the Public Resources Code section cited earlier.
14 Third, it shall discuss federal and state corridor
15 designation efforts to identify potential transmission
16 corridors in advance of need in order to streamline future
17 permitting of transmission lines needed to access top
18 priority renewable resource zones. And fourth, it shall
19 discuss current transmission related research and
20 development to help resolve transmission barriers.

21 On January 14th, the Energy Commission began its
22 data gathering process by adopting its forms and
23 instructions for submitting electric transmission-related
24 data. Responses were received from California's investor-
25 owned and publicly owned utilities on March 16th. Today's

1 workshop provides an opportunity to vet these responses as
2 well as the most recent information from RETI, the Cal ISO
3 and regional efforts in order to begin the process of
4 addressing the high-level policy issues.

5 Another joint IEPR Siting Committee workshop has
6 been scheduled for Monday, June 15th. Staff there work
7 with the IEPR and Siting Committees over the next month to
8 develop the agenda for this workshop, but at this time,
9 staff envision this workshop being a venue for refining
10 the available information and fine tuning the policy
11 issues which we discussed today. It could also serve as
12 an opportunity to initiate a dialogue with local agencies
13 on corridors.

14 Following the release of the committee draft
15 Strategic Plan in mid-August, the hearing on the draft
16 Strategic Plan will be held on September 3rd. This will
17 be an opportunity for stakeholders to vet transmission
18 project issues and actions as well as our ongoing corridor
19 work.

20 And this slide just summarizes, I think,
21 everything that I talked about and the only addition is
22 then in mid-October after the hearing on September 3rd, we
23 would release the committee final Strategic Plan with an
24 adoption target of our first business meeting in November,
25 which would be November 4th.

1 And so with that, if we don't have any
2 questions, we will move to our next speaker.

3 COMMISSIONER BYRON: Well, you didn't give us
4 much of a chance here.

5 MS. GRAU: Okay. Sorry.

6 COMMISSIONER BYRON: Ms. Grau, that was a very
7 good presentation. Mr. Boyd, any questions?

8 VICE CHAIR BOYD: No questions.

9 COMMISSIONER BYRON: I have one ask that is did
10 I see where there were a couple of tubs of cookies back
11 there on the table.

12 MS. GRAU: There are cookies back there.

13 COMMISSIONER BYRON: And who is responsible for
14 that, Ms. Grau?

15 MS. GRAU: I brought the cookies --

16 COMMISSIONER BYRON: Thank you very much.

17 MS. GRAU: -- my goal is to make sure that --
18 because this is a long day for everybody. We know that.
19 We have a long agenda. We want to keep you all awake and
20 well fed and happy.

21 COMMISSIONER BYRON: I just wanted to thank you
22 for that.

23 MS. GRAU: You're welcome.

24 Okay. Next we have Mark Hesters, who is a
25 senior electrical engineer with the Energy Commission

1 strategic transmission planning office.

2 MR. HESTERS: Good morning. I'm going to try to
3 keep this pretty brief. What do I do? In general, I'm
4 going to provide a summary of the responses we received
5 for our transmission forms and instructions. I'm going to
6 provide a status. Is that working? I'm going to provide
7 an update on the projects that we were recommended in our
8 2005 strategic implement plan, transmission implementation
9 plan. I'm going to provide an update on the status of the
10 2007 recommended projects and give a list of potential
11 2009 projects.

12 We received -- these are the entities that
13 provided responses to our transmission-related data
14 requests. I wanted to highlight the Imperial Irrigation
15 District filing. It was very refreshing to get the
16 description of their projects and the information that
17 they provided in this response. This is one of the few
18 places that were able to get this kind of information from
19 the municipal utilities or non-IOU investor-owned
20 utilities and their filing was refreshing.

21 Okay. On the 2005 Strategic Plan projects, we
22 recommended five projects. The Commission recommended
23 five projects in the 2005 Strategic Plan, and I would like
24 to say we've made the -- the state has made great progress
25 on them.

1 The Southern California Edison Deaver number
2 two, 500 KV line slated to run from Arizona into the Dever
3 substation near Palm Springs in California received a CPCN
4 in January of 2007. That's a certificate of public
5 convenience and necessity from the Public Utilities
6 Commission, which is essentially their major permit that
7 they need from California. In January of 2007, the issue
8 came up that they were denied the similar permit from the
9 Arizona Corporation Commission. Currently, Edison is
10 before FERC, the Federal Energy Regulatory Commission. I
11 know we have a new court reporter, and this is good for
12 other people making presentations and asking questions, be
13 real clear on acronyms and at least say them once. So
14 they've gone before FERC for a backstop permitting. This
15 is under the energy policy act of 2005.

16 Southern California Edison is also before the
17 Public Utilities Commission in California to essentially
18 bifurcate the project, building a substation at what
19 they're calling an end-point substation near Blythe in
20 California to the Devers substation in California, with
21 the primary goal of interconnecting renewables.

22 There are also ongoing discussions between
23 Edison and the Arizona corporations commission so that
24 they can work out something in Arizona without having to
25 rely on the FERC backstop permitting, but that is having

1 the California portion of the permit is progress on a
2 major transmission project.

3 On the Tehachapi regional transmission project,
4 this is segment one. There were three phases to that.
5 Those received CPCN's in March of 2007 and construction
6 was slated to have begun in March of 2008, and they're
7 expected to be online sometime in 2009.

8 Just as a quick -- I'm going to -- this is our
9 general security concern free map. It's general enough
10 that it shows you locations but doesn't give enough
11 detailed information that there's any security concerns.
12 I'm mostly going to talk from the other one just because
13 this one's harder to read.

14 So, we've made progress on the Tehachapi
15 Phase 1.

16 Central Gas and Electric Sunrise Power Link
17 received a CPCN in January of this year and is currently
18 on schedule for a June of 2012 completion of construction
19 and start of operation. I know there are some lawsuits
20 involved in that decision, but if those are worked out,
21 that's the current schedule for the project.

22 For the Imperial Valley transmission upgrade,
23 you're going to see this as a recurring theme in our
24 recommendations. These are projects that Imperial Valley
25 has developed, the Imperial Valley Irrigation District has

1 developed to interconnect, primary will with geothermal
2 but also other renewables in their area. The projects are
3 highly dependent on the development of the generation, so
4 as the planning goes forward for the projects and the
5 funding gets in place and the permitting gets in place,
6 the projects themselves are basically on hold until the
7 generation's developed, and it's, you know, logical
8 business sense from the Imperial Irrigation District.

9 The Trans Bay Cable project received all its
10 permits. It began construction at the substations at
11 Pittsburg and in San Francisco in 2007 and 2008. They
12 plan on laying cable sometime this year with an online
13 date sometime in 2010.

14 So that's five projects, and they're all
15 progressing.

16 In 2007, we had the Strategic Plan recommend
17 five other projects. These were the PG&E, California --
18 Central California Clean Energy Transmission Project, the
19 C3 ETP. This is a project that basically runs from the
20 midway substation near Buttonwillow in Central California
21 to somewhere near the Greg Substation near Fresno. This
22 project has several goals, including interconnecting
23 renewables from Southern California by basically
24 increasing the amount of power that can flow from Southern
25 California to Northern California, improving reliability

1 in the Fresno area and increasing the ability to use the
2 Helms Pump Storage Plant.

3 This project is being studied at the California
4 ISO. Originally scheduled, it's the team approach, the
5 transmission -- I'm not even remembering the name of it,
6 but it's assessment -- sorry -- Transmission Economic
7 Assessment Methodology, which is essentially a complicated
8 way of developing scenarios and other things to analyze
9 the economics of transmission projects. This was
10 originally scheduled to be completed in March. They
11 received numerous comments and recommendations on how to
12 expand the study and I'm not certain what the new -- I
13 haven't seen a new schedule for it. Maybe Paul
14 Didsayabutra, when he is up, has some more information on
15 it, but my guess is it's going to be before the ISO Board
16 before sometime in 2009. That would then still require a
17 certificate of public convenience and necessity from the
18 PUC, and that can take, you know, anywhere from 12 months
19 to two years, so we're -- that one's got a long ways to
20 go. It's also being studied in the ready process. It's
21 one of the lines that's being evaluated for renewable
22 interconnection.

23 We also recommend the transmission portion of
24 the Lake Elsinore Advanced Pump Storage Projector, the
25 LEAPS project. This one is actually being included in the

1 RETI process as well. It was recently, due to sort of
2 deficiencies in data in their application for the CPC and
3 at the Public Utilities Commission was recently -- what
4 did they say -- denied without prejudice, meaning that
5 they can come back when they have the information, and
6 that was on April 17th, 2009.

7 The Green Path Coordinated projects are an
8 evolving set of projects. They include the Imperial
9 Valley upgrades. They include Los Angeles Department of
10 Water and Power's Green Path North. And when I say their
11 evolving, LADWP, Los Angeles Department of Water and Power
12 recently filed a new route for their Green Path North
13 project. These are related, again, to the Imperial Valley
14 projects that were discussed in 2005. Imperial Valley
15 Irrigation -- Imperial Valley's made progress on them.
16 They have funding in place. They have permits in place.
17 They just are dependent on the generation being developed.
18 So those ones -- those ones are moving forward. It's just
19 slowly.

20 We also have the LADWP Tehachapi Transmission
21 Project. This is sometimes known as the Barren Ridge
22 project. It would essentially allow LADWP to import 1200
23 megawatts of renewables, primarily wind, from the
24 Tehachapi region. What we recommended in 2007 was that
25 this be coordinated with the SCE Tehachapi expansion.

1 Both of these projects are being looked at in the RETI
2 process, and I guess that counts as a form of
3 coordination. This is, again, one of the security --

4 UNIDENTIFIED: Mark, you're being awfully kind.

5 MR. HESTERS: It is again, sort of to show you
6 the location of these projects, again, it's security safe.

7 And so then we get to 2009, and in 2009, we
8 basically, based on the filings that we have and other
9 information that we have, we sort of have five classes of
10 projects. This isn't a recommendation that these be
11 projects that be included. This is just a list of the
12 potential projects that we see out there.

13 The first one is the TANC, which is the
14 Transmission Agency of Northern California transmission
15 project. This is a series of 500 KV lines that basically,
16 and smaller lines that connect potential wind generation
17 in the Lassen area down through Central California, down
18 to the Tracy substation, and then they're going to run
19 east and west to the South Bay and then to TANC members at
20 Turlock and Modesto and then also they're going to connect
21 to the Sacramento Municipal Utility District. This
22 project is currently in scoping. I guess comments are due
23 to TANC by May 31st, and this is being evaluated and
24 ready.

25 We also have 11 ISO request window projects.

1 That's as far as I'm going to go. We have names for them.
2 Paul Didsayabutra is going to make a presentation later
3 from the California ISO and we'll expand on these projects
4 then.

5 The IID projects are still there. They're still
6 important. There's a -- the geothermal resource in the
7 Imperial Valley is a key one for meeting our renewable
8 goals, California's renewable goals.

9 There's also the Devers Palo Verde 2, Palo Verde
10 Devers 2, California-only portion, which is currently
11 before the Public Utilities Commission. This is, I guess
12 it's now being evaluated by RETI. It looks a lot like a
13 lot of RETI projects. There are a lot of renewables on
14 the California side of this project. It's one that the
15 Energy Commission will probably look at pretty closely.

16 And finally when RETI Phase 2 is completed, we
17 will have a series of transmission projects. Rich
18 Ferguson will be discussing sort of the status of RETI and
19 when we can expect to get those projects identified.

20 And I think that's it.

21 COMMISSIONER BYRON: Good.

22 MR. HESTERS: Does anybody have any questions?

23 COMMISSIONER BYRON: No questions.

24 MS. GRAU: Thank you, Mark. And our next
25 speaker is Chris Tooker. He's a transmission systems

1 specialist with the Energy Commission's engineering and
2 corridor designation office.

3 MR. TOOKER: Good morning. What I'd like to do
4 today is to briefly describe the transmission corridor
5 designation process, to describe the transmission corridor
6 information requests, and then briefly describe the
7 responses that we received.

8 The transmission corridor designation process
9 was established by the passage of SB 1059 in 2006. It's a
10 12-month process to designate corridors for future use as
11 proposed by investor-owned utilities, publicly owned
12 utilities, merchants or on the Energy Commission's own
13 motion.

14 Designated corridors are to be reviewed and
15 revised by the Energy Commission at least once every ten
16 years to assure their viability.

17 The purposes of the transmission corridor
18 designation process are to preserve corridors to meet
19 long-term bulk transmission needs, to improve reliability,
20 reduce congestion, access renewables and meet other state
21 policy objectives, also to provide a link between
22 transmission planning and permitting, which in the past
23 has been shown to be missing and caused great difficulties
24 and delay in the ultimate permitting and construction of
25 projects, transmission projects, and also to streamline

1 permitting by better coordination and elimination of
2 duplication.

3 In addition -- pardon me -- in addition, the
4 process is designed to involve local, state, and federal
5 agencies in transmission planning early on and to promote
6 consistency of land use changes with future transmission
7 line development when it occurs.

8 Components of corridor designation process are
9 two principally. First, the determination of consistency
10 of the proposed corridor with the latest Strategic
11 Transmission Investment Plan or STIP and the preparation
12 of environmental impact report to serve as the basis for
13 the designation action and also hopefully to serve as an
14 information source for responsible agencies and permitting
15 agencies that end up reviewing applications for actual
16 projects to be located within the corridors.

17 The purpose of the corridor planning forms and
18 instructions and information request was to gather
19 information on utility corridor needs for inclusion in the
20 STIP or Strategic Transmission Investment Plan, and there
21 were three questions we really had. First, to identify
22 the reasons for the corridor needs of the various
23 utilities, the circumstances under which a transmission
24 corridor designation or TCD may be requested in the
25 future, and then third, why a corridor designation

1 wouldn't be requested by a given utility.

2 Specifically, the requests were first to discuss
3 potential corridor needs with relation to federal
4 corridors and linking to those corridors that have already
5 been identified and approved, to access renewables or
6 economical electricity, to improve reliability of the
7 grid, to reduce congestion, to address load growth, to
8 facilitate line upgrades, to avoid sensitive lands, to
9 accomplish the Garamendi Principles of using the existing
10 right of ways, increasing or expanding existing lines,
11 using existing right of ways first and then only after
12 those options have been pursued to look at accomplishing
13 new corridors. Next, to respond to local agency land use
14 plans and other priorities that have been identified by
15 the utilities in coordination with local agencies and then
16 other issues that might be unique to any given utility.

17 The second question, number six, if you have no
18 plans for proposing a transmission corridor, please
19 identify the circumstances or the planning timeframes
20 where you would opt to obtain a transmission corridor
21 designation from the Energy Commission, and lastly, please
22 explain why you would not apply for a corridor
23 designation.

24 There were four utilities that responded to
25 these questions, the Imperial Irrigation District, LADWP,

1 Department of Water and Power, San Diego Gas and Electric
2 and Southern California Edison.

3 Imperial Irrigation District's response to
4 number five was that the district's transmission needs are
5 being addressed through their transmission expansion
6 project, which is based on their existing rights of way in
7 existing lines. So they're looking to either expand those
8 lines, upgrade them and or add new lines within existing
9 right of ways, and only if they find that they need
10 additional transmission lines in areas with no rights of
11 way would the district consider a transmission corridor
12 designation application.

13 DWP only really made one comment. It did not
14 indicate that they would be interested in filing an
15 application, but they felt the priority and the focus
16 needed to be on establishing new 368 federal corridors to
17 facilitate their Barren Ridge and Green Path North
18 transmission projects.

19 San Diego Gas and Electric's recommendation was
20 that designating corridors should focus along existing 69
21 KV lines to expand the capabilities of existing
22 infrastructure, to assume a long timeframe of other areas
23 in the future and to coordinate with federal corridors as
24 a priority for locating state-designated corridors.

25 And San Diego Gas and Electric said that they

1 would consider renewable electricity transmission
2 initiative transmission needs and may pursue joint
3 designation applications based on ready recommendations.

4 Southern California Edison indicated the first
5 priority of the state should be to extend federal
6 corridors onto non-federal lands where the state has
7 jurisdiction for establishing corridors. They felt that
8 that would increase the value of both the federal and
9 state process, would streamline the permitting process by
10 coordination of those two efforts, and they cautioned that
11 in doing so, the Commission needs to consider providing
12 turning room or a wide width to the state corridors to
13 join the federal corridors.

14 The transmission corridor designation process
15 itself in legislation hasn't identified typical width of
16 corridor being 1500 feet. Federal corridors, some of
17 which are multi-purpose, may be much wider than that, and
18 therefore Edison was concerned that we adequately
19 coordinate the joining of the two different corridors.

20 Edison went on to identify eight proposed new
21 corridors to meet state energy policy goals and most, if
22 not all of these corridors involve crossing federal lands
23 in areas where there are no existing corridors. So
24 pursuing these corridors and designating the state
25 portions of them would require a significant state and

1 federal coordination.

2 The map here of the Southern California shows
3 these eight corridors. The map also shows in light orange
4 and in kind of aqua blue existing or proposed federal
5 corridors on non-federal lands.

6 The first corridor that Edison proposed would
7 cross the San Bernardino National Forest, and the purpose
8 of that corridor would be to bring needed power to the
9 load centers in Western Riverside County from the desert
10 southwest as well as improve reliability in the area.

11 Corridor number two, which would cross portions
12 of Cleveland National Forest, would be to bring needed
13 power from the desert southwest to the load centers in
14 Orange County.

15 Corridor number three would cross Angeles
16 National Forest, and it would provide additional
17 transmission capacity to bring needed power from Northern
18 California as well as renewable resources located in the
19 Mojave Desert to the major load centers in the Los Angeles
20 Basin.

21 Corridor number four, which is located north of
22 the Angeles National Forest would be entirely on non-
23 federal lands.

24 And corridor five would traverse portions of the
25 eastern part of Angeles National Forest. And both of

1 these projects would be intended to bring economic power
2 from the Northern California and Pacific Northwest areas
3 to Southern California and to integrate renewable
4 resources developed in the Mojave Desert.

5 Corridor number six would come close to or cross
6 portions of the Mojave National Preserve, and the purpose
7 of the corridor would be to accommodate future regional
8 transmission facilities that would bring economic power to
9 the major load centers in Southern California from Nevada,
10 Arizona and New Mexico areas.

11 Corridor number seven, over to the west, would
12 be cross portions of Los Padres National Forest and would
13 be intended to provide additional transmission capacity to
14 serve loads as well as to improve reliability to customers
15 in the Santa Barbara and Ventura areas.

16 And, lastly, corridor number eight would cross
17 southern portions of the Joshua Tree National Park and
18 would be intended to accommodate future interstate
19 transmission facilities from Southern Arizona near the
20 Palo Verde area from SEE's Dever substation near Palm
21 Springs, California.

22 I'd say again all of these projects, the
23 corridors, as you can see, would involve crossing federal
24 lands and require extensive coordination with the federal
25 government.

1 Those are all the responses we received. Do I
2 have any questions?

3 That concludes my presentation. Thank you.

4 COMMISSIONER BYRON: First I don't have a
5 question, just it's an observation, perhaps, that these
6 last eight projects certainly don't involve any
7 controversy, do they?

8 MR. TOOKER: I'm not sure I'd agree with that
9 (inaudible). Thank you.

10 COMMISSIONER BYRON: That was tongue in cheek.

11 MS. GRAU: Our next speaker this morning is Rich
12 Ferguson. He's the research director for the Center for
13 Energy Efficiency and Renewable Technologies, CEERT, as
14 well as the RETI co-coordinator and joining him with will
15 be Carl Zichella -- right? Carl is here?

16 MR. FERGUSON: Yeah.

17 MS. GRAU: Okay. All right. Thank you. Do you
18 know how to move this?

19 MR. FERGUSON: Just page up, page down.

20 MS. GRAU: Forward and back (inaudible).

21 COMMISSIONER BYRON: Dr. Ferguson, before you
22 begin, I'd like to acknowledge and thank you for all of
23 your work over the last, I'm going to say about 18 months,
24 and I suspect it goes back much further than that, but
25 certainly we've benefited by your analytical skills and

1 expertise in the RETI process. I want to thank you, and I
2 think Dr. Zichella's speaking as well. I want to thank
3 you as well. Both key participants in the RETI, the
4 Renewable Energy Transmission Initiative. And your
5 coconspirator there, Mr. Olson, gets a lot of credit for
6 involvement, but I wanted to make sure we all recognize
7 you here today as well.

8 MR. FERGUSON: I appreciate that, Commissioner.
9 For giving credit where credit is due, your own staff
10 deserves a lot of it. They've been enormously helpful.
11 Chuck Najarian serves on -- represents you on the
12 coordinating committee. Carol Alfinberg Gallardo, who
13 happens to be our contract manager, sits on the steering
14 committee. Mark Hesters, that you heard from, has done a
15 wonderful job helping run meetings and interface with your
16 cartography division, which has been enormously helpful.
17 Roger Johnson has sort of stepped up to the environmental
18 plate with his reviews. And, of course, we have you and
19 your advisor Laurie Tenhope to thank for your unending
20 support. So, this is truly a joint process. A lot of the
21 stakeholders that are here in the room have been
22 enormously valuable to keep this process struggling
23 forward.

24 RETI is a stakeholder driven process. To the
25 extent possible, we try to make decisions by consensus,

1 and the general goal is to try to make some
2 recommendations about what the top priority transmission
3 lines would be for moving renewables, providing access to
4 renewable resource areas and then to move that to load
5 centers.

6 The consensus is difficult because there are a
7 lot of others -- there are a lot of you, you know, real
8 transmission planning entities in the state and needless
9 to say, they're not always happy to have a separate
10 process evaluate their projects. Anybody who's building a
11 transmission line today is going to claim that it's needed
12 to move renewable energy. That seems to be the sexy
13 reason to build transmission these days, but there are a
14 lot of reasons for building transmission lines, and
15 renewable energy access is only one of them.

16 The ISO has three criteria. One is reliability,
17 one is economics and the third one is renewables. RETI
18 does not consider the economic reliability issues except
19 secondarily. Our major focus is on providing least cost
20 access to renewable energy areas and delivering that to
21 load centers, together with an evaluation of the
22 environmental characteristics or concerns associated with
23 these lines. That's all we're focused on. It's for
24 somebody else to take the information that we provide on
25 our issues and make the more larger decisions about what's

1 actually going to get built.

2 The focus today is on sort of where we are and
3 where we're going from here. As you know, we're now in
4 Phase 2. Phase 1 was -- a Phase 1 report was completed
5 around the end of last year. There are two important
6 updates to it that were added end of February, early
7 March. All that material's up on the website. I strongly
8 encourage you to follow along on the website.

9 Our meetings are webcast almost always. We try
10 to get agendas up and materials up on the website in time.
11 We don't always accomplish that. There are a lot of
12 meetings, but I'm not going to say much about what
13 happened in Phase 1 except briefly the focus there was on
14 the areas in California and neighboring states that are
15 going to provide this energy, and we identified what we
16 called CREZ, so called Competitive Renewable Energy Zones
17 in California and neighboring states. We assessed the
18 amount of energy that's sort of feasible to think about
19 getting from these areas and capacity and broken down by
20 technology, biomass, wind, solar and -- what did I say?
21 Biomass, geothermal, wind and solar. And as I said, that
22 report was posted and if you haven't looked at the RETI
23 website, there's a wealth of information that's maintained
24 by the Energy Commission, a wonderful asset to us. So,
25 I'm not going to deal with Phase 1 and the outcome except

1 to say that the data that we generated there on the CREZ,
2 the Competitive Renewable Energy Zones is being used in
3 the Phase 2 Analysis.

4 We're now in what we're calling Phase 2A, the
5 distinction between Phase 2A is not altogether clear and
6 basically this is the conceptual transmission planning for
7 renewables. We will come up with a plan. It will provide
8 transmission access to all of California's resource areas
9 in neighboring states, and our goal is to have enough
10 transmission so if California ever gets around to adopting
11 and enforcing 33 percent renewable portfolio standard,
12 RPS, we would have enough wire on the ground to do that.
13 Our planning goal is the year 2020.

14 In our revised estimate, we estimated to meet
15 that requirement would require about 60,000 gigawatt hours
16 per year, which is about 40 percent of the energy that we
17 identified in Phase 1. We're actually going to propose
18 transmission with a higher capacity with that. We're not
19 sure what resources are going to get when, and we also
20 need some extra wire to allow competition between
21 resources. So we're actually planning, we're going to
22 propose a conceptual plan that can handle almost 100,000
23 gigawatt hours per year.

24 UNIDENTIFIED: Good.

25 MR. FERGUSON: Which, in 2020 would be about a

1 third of our total energy use. If you want to translate
2 those into capacity, well, it depends on what technologies
3 they're going to use provide that energy, but it would be
4 somewhere in the neighborhood of 20,000 megawatts would be
5 required to meet -- to meet the 33 RPS goal and our extra
6 capacity that we're adding to the system would add about
7 another 10,000 megawatts.

8 The RETI goal is an energy based goal. It's
9 based on the 33 percent standard target, so although we
10 have to deal with capacity, basically all our goals are
11 based on energy.

12 One important feature was there's a lot of new
13 information that's become available about the CREZ, and
14 there has been a group which Roger Johnson and Carl
15 Zichella have been involved in to revise the estimates
16 that we made in Phase 1 regarding these areas, in
17 particular it was noted that a lot -- one of the things we
18 did in Phase 1 was identify areas that looked like they
19 would be good for solar energy development, but we could
20 not identify any commercial interest currently, and so we
21 put what we call proxy projects in those areas. Based on
22 all the information that we had, Google Maps and every
23 other thing we could lay our hands on, what we didn't --
24 weren't able to do at the time was to look at the under
25 laying ownership under those areas. The Energy Commission

1 took the lead in doing that and found out that some of
2 these areas had a gazillion different parcels and
3 different owners underlying it, and so we made a decision
4 that if there was more than 20 different land owners
5 underlying a proxy project, we would give up on that
6 project and move it or just cancel it altogether. So that
7 project, that has gone forward.

8 There was also some issues regarding the Bureau
9 of Land Management development caps in certain restricted
10 areas that we had not worried too much about in Phase 1,
11 so those were the kinds of issues, and I've asked Carl to
12 talk about this, what we call CREZ revision process
13 afterwards and he can answer questions about exactly what
14 we did. We updated the data we had on commercial
15 interests. We updated information on restricted areas.
16 We also spent some time trying to identify what we called
17 disturbed lands, where siting of renewable generation
18 projects might be easier. So, I'm not going to talk too
19 much more about this. I've asked Carl to talk a little
20 bit about it and, of course, Roger is here, so if you have
21 questions about how we've been revising, going about
22 revising these zones for purposes of Phase 2A they can
23 answer those questions.

24 What the overall goal is to come up with what we
25 call conceptual transmission plan goal. It's conceptual

1 in that we are not going down into the nitty gritty
2 engineering issues that you have to deal with before you
3 can actually say, yeah, this is a good line to build.
4 That will be done in the appropriate venue, whether it's
5 the California ISO does this or the publicly owned
6 planning agencies, but our goal is to put together a
7 reasonable conceptual plan that meets our targets, and
8 basically means identifying what the RETI stakeholders
9 consider the most valuable network transmission line
10 segments providing access to these areas and delivering
11 renewable energy load centers.

12 Emphasize that these are network transmission
13 line segments. In other words, we're not worrying about
14 the individual lines that get from the zone to the larger
15 grid. Those have to be there, of course, but what they're
16 going to look like depends on what gets developed, and we
17 just don't know that at the time. A network line
18 segment, in a network line segment, power can flow either
19 way, depending on where the generation and loads are, and
20 the intent is to provide this information to the ISO,
21 California Independent System Operator and the publicly
22 owned transmission planners and hopefully they will use
23 that information.

24 The other major goal is to develop the plan in a
25 way that's completely transparent and objective so that

1 everybody can see the data we're using. They can see what
2 we've set up as the decision points and why we use those
3 decision points, and the goal is to help the public
4 understand and eventually support the transmission that we
5 all in this room know is needed to meet low growth and
6 especially to meet renewable goals. So that's an
7 important point.

8 Anybody of you who have been to any of the
9 workshops on individual proposed line segments understand
10 the misconceptions that there are about electricity in
11 general, I might say, and transmission lines in
12 particular. It's not an easy process and, you know, our
13 belief is that the more we can show how decisions are made
14 regarding renewables, the better off we are and the more
15 likely we are to get some lines built. I just snatched
16 this out of a spreadsheet.

17 We are now are looking at about 115 different
18 proposed line segments that have been proposed by one
19 sponsor or another, and this just shows the abbreviated,
20 in engineering speak, the abbreviated descriptions of
21 these line segments that we're dealing with. Just, when
22 you see the final spreadsheet, that will be this, and
23 actually you see this line, this list of projects includes
24 other thing besides transmission lines, you know, it
25 includes upgrading substations, transformers and a lot of

1 other things. In the process, I think there's like 240
2 different actual different facilities that have been
3 identified.

4 So, the list now includes about 115 different
5 line segments, together with their ancillary facilities,
6 they are both publicly owned and investor-owned
7 facilities, and we are in the process of developing a
8 consensus methodology to try to assess these and come up
9 with the prioritization.

10 The consensus and the prioritization are a bit
11 odd, kind of as I said, not every planning authority is
12 interested in RETI's opinion about their lines, so
13 consensuses that been a difficult process. But so far
14 we're hanging together. We will see by the end of this
15 week and the beginning of next week how we have succeeded
16 in that.

17 One of the things we did was to look at what
18 we're calling foundational and access line segments.
19 There's no clear distinction between these, but if you can
20 think of the access lines as the line segments that reach
21 out to an area that, in which the energy is going to begin
22 to flow into the system. As it gets closer and closer to
23 load centers or has to move up and down the state (phone
24 ringing) -- oh, shit, sorry.

25 (Laughter.)

1 COMMISSIONER BYRON: I think Dr. Ferguson was
2 referring to shift factors later on in the presentation.

3 MR. FERGUSON: Sorry. It just slipped out,
4 yeah. Anyway, so whereas the foundational projects up and
5 down the state, they're collecting energy from a lot of
6 different areas, and we think it's valuable to try to
7 separate those, and we may actually end up with somewhat
8 different criteria for putting a foundational line or an
9 access line. Clearly, it doesn't make any sense to gather
10 up a lot of power out in the boondocks if you can't
11 delivered loads, so the foundational projects have to be
12 in place if the access lines are going to make any sense.

13 The goal currently is to sort all these line
14 segments into four different levels of value for making
15 recommendations, and what we're going to do first is put
16 these line segments together.

17 When a planning entity goes out to identify a
18 project, it doesn't just build one line segment from one
19 substation to another. It puts them together into a
20 project. We are just now in the process of doing that.
21 The line sponsors are supposed to combine these 115 line
22 segments into projects and get that to me by tomorrow
23 night, so we'll see how we do with that. So, in the end,
24 we will be evaluating groups of these line segments and
25 projects.

1 Secondarily, we're also going to consider when
2 these lines might come -- when these projects may come
3 online. Clearly, we want to get started as fast as we
4 can, so there is going to be priority given to stuff we
5 can do quickly, and that including where it is in the
6 current planning process.

7 So, here are our goals. Basically, we want this
8 whole prioritization process to be as transparent as it
9 can and to be based on objective data. The major factor
10 that we're using is how these line segments are utilized
11 as the renewable emergency moves from the zones into the
12 load centers and the key to all this, which actually is a
13 measure of the utilization is what is known as the shift
14 factors. This is a standard transmission planning tool,
15 and to use this as the basis for the RETI assessment is
16 due to a suggestion by Dariush Shirmohammadi, who,
17 unfortunately, can't be here today, and I'm going to show
18 you exactly, you know, what those are and how we're using
19 those.

20 But another one, another factor is, you know,
21 access to the best price, the one that have the most
22 energy, the one where that energy has the least cost and
23 the least environmental concerns or has the most
24 commercial interest already as evidenced in purchasing
25 agreements or in some interaction queue at the ISO or the

1 publics.

2 So, and in addition we're also looking at the
3 environmental concerns associated with the lines. As I
4 said, in Phase 1 we looked at the environmental concerns
5 associated with the resource areas. Now we're looking at
6 environmental concerns associated with the lines. A
7 group, subgroup from the CREZ refinement process is doing
8 this. They have convened a collection of environmental
9 experts to make some judgments and collect up the data on
10 these various line segments that have been proposed.

11 In addition, we're looking at costs, so this is
12 a list of the data that is going to go into the process,
13 so the key to evaluating electrically are these shift
14 factors, and which you can also think of power
15 distribution factors, and the very first thing up to
16 understand is when people talk about, say, a utility,
17 PG&E, for example, is going to buy power from, say, a
18 project in the Mojave, what they're talking about is
19 paying money to the developer in Mojave. When the power
20 gets generated in Mojave, it doesn't all go to PG&E. When
21 a generator sticks power into a substation anywhere in the
22 WECC, the energy moves throughout all the wire in the WECC
23 at virtually the speed of light. It doesn't just go to
24 the person who paid money for that generator to operate.

25 So, you know, Mr. Byron mentioned at the

1 beginning about the folly of talking about reserving a
2 line for renewables, and this just illustrates that you
3 can't -- I mean, where the energy goes is determined by
4 laws of physics, not by the laws of some court or the
5 Public Utilities Commission or anybody else. I mean, it
6 goes where it goes, and every line in the WECC, the
7 Western Electricity Coordinating Council area carries
8 energy from every generator who is connected to the power.

9 What the shift factor measures is the percentage
10 of power from any particular generator that's flowing in
11 any particular lines, and so this is evaluated by a
12 computer program and basically what you do is you stick a
13 megawatt of power in at any place around California and
14 this program tells you what percentage of that power is
15 moving in any line segment you want, and that's what the
16 shift factors are, and so this is our measure of how
17 useful a particular line segment is to deliver power from
18 any particular CREZ or and all of the CREZ.

19 And I have to say especially that Jan Strack
20 (phonetic) and John Gentry (phonetic) at San Diego Gas and
21 Electric have been dutifully cranking out these things.
22 It's not easy to set up the case to generate these
23 numbers, but they've done a great job, and if I get their
24 numbers today when I get home, I owe them dinner or
25 something.

1 But anyway, when they set up the case and what
2 we do is we start with all the line segments that have
3 been approved by the WECC as belonging in the 2018 heavy
4 summer case, and then what we did was add all these 150
5 other line segments, so threw them all in the whole case.
6 And we also had you put power in, you have to make
7 someplace for it to go, so what we did was to decrease the
8 generation predicted in 2018 by the WECC at the load
9 centers, proportional to how much renewable power they
10 need to meet the 33 percent goal, and then we stuck a
11 megawatt of power in at each CREZ connection, wherever it
12 interconnected and the grid read told us where it went and
13 computed these shift factors, and I just threw this in.
14 This is just a sample of what these shift factor things
15 look like.

16 And, for example, line 13 is a line from
17 Mountain Pass to Barstow, those two substations, and
18 you'll see that some of the power from Baja comes up and
19 goes through that line even though it's running from
20 northeast to Barstow, it's still 2 percent, 2.3 percent of
21 the power from Baja will flow through that line. 4.2
22 percent of the power from Barstow flows through that line.
23 Some of the power flowing down from British Columbia flows
24 through that line.

25 In line, there's a proposed line from Barstow to

1 Lugo substation, a major interconnection for Southern
2 California Edison, what we call Gateway project.
3 According to the shift factor, 63 percent of the power
4 from Barstow will flow toward Lugo through this line.

5 Notice that you have power flowing both ways in
6 these lines. It depends if it's flowing from the first
7 substation to the second, it's positive. If it's flowing
8 the other way, it's negative.

9 The first thing we do is take the absolute value
10 of all of these, and we use those shift factors in four
11 formulas that we've devised and been approved by the
12 stakeholders steering committee and just given one of
13 these criteria A is our first one and basically it
14 measures access to total energy from all the CREZ's and to
15 arrive at a score, what we do is we take the shift factor
16 for a particular line segment and a particular CREZ, and
17 we multiply that by the CREZ energy that's available, that
18 we estimated in phase one as revised, and we add those up
19 for all the CREZ's, and then we divide by the capitol cost
20 of the line segment and that provides us a measure on a
21 per dollar basis of the utility of that line to access all
22 the CREZ's.

23 For you (inaudible), this whole analysis assumes
24 that the response to the grid is linear. Basically, it's
25 a DC model as opposed to an AC model, and I see Dave

1 Hawkins over there. He's going to do the AC work. But,
2 these DC models, the linear approximation is widely used,
3 and we think it's going to be pretty good.

4 Criteria in B and C are very similar and
5 criteria in B, we weight the CREZ energy in the summation
6 by the environmental and economic scores that we arrived
7 at in phase one as revised. And in criteria C, instead of
8 using all the CREZ energy, we just used the energy that we
9 found that have Power of Purchase Agreements, other NQ's,
10 so there are different measures of things. I think the
11 proposal now is that we'll probably take these three
12 different sort of electrical stores and average them so
13 they got a single store, but that has not been decided
14 yet.

15 COMMISSIONER BYRON: You know, Dr. Ferguson, you
16 just went over a lot. And, of course, most people in this
17 room, I think, understand the complexity of what you're
18 trying to do, but there's no way -- there's so many
19 variables, so many assumptions, so many stakeholders, so
20 many interests at stake here, policy at stake, the laws of
21 physics can't be ignored. This is an impossible job.
22 There's no one right answer, but it's the best answer that
23 we can come up with on a consensus basis at this time, but
24 it is an impossible job, and you've made it look so easy,
25 you know, criteria B and C are similar, right, just one

1 little line there, but I know that there's a lot of
2 complexity here, so I don't want you to go into anymore
3 detail unless you wish to, but I just want to make sure
4 everyone listening to this understands this is far more
5 complicated than you're letting on in this presentation.

6 MR. FERGUSON: That's fact. That's fact. In
7 effect, though, I mean, these kinds of considerations go
8 on whether you make them explicit or not. I mean, as
9 Dariush (inaudible) a good friend and one of the smartest
10 people I know, I mean, he could go into the back room, and
11 he'd come out with recommendations that are going to be
12 very similar to what we're going to come out with as
13 numerical stuff. The ISO is taking a somewhat different
14 approach as based more on the phase one CREZ's whereas we
15 have rolled in some more information about the shift
16 factors, but I'm fairly confident that we're going to come
17 out with the same thing.

18 The difference about this is that, if anybody
19 cares, that they really could track, you know, where your
20 data came from and you're right, there's uncertainty in
21 data. I mean, who knows how much this stuff is eventually
22 going to cost. Who knows what CREZ's are actually going
23 to get developed. I mean, enormous uncertainties. But,
24 you know, you can track where the data came from, what it
25 is, how it's generated, how it's used, and proceed down to

1 the final recommendation.

2 In the end, there is going to have to be
3 professional judgment used to make sure that what we come
4 up with sort of agrees with common sense. And we hope to
5 begin to do that next week, but first we have to generate
6 these things, and I think people have going to be
7 surprised to tell you the truth.

8 Yeah, it's complicated. I mean, we have
9 something like four or 5,000 different pieces of data that
10 are going to get fed into this (inaudible). Fortunately,
11 Excel, you know, bless them, spreadsheets do a great job
12 digesting stuff, but you're right, and the report will try
13 to explain as best we can, you know, how this is. We're
14 going to describe the data and present the data in a
15 gazillion different forms. If somebody wants to see not
16 what the shift factors are, but, for example, which CREZ's
17 provide the major energy for a line, we can do that.
18 We'll have to work as we develop the report, and there
19 will be a draft report and then a final report so there's
20 time to work on presentation and reliance data and so on,
21 but it is a fascinating process, let's say. But I won't
22 deal anymore with it today.

23 We've scheduled an all day meeting a week from
24 today where there will be an initial sorting of these
25 projects into these bins and we'll see how we do.

1 The tentative schedule is we are trying to get
2 this report out by the end of May. It was originally
3 scheduled to be released and to be finished by the end of
4 March. As many of you know, some things happened and that
5 was not possible to do. So there will be a meeting to
6 review the draft report and hopefully approve it as a
7 draft and get it posted around the end of the month.

8 There will be several public meetings scheduled
9 around the state, especially in the Mojave area because
10 there's so much going on down there, during June. The
11 comment period will end in late June and the steering
12 committee will get a final revised report in July and
13 hopefully we'll have that all finished and posted by mid
14 summer, so it can supply information you guys need for the
15 Strategic Planning. I think the initial recommendations
16 will be useful to the ISO, we've kept close with them to
17 make sure that our development is in step with theirs and
18 Dave or somebody from the ISO can discuss how that's going
19 and list questions.

20 Then further on down the road there is going to
21 be a need to continually reassess the California CREZ data
22 and what these zones look like. The commercial interest
23 goes up and down. PPAs are cancelled or don't work out or
24 whatever, you know, the developers can't get their
25 funding. There's just a gazillion things that can happen.

1 And in addition, we get more and more information about
2 both the commercial possibilities and the environmental
3 issues. Somebody from the Commission might want to talk
4 now about the interaction between Fish and Game and the
5 Energy Commission to work on siting issues. That becoming
6 a hot topic.

7 Updating now to State data is also touchy. We
8 have not been able to get the same kind of environmental
9 data for out-of-state resources as we have in California
10 and so we kind of got an apples and oranges problem. I
11 think currently our plan for the assessment is just to
12 assign the out-of-state resource areas, the median score
13 of the California resource areas, just because we don't
14 have anything better. Hopefully as the western REZ,
15 somebody can explain that acronym, but anyway as the other
16 states improve their resource assessments we'll be able to
17 use more and more of that data.

18 This is going to continue through my lifetime
19 and beyond. I mean this just a continual update problem
20 that we're going to have to do. We are going to identify
21 any near term measures that we can do quickly. At least
22 some of the stakeholders believe there's some upgrades,
23 the transformers, or other rather, you know, ancillary
24 facilities that we could do to access more renewable
25 energy without having to build, bring new wire and go

1 through that whole process. We're going to do some work
2 that, see if we can identify those. And the conceptual
3 plan is always going to be a moving target.

4 One of the main things is, you remember that I
5 said that these 115 line segments, some of them are
6 redundant and rather than try to, you know, identify just
7 one of them and maybe there's sensitivities on each of
8 one, you know, including each one of the redundant lines,
9 a decision was made, just throw them all in the hopper and
10 see what they look like and deal with the redundancy
11 later.

12 Somebody mentioned the LEAPS, the line segments
13 that were proposed in association with LEAPS, and the idea
14 there is rather than building, increasing transmission
15 capacity from Imperial Valley north maybe if you updated
16 the, if you built those LEAPS line you could take
17 renewable energy through the southwest power corridor or
18 whatever they're calling it, and Sunrise into San Diego
19 and move it north into LA. So to some extent those LEAPS
20 projects are a little bit redundant with Green Path north
21 and other facilities that are coming north out of Imperial
22 Valley. And there's a lot of examples like that.

23 So we're going to have to think a little bit
24 about how we're going to compare those different lines
25 that are basically accomplishing the same thing. And one

1 of the things that because all of the lines are now in the
2 case and we're looking at the shift factors for all of
3 them together the question says, okay, if you just built
4 the, you know, the first batch, the bin one line segment
5 and you didn't have all those other lines, all the shift
6 factors would change and all your calculations would
7 change. So we've got to go back once we have a priority
8 set and sort of redo the analysis to make sure that they
9 still make sense.

10 We may have to sort of rethink what the phasing
11 options are too, that, as I said, it may be necessary to
12 take a project that's now considered in bin one and we
13 could postpone work on that and move it up just because
14 there's other lines in the bin one that need it, things
15 like that.

16 And the other thing that Southern California
17 Edison has been doing is what they call a power flow
18 analysis, which is actually a full AC model. It's modeled
19 quite differently, but you need to do that, for example,
20 there's nothing in the shift factor analysis that looks at
21 congestion. So, you know, if a line is overloaded we
22 won't even know it. So Edison has been running power flow
23 analysis for, at least for its territory for Southern
24 California. And there's some interesting things that are
25 coming out of that that don't seem quite consistent with

1 the shift flow methodology. So we're going to have to
2 start looking harder at things like that. Most of that
3 work will go on, you know, at the ISO where the sort of
4 in-depth planning, but we will continue to look at the
5 power flow analysis process.

6 And, of course, you know, going on, one of the
7 major things that this whole exercise was supposed to be
8 about was to support and provide the information that
9 supports the DPL planning of the priority projects, you
10 know, at the ISO wherever that occurs.

11 As I said, we're going to have to continually
12 update data and conceptual plans and we're going to have
13 to pay attention.

14 There's a lot of interest now, as was mentioned,
15 about the siting generation and as those issues get
16 resolved, you know, those are going to have to be taken
17 into account. The most recent one is the issue that, you
18 know, popped up was the, what's it called, the Mother
19 Route, the Mother Road National Monument proposal? I
20 can't remember what the official name is now, but it's a
21 new national monument proposal that basically would take a
22 bunch of the renewable generation that we had been, you
23 know, sort of figuring on out of the picture so it would
24 significantly revise our CREZ estimates.

25 And, you know, they just, in fact somebody, you

1 know, said well, you know, this makes, this just RETI
2 useless. It's just one of the things we have to deal with.
3 I mean there's so much uncertainty running around in doing
4 what's going to happen in the future. That's just one of
5 them and currently we sort of put those particular CREZ on
6 hold. We're using the phase 1 data until we find out what
7 the Bureau of Land Management is going to do. So, you
8 know, we'll have to update those as developments.

9 And, of course, you know, as Chris was saying,
10 there's proposals to actually now use -- there's already
11 that the Commission has to designate corridors, and
12 clearly this kind of an assessment will be extraordinarily
13 valuable if you want to designate one of these things as a
14 corridor. A lot of those Edison corridors that you saw
15 were along proposed lines that we are now assessing and
16 RETI. So I think all the corridors that we heard about
17 are corridors where we are assessing the line segments
18 that would go in those corridors.

19 At any rate, this is a lot to follow. I
20 apologize for that. I didn't know any way to hone it down
21 any farther. As I said, we will try to explain the
22 details of this as much as we possibly can in the report.
23 We're interested in your comments so, you know, please
24 when the draft report comes out tell us how we can make it
25 better. And if there's particular things that you want to

1 see, the way to, you know, to display the data or, you
2 know, particularly some feature or aspect that you would
3 like discussed, you know, please do that.

4 The one thing we don't want to do in time now is
5 add more line segments. I'm sorry, the deadline is over,
6 these 115 are all you're gong to get. We can go back and
7 put more in in the next go around, but we just had to stop
8 somewhere. Initially we had about 80 and then the
9 decision was made to look at all the lines that do not now
10 have permits to construct. So the Tehachapi lines 4
11 through 11 are now being assessed, Palo Verde Devers line
12 is being assessed. Anything that does not have basically
13 a construction permit is in the case, so that's why the
14 list went, you know, we added 35 more line segments to the
15 whole caboodle.

16 We don't expect there's going to be any
17 surprises. The decisions that were made for Tehachapi and
18 Palo Verde Devers and Green Path North, you know, we think
19 were good decisions and we think this assessment will show
20 that. We don't expect anything.

21 Anyway, I'd asked Dariush if he could be here
22 today to talk a little bit about how he sees these results
23 being used by the various planning authorities. Since
24 he's not available to do that some of the panelists this
25 afternoon might want to take that on. But Carl Zichella

1 is here and I've asked him to just spend some time talking
2 about the CREZ revision process. It was a very important
3 process. And I have to say, I've know Carl for a long
4 time, was the Sierra Club Energy Chairman for about 20
5 years and he maybe has the hardest job of any stakeholder
6 in the whole process because he is plotting this vise. He
7 understands that we need transmission lines to access
8 (inaudible) renewables and he's got a constituent that
9 just hates him. And his job is to try to bring reason to
10 the forefront. So anyway, Carl, why don't you come up
11 here and say a few words about your task.

12 MR. ZICHELLA: That's good. I don't have any
13 slides. Trying to give people a break on the slides here,
14 but, good morning. There we go. That's better. Thank
15 you very much. I'd like to begin by just thanking Rich
16 and Dave Ferguson for the work that they've been doing
17 coordinating this project.

18 MR. FERGUSON: Dave is my, Dave Ferguson is my
19 brother. You mean Dave Olson.

20 MR. ZICHELLA: I meant Dave Olson. Way to
21 start. They've had a really tough job also. I mean this
22 is really something that we're trying to do. And I'd like
23 to remind people we're doing something that's never been
24 done before here. To have this open transmission planning
25 process involving these many interests, to try to arrive

1 at a consensus based decision so that what we come up with
2 at the end of the day can be built, that people will agree
3 that these are the best things, the most thoughtful things
4 to do, that is a tough chore and I have to say that every
5 other process in the country right now, including the
6 western REZ, the Western Governors Association process,
7 which I'm also working on, is patterned on this effort and
8 most of the transmission legislation in the United States
9 Congress right now envisions a similar stakeholder driven
10 effort focusing on the interconnections, both eastern and
11 western, to accomplish similar tasks. So what we're doing
12 is groundbreaking, but the value of it is also, I think,
13 very apparent to most people that are trying to do this.

14 I think from an environmental prospective it's
15 obvious that we need to get these lines built in the right
16 places with the right amount of energy. You know, we are
17 very cognizant of the land use challenges that are in
18 front of us.

19 In phase one of RETI we made a real effort to
20 exclude as many lands that we thought would be impossible
21 to develop as we could, including federally designated and
22 state designated lands, but also lands that we felt were
23 just probably not going to be able to be developed like
24 state parks for example, which as we learned in the
25 Sunrise power link case, people in California love their

1 state parks. We're probably not going to be putting
2 transmission lines in them. All the stakeholders agreed
3 that those should be off limits.

4 We also did I think the first ever sort of
5 rating process for environmental purposes of renewable
6 energy zones. And it's from a 30,000-foot level and we
7 learned a lot from doing that.

8 The one thing I think we did learn is that what
9 we were doing was working to a large extent and that was
10 to guide the envisioned development onto less and less
11 sensitive lands. Phase I was the first step in that.

12 We also recognized there was a lot more to be
13 done, which we're now trying to do in the Phase II part of
14 that, which is a greater refinement. If we were at 30,000
15 feet in phase 1 now we're at about 5,00 to 10,000 feet in
16 phase 2. But we're looking at things that we couldn't
17 really put our finger on phase 1.

18 We talk about evaluating the zones. Can they
19 produce the same amount of energy that we thought they
20 could in phase 1? Are there more constraints than we
21 thought? What are those constraints? So we've gone --
22 and we're still doing this, by the way -- we've gone
23 through the zones and we're evaluating them based upon the
24 relative energy they can produce and whatever additional
25 environmental impacts we're discovering.

1 For example, on phase 1 we were not able to
2 really map a lot of the one percent development capped
3 areas the Bureau of Land Management has on public lands.
4 In phase 2 we can do that, and we've gone back, we've
5 evaluated all of the areas that we've been looking at.

6 And I have to second Rich's very strong praise
7 for the Energy Commission staff. They have been
8 absolutely terrific in working through this. There's a
9 long list of people that we could thank. I think Rich got
10 to most of them.

11 I also wanted to say we owe a real debt to our
12 Public Utilities Commission colleagues also, Ann Gillette
13 who's here, Billy Blanchard, whom I did not see but who's
14 been an active participant in this process. And just
15 superb resources, great knowledgeability and they've
16 really helped us advance a very difficult task forward.
17 So I want to thank them and say as we've gone forward with
18 this process we couldn't have done it without them, it'd
19 be impossible, so thanks to all of those folks.

20 This is the first time that we've had
21 environmental planning and economic planning sort of on an
22 even playing field, and the recognition that if we didn't
23 do that we were going to continue the problems that we've
24 had with highly controversial lines that find a very
25 difficult way to the finish line in getting built. One of

1 the cornerstone pieces of guidance we got from the
2 stakeholder steering committee in RETI mirror the
3 Garamendi Principles that were mentioned earlier about
4 using as much of the existing infrastructure as possible.
5 And I have to say that that has been something that we've
6 all stuck with and I think as a result we're finding that
7 there are many things that we can do that are lower cost
8 in accomplishing these goals, but also environmentally
9 sensible in accomplishing these goals. Not to say that
10 we're there yet, but this principle and this guideline is
11 really helping us a great deal in trying to establish what
12 can be built and what can't.

13 We've also moved on, as Rich mentioned, to try
14 to evaluate environmentally the line segments that he
15 mentioned, 115 line segments. It's a lot of work. Many
16 many hours have gone into trying to review these. Some of
17 the data are empirical data and some of them have to be
18 based on professional judgment.

19 We have had the help of many people in doing
20 this evaluation, both from the federal government, Fish
21 and Wildlife Service, BLM, state government from our own
22 Fish and Game Department, the private biologists also who
23 spent a great deal of time with us, such as my colleague,
24 Aileen Anderson of the Center for Biological Diversity,
25 who I want to thank for the great amount of time that

1 she's put into this process too.

2 So I think we have taken the judgment call part
3 of that and dealt with it as best we can in trying to
4 identify the range of impacts, high, medium and low, for
5 each line segment. It's based upon a matrix that we have
6 developed where we try to acknowledge and identify each
7 individual impact that maybe we have not previously put
8 our fingers on.

9 Are these lines going through protected areas in
10 RETI category I or II lands? These are both the off
11 limits lands that we've identified and lands that are
12 sensitive. They're developable, but they require great
13 sensitivity in developing. How many established areas of
14 sensitive wildlife habitat are there along these lines?
15 Will these lines affect those? So we've had to look at
16 each individual line segment in great detail. We'll have
17 a matrix for each individual line segment that provides a
18 weighted rating based upon the lines.

19 Rich mentioned the length of the line, but also
20 the type of improvement that's needed. Are we looking at
21 doing a reconductoring [sic], putting new wires on
22 existing towers? Well, that's the least impactful thing
23 we can do so that would have the best rating. Or are we
24 talking about an absolutely new line in an absolutely new
25 corridor that hasn't even been identified, which sort of

1 steps outside of the Garamendi Principles and therefore
2 would be afforded the worst of the highest rating. So
3 we've been working along this for sometime.

4 I do think we're going to have the line segments
5 completed perhaps by the end of this week. We did get
6 some additional work on that, as Rich noted, when we
7 decided to take the lines that were not possessing
8 construction permits and add them to our analysis and it
9 greatly increased our work. We were nearly done and then
10 we had to go back to the drawing board and there will be
11 meetings on Wednesday of this week to address those
12 issues.

13 I think all of this work needs to be viewed in a
14 certain context. The Bureau of Land Management is looking
15 at identifying renewable energy zones on public lands in
16 combination with other federal agencies. Some of that was
17 stirred by the National Monument proposal that Rich had
18 mentioned and some of it is the initiative of Interior
19 Secretary Salazar and his team to want to try to very
20 quickly meet President Obama's goals of 25 percent
21 renewable electricity by 2025.

22 Goal driven work really is much more effective
23 and helpful to us than just sort of open-ended work.
24 Although these electricity goals are a big part of what
25 we're trying to do, I think we all have to remember we have

1 AB32 in this state. We have a much larger burden to meet
2 in terms of greenhouse gas reductions. Not all of that
3 needs to come from the electricity sector, but certainly
4 we may wish to exceed our goals under the RPS goals that
5 the governor has laid out in which the legislature is now
6 considering and also the congress in its own way is
7 considering.

8 There are six bills in the United States
9 Congress that affect transmission. There are four in the
10 United States Senate and two in the US House of
11 Representatives. As I mentioned, virtually all of them
12 envision interconnection planning along the lines of what
13 RETI is doing.

14 In conversations with sponsors it's very clear
15 that people want to absorb and roll into these processes,
16 see some of the work of RETI. So this is a very
17 influential process not only for our internal planning for
18 the RPS, but how it will influence national planning as
19 well and the Western Governors process similarly. It's
20 not an identical process to ours, but the RETI work has
21 greatly informed that work and of the 13 zones that BLM is
22 now working on identifying apparently 5 of them are in
23 California and they match up very well with the RETI
24 zones. So along those lines I think this work is really
25 being informative and contributory to the national

1 solutions that we're really looking toward.

2 There are some things we've identified that I
3 wanted to call out for consideration in the IEPR and one
4 is how we're dealing with private lands. We've identified
5 in phase 2 a real issue. Some of the best zones that
6 we've identified in phase 1 are really hampered by the
7 fragmentation of ownership owing to speculation maybe 50,
8 60 years ago in some places where lands have been
9 parcelized into quarter acre lots. They could never be
10 developed because of a lack of water. They're closer to
11 low than some of the more remote spots, but there's so
12 many owners to deal with that it's not a feasible thing
13 for an individual generator to go out and maybe deal with
14 a 100, or perhaps even 1,000 in some cases, landowners.
15 So we're looking at proposing both federally and statewide
16 a number of incentives to help improve the situation and
17 open some of these lands up.

18 There were four categories of incentives to
19 consider. One is for the landowners who own those
20 properties to sell them for renewable energy development
21 and to aggregate them. The second is for companies or
22 individuals to aggregate these lands as private ventures
23 for dealing with the generators. Incentives for the
24 generators to locate on these disturbed lands. And
25 finally, because renewable energy, especially solar

1 energy, has a reduced tax abatement we want to look at
2 some sort of incentives for counties to take on the chore
3 of identifying and zoning some of these areas, perhaps the
4 general plan element. so these are items to consideration
5 of ways to address some of the problems with some of the
6 best renewable energy sites in California. Sites that
7 have very low environmental sensitivity, close to low,
8 close to existing transmission, but have this very
9 difficult problem that may take some time to resolve. But
10 if we're creative we believe that we can do this and do it
11 on a timeframe that matters for the RPS.

12 One other point that we have really noticed from
13 an environmental perspective on this that needs some
14 exploration is one of the main factors as noted in Rich's
15 presentation has to do with the cost of these
16 improvements. But we also think that there's a value to
17 the improvements that we need to consider as well and that
18 has to do with the technologies we choose, whether or not
19 we have the leeway to be innovative, if it's going to cost
20 a little bit more and we're going to live with some of
21 these improvements for half a century. And it seems to me
22 that if we can look at under-grounding in some places
23 where there are view shed issues we could actually come to
24 solutions much more quickly even though the cost may be
25 incrementally higher.

1 The costs for these technologies are going down.
2 For transmission technologies, Rich mentioned a few of
3 them and I won't go down a list, but innovation has to be
4 figured in here in some way to help make these
5 improvements a lasting value so that less environmental
6 harm can be done in the construction of what's needed and
7 hopefully then we could accomplish these goals much more
8 rapidly.

9 Another thing is eliminating duplicative
10 transmission systems. Rich alluded to this briefly. I
11 just wanted to highlight it for the fact that the IOUs and
12 the investor owned utilities and the publicly owned
13 utilities often insist on different systems ostensibly for
14 reliability purposes. That's a business prerogative that
15 they've had for some time. I think we really need to
16 discourage that going forward and have systems that are
17 unified, that are not going to be duplicative and which
18 are going to, in the long run, cost less and maybe provide
19 some greater ability for us to innovate on some of those
20 technologies.

21 And I think I'll just stop there because Rich
22 covered a lot of the work that we've already been doing
23 and I think anything else said in those areas would
24 probably be duplicative, and we don't like that.

25 MR. FERGUSON: Well I see we've eaten up the

1 extra time that we got at the beginning of this so we're
2 going to have to close. Unfortunately I'm not able to
3 stay throughout the, for the whole afternoon. I've got to
4 get home and start cranking on this data. But if there's
5 a few questions that we could take just, you know,
6 quickies, be happy to do that either for Carl or for me.
7 There's another one of our Commission staff heroes back
8 there, James Reede. Thanks James. Okay. Well, okay --
9 VICE CHAIR BOYD: Carl, let me (inaudible). I
10 was glad to hear you say that you are involved with, I
11 guess, is the only word I can come up with, the National
12 Monument or Desert, the Southern California Desert issue.
13 Before you got a little farther into it I was thinking of
14 a question, do you think you'll be able to influence that
15 process? Then you said you were working on the process.
16 I just wonder if you have anything more you wanted to say
17 about being able to influence that process. I'm once
18 removed from it and I've not been really encouraged by
19 some of the feedback I've had and it, as Rich said, it
20 does sound like you have one of the most difficult tasks.
21 Now that you know so much about the subject and that know
22 that there are solutions to get through to certain
23 communities as I can see proving to be a very difficult
24 thing. I don't know if you can add any more rays of hope
25 or what have you to that.

1 MR. ZICHELLA: Well I actually think a lot of
2 the various entities are moving in the same direction on
3 this and the problem that we've had with the National
4 Monument proposal has mainly been that the Bureau of Land
5 Management has as a matter of policy accepted every right-
6 of-way application to them for renewable energy
7 development regardless of where it was located, and
8 because the RETI maps reflected those projects as
9 indications of commercial interest it really gave a skewed
10 perspective about what was being proposed in RETI for
11 renewable energy development.

12 One thing you need to think about is that many
13 of the lands that are proposed to this National Monument
14 were acquired about more than a decade ago under, with
15 great leadership from Senator Feinstein to aggregate some
16 of the railroad lands, checkerboard lands that were held
17 privately that were subject to proposed mineral
18 development in the Mojave Desert. And something like \$65
19 million was raised, 40 million of it private to acquire
20 those lands. In RETI we took that into account and
21 addressed all those lands as being treated as sensitive
22 lands because the Bureau would not say whether or not they
23 would permit any development or not on them, but concerned
24 by people who helped raise that money and helped make that
25 acquisition happen and it was arguably the largest private

1 conversation gift to the federal government in American
2 history. It was a big deal.

3 Senator Feinstein is very protective of those
4 areas and is acting to make sure that those lands are
5 properly protected. However, the Bureau of Land
6 Management is acknowledging that it needs to move forward
7 on its own planning to help RETI and help those
8 stakeholder processes by identifying the most disturbed
9 lands in their management portfolio and suggesting them
10 for renewable energy zones so that we could then, that
11 they could then deny right-of-way applications in areas
12 that are highly sensitive. They're going to reverse their
13 longstanding policy. That is a really good thing for
14 renewable energy and transmission planning in California.
15 It should help assuage the concerns of many of the people
16 who have been proposing the National Monument, if not all.

17 And I have to say the National Monument bill's
18 not a lot to pass. Getting through the legislative
19 process today is going to be a very difficult thing in
20 this congress. There are already six transmission bills
21 up and I think that our best bet for addressing the
22 concerns both of the people are concerned about these
23 lands and for those of us who are concerned both about
24 these lands and about renewable energy development is
25 going to be working carefully with the state and the

1 federal agencies to come up with the policies to make
2 development happen on those most disturbed of lands. And
3 that is moving forward. And the good news is there's a
4 good correlation between what RETI has identified, what
5 BLM is looking at and also some of the more disturbed
6 sites in the state.

7 VICE CHAIR BOYD: Thank you. I appreciate it.

8 COMMISSIONER BYRON: Gentleman, I'd like to
9 thank you both for all of your efforts in RETI. In fact
10 there's a number of folks that are here in the audience as
11 well perhaps listening in that have dedicated a tremendous
12 amount of time to this. And Carl, your understanding of
13 the issues that developers are facing, policy makers are
14 facing, it's just extraordinary.

15 But I'm going to also remind you you're late.
16 We need your results. The executive order has not been
17 changed that the Governor has put forward to rely upon the
18 input on RETI. Our strategic transmission investment plan
19 is relying upon the input. I met with staff last week and
20 they're suffering knowing that this is late. So I say
21 this in as polite a way as I can because it's difficult to
22 crack a whip over volunteer participants and stakeholders,
23 but we really do need your results and I thank you for
24 your dedication to this. We are eager to get the phase 2
25 to a result. Do you want to comment on that?

1 MR. ZICHELLA: Just to say we're acutely aware
2 of the time pressures. As I said, we're going to live
3 with these transmission improvements for half a century
4 though and we are going to get them to you as quickly as
5 we possibly can. But because we're an open process, we're
6 a transparent process, we're consultative with
7 stakeholders throughout the state, we've had good
8 participation from people in virtually every category and
9 we've never done this before. I mean the fact is we are
10 building the car as we drive it and that takes a little
11 time sometime.

12 COMMISSIONER BYRON: Thank you again.

13 MS. GRAU: Thank you. Just a couple of notes on
14 schedule. Unfortunately Rich's PowerPoint presentation
15 may not have been Xeroxed correctly. You may be missing
16 every other page. We have made new copies and those are
17 available on the back table. One of the slides that's
18 missing from our copies had the RETI schedule in it.
19 Right now the phase 2 A report is supposed to be available
20 in late May and, Commissioner Byron, as you noted we are
21 counting on those results. Our next workshop is June 15th
22 so we do hope that those RETI results from phase 2 A are
23 timely so that they can be vetted here at the June 15th
24 workshop.

25 We are just ever so slightly behind schedule so

1 if it's okay we'd really like to just keep going and not
2 take a break. So if anyone needs to take a break just
3 feel free to leave the room and come back. And our next
4 speaker then is Paul Didsayabuta, he's the senior regional
5 transmission engineer with the Cal ISO and let me bring up
6 his PowerPoint. Okay. Thank you.

7 MR. DIDSAYABUTA: Good morning. My presentation
8 is (inaudible) for my presentation today I'm going to try
9 to focus on three major topics that are relating to guides
10 (inaudible) planning process. The first one is actually
11 going to be the (inaudible) high level description of the
12 ISO transmission plan, a key component of the ISO
13 transmission planning. And the second one is going to be
14 the briefing on the 2009 ISO transmission plan that I
15 think we just concluded in March of 2009. And the last
16 topic is going to be the 2010 ISO transmission plan that
17 we are working on right now. We're going to focus on
18 pretty much the technical study that we plan to do in this
19 2010 ISO transmission plan.

20 Just first I would like to talk a little bit
21 about the ISO planning process. The starting point of the
22 ISO planning process, the key activity actually occurred
23 in 2007 when FERC issued a FERC order 890 and the ISO
24 started working with the PTO and a stakeholder to the
25 stakeholder process to revise overall planning process.

1 The whole work, the first, the major accomplishment we did
2 actually in December of 2007 when we did the FERC filing I
3 think at the end of December and FERC had accepted the ISO
4 proposal, but required some clarification and some
5 changes. So that's why in October of 2008 we did the
6 second filing to the first and since October of 2008 until
7 now we conduct all the planning process according to the
8 new revised filings.

9 These two bullets over here I would like to go
10 over, the kind of high level of the ISO planning process.
11 The first one is the ISO planning process is a (inaudible)
12 approximately 14 months for each planning cycle. It
13 starts in January of the first year and end in March of
14 the following year. We have four major components. The
15 first one we called a three-stage planning process. This
16 means it has a phase I, II and III and also has the
17 request windows. So that altogether makes the full
18 components.

19 For the stage I planning process is the starting
20 point. We starts in January every year and end
21 approximately in April of every year. The goal of the
22 stage I is to create the study plan. That means we try to
23 discover the stakeholder and what he plans through this
24 year. What kind of goals and when a technical study is
25 going to be conducted in this planning cycle and what are

1 the assumptions.

2 After we conclude stage I (inaudible) have the
3 first stakeholder meeting it's going to go into stage II.
4 That engineer starts performing the technical study and by
5 September 15th of every year we post the preliminary study
6 results on the website and we have the second stakeholder
7 meeting. At the same time we post the study results on
8 September 15th, the request window open. As you can
9 imagine for the output from the stage II preliminary study
10 results it's pretty much it's going to talk about where
11 are the needs for assistant reinforcement and the project
12 sponsor can submit the projects to the request window
13 according to the need that is identified by the previous
14 assumptions.

15 After the request window is closed at the end of
16 November the stage III planning process starts. This
17 means it's going to go through the approval process. The
18 project submission that all the information has to be
19 completed can be considered for approval. That occurs
20 around December to March of the following year. And the
21 plan as I mentioned is concluded in March of the following
22 year when ISO management presents the plan to the Board of
23 Governors in the March ISO Board Governor meeting.

24 This is quite a lot of detail for the ISO
25 planning process, but I believe that maybe the next page,

1 this one is showing the diagram that maybe helps a little
2 bit.

3 This diagram shows the stage I, it's on the left
4 corner. As you can see there's two on the right. And
5 starting January of the year and completed probably around
6 in November and the end product of stage I is the study
7 plan. Stage II, the study plan (inaudible) technical
8 study and the end product of the stage II, it's going to
9 be the preliminary study results. And you can see the
10 request window, actually the box, looking on the right,
11 actually that kind of component the project sponsor can
12 submit the projects. The rest going to need at any time
13 in the preliminary study results.

14 And the last phase, actually it's phase III on
15 the right lower corner, that approval process. Now this
16 is pretty much the high level, 10,000-foot level, of the
17 ISO planning process that's how we conduct the planning
18 process in every year.

19 A little bit more detail about a planning
20 process. According to the ISO, we conduct the ISO
21 planning process in an open and transparent process. That
22 means this process is open to anyone, anybody can
23 participate in the planning process. We have three
24 stakeholder meetings at a minimum every year at the end of
25 each phase of the, you know, planning cycle. That means

1 around March, October and February every year it's going
2 to be the stakeholder meeting. Anybody can participate
3 and we take and put from the stakeholders and
4 incorporating in our planning. If we also have the
5 request window, that means anybody can submit a project
6 proposal to the ISO for consideration. Plus the
7 documentation or the description of the planning process
8 we create the BPM, or the Business Practice Manual, and
9 post it on the website. This document should explain how
10 the process works and the major timeframe and the
11 milestone of the ISO planning process. And this document
12 is public information.

13 This is the first topic that I would like to go
14 over. The next one is actually, this is the 2009 ISO
15 transmission plan. The main focus of this presentation
16 we're going to talk about is the project that we received
17 from the 2008 request windows.

18 The year looks like it's a little bit confusing.
19 When I talk about 2009 ISO transmission plan I'm talking
20 about the transmission plan that's been presented to the
21 Board in March of 2009. This means most of the activity
22 actually occurred in 2008, and that's why for the request
23 window for the 2009 transmission plan actually opened and
24 closed in 2008.

25 Last year for the (inaudible) request window we

1 received 134 project submissions and after we looked at
2 all the project submissions that we received we found that
3 we received quite a variety of the projects. A lot of
4 them, they are (inaudible) transmission projects. We also
5 received economic transmission projects and also two
6 location constraint resources to the connection facilities
7 that try to connect to us (inaudible) resources. They
8 aren't able to upgrade from the generation to the
9 connections. One motion transmission projects. One
10 generation alternative and also one loaded to connection.

11 One hundred thirty four submissions, they are
12 varying in the terms of the stage of the process, sorry,
13 projects. Some projects that we received actually pretty
14 much all the technical study has been completed, but some
15 of them still require more study. So it is going to take
16 more time before the ISO can decide about approval of
17 these projects.

18 After we look at the 134 we now try to narrow it
19 down to how many projects that are really related to the
20 (inaudible) resources. And we found that at least there
21 are 14 project proposals, they that are major projects
22 that the project sponsor indicates that this project is
23 going to benefit renewable integrations. We found that
24 mostly these are major transmission projects. When you
25 talk about major transmission projects that means if a 230

1 (inaudible) transmission line all (inaudible) or maybe to
2 build, the building of a brand new substation. All of the
3 14 projects, two of them they are LCRIF, that they're
4 looking for ISO approval this year. There are 12 more
5 project proposals that it will take more time for the
6 evaluation to be done by the ISO through the state
7 (inaudible) process. Out of 12 proposals there are 6
8 network upgrades from the generation interconnection and
9 two proposals of the conceptual transmission projects that
10 pretty much we tried accommodate renewable or tried to
11 (inaudible), but it also has some renewable impact as part
12 of the proposal. And these 12 projects would be evaluated
13 by the ISO in this planning cycle.

14 This is, I believe that in order to provide a
15 little bit more information about these 14 projects just
16 one thing I just want point out actually that there are
17 more projects besides these 14 projects that we received,
18 but it's not right now, I think the project sponsors are
19 still working on more detail. There are some projects
20 that under the WECC process and maybe the ISO (inaudible)
21 these projects in the following year. But the 14 projects
22 that I show on these pages and also in the table, they
23 will be evaluated by the ISO in this planning cycle.

24 And the table on pages 8, 9 and 10 list these 14
25 projects. I'm not going to go through all of these one by

1 one, but I just want to point out that for these 14
2 projects first of all these 14 projects are actually
3 pretty much proposed for the entire control area in
4 Northern California, Central California and also Southern
5 California.

6 Some projects also have some connection with
7 outside of California and they are kind of a variety of
8 the proposal, re-conducting a new line, building a new
9 line or building a new substation and the table from pages
10 8, 9 and 10 pretty much, this is the information from the
11 project sponsor that we take from the application, so we
12 kind of summarize over here.

13 All our in-service state that propose for these
14 proposed projects kind of vary. Starting from December
15 2010, you're looking at project number 8, until summer of
16 2016. And I believe that maybe the best way to show these
17 14 projects we'd actually go through a diagram a little
18 bit to show their locations and where they are.

19 I think on the handout it's going to be a little
20 bit different from the diagram that I showed over here
21 because this one is, I tried to make it a little bit more
22 bigger so to be easier to see these projects. This is, it
23 shows the backbone system of California and then try to
24 put those 14 projects in this diagram.

25 This is the first project in the table, this is

1 the line from Maline (phonetic) that go down to Cottonwood
2 and take them out to Tesler (phonetic). And this is the
3 project sponsor that indicated that it's going to benefit
4 renewable integration, also reduce implementation.

5 Second project is between Midway and Antelope so
6 this one can reinforce the (inaudible) 26.

7 The third project, this is involved with the
8 (inaudible) in Southern California between (inaudible) and
9 Imperial Valley.

10 The next one also is between Imperial Valley and
11 Blythe, so this is going to be the project that involves
12 some kind of (inaudible) integration in that area.

13 The next one is between Mohave and San
14 Bernardino and actually could go toward the Devers area
15 also.

16 This is another one, actually the Green Energy
17 Express that is between (inaudible) and Devers
18 substations.

19 This one actually connects at Tehachapi.

20 This is one of the LCRIF projects. The Drycreek
21 Wind, so it can connect the backbone system with
22 Tehachapi.

23 This is another project, the high wind LCRIF,
24 also benefits the Tehachapi by connecting to, try to tap
25 the power and deliver it to the system.

1 This is another project between El Dorado and
2 Owenpah (phonetic).

3 This is a brand new substation proposal in
4 Southern California, San Diego system, the ECO substation.
5 Looks like it's between Miguel and (inaudible) Valley
6 station.

7 By the way this is not the diagram, this diagram
8 doesn't show the precise locations or the routes of the
9 projects. The purpose I just wanted to show where they
10 are roughly in the system.

11 And this is the project in Central California,
12 Central Coast, the re-conducting of the Morro Bay and
13 Midway substation. This is an existing line and this
14 project proposed to re-conductor [sic] the line.

15 Also the brand new substation at San Luis Obispo
16 switching station to try to tap the renewable resources in
17 that area and connect to the system.

18 This one is not in California. The
19 reconductoring of the Waca-Dixon (phonetic) and Sobrante
20 substation and accommodate renewable in Northern
21 California.

22 And the other one is just, this is project
23 number 14 I believe, this is between the Table Mountain
24 and Waca-Dixon substations.

25 So altogether this is all the 14 projects that

1 we have. As I mentioned this actually is the information
2 we received from the project sponsor, the ISO still has to
3 evaluate these projects. At this point I believe that the
4 first step that we want to do this year actually to make
5 sure of the need of these projects, that they are needed.
6 But I just want to point out this is what we received from
7 the request window from 2008. We received 134 projects,
8 but these are the 14 projects that the project sponsor
9 indicated could benefit renewable integration. And that
10 was the second topic on my presentation.

11 The third one, this is going to be 2010 ISO
12 transmission plan, what we plan to do this year.

13 In 2009 the ISO transmission plan, we actually
14 did the study more than just the reliability, but still
15 the main focus of the 2009 actually is on reliability.

16 In 2010 we've had to make our planning process,
17 and the planning study more comprehensive. So this is why
18 we keep adding on additional technical study that could be
19 conducted in this year planning cycle.

20 As you can see the first fiscal 2010 we
21 (inaudible) three more technical studies this year. The
22 first one is the, you can see it underlined, the renewable
23 transmission study that we actually worked with the RETI,
24 retain information from the RETI study and tried to,
25 looking at the evaluation of transmissions illusion.

1 We also have the economic planning study to
2 target on to congestion in the system by working with the
3 information that we got from our market. And also we
4 tried to work closely with the generation and technician
5 process to make sure that everything coordinated.

6 And also, I just want to point out that the
7 RETI, information from RETI will be part of the study
8 program in the 2010 ISO transmission plan.

9 COMMISSIONER BYRON: Mr. Didsayabuta, when you
10 refer to general interconnection under the new process do
11 you mean your new queue process?

12 MR. DIDSAYABUTA: Yes, sir. I think it's the
13 last, I think the last year or two I think we kind of,
14 sorry, reformed the generation and technician process that
15 under the process we call it (inaudible), generation and
16 (inaudible) reform. And that reform initiative has to be
17 complete and right now the generation and technician being
18 conducted according to that revised process.

19 COMMISSIONER BYRON: And I understand that also
20 relies upon input from the RETI, the renewable energy
21 transmission initiative as well for grouping of renewable
22 interconnection, correct?

23 MR. DIDSAYABUTA: I am not invariably involved
24 with that thing, but I believe so.

25 COMMISSIONER BYRON: Okay.

1 MR. DIDSAYABUTA: Now just a little bit more
2 detail about a real transmission study that actually you
3 can see from page number 12 underlined. So what we plan
4 to do this year, right now, we plan to utilize information
5 from the RETI study, for example, the information to the
6 CREZ. But the ISO we pretty much focus on the
7 transmission solutions so, and for the renewable
8 transmission study we follow the ISO transmission planning
9 schedule that clearly are defined in the BPM and also I
10 think I have one slide, page number 14 or 15 that pretty
11 much have some schedule in there.

12 The next major milestone for the ISO
13 transmission plan, exactly September 15, we're going to
14 post a preliminary study result and also the second
15 stakeholder meeting will be, we're going to hold the
16 second stakeholder meeting in October of 2009.

17 And this page is just a little bit more on where
18 we are right now. If you remember from the first section
19 of my presentation we talked about the transmission plan,
20 about a schedule. We started the planning process in
21 January so at this point the 2010 ISO transmission plan
22 has started. We had the first stakeholder meeting on
23 March 24, 2009 to talk about a study plan and the RETI
24 study actually is a part of that discussion also. The
25 preliminary study result will be published on the ISO

1 website on December 15, 2009. The next meeting will be in
2 October of 2009. And as I mentioned, this is the major
3 milestone done actually in our BPM and we followed this
4 (inaudible) strictly from now on. And I think they pretty
5 much say the same thing that I already discussed regarding
6 the major milestone of our planning process.

7 And I believe there are 15 pages of presentation
8 and any questions?

9 VICE CHAIR BOYD: Mr. Didsayabuta, thank you so
10 very much. This information is invaluable to us to better
11 understand the ISO transmission planning process or
12 responsibility that you have under FERC. You make it look
13 so easy, but we know that this is a very complicated
14 process.

15 Let me ask, you know, we think of primarily your
16 concerns and interests as the independent system operator
17 centering around reliability, but you do list a number of
18 other considerations in the evaluation of these 14
19 projects. Do you publish an evaluation criteria of any
20 kind?

21 MR. DIDSAYABUTA: Yes. Actually the study plan,
22 this is one thing that we try to put in the study plan.
23 The study plan, this document is not just saying this is a
24 study (inaudible) this year. It's also looking at the
25 criteria standards. What we plan to do, methodology,

1 where we get information from. That pretty much outlines
2 the whole thing. So in order to answer your question I
3 believe the study plan, and actually the document that
4 pretty much has that type of information in there and we
5 post that information on the website.

6 VICE CHAIR BOYD: And of course your plan deals,
7 correct me if I'm wrong, but it deals only with your
8 control area, correct?

9 MR. DIDSAYABUTA: Yes. We did the study, we
10 performed the study focused on our control area. That's
11 correct.

12 VICE CHAIR BOYD: How do you coordinate with the
13 reality that other control areas are interconnected yet
14 their planning process goes on independent of yours?

15 MR. DIDSAYABUTA: There are several things that
16 we can do. First we also (inaudible) The input from the
17 neighboring system over these, before we start in the
18 planning process we try to put in (inaudible) neighboring
19 control area that try to get more information. So
20 actually there's one box that before stage I of the
21 planning process actually did receive any kind of input
22 from the neighboring system we try to incorporate it in
23 the study plan all the time.

24 The second thing that you can see that for the
25 request, you know, itself, on the upper box over there, we

1 designed a process that it should be able to coordinate
2 with the WECC or the TEPPC process. The timeline of the
3 ISO --

4 VICE CHAIR BOYD: It would be best to spell out
5 the meaning of your acronyms please.

6 MR. DIDSAYABUTA: It's a TEPPC. Actually it's
7 Transmission Economy Planning I believe.

8 MS. GRAU: (inaudible) Policy.

9 MR. DIDSAYABUTA: Thank you very much. I kind
10 of love that kind of acronym I have to spell, but, yeah
11 that Transmission Economy Planning Operate --

12 MS. GRAU: Planning Policy Committee. Policy.

13 MR. DIDSAYABUTA: -- Policy Committee. TEPPC
14 ordered that one actually. They also had the request
15 windows. That means for example the ISO received some, we
16 received the project proposal from the project sponsor and
17 we determined that this is a big project. It's not going
18 to impact just the ISO (inaudible) area.

19 We also line up the request we know that there
20 could be some coordination. The ISO request it close
21 around the end of November. I believe the TEPPC
22 requesting that it'll close by the end of January. So
23 that kind of allows some coordination to happen. So that
24 is pretty how we coordinate it. And definitely be
25 involved with any activities, be reactive in the RETI

1 process and also the WECC process also.

2 VICE CHAIR BOYD: Well, like I said, you make
3 this look so easy, but there's a lot of moving parts here.
4 One last question, do you anticipate that all 14 of these
5 projects will be built?

6 MR. DIDSAYABUTA: At this time it's hard to tell
7 actually. I think one thing if (inaudible) right now when
8 we, we did, okay, first of all we did the, we have
9 (inaudible) FERC filing last year October. So this is
10 really the first year that we have the request window. We
11 received 14 projects from the project sponsor that
12 actually if you're looking at the whole process over here,
13 the process should come after the ISO identifying the need
14 of the projects. But because of the transition year we
15 received the project after, before we identify the need.
16 So I think at this time this year we tried to catch up by
17 kind of check the needs of that project. At this point
18 it's really too early to talk about that kind of things.

19 VICE CHAIR BOYD: But yet won't that be the
20 results or the output from your plan? Will, it will give
21 some indication of the need for each of these projects?

22 MR. DIDSAYABUTA: Yes.

23 VICE CHAIR BOYD: Okay. Commissioner?

24 COMMISSIONER BYRON: Well I'm going to be candid
25 and blunt. I continue to struggle to understand the state

1 processees, but I struggle right now with whether, you
2 know, what I just heard is duplicating or overlapping or
3 whether it's supplementing and complimenting all the other
4 work that we've heard about this morning coupled with the
5 work that we will hear about throughout the day. I
6 realize this is just the ISO control area and we're
7 sitting here trying to deal with the entire state and
8 unfortunately I notice, you know, our timetables differ so
9 I guess we'll all collectively do our best to integrate
10 and to share information back and forth, but I remain a
11 concerned Commissioner about all of the activities that
12 I'm aware of that go on in transmission planning. And my
13 concern goes all the way back to the electricity crises
14 and the days the sky fell on the state and my personal
15 questioning of what is the role of the Cal ISO? What
16 should be the role of Cal ISO in a restructured California
17 electricity system?

18 So I know the three agencies, the three "energy
19 agencies" are working together, better and better with
20 each passing day and I just hope that's true for the
21 future. But I will confess I remain feeling sometimes I
22 haven't gotten, fought my way out of the fog banks.
23 That's not a question that you can probably respond to,
24 it's just a statement of my personal concern.

25 VICE CHAIR BOYD: Mr. Densio (phonetic) [sic],

1 excuse me, Didsayabuta, thank you very much for coming.
2 Clearly this is complicated. There's the, a federal
3 overlay in all this as well, which (inaudible)
4 presentation doesn't get into either, but thank you so
5 much. We will continue to work with the ISO and I
6 understand that you will be looking for this RETI input as
7 well just as we are. So thank you for coming.

8 MR. DIDSAYABUTA: Thank you very much.

9 COMMISSIONER BYRON: We're a little behind.

10 MS. GRAU: Actually your comments,
11 Commissioners, are very timely. Commissioner Byron, you
12 asked the question about coordinating with other control
13 areas. Our next presentation is a presentation on Western
14 Regional issues and how activities going on, planning and
15 projects, you know, regional affect California as we
16 recognize California is not an island electrically or in
17 any other sense of the word. And also Commissioner Boyd,
18 our first panel in the afternoon gets to your very
19 question about facilitating coordinated transmission
20 planning to achieve the state's goal. So we do hope that
21 the presentation before lunch, as well as the session
22 afterwards will be of benefit to you.

23 And so our next presentation is a joint
24 presentation given by Grace Anderson who is our Western
25 Collaboration Project lead for the Energy Commission and

1 also with her, joining her will be Rich Bayless who is the
2 Technical Director of the Northern Tier Transmission Group
3 and Bill Chamberlain, Chief Counsel for the Energy
4 Commission is also here to answer any questions and help
5 out with the presentation. Thank you.

6 MS. ANDERSON: So thank you, Judy, and
7 Commissioners. Thanks for the time on your agenda. It's
8 nice to see you and Laurie and Susan and all the
9 (inaudible) that care about this.

10 We have 30 minutes of slides and Rich Bayless
11 and I are going to present those and then Bill is going to
12 join us in the question and answer period. We did prepare
13 this together and I'm grateful to my conspirators over
14 here. I'm going to speak to the regional planning
15 initiatives then we'll turn to Rich for the regional
16 projects. We're turning to look beyond California's
17 borders and even beyond that to the Washington DC and
18 (inaudible) comfortable, but it is important.

19 So first for the major western interconnection
20 regional planning entity we have one in the west. You're
21 all aware of it, the Western Electricity Coordinating
22 Council. It is the regional entity for the western
23 interconnection, the WI, for developing and enforcing the
24 liability standards. It also assigns liability related
25 ratings to transmission paths. That includes the existing

1 and future paths, upgrades or new projects. A couple of
2 years ago the stakeholders in the west decided that WECC
3 needed to move beyond strict reliability planning and it
4 asked WECC to move toward conducting this economic
5 transmission planning that you heard mentioned earlier.

6 You're aware that the footprint of WECC is
7 large, 11 states, two Canadian providences, and Northern
8 Mexico, Baja. So because the stakeholders asked WECC to
9 take on this commercial function of economic planning, oh,
10 sorry. Because of this they -- thank you, Bill -- they
11 created a committee, this transmission expansion policy
12 planning committee. That committee has three functions.
13 It maintains databases for say for example, production
14 cost modeling, such as the grid (inaudible) models it that
15 Rich mentioned would use. It helps to develop and manage
16 the western interconnection planning process under FERC
17 order 890. And we actually conduct studies and we prepare
18 an annual report to the WECC Board. Those are studies of
19 congestion under (inaudible) resource futures including
20 significant penetration of renewables and also
21 implementation of CO2 reduction goals.

22 What this indicates is that the western
23 interconnection has already organized itself to do
24 interconnection wide planning in, for example, the eastern
25 interconnection has not met this challenge at this time.

1 I would acknowledge here Steve Walton, the WECC
2 TEPPC facilitator who is very responsible for the success
3 that TEPPC has seen, and he did prepare some of the slides
4 that are in your package, also the WECC staff.

5 So my second subject is this issue of regional
6 planning and the federal government's desire to move
7 toward more centralized regional planning and to
8 accomplish this they have set aside 80 million dollars for
9 regional transmission planning.

10 I should also note that the stimulus package includes six
11 and a half billion that's going to go into actual
12 projects, hard work in the ground, through western, WA,
13 Western Area Power Administration and the Bonneville Power
14 Administration, and this will be used to leverage private
15 capital. So we're going to see some projects built here
16 in the next, you know, two to five years.

17 So let's talk more about the 80 million for
18 transmission assessment and planning. What is that money
19 supposed to spent on? And I must say it's, you know, a
20 lot of money that no one, you know, expected would be
21 coming this direction, although it will be spent over a
22 period of four years, you know, assuming the first years
23 is used to distribute the money. So it's facilitating the
24 development of regional transmission plannings, it is
25 technical assistance for the formation of interconnection

1 based transmission lands for the interconnections and
2 support to the regions and states for development of
3 coordinated policies programs, laws.

4 All of this is in the process as we speak. We
5 do expect a funding opportunity announcement sometime in
6 the next 60 days, if not sooner. We've been told it's a
7 competitive solicitation. It will have a short response
8 window and that there will be one recipient for the
9 western interconnection and the eastern interconnection.
10 WECC has formed a taskforce through TEPPC to develop a
11 proposal to respond to the FOA. That will be in a
12 proposal that includes funding for programs that WGA that
13 the states are interested in and funding for sub-regional
14 planning groups that do the, it's for intermediate level
15 transmission planning for the interconnection.

16 So the third area of action in regional planning
17 in the western interconnection is coming from the Western
18 Governors Association. They have two very important
19 current initiatives related to this WREZ, Western Regional
20 Energy Zone, project that you are all aware of and then
21 also a policy statement that was sent to the congress last
22 Friday afternoon.

23 So WREZ, you know, has four phases. A lot of
24 the work so far has focused on phase 1 and I would
25 acknowledge that Jim Partridge is a part of this process

1 for the Energy Commission's staff.

2 What is occurring at the moment is that on May
3 30th they're expecting a final phase 1 draft report and in
4 that report they will be identifying hubs rather than
5 zones and they will be taking maps and recommendations
6 related to those hubs to the Governors June 13th.

7 They will be continuing with phase 2, which is
8 consensual transmission and also execution of a new model,
9 a tool, that has been developed to assist parties in
10 quantifying the delivered cost of renewables from resource
11 areas to both centers.

12 Phase III and IV are going to be proposed for
13 funding under the stimulus package 80 million. This is a
14 very early WREZ now. I put it up not because it indicates
15 where the WREZ's are, but because it shows, you know,
16 there are a lot of dark colored areas outside of
17 California and inside California and in Northern Mexico
18 and so you wouldn't be expecting that these resources are
19 going to loom large as well as the Governors are
20 interested in developing in other states and could
21 contribute to California's achieving it's 33 percent
22 goals.

23 So I'm turning now to this transmission planning
24 statement that the Governors delivered to congress last
25 Friday. It's actually much broader than is on this slide,

1 but I just want to indicate that the Governors intend to
2 approve the scenarios, the cases that tax these studies
3 and it's interconnection wide transmission work in the
4 coming years.

5 The WREZ has proposed two TEPPC cases for 2009
6 that are indicated on, I think slide 26 in your record
7 slides. So they will be asking for great detailed studies
8 of high drill penetration and again CO2 reduction. They
9 want WECC to create an interconnection wide plan and
10 continue to lead the studies of transmission for the west.
11 The Governors (inaudible) intend approve whatever plan or
12 plans might come out of WECC and they are asking that
13 federal agencies actions comport with the plan or plans
14 and the actions that are laid out that would comport with
15 this would include the designation of court orders, FERCs
16 allegation on incentives to project's ratings that is, and
17 the BLM establishing priorities in it's citing geo process
18 or specific transmission projects.

19 So you've heard from others that this is a hot
20 topic in congress. We authored six bills and on five, I'm
21 not going to go through these bills. In fact they're
22 changing as we speak. There's a new version of the Reid
23 bill that was put out last Friday. There's going to be a
24 markup of, or excuse me, a new version of the Bingaman
25 phonetic) bill that was put out last Friday and they will

1 be marking up the Reid bill this Thursday, so what's
2 important here is that these bills are not all the same.
3 They markedly vary according to the degree to which they
4 would centralize planning and project siting and project
5 funding in the federal government versus a more
6 decentralized approach, which is we have now. They also
7 vary in the degree to which they will offer incentives for
8 renewable projects and special projects as opposed to all
9 "priority" projects, so it's important that the states
10 look at these carefully and evaluate them relative to how
11 well they will suit implementation of this individual
12 states policy goals.

13 So with that I'm going to conclude. I made
14 these points, it's important that the states engage and
15 articulate their policies, particularly in the resource
16 area. The more we can coordinate RETI and WREZ phases II
17 that would be good. California can effect these
18 (inaudible) by the (inaudible) entities, the Commissions
19 and the Governors and the Energy Commission is well
20 positioned to lead in WECC as Bill Chamberlain who's a
21 former Chair of WECC and a current Board member. I am one
22 of the 18 members on TEPPC and also a member of this
23 taskforce that's going to develop the proposal for the
24 stimulus funds.

25 So, thank you for your time and we're now going

1 to continue the introduction of Rich Bayless. He is one
2 of those people that got up very early to fly here for
3 this event. He has many decades working to facilitate
4 interstate and regional projects. He was the Chief
5 Engineer for Pacific Corp. He was the Director of their
6 Strategic Transmission Funding and Policy Group. He's now
7 the Technical Director for a sub-regional planning group
8 in the northwest and he is the Vice Chair of TEPPC. And
9 thanks for coming.

10 MR. BAYLESS: (inaudible). Thanks, Grace. And
11 I haven't had coffee yet so, bear with me.

12 If you think you in California have puzzles on
13 what transmission and what this energy plan looks like,
14 remember you're in one state with one state set of
15 agencies. You've got markets and you have a planning
16 entity.

17 I represent the Northern Tier transmission
18 providers, which, do I have a mouse up here? Let's see if
19 this works. It's the transmission providers there in our
20 group are in Montana, Oregon, Washington, Idaho, Utah,
21 Wyoming, a little bit in California down in here and out
22 here. Anyway, there's seven states to contend with each
23 having a different opinion on energy policy and our
24 systems sit sort of between you and the good wind that's
25 in Wyoming and Montana.

1 I want to talk a little bit about the issues
2 facing the regional transmission planning and this whole
3 situation. Why we're building and looking at transmission
4 the way we are at some of the issues that relate and then
5 what I want to leave you with is the message on things we
6 need to do in the west and sort of underlying what Grace
7 just brought up with the efforts going on for a more
8 regional planning activity and structure.

9 We need three things out of this discussion. We
10 need to make sure everybody understands we need regional
11 resource policy decisions as soon as we can get them. We
12 need a regional planning entity coming out of this process
13 with the DOE for the region. And we need a level playing
14 field set of rules on how we proceed through planning,
15 permitting, design and getting to construction of
16 transmission.

17 What you have in front of you here on this
18 colored diagram, a lot of colored worms is the plethora of
19 transmission projects that are now in the planning process
20 to some degree or another. There were a lot of years, the
21 last 25 years, where regionally we really didn't build
22 anything significant. There were a lot of people waiting
23 to see what restructuring was going to do and there wasn't
24 a lot of transmission done. Now with a push towards
25 renewables and wind development for starters we've seen a

1 lot of people entering into the transmission queues making
2 requests. We've seen a lot of interconnection agreements.
3 We also have 890 planning, which allows stakeholders to
4 come in and submit projects, and we've got all these
5 projects now in front of us on the plate. So it's a
6 puzzle and it's a puzzle because first of all we don't
7 know regionally where resources are going to be and what
8 load serving entities need.

9 The California, for example, with 33 percent
10 renewable portfolio, some of the studies we've run at
11 TEPPC, the Transmission Expansion Policy, Planning Policy
12 Committee have shown we should actually be building
13 transmission to export from California depending on some
14 of the assumptions out in the long term years. We're not
15 sure traditionally we've all built transmission in the
16 region heading towards California in addition to the needs
17 we had in our own areas for reliability and load service.
18 So that's a puzzlement.

19 We're not sure where greenhouse gas and carbon's
20 going to end up. A lot of the resources that originally
21 the system was built for in the region was to bring in low
22 cost coal into the load serving entities along the coast.
23 And we're not sure if that transmission's going to be
24 vacated if we have a large greenhouse gas policy opening
25 up for wind or if we need to build more. We're not sure

1 how the loads are going to change. I'll talk a little bit
2 later here.

3 I keep looking at the clock, but it keeps saying
4 70 degrees, so I'm looking at the calendar.

5 Let's see, timing, transmission now takes five
6 to ten years to build any of these big lines that cross a
7 lot of public lands, private lands, and so forth. You can
8 set up windmills, you can put them in with, if the
9 permitting goes correctly, in just a little over two
10 years. We're not sure yet where some of those windmills
11 are even going to be. We know where the wind is good, but
12 a lot of the resource people are hedging. They're waiting
13 to see what the policies are in Washington. They're
14 waiting till the last minute to put up transmission then
15 they expect it to be there. It takes five to ten years to
16 build it. Same thing is going along with I think the load
17 serving entities. They're hedging, waiting to see where
18 things go before they make requests for transmission.

19 A lot of this new transmission is merchant
20 transmission whereas in the previous years people built
21 transmission to serve their loads, their native loads,
22 their network loads and basically that comes with built-in
23 commitment because you make a forecast, you get the
24 transmission ready, you have long term planning
25 requirements and, you know, you can roll in the race.

1 With merchant transmission and long term point-to-point
2 requests you have to have people coming in committed to
3 get the transmission going because otherwise you're not
4 sure about cost recovery.

5 Right-of-way is a big issue now. Out of
6 Wyoming, and you can sort of count of them on here, the
7 BLM has seven major corridors that have been, are
8 requesting permits and they're trying to decide given the
9 land use, they're out of corridors, they're trying to
10 decide what projects are going to go, what aren't going to
11 go and what to do on the big issue of land management in
12 Wyoming.

13 Okay. Is this the right one? There's the right
14 one. Okay. So we built transmission to meet increased
15 loads, to integrate new network resources like wind. We
16 built it for point-to-point customers who want to go
17 through the system. There's a lot of reasons they want to
18 go through the system. Sometimes they've got a resource
19 that they have committed to that wants to get through the
20 system to their side. Sometimes they want to eliminate a
21 pancake or two and there's given where these external
22 resources are out in the wind areas there's several
23 different transmission pancakes that they need to get
24 through and if you build one long DC line for example, you
25 might be able to skip over a few pancakes, as well as some

1 other things we'll talk about in a minute. So we have to
2 look at the point blank --

3 COMMISSIONER BYRON: Mr. Bayless, would you
4 mind --

5 MR. BAYLESS: System and usually, it's a control
6 area but I didn't bring a control area diagram but if you
7 want to go between, let's say Wyoming to Idaho to Oregon
8 to California, you're going to pay the PacifiCorp rate
9 pancake which is \$25 a kW year thereabouts. Then you're
10 going to go to Idaho in less, in less in the future.
11 That's connected by a PacifiCorp line. You're going to
12 pay their pancake. You're going to maybe pay a Bonneville
13 set of pancakes, the Southern Intertie, the middle of
14 their system and so forth.

15 You're going to pay three, maybe four, what
16 they're called, rate pancakes at the rates tolls to go
17 cross each one of those systems. If, instead, you would
18 do like the Intermount Power Project did which was build a
19 plant out here in Utah and build a DC line down into Los
20 Angeles, you basically move that unit right into the Los
21 Angeles area and you avoid paying the pancakes through all
22 the intervening systems. So, sometimes, you build
23 transmission for that.

24 Other issues that come up that we have to deal
25 with is ancillary services and reserves and depending on

1 how you build this transmission, to bring renewables into
2 California whether it's DC or AC, you have to consider
3 reserves and contingency reserves which means if you were
4 to lose a large transmission line or a large generator or
5 a large DC line, how you pick up to cover the
6 instantaneous loads in the area that was being delivered
7 to.

8 So, we do, we build transmission for those
9 issues. We built transmission to reduce congestion and
10 this diagram actually is showing these yellow spots here,
11 our pass that had high loading depending on how you're
12 measuring -- and I'll talk about that in a second -- but
13 high loadings, both in history and in the forecasted
14 future to a degree, and you can see a lot of the new
15 transmission is going across those to reduce congestion.
16 So you can build transmission. It's cost-effective to
17 reduce congestion when congestion is large.

18 So as Grace was talking, the WECC organization
19 does planning that looks at these issues. The
20 transmissions providers are required by NERC and FERC and
21 WECC to do reliability studies. WECC does some of those
22 on a coordinated basis.

23 The sub-regional planning groups now do that
24 same sort of thing to a degree for their areas and they
25 coordinate amongst themselves with each other to

1 coordinate that kind of planning in addition to the
2 economic planning which looks like congestion issues.

3 You heard, you heard, you heard Rich earlier
4 talk about distribution factors or loop flow schedules
5 versus actual flow. The power flow is like water through
6 a set of canals. If you put it in one place, it flows all
7 over the canals and that's, that's called actual flow.

8 Scheduled flow is commercially how do you
9 schedule it over these pass and we're seeing a lot more
10 congestion from a schedule point of view than we are on a
11 flow point of view. And the studies that TEPPC does and
12 WECC does look at those sorts of things. They run
13 congestion studies every year that come in.

14 We found some interesting things both with their
15 studies and some that we've been running on the production
16 cost models up in the northwest. We put a lot of wind out
17 in Wyoming and Montana and built this expensive
18 transmission. The wind does a good job of backing up high
19 price resources on the coast but, unfortunately, most of
20 those let you put carbon additives or gas and the coal
21 still goes and the transmission, you need more of.

22 The problem with backing down gas plants is that
23 gas plants provide peaking and they provide reserves and
24 regulation. In the northwest, we put in six -- right now,
25 there's 1600 MW of wind. There's supposed to be 6,000

1 coming up shortly when you run that wind in the basin, the
2 river basin, which is over here, as opposed to the wind
3 over here.

4 The wind over here has about 15% capacity
5 factored. The wind over here has about a 40% capacity
6 factored. When you put the wind in here, it does a really
7 good job of coming on, staying on when it's windy. And
8 when it does that, it displaces hydro up and down the
9 system or gas in order to get rid of any congestion that's
10 there.

11 And the problem we found is that the wind blows
12 really well on spring and off-peak times and at summer
13 peak and winter peak when there's real stagnant air over
14 the area, it hardly blows at all. In fact, last winter,
15 there was very little wind registering at all out of the
16 1600 MW. So, it comes on when the water is needed to run
17 down the river anyway and it's aggravating the problem
18 that you make up for it with gas plants.

19 So, the more wind you get on, you have to do
20 something in order to provide the peaking capacity and
21 some of the reserves and other things. And these things
22 have to be factored into your plan.

23 So, given that background and given the time,
24 I'm going to run through some projects real quickly that
25 are being proposed and how we're looking at those. Let me

1 just jump through these real quick.

2 When we're considering the airport projects, we
3 consider those issues and we look at whether it should be
4 an AC or DC project. Those bring up the issues of jumping
5 over pancakes. They bring up the issues of if you have a
6 big DC line who's providing the reserves. Do you provide
7 the reserves at the generation end of the DC line or do
8 you provide them at the load end? And, usually, the
9 economics of the DC line are such that a lot of the costs
10 are in the terminals so you want to load the DC line up as
11 flat as possible. And that leaves the question of where
12 does regulation get done?

13 All these lines, you noticed, went over multiple
14 states. So another big issue we got to deal with with
15 these big inter-regional projects, within region projects
16 is who does the cost allocation studies? How do you get
17 the states to agree on which loads, which customers are
18 going to pick up the cost? If it's a big DC line, that's
19 not as hard a question.

20 If we don't have some pricing mechanism that
21 socializes one of these projects across to everybody but
22 it's, it's under the present oath which is what we have to
23 actually operate under. There is a question of economics
24 and sizing. For economics, it's scale.

25 We need to build projects in our service areas

1 across to our footprints that are used and useful so we
2 can recover. We can estimate where our network loads are
3 going to be and build to serve their needs but we have to
4 rely on point-to-point customers to come in and make
5 commitments across to our system that they want to go from
6 Wyoming to California, for example. And if they're not
7 stepping up to make those commitments, then we really
8 can't go ahead and build that unless somebody tells us to
9 future-size or supersize.

10 Now, the problem with future-sizing or
11 supersizing is how do you collect for those costs until
12 customers actually come along and make point-to-point
13 requests to use those?

14 The states are going to be very, very hard
15 allowing and putting the burden on the backs of their
16 native load customers for supersizing, for external point-
17 to-point and the contracts and the customers that might
18 not come along.

19 It turns out permits, you can build a, build a
20 500 kV line but try to permit it for a second line or for
21 a dull circuit tower, for example, and if you don't use
22 that permit within five years or if conditions change to
23 make the (inaudible) just a little different, they expire.
24 You have to start over. You're starting over with another
25 three year process.

1 Problems have actually supersizing unless
2 somebody else steps up to help do the supersizing.

3 COMMISSIONER BYRON: Even if they do, it's going
4 to require perhaps higher voltage at a later time.

5 MR. BAYLESS: Uh-huh.

6 COMMISSIONER BYRON: And you got to consider
7 that in the planning and merchant developers can't assume
8 that cost. It makes their point, their projects
9 uneconomical.

10 MR. BAYLESS: Yup.

11 COMMISSIONER BYRON: So, you're familiar with
12 the request of the Western Governor Association to -- I
13 don't think we use the term supersize anymore because
14 everybody thinks we'll get fat eating McDonald's.

15 MR. BAYLESS: Right. Yeah, we've changed it to
16 future-size.

17 COMMISSIONER BYRON: Right. So, it is an
18 interesting idea.

19 MR. BAYLESS: Yup.

20 COMMISSIONER BYRON: But it is going to take
21 some federal involvement to figure out how to do that.

22 MR. BAYLESS: That's what we're hoping. That's
23 what we're proposing and hoping others do as well.

24 COMMISSIONER BYRON: Thank you.

25 MR. BAYLESS: Okay, some of the projects that

1 were on that big diagram, I'm just going to go over a few
2 of these just to give you a flavor of what they are and I
3 think we'll be handing out that matrix or putting it in
4 the package or something. There was a matrix that has all
5 these projects on it but I wanted to talk about Zephyr and
6 Chenook.

7 They're two big projects that are being proposed
8 by TransCanada. It's a merchant, merchant projects.
9 They're a thousand miles each and they're 2,000 megawatts
10 each. They turned out to be about 3 million dollars a
11 mile. These are both DC lines and they're picking up
12 renewable resources in Montana and Wyoming and delivering
13 them to Las Vegas and somehow, they're figuring they can
14 get from Las Vegas to the El Dorado Valley into
15 California, I believe.

16 Good projects, they skipped pancakes. They are
17 providing for some access with the potential of putting
18 terminals in some of the mid-states in Idaho to pick up
19 from the mid-point hub. Good projects.

20 If you work out the math on this line itself,
21 it's about, you know, just estimating, it's about \$150 per
22 kW year. Right now, for example, PacifiCorp's rate is \$25
23 per kW year and I'll talk about that a little bit more.
24 And if you take the, if you do the math and you convert
25 that into dollars per MWh, that it might add to a

1 merchant's cost to deliver power or their price.

2 At 100% capacity factor, that's like \$15. At
3 40% capacity factor which is the wind in Wyoming, that's
4 up to about \$40 and at 15% capacity factor which is the
5 wind capacity factor in more towards the coast, you know,
6 that's a hundred, \$100 per MWh. So these things add up.
7 They're long lines. They're very expensive relative to
8 the appreciated rates of the other systems out there now
9 because we haven't built in a long time. These are big
10 rate hits to the network and to the native loads if they
11 end up there.

12 Let's run through these real fast. These are
13 all the projects that are going on in the northwest right
14 now and within what's called the transmission coordination
15 working group. Right, Robert?

16 These have several that are going to be targeted
17 to California. The one in purple comes down into the head
18 of the Intertie. That's the northern lights project. The
19 one in green is the CNC, California, Northern California
20 for the Canadian to Northern California project which is
21 DC lines all the way down. They, too, are expensive. The
22 CNC project is 3,000 MW and is around \$7 billion. You can
23 figure out the math on what that ends up being in rate.

24 These are all going through a very complicated
25 planning process because when they get into the process,

1 they have to each, they get in what's called Phase 2.
2 They have to each recognize the other project as in the
3 plan. So, when they do the technical studies, they have
4 to use the synergies with the other projects in there.

5 Now, half of these projects drop out, then they
6 have to go back in and redo that sort of technical
7 analysis to figure out what they're rating and how they
8 meet in their reliability standards.

9 They've tried to coordinate and figure out a way
10 to do that in a logical framework but that's one of the
11 problems we've got now with the planning process is the
12 rating process, the permitting process typically come
13 ahead of the commitment process and nobody's sure what a
14 real project is until we get down the road. But the BLM
15 and the land managers have to get involved in permitting
16 way ahead of that and try to figure out who's real and who
17 isn't. And it's an issue that the BLM said that if we
18 can't get them a planning entity that's actually going to
19 make some decisions, they may have to make them for us
20 because they don't know what to do, they're out of
21 corridor. So, the issues would have to be planning.

22 This is an example of other projects. This used
23 to be called the Eastern Transmission Project, I think in
24 Nevada, but it's one that's going to be -- if you remember
25 that first diagram, this project shares right away with

1 three other proposals. And this one is to basically
2 connect two control areas at Sierra and Nevada Power
3 Company together and it gives them a good way to exchange
4 resources, to exchange reserves and enhance on their
5 services, and to reduce a bunch of pancakes on the other
6 systems that it used to have to go through.

7 I'm going to do this one and then, I think I'm
8 going to quit and jump to the conclusions.

9 This is the PacifiCorp system and they're trying
10 to bring wind from Wyoming as well as serve network loads.
11 And right now, what you see is basically a set of a single
12 500 kV line. That connects their western control area
13 with their eastern control area and drops off a
14 generation, connects reliability-wise into Utah load areas
15 across Idaho, using, with Idaho power, in conjunction for
16 load service. And, eventually, going to Captain Jack
17 which was intended to integrate some resources into the
18 Southern Oregon service territory of Pacific Core as well
19 as provide transmission for point-to-point customers going
20 from windy areas to Californian.

21 They've got enough future resources and load
22 requirements to support one line. They were building and
23 planning on building a double circuit. This whole
24 triangle and there's a big advantage to that because it's
25 only like one and a half times to build a double circuit

1 line than it is to build two 500 kV lines. Twice as much
2 so they had queue requests from wind parties that filled
3 up the second line. They had the network load for the
4 first line, wind that filled up the second line.

5 If they were to build the two double circuits
6 and actually get firm commitments from the wind guys all
7 trying to get through the system to California, the rate
8 that would have come out would have run from \$25 which is
9 their current rate because the system's appreciated up to
10 about \$75, three times the rate, a big rate impact. But
11 the rate would have been the same from point-to-point as
12 well as for network.

13 If they don't do the second line and just do for
14 network, it turns out the rate is just about the same.
15 So, they're having to make decisions right now on what to
16 do. They went out and tried to solicit all these people
17 over in the queues to sign up for long term point-to-point
18 contacts so they could actually build a double circuit
19 line and provide a lot of ATC -- ATC, available
20 transmission capacity -- between Wyoming and Montana and
21 California. Not one stepped up.

22 So right now, they're having to build for
23 reliability. They're actually building this piece right
24 here and they're planning on just building a single
25 circuit. This line's sort of been put on hold and they

1 may be trying to size a ride-away that can take another
2 line at some point but they're not sure how to proceed on
3 cost recovery for that and how the BLM's going to do
4 because that's now a permit change.

5 So, the problem with people when they don't step
6 up and commit to this transmission stuff, West Coast
7 Cable, this actually, the cost, if you compute what we're
8 hearing, it looks reasonable. It's not using ride-away.
9 It's out in the ocean coming into California from north of
10 Austin which gives it around a lot of bottlenecks. Good
11 project, perhaps.

12 The biggest cables that I could find that have
13 been built in about 600 MW sizes, this would be one of the
14 biggest, longest, and largest. I'm not sure about it but
15 it's on the books.

16 There are some projects in New Mexico and
17 Arizona bringing in solar, headed for California. And, so
18 just to summarize and get off the podium here -- a lot of
19 projects the states really need to gauge in all these
20 activities. All of these projects will affect the system
21 operation. They need to be planned together. We need to
22 coordinate amongst the sub-regional groups and regional
23 groups and we are under TEPPC working together in the sub-
24 regional planning groups to try to coordinate this.

25 The sub-regional planning groups are fairly new

1 under 890 and we haven't quite figured out yet how to get
2 them all coordinated and get the planning processes lined
3 up in time. We're working with Gary Deshazo from the CAL-
4 ISO on getting some of that done.

5 But all these lines are really getting parties
6 excited. BLM's having the issue I talked about. We really
7 need to get some entity out there and the planning process
8 fixed. The present number of transmission is bogging
9 everything down.

10 Our planning process is sort of backwards
11 because we don't get commitment until we're well on the
12 way through the rating process and the permitting process.
13 And the reason that happens is a lot of the merchant
14 plants want to get a product transmission system that
15 looks real so that they can go get customers. So we need a
16 better way to do planning and we need a better level
17 playing field on the criteria that goes between the need
18 identification, the long range plan, the short range plans
19 and permitting the construction.

20 So, we are proposing that WECC develops a long
21 range plan and not necessarily specific projects but
22 identifying the maximum need between areas so that the BLM
23 has a target they can gauge the proposals from when they
24 step up. We need to get all the resource parties in the
25 west to hurry up and clarify resource policy and plans as

1 quickly as possible because they can move a lot faster
2 than we can on the transmission side these days. And
3 we're really sort of hamstrung at the moment. We need to
4 get consistency between the sub-regional groups and with
5 WECC, get this level playing field, transparent planning
6 and permitting procedures followed by all.

7 There's a belief by some of the merchant
8 transmission providers that they can bypass some of the
9 sub-regional planning and the 890 planning and go directly
10 to the rating process and some permitting processes that
11 are not held up and they can get a product out there
12 first. And that's complicating both permitting and rating
13 and planning.

14 And we need to get good relationships going with
15 land management so that they understand what's going on.
16 And, with that, I think I am done.

17 COMMISSIONER BYRON: In addition to the merchant
18 developers, how about the publicly owned utility
19 communities? They can also bypass this process, can't
20 they?

21 MR. BAYLESS: I believe so. I think that's sort
22 of dependent on state but I think that's true. That's
23 right. I don't know if the path leads, I'm not sure where
24 the big monies are in the sub-regional groups in
25 California but I think they have a sub-regional group that

1 includes most of them and they can be in the process if
2 they choose.

3 COMMISSIONER BYRON: Mr. Bayless, very
4 interesting presentation. A couple of quick questions, if
5 I may, just for clarification. These are along the lines
6 of your pancake question.

7 MR. BAYLESS: Uh-huh.

8 COMMISSIONER BYRON: You indicated earlier
9 California may be an exporter of renewables. What's,
10 what's drawing that conclusion given that we've been a big
11 importer --

12 MR. BAYLESS: Right.

13 COMMISSIONER BYRON: -- for most of our
14 necessities?

15 MR. BAYLESS: When we look at the long range
16 plan in TEPPC, we developed a set of resource scenarios
17 and there were a couple were we actually had renewables
18 exiting California. None of us really thought that was
19 real and when we look, we go through and look at it, we
20 look at all of the different sort of robust scenarios that
21 may develop and the transmission system we're going to try
22 to produce is going to try to fit the majority of resource
23 scenarios as best it can because we know we're not going
24 to know specifics for quite a while.

25 But there were some where, typically, we would

1 take all of the wind. Theoretically, it could be
2 generated in Wyoming and Montana. We'd ship it to the
3 systems that intervene and then, the rest, we put in
4 California. They couldn't take it. So 33% is a lot of
5 wind especially if it's all on. Now, it doesn't all blow
6 at once but the transmission system has to be designed so
7 that it can handle all the different scenarios.

8 COMMISSIONER BYRON: Thank you very much. I
9 think you need extra time. I'm going to forego my
10 additional questions because I think -- are we going to
11 have a panel discussion here at this point or is Bill, Mr.
12 Chamberlain, are you going to present?

13 MR. BAYLESS: Bill is going to answer a bunch of
14 questions.

15 COMMISSIONER BYRON: Well, maybe I'll save my
16 questions for him then. Mr. Bayless, thank you very much.

17 MS. ANDERSON: Let me clarify. Bill Chamberlain
18 is not on the panel for this afternoon. He was just here
19 to answer questions you may have on this presentation so
20 if there's anything you'd like to ask him, now would be a
21 good time.

22 COMMISSIONER BYRON: Well, you know, I guess my
23 question is, these processes are so complicated. I would
24 like to speak, Mr. Chamberlain is, of course, our Chief
25 Counsel as many of you know but he also has an avocation

1 of sorts. I don't know how long you've been doing this
2 but he is quite an authority and having been former Chair
3 of the Western Electricity Coordinating Council and we
4 have a wealth of information on this.

5 Mr. Chamberlain, I read your last twenty-
6 something page report on your recent meetings and if
7 there's inclination on your part of retiring any time
8 soon, I'd like to dispel that myth right now. We can't
9 afford to lose you and the experience you bring to all of
10 this.

11 I'm going to ask a general question. What would
12 you like to add to everything that we just, we just went
13 through? Open-ended. Go ahead.

14 MR. CHAMBERLAIN: Well, I think, really, that
15 what makes this so difficult is that while California has
16 some fairly well-defined goals for renewable energy and
17 for climate change goals, the rest of the country isn't
18 there yet and everybody's waiting from Washington to
19 decide should we have a renewable portfolio standard?
20 Should we have GHG emission cap and trade program?

21 Once those dominoes fall, a lot of this
22 transmission planning will be a lot easier to do because
23 we'll be able to know that we need a certain amount of
24 solar and we need a certain amount of wind and you'll be
25 able to figure out the places that we should put that are

1 the places where you can generate it the best.

2 There are also technologies that are probably
3 just a little bit beyond our horizon that may change
4 everything that we're talking about today. I had a
5 briefing the other day about such a technology and if one
6 could imagine that you could magically put 8,000 GWh close
7 to loads and it would not require, it would not have any
8 emissions and it wouldn't require any water, I think that
9 would probably change much of what we're talking about
10 today. We're not ready to talk about those things
11 seriously but we may be in another couple of years.

12 COMMISSIONER BYRON: So, in the light of the new
13 transmission planning, it's complicated. It just starts
14 the presentations around, you know, from the ISO and Mr.
15 Bayless' presentation really from a developer's
16 perspective, good overview of a lot of projects on the
17 table but these are mostly looked at from a reliability
18 and economic point of view. We've got communities that
19 are oftentimes developing their own projects and merchants
20 can do the same but can we continue to do planning,
21 transmission planning this way?

22 MR. CHAMBERLAIN: I'm not sure we have too much
23 choice. We need to continue to do transmission planning
24 because it's clear that our grid needs to be strengthened
25 but there are, there are always going to be these risks

1 out there that the system fundamentally changes and the
2 things that we're building now turn out to be transmission
3 lines to nowhere because we don't need to transmit power
4 from those places into California.

5 As you just heard, there's a possibility that
6 California could be an exporter either of renewable energy
7 or it could simply replace, the gas fired facilities that
8 would be displaced by our renewable, our native renewable
9 energy, might find their way into other states where loads
10 are growing.

11 COMMISSIONER BYRON: Mr. Bayless indicated that
12 there's a lot of proposed lines out there. There's a lot
13 of folks -- that's getting everyone excited, I believe he
14 said. But yet, I can think of a couple of constituencies
15 that don't get excited about this. You know, we just went
16 through a large, the Sunrise Power Link process at the
17 Public Utilities Commission and the ALJ's recommendation
18 was no project recommendation. I believe primarily on an
19 economic basis. That one seemed like a slam dunk and yet,
20 it didn't get the economic go ahead from the
21 administrative law judge.

22 Likewise, the environmental community doesn't
23 seem to be involved in this kind of planning process. So
24 those two, those two little groups of folks are included
25 in this. That's what I was trying to get to in terms of

1 how can we continue to do planning this way? Also the
2 merchants, what I mean to say when I say the merchants,
3 the publicly owned utilities oftentimes are not included
4 in this process too. So I'd like you to state a little
5 bit to that, if you will?

6 MR. CHAMBERLAIN: I think, what I heard this
7 morning from Rich Ferguson sounded like the kind of
8 process that we really need to expand throughout the
9 western interconnection.

10 It's hard, I think, to get environmental
11 organizations to, you know, first of all, to try and sort
12 out all these different variables and try to figure out
13 where the real projects are until it looks like somebody
14 is about to build. And when that happens, then they
15 really get focused on what the downside of building those
16 lines are. Somehow, we have to back that up a little bit
17 and get them focused earlier so we can sort out which
18 lines make the most sense when you balance those
19 environmental values with the things that the transmission
20 owners and operators are looking at.

21 COMMISSIONER BYRON: Yes, that's, of course,
22 challenging to do for a number of different reasons; one,
23 is there a constituency that doesn't necessarily have the
24 financial interest to be at the table early on like the
25 developers do? But we also see the purpose in the, in the

1 -- we always put their backs up against the wall, so to
2 speak, once we do develop projects and they have to then
3 respond usually with 'No, that's not the right place to do
4 it.'

5 So, where I'm trying to go with this is, is the
6 long term planning is so complicated obviously. We rely
7 terribly on the integrated planning that takes place at
8 the WECC, the Western Electricity and Coordinating
9 Council, and you've been involved in this for a long time.
10 I'm just concerned as to how this can proceed given, I
11 think somebody else, Mr. Bayless, said BLM is running out
12 of corridors and yet, we have these time renewable goals
13 that really are not the ceiling. They're the floor. We
14 really should be thinking longer term.

15 I'm encouraged as you are that we may be able to
16 have technology breakthroughs that could change that but,
17 of course, that's difficult to put into the planning
18 process as well.

19 I think I'd like to open it up. If there's any
20 other questions for a few minutes? And, Mr. Chamberlain,
21 if you'd stick around if anybody has any questions for you
22 as well. I don't want to dominate the whole discussion.
23 We're going to have more interaction, I believe, in the
24 work, in the sessions this afternoon.

25 Is there anyone else who would like to ask

1 clarifying questions or questions that these folks, while
2 we have a little time before we go to lunch?

3 Sir, come on forward and identify yourself,
4 please?

5 MR. MOORE: My name is John Moore. I'm a
6 resident of Sacramento. My connection with this is that
7 I'm observing RETI process almost since its beginning.
8 And I'd like to make a statement. I just have a question
9 for Mr. Chamberlain which is merely what was the source of
10 power of extremely desirable attributes you mentioned a
11 couple of minutes ago? I didn't quite get the name.

12 COMMISSIONER BYRON: He was a little circumspect
13 there, wasn't he?

14 MR. CHAMBERLAIN: Unfortunately, I have to be
15 circumspect. I think there will be a lot of discussion on
16 this later, perhaps an earlier (inaudible) this year and
17 assuming that it's going to be real but right now, I've
18 been sort of sworn to secrecy with regard to that.

19 MR. MOORE: Oh, that is disappointing. My
20 observation -- I might as well make it now. I thought of
21 making it later. -- is simply I have never encountered a
22 large indigestible portion of alphabet soup in my life.

23 MR. CHAMBERLAIN: Yes, we apologize for that.

24 MR. MOORE: Well, no. It's not, you're not
25 responsible. It's just so many processes with such

1 uncertain relationships between them and who can tell who
2 and what to do, if anybody. It very desperately needs a
3 primer, a primer which lay people can begin to sort this
4 aisle even if the technology, you know, is really perhaps
5 beyond their power to sort out. Just, I'm overwhelmed.

6 MR. CHAMBERLAIN: Well, Mr. Moore, I'm --

7 MR. MOORE: I suggest maybe the Energy
8 Commission staff could take a little time to try to
9 produce such a primer. A primer would be very useful in
10 California and beyond.

11 MR. CHAMBERLAIN: Yes, an acronym glossary would
12 be helpful. But there's a lot more to it than just that.

13 Clearly, there's a lot of overlapping with the
14 different agencies, both in the state and federal level
15 and regional level are being asked to do.

16 As I mentioned earlier in my comments, the
17 Governor is frustrated by this as well. He wants to see
18 transmission get built to renewables and he's offered a
19 reorganization of sorts. There needs to be more than just
20 a primer. There needs to be some authority that has some
21 overriding authority but it's extremely complicated as a
22 result of both federal and state and local interest. And
23 that's why I also think the strategic transmission
24 investment plan has some importance for California.

25 But thank you for your question, Mr. Moore.

1 Unfortunately, we're not going to be able to solve that
2 one today.

3 MS. ANDERSON: Wait, but wait, there's more. If
4 one of the slides you'll see this afternoon, actually, it
5 sort of addresses what Mr. Moore was getting at and that
6 is that there are these different processes and how they
7 feed in with each other and Chuck Najarian will be leading
8 the session but he did put together the slide of how he
9 envisions all these processes fit together with the
10 triangle in the middle, this statewide Strategic Plan
11 being the elusive that we do not, at this moment, have.
12 But you see the peripheral parts that are sort of leading
13 us to that.

14 So, just so you know, we have thought about it.
15 We are also confused but we are hoping to sort that out
16 this afternoon. We do hope you can stick around and maybe
17 that will help you.

18 COMMISSIONER BYRON: So we're going to come back
19 to the slides this afternoon?

20 MS. ANDERSON: It's one of Chuck's slides, yes.
21 You'll see this after lunch again. And, speaking of
22 lunch, we are, it's coming up on 12: 30 and we want to be
23 kind to the folks that we invited to start at one o'clock
24 and yet, we all need enough time to eat and digest
25 properly. So, Commissioner Byron, what would you suggest

1 for a starting time.

2 COMMISSIONER BYRON: I think we all need an
3 hour's break.

4 MS. ANDERSON: Okay.

5 COMMISSIONER BYRON: I apologize that we're
6 behind. We have more information to cover. Let's
7 reconvene at 1: 30.

8 MS. ANDERSON: Thank you.

9 COMMISSIONER BYRON: Thank you.

10 [Lunch Recess]

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AFTERNOON SESSION

MS. GRAU: Let's warm up for the afternoon, is we have two sessions of panels. The first one we had originally hoped would go from one o'clock to three o'clock. We are about a half hour behind schedule, a little more than that.

Chuck Najarian who is a transmission assistance specialist with the Energy Commission's -- sorry -- Strategic Transmissions Planning Office will be moderating the first session and between Chuck and Commissioner Byron, we'll try to end this session still as close to three o'clock as possible though we don't to foreshorten any really great discussion that will help our committee members make decisions for our next workshop and beyond. But we will try and keep to that schedule so that those who will be on the second session can still get in and get home at a reasonable hour.

And so, Chuck, as I mentioned will be moderating this session. We've had a change to a few of the panelists. We don't have Jim Caldwell at LADWP. As we noted earlier this morning, it's Tony Braun representing the California Municipal Utilities Association. And then, for the California ISO, we have Karen Edson instead of Gary Dishezo. Chuck, do you want to add anything or shall I just switch to your next slide?

1 MR. NAJARIAN: No, go ahead. That's fine.

2 (inaudible)

3 MS. GRAU: Oh, okay. I'm sorry.

4 COMMISSIONER BYRON: Mr. Najarian, I think the
5 way this crowd reminded us that it's up to us to keep this
6 on schedule. It's up to you to keep it on schedule and to
7 keep me from asking too many questions.

8 MR. NAJARIAN: I'll do my best. Not an easy
9 task. Okay, thank you very much. We have a very
10 distinguished panel today that talked about transmission
11 planning. These are some of the best minds in
12 transmission planning and policy business in California.
13 We're grateful that they took the time to participate
14 today and I'm going to go ahead and go through a full
15 introduction before we get started. Jim Shetler is here
16 with us from SMUD, Tony Braun, California Municipal
17 Utilities Association, Juan Carlos Sandoval-IID, Nancy
18 Ryan-CPUC, Patricia Aarons-Edison, Kevin Dasso-PG&E, Linda
19 Brown-SDG&E, Karen Edson - former Commissioner with now
20 the ISO.

21 I should also note, we're going to be reserving
22 some time for specified stakeholders to interact, ask
23 questions of the panel. We're going to have Carl Zechilla
24 of the Sierra Club, if he's here this afternoon. We've
25 got Arthur Hobenstock from Brightsource Energy. Arthur?

1 Gary Munsterman with the Air Force Western Regional
2 Environmental Division. I'm not sure if he's here.

3 COMMISSIONER BYRON: He is.

4 MR. NAJARIAN: Gary? and Rich Bayless who you've
5 heard from this morning from Northern Tier Transmission
6 Group.

7 This session is really about coordinated
8 transmission planning on a statewide basis and its
9 relationship to RPS. You probably noticed that most of
10 the panel's panelists represent organizations that
11 actually conduct transmission planning in California. The
12 only exception is that the CPEC has the difficult task of
13 actually implementing the transmission plans with their
14 transmission CPC end coordinate at least on the IOU side
15 of the ledger.

16 COMMISSIONER BYRON: Of course, we're not
17 letting any acronyms go by without first saying what they
18 mean. CPCN?

19 MR. NAJARIAN: Certificate of public convenience
20 and necessity.

21 COMMISSIONER BYRON: Thank you.

22 MR. NAJARIAN: That's the equivalent of a
23 transmission permit that the California Public Utilities
24 Commission issues.

25 We're hoping to build an effective record

1 regarding issues, ideas and solutions concerning the state
2 of transmission planning in California today and where to
3 go going forward. So let's go ahead and move the slide.

4 Okay, I'm going to be asking selected panelists
5 to respond to each of the following seven questions and
6 then I'll solicit comments from other panelists on each of
7 those questions. With any luck, we'll have a few
8 arguments and we'll be discussing different opinions and
9 ideas on each of these topics. As I said, stakeholders
10 will then be allowed to ask questions to the panelists and
11 we'll also be accepting questions from the (inaudible).

12 So the seven questions are as follows: Of the
13 existing transmission plant processes -- I'm sorry. Are
14 the existing transmission plant processes the most
15 effective means for achieving energy goals in California?

16 Two, would a coordinated statewide transmission
17 planning process be more effective in achieving renewable
18 goals?

19 Three, what are the key elements of a statewide
20 plan?

21 Four, what is the best time horizon to be
22 covered in a statewide plan?

23 Five, are joint IOU, investor owned utilities,
24 and POU, publicly owned utilities, transmission projects
25 critical? Are joint transmission projects critical in

1 this?

2 Six, what is the best forum to conduct a
3 statewide transmission plan?

4 Seven, what actions are necessary to implement a
5 statewide transmission planning process and to implement
6 the resulting statewide plan?

7 Before I ask the panels to respond to the
8 questions, I'd like to refer to a flowchart. This is a
9 chart that actually, I understand, was brought up this
10 morning. And a couple of things about this chart -- it
11 depicts the major transmission plan forums in California,
12 at least today, and how they interact with each other. It
13 shows that the investor owned utilities and the publicly
14 owned utilities perform transmission planning for their
15 individual service areas. It also shows that the
16 California ISO performs an annual transmission plan that
17 you heard about this morning for the ISO control area.

18 Now, this plan represents a critical step to
19 actually move towards permitting, permitting process for
20 transmission of the structure in California. The ISO plan
21 has a direct relationship with the IOU transmission plans.
22 It doesn't have a relationship with the POU planning
23 process.

24 Also shown on this chart is the RETI
25 collaborative informal forum that was discussed in detail

1 this morning. The RETI effort, as you heard, is designed
2 to conform ISO, POU and IOU transmission planning
3 processes among other things. And it's doing so on a
4 statewide basis as a unified plan. So at this stage, I
5 think it's correct to say that this informal process is
6 the only one that's engaging in a true statewide planning
7 process.

8 You'll note that there's no arrows towards
9 statewide transmission plan in the center. There's no
10 arrows there because it doesn't exist. And that's what
11 we're going to be talking about today.

12 So moving back to the questions --

13 COMMISSIONER BYRON: I think everybody else may
14 have the same question on your figure but I noticed
15 there's a little X on there. Did you want to comment
16 about that? A starting point, an ending point, a band-
17 aid? What is that?

18 MR. NAJARIAN: Broken arrow. It's my best
19 attempt at showing that a POU transmission planning is not
20 linked to the ISO annual planning process.

21 COMMISSIONER BYRON: All right.

22 MR. NAJARIAN: I had difficulty finding the
23 right symbol. Okay. So, let's move on to the questions.

24 MS. GRAU: Chuck, just two housekeeping things.
25 For those of you on the panel, speak into the tall mic.

1 The short mic is actually just for the transcriber but the
2 tall one will pick up for everyone in the room and on the
3 phone.

4 And the second thing is also, before you make a
5 comment, if you could state your name and affiliation
6 again for the folks on the phone because they won't be
7 able to distinguish your voices real well. So, thank you.

8 MR. NAJARIAN: Thank you, Judy. Okay, I'm going
9 to ask Jim Shetler to respond to the first question and
10 the question is, and I'll repeat it -- Are the existing
11 transmission planning processes the most effective means
12 for achieving renewable energy goals? In other words, does
13 the chart we have a minute ago work?

14 MR. SHETLER: It depends on your viewpoint. If
15 you're talking about from an electrical standpoint --

16 COMMISSIONER BYRON: Mr. Shetler, go ahead and
17 bring the mic a little bit closer to you, please?

18 MR. SHETLER: Again, this is Jim Shetler with
19 SMUD. If you're talking from an electrical standpoint,
20 integrating the reliability needs with the delivery needs
21 with the low survey needs of the utilities, I think we do
22 a very good job at that with the existing processes. I
23 think the X that you've shown on your chart, going back in
24 light of the fact that there are differing balancing
25 authority operation within the State of California. There

1 are four publicly owned utility balancing authority and
2 then, there's the ISO and we do have different processes.
3 It doesn't mean we don't talk to each other and we are
4 trying to improve on that and I do think there's an
5 ability to do that.

6 About a year ago, I think when we had some
7 discussions around transmission planning, there was quite
8 a bit of discussion around the ability of the publicly
9 owned utilities, the investor owned utilities and the ISO
10 to do joint planning. There's a lot of discussion about
11 that issue in this forum and in various forums.

12 We've spent a lot of time amongst the investor
13 owned utilities, publicly owned utilities and the ISO
14 trying to reach a consensus on how to we get to a joint
15 planning process. And we've made a lot of progress. I
16 think most in this room are familiar with a facilitated
17 meeting that FERC held last fall. We've had a series of
18 meetings amongst the entities over the last several months
19 and we're in the (inaudible), a California Joint
20 Transmission Planning Group.

21 We formed a technical working group and a policy
22 level working group. Those were staffed at a meeting we
23 held last week and we are starting the process of working
24 together. I hope we'll end up making a California sub-
25 regional planning process. That's what we're trying to

1 get to so we are working towards trying to get to a joint
2 planning process.

3 MR. NAJARIAN: That sounds encouraging. Karen,
4 do you think that sounds too optimistic in terms of what's
5 being described? I know this has been in the works for
6 quite some time. Everybody understands there's a need to
7 improve coordination. So, I'd like your take on this too.

8 MS. EDSON: Well, I just want to reiterate the
9 points that Jim made. Given this very high priority at
10 the ISO as well as the, I know the municipal utilities and
11 the investment utilities have as well and we have made
12 very considerable progress. And I am optimistic that that
13 effort will be successful.

14 I also want to note that we're really talking
15 here about the electrical planning side, the very
16 technical electrical planning side. There's a whole other
17 side of this, the land use planning side of this where the
18 state has a very important role with regard to quarter
19 planning, with regard to our mental analysis that we've
20 seen out of the RETI process. All that is among the very
21 important inputs to the effort.

22 This process itself can be a form that holds
23 this process accountable for our delivery of this type of
24 -- but I don't think it's a totally optimistic statement.
25 I think we've, we are building mutual trust which is

1 important to use, work well, and we have launched the
2 actual work, work group effort. So I think that's all
3 (inaudible) to do.

4 MR. NAJARIAN: Okay, is there any other comments
5 from other panelists on this because I think we have to
6 segue to the second question but before I do -- Tony?

7 MR. BRAUN: I'm Tony Braun for the California
8 Municipal Utilities Association. If you could, I don't
9 know if it's possible to go back to the last slide because
10 I think it's important to have a full understanding of
11 just everyone that's at the table in this process and I
12 want to get into the minutia of the utility infrastructure
13 but if Rich can talk about shift factors, I can talk about
14 this.

15 You got 40-some publicly owned utilities in the
16 State of California and that chart, I think, refers to the
17 (inaudible) owned and balancing authorities who are
18 responsible for transmission plans to meet their balancing
19 requirements. There are a host of municipal utilities and
20 some of them include, own significant transmission
21 facilities or portions who are integrating into the ISO's
22 process.

23 So, I would hesitate to draw, to a band-aid or
24 maybe we need a couple of boxes but I just don't, I think
25 it leaves an impression that there's, that as Mr. Shetler

1 said, there is communication there but, moreover, there
2 are alternative not all POU's run balancing authorities and
3 there are POU's that are participating transmission owners
4 and their, all their facilities to the extent that you
5 want to roll them into the ISO's transmission axis charge
6 or cost recovery must go through the ISO's process. So
7 just a nuance there that I'm sure we can capture so that
8 we have an accurate understanding (inaudible).

9 MR. NAJARIAN: Nancy?

10 MS. RYAN: Yes, this is Nancy Ryan, California
11 Public Utilities Commission. I just want to add -- pardon
12 me -- another dimension. We kind of talked about land use
13 and Juan Carlos -- oh, I'm sorry, not Juan Carlos, Jim
14 talked about, yes. On my right. On my left. He talked
15 about does the current system work from an electrical
16 perspective? I would just suggest another perspective
17 that we think about considering the amount of capital that
18 we (inaudible) tracked to California in order to achieve
19 the 33% RPS build out is does our transmission planning
20 approach work from a commercial perspective? Does it, in
21 fact, provide sufficient certainty in order for investors
22 to be able to move ahead on a timely basis with renewable
23 development projects?

24 MR. NAJARIAN: Commissioner?

25 COMMISSIONER BYRON: I assume when you talk

1 about that, you're talking about the certainty in moving
2 from a transmission plan to a, to permitting and
3 development?

4 MS. RYAN: Right. Yeah, I mean, I guess there
5 are a few dimensions to this. I'm sure the first would
6 be, yes, is the proposed transmission line one that
7 actually can, can successfully be permitted as, you know,
8 can be banked on? Can a developer bank on that
9 (inaudible) market? How far is the plan? Do developers
10 really have a sense of which transmission lines are most
11 likely developed, to be developed and in what time frame?
12 That's, I mean, that's really a key question.

13 MR. NAJARIAN: Commissioner Byron?

14 COMMISSIONER BYRON: If I may, along the lines
15 of Ms. Ryan's point, I mean, clearly the renewable
16 portfolio standard has changed the landscape to some
17 extent for transmission planning. Are there other factors
18 that have changed or contribute to the concern that's
19 raised in the first question about whether or not our
20 current transmission planning processes are effective?
21 Are there other things that have changed the landscape?
22 Mr. Shetler?

23 MR. SHETLER: Well, early on -- Jim Shetler,
24 SMUD. Clearly, a new nuance as of the last two years, the
25 mandatory reliability required us to (inaudible) FERC.

1 They play a role in here. It's not that it necessarily
2 changes how we would play it but, clearly, there's a
3 higher level of accountability associated with making
4 those plans conform with the reliability standards and I
5 think that's a key issue for those of us who are held
6 accountable to it, balancing authority, transmission
7 owners and transmission operators and we need to make sure
8 that the plans we put in place are fully compliant with
9 those standards.

10 MS. EDSON: I would note as well that we have,
11 in addition to renewable portfolio standards, we have a
12 proposed ban on once through cooling that being
13 potentially (inaudible) consulted (inaudible) states and
14 we have greenhouse gas regulation which will thrive a
15 number of procurement choices, I think, that California
16 have these certain entities make and we also have now the
17 ISO market in the position to really price congestion,
18 identify one what it really costs to deliver energy into
19 congested areas which will also inform important
20 transmission planning and decisions.

21 MR. NAJARIAN: Okay, Patricia?

22 MS. ARONS: This is Patricia Arons of Southern
23 California Edison Company and I would add to that list
24 the, what I would describe as the changing landscape at
25 FERC with regard to sub-regional planning, the various

1 requirements for openness and transparency in being
2 available to accommodate requests for studies of a
3 transition and also now, we have a whole new process under
4 which we're processing generator interconnection or
5 classes. So I would say in the last 15 years, certainly,
6 the FERC has been, FERC and NERC in big drivers of
7 changing processes that we're involved with in
8 transmission planning activities.

9 MR. NAJARIAN: Okay. I'm going to, let's move
10 on to question number two and I'm going to, I'm going to
11 change this a little bit to move this thing forward. Is
12 there anybody on the panel who disagrees with the premise
13 that coordinate statewide transmission planning would be
14 more effective than the current state of affairs? Nancy?

15 MS. RYAN: Yes, you're right. (inaudible) I'm
16 not going to disagree with that statement but I want to go
17 back to the way the question was originally worded to
18 maybe insert a caveat and that is the way that it was
19 originally worded. You talk about will it be more, will a
20 coordinated process be more effective in achieving the
21 state's renewable goals and all I would add to that is
22 that I think that we can't really think about renewable
23 energy in isolation. And that we have to think about a
24 more (inaudible) transmission planning that spans all of
25 the resources that we need, in part, because of the role

1 of fossil resources and hydro (inaudible) for that matter
2 and integrating renewables in the (inaudible) but just, I
3 think they're part of the grid, you know, that serve, for
4 the most part they not served one purpose or another but
5 they serve all purposes.

6 COMMISSIONER BYRON: There are foreign parts of
7 the question. We can't totally think of California in our
8 solution here.

9 MR. NAJARIAN: Okay, good. Kevin?

10 MR. DASSO: This is Kevin Dasso of PG&E and I
11 agree with what Nancy mentioned. The only thing I would
12 add is that I think we really need to keep in mind this
13 notion of electrical planning and land use planning. It
14 really is a component of transmission planning. I just
15 want to really reinforce that and I think that the mix
16 goes up sometimes and then it creates some confusion or
17 parties that are thinking about policy aspects of this. I
18 think, you know, both of those go hand in hand in terms
19 of, you know, some of the things that we're finding if we
20 go through the RETI processing, the importance of the
21 environmental aspect and the corridor planning is really a
22 key and, you know, making sure that we are factoring that
23 into our planning process as well more explicitly perhaps
24 than we have more recently.

25 MR. NAJARIAN: Okay, Kevin. Let's carry on with

1 those thoughts real quickly because I think you're
2 starting to answer question number three -- what are the
3 key elements of a statewide plan? Would you like to take
4 a more detailed crack at what you think the key elements
5 of a statewide plan are?

6 MR. DASSO: Sure. Again, it is a little bit of
7 an intro there. If you keep those electrical planning in
8 one part of the process and then the corridor and land use
9 planning as a separate part of the process or (inaudible)
10 different part of the process, in terms of the key
11 elements, I think we're really looking at how do we
12 accomplish our energy policy goals. So that's renewable
13 energy, greenhouse gas reduction, reliability -- all of
14 those factors. Again, reliability compliance with
15 standards is another key component. The economics, I
16 think something that's tied with what Nancy was talking
17 about, attracting the capital we need but also making sure
18 that we're doing it efficiently and that we're running the
19 grid and building the grid efficiently. And the last
20 component again from an electrical planning perspective is
21 an operations perspective. You know, the ISO is now
22 operating, you know, restructured markets and what can we
23 do to be sure that those are operated efficiently going
24 forward, I think, from an electrical planning perspective.
25 And then, just one other element that I'll

1 mention too as far as the corridor planning portion of
2 that is really the integrating, coordinating. It has more
3 coordination effort there with the local planners and the
4 statewide planning as well as the federal planning efforts
5 that are underway and the, excuse me, the importance of
6 making sure that that's open to stakeholders who have a
7 big stakehold involvement. So that would be the key
8 elements from my perspective.

9 MR. NAJARIAN: Linda Brown, SDG&E, do you think
10 you have anything to add? I think you were raising your
11 hand right before he answered the question.

12 MS. BROWN: Well, actually, to the previous
13 question. I just wanted to make sure that the way the
14 question was worded. It could have been read that the
15 plans aren't really working today and while we think we
16 can do a better job and working for a better job, there
17 are many forums where coordination is being done today and
18 I mean, that's FERC Order 890, that is a requirement,
19 information gathering, the CAL-ISO's process has opened
20 stakeholder processes.

21 And on the regional level, we are all required
22 at WECC, Western Electricity Coordinating Council, to file
23 a ten-year plan. So there is coordination. We all have
24 part of our tiers to make sure our neighboring utilities
25 know what's going on. We meet with IID avocation so I

1 just don't want to give the impression that there's no
2 coordination going on today because there is.

3 MR. NAJARIAN: Okay, thank you. We really want
4 to get at where we can go from the limited coordination
5 occurring now to really, a full-blown statewide
6 coordinated plan on paper. But I want to get into Karen's
7 comment earlier about the elements in the land use
8 development and, for example, look at the ISO plan and,
9 you know, it's an electrical based plan. The land use
10 comes in later. Land use, there are land use
11 considerations at the utilities but how do we merge that -
12 - and Kevin referred to this too -- how do we merge those
13 two dynamic processes and do they need to be merged, fully
14 merged, to have a true statewide plan? Karen do you want
15 to expand that a little bit more?

16 MS. EDSON: Well, I think you remember these are
17 plans. They are not, they are plans. It's absolutely
18 essential to bring them to their (inaudible). You want,
19 the RETI level of (inaudible) consideration pulled into
20 this process and if the mechanism that is set in motion
21 now can be mentioned, the joint process, is one that will
22 pull those considerations into play. It's and it will
23 (inaudible) the way and also build on the existing
24 processes that we all have that have an account provision
25 for public review and consideration.

1 On the land use side, there's tremendous
2 opportunity for the state and local governments in
3 California to provide very important value by working
4 with, through these Counties on their general plans, to
5 make sure that they have accounted for the transmission
6 quarters that the Energy Commission has processed, works
7 on this, taking into consideration the environmental risk
8 at stake in placing the RETI process.

9 And there are opportunities for improving the
10 signing/approving processes. We're in conversation as
11 well with the California Public Utilities Commission in
12 trying to identify opportunities to do something parallel
13 so that we start to expedite in view of approval of the
14 same.

15 So, I think separating these two is important
16 because the land use considerations really are separate
17 from how the system actually operates but it's not to say
18 that you can't take one into account with the other. With
19 environmental, you can't build a line. Your plan of
20 service can work around many of these environmental issues
21 but perhaps, not all so they have (inaudible) care for
22 information.

23 MR. NAJARIAN: Okay, thank you. Anyone else
24 want to take a stab at some of the basic elements that you
25 would see at a statewide plan?

1 MR. SHETLER: Jim Shetler of SMUD. I'll just
2 add, probably for reference, if you look at Order 890, if
3 you look at the Western Electricity Coordinating Council
4 planning process, they have a lot of detailed elements
5 that come into that. I think, clearly, in putting
6 together a California plan that we would want to make sure
7 that we would adopt and incorporate Order 890 and whatever
8 is required in the electronic system. I think that's
9 important.

10 MR. NAJARIAN: Thank you. Kevin?

11 MR. DASSO: I'm just building on that. This is
12 Kevin Dasso of PG&E. That California's not an island and
13 we're part of the western interconnection and whatever we
14 do, we think our statewide plan needs to be thinking about
15 how it fits into the broader western interconnection
16 planning process. We have equally influenced that process
17 and we are influenced by that process and we need to think
18 about that and consider that in the plan.

19 COMMISSIONER BYRON: If I may, though, Mr.
20 Dasso? Don't you think that given the presentation we saw
21 earlier that showed all those beautiful colored worms
22 throughout the west, those aren't all immediately built.
23 They're not all thinking in terms of what's necessary for
24 WECC. They're showing very little, shall we say, private
25 interest in terms of wanting to see their project built.

1 So how do we weave through all that? How do we on a
2 statewide basis determine which of those colored worms we
3 need?

4 MR. DASSO: That's not an easy question. The
5 answer, I think the, my point is more that we have to be
6 aware that these other activities are going on as we
7 formulate our plan and that they will affect our plan one
8 way or the other. So we just can't be thinking about
9 California alone. I don't have any, I don't think there's
10 any planning process that exists or will exist that will
11 tell you with certainty, you know, which of these five are
12 actually going to be successful. But the point is that
13 they should be coordinated as we do the planning work.
14 Everyone's aware of what other entities are doing around
15 the rest and how that could impact us.

16 MR. NAJARIAN: Okay, Patricia and Tony have
17 comments. Patricia?

18 MS. ARONS: With regard to the question about
19 the various transmission options on the map, those are
20 option in theory. They are not options in reality and you
21 have to look to the generate or interconnection process to
22 determine virtual activity involved in those areas that
23 may require you to build those transmission projects. So
24 the question becomes, do you build transmission in advance
25 of commercial activity or do you wait until you have

1 sufficient commercial activity to trigger a project? And
2 the decision making around that is somewhat delicate.

3 We, on the Tehachapi project worked on the
4 transmission concept for Tehachapi nearly ten years and it
5 finally gained a life of its own. It became the topic of
6 a lot of activity in various forms. And, as a result,
7 there was commercial activity that really drove the need.
8 So, it was a very rational investment (inaudible) to make
9 to develop the transmission grid and accomplish that
10 interconnection.

11 But what we're dealing with in RETI is huge
12 (inaudible). And the thing that we're grappling with is
13 how do we know which potential is really going to
14 materialize. Well, you have to look to the queue, the
15 generator interconnection loads developers that are
16 actually out there seeking to get off that and are willing
17 to pay real dollars to make that happen.

18 So, what you want to have is you want to have
19 enough information out of the RETI process so then we want
20 to give you an idea about the status of the project that
21 you want to trigger or what portion of an element that may
22 have been considered in the RETI process. But the timing
23 of when you actually go into real project development
24 which is repairing project licensing applications for the
25 PC (inaudible) or in the case of (inaudible), they have a

1 separate process for that. But you really want to keep
2 your activities involved around real commercial activity
3 otherwise, you're investing and you don't really know
4 when, if ever, that investment will actually be utilized
5 in some fashion.

6 On the other hand, you can want to build extra
7 capabilities so that you only have to build it in the area
8 once. Now, at Edison, I admire the engineer that was able
9 to, you know, only a hundred years ago, develop a
10 transmission line that's still operating and fully
11 functional today. And so, they had, they had great
12 foresight when they were building the transmission grid.
13 And, hopefully, we're as (inaudible) in our decision on
14 what we build in the future in response to real commercial
15 activity.

16 MR. NAJARIAN: Thank you. Tony?

17 MR. BRAUN: Commissioner, I took the opposite
18 conclusion from the colored worms and I'm (inaudible) the
19 colored worms went to the borders of California and they
20 was, as I saw it, just off the top of my head, were the
21 larger projects and probably the more expensive ones.

22 And I suspect that when those project sponsors
23 were really certain of them, came up with that project,
24 they looked at general databases with respect to really,
25 the potentials and congestion patterns and they say we

1 think we might be able to justify a facility here and
2 maybe build it and get a later return and it's a good
3 investment.

4 And good, that's good. We want to track that
5 kind of capital. But the cost benefit analysis of that
6 line is ultimately dependent on what happens on the other
7 side of it. And so that line is proposing a four phase E-
8 intertie so the (inaudible) in order is going to depend on
9 price differential between the northwest, the value of
10 northwest, how (inaudible) integrate our renewables,
11 renewables in the northwest or elsewhere, wherever it's
12 accomplished so I don't see how we can actually consider
13 those without having information from our neighboring
14 states.

15 MR. NAJARIAN: Thank you, Tony.

16 Okay, let's talk about time horizon in terms of
17 a statewide transmission plan. There's been a lot of
18 discussion in the RETI process, for example, about just
19 how much the time horizon should be on the RETI process,
20 2020 at 33%. But others, as they've suggested, it should
21 play out a lot more than that. So the short term plans
22 don't get in the way of long term needs. But, anyway, I'd
23 like to get a sense of what the best time horizon would be
24 for a statewide plan, just how a statewide plan would look
25 at this.

1 Tony, do you want to take a crack at that?

2 MR. BRAUN: You should probably ask an engineer,
3 not a lawyer, but the, as I've observed this process and
4 in preparing for today, I went back to the workshop from
5 last July to take a look because I remember there were
6 some interesting presentations that Mr. Balens made with
7 respect to a study that was done by the Commission and for
8 the Commission and in that, his group was recommending a
9 25 to 30 year planning purpose on hand for a lot of
10 reasons. It seemed to make sense. One of their reasons, I
11 think, was that even after you decide to build a
12 particular project, it takes so long to get it done that
13 you need to think out into the future.

14 And I was also struck by some of the recent news
15 articles with respect to estimates from population growth
16 in California and that 60 million or so people are going
17 to live in the State in 2050 which also seems to co-exist,
18 be coterminous with our stretch climate, greenhouse gas
19 emissions goals. So how do we take those social goals,
20 recognizing the load growth and the population that we're
21 going to get and the fact that much of it is going to be
22 in San Bernardino and Kern and San Joaquin Valley and look
23 at that and say, all right, how do we build out the
24 infrastructure of the utility industry to meet that
25 requirement? And I think you'll come up with a very long

1 planning (inaudible).

2 MR. NAJARIAN: Thank you. Juan Carlos, would
3 you have any comment on that?

4 MR. SANDOVAL: Yeah, I would like to add that
5 this, the planning of this was only, the event horizon
6 should at least be 20 years. But only these transmission
7 facilities are going to be there for at least 50 years so
8 we need to plan for the long term. That should be a
9 minimum.

10 MR. NAJARIAN: Patricia?

11 MS. ARONS: You have to really define what your
12 purpose is for your plan. Now, if you're doing the
13 capital forecasting in utility for financing or finance,
14 we might do a five-year plan.

15 What we're talking about, doing the plan of
16 renewables, is really trying to assure that we're doing
17 the right things today to not only get to 33% but maintain
18 33% as we go on in time as load grows. So, our purpose
19 here today, I think on renewable issues being kind of the
20 heart of what we're doing in transmission planning is a
21 very long term purpose. And I think we lose value from
22 the exercise of doing the planning if we made it too short
23 a term. We really need to focus on what those long term
24 access points are that we need to preserve, where we need
25 to build transmission to get renewables, really is all

1 centered around the question of where do you think those
2 renewables are.

3 It is less interesting to me as an exercise.
4 It's an interesting finding exercise but it doesn't really
5 have as much meaning to me when you talk about
6 prioritizing. You're trying to figure out which projects
7 go first. That's really, you know, you look for your
8 commercial viability to be the driver of that but the real
9 purpose I'm doing the RETI exercise is to make this as
10 long term as you possibly can so that you're conserving
11 and building California keeping in mind where each of
12 those transmissions get renewables. If our population is,
13 in fact, and it grows to 60 million, there's going to be a
14 lot of new homes that we don't want to have to condemn in
15 20 or 30 years in order to develop a transmission line out
16 to the desert somewhere to get solar.

17 You want to establish kind of your highways
18 today to get to your renewable and have your communities
19 develop around those highways and not block off that
20 access so that it becomes a very litigious act to try to
21 condemn and license and get something built. You want to
22 grow with what you expect your long term needs are going
23 to be.

24 So that is, to me, the real value of a
25 transmission planning exercise to conceive of projects,

1 figure out where your corridors might need to go and then
2 try to work with agencies and communities to preserve that
3 access and build up the city planning and everything else
4 around where you need to build that transmission so that
5 everybody has the expectation that one day, there will be
6 something there that might be, you know, may not be the
7 most desirable thing found in your backyard but if you
8 know it's going to be there, you can plan around it and
9 what your own needs are.

10 MR. NAJARIAN: Juan Carlos, did you have
11 something else to add?

12 MR. SANDOVAL: (inaudible). In the
13 consideration of the time horizon, you know, completely,
14 the driver of this transmission for the generator of
15 renewable resources and we think about the longevity of
16 this chronically. Probably, we have to try about 20 or 30
17 years, for long term use -- wind, solar. Definitely, we
18 need to plan for long term for those resources.

19 MR. NAJARIAN: Nancy?

20 MS. RYAN: Nancy Ryan at CPUC. I strongly agree
21 with the two statements that were just made and I would
22 just add that I think that we're going to need a tier
23 approach. In the near term, we're going to have to think
24 about what are the next things to do? What are the things
25 that make the most sense to do today? What are the

1 highest priority things to do but also then take this long
2 view, another way to characterize what Pat described is
3 that we really need to be aware of which options we need
4 to keep on in order to be most responsive as the many
5 uncertainties surrounding development unfold for us and we
6 see which technologies, which locales prove out to be the
7 best ones.

8 So, I want to go back to a word that you used
9 earlier, Chuck, which I think is a critical element of
10 whatever framework we got that's dynamic. So, we need to
11 think about not just what does the plan look like and any
12 particular integration of that plan but also what is the
13 process and the time frame to update that plan to take
14 into account new information.

15 MR. NAJARIAN: Thank you, Nancy. Karen?

16 MS. EDSON: Karen Edson with ISO. I just wanted
17 to reinforce Nancy's point and the point of the others
18 about the term of long range plan that's so essential.
19 Note that at the ISO, our Order 890 process, it is a ten-
20 year plan that is updated annually.

21 So, in that process, in our forum, it provides
22 an opportunity to make those adjustments year to year as
23 circumstances change but it also gives you, the longer
24 term effort gives you that target that you know that you
25 have to see in the direction of. The kind of joint

1 collaborative process we're working with the municipal
2 utilities and the investor utilities on right now is also
3 one that will bring the reliability and economic issues up
4 there on those longer term renewable goals and the
5 environmental constraints that have been well-documented
6 in the RETI process.

7 So I believe all of this is why my initial
8 answer to whether the existing processes are adequate was
9 yes because we have the mechanisms in place now, I think
10 to do our integrative planning, integrative reliability,
11 economic considerations, policy, regulatory considerations
12 on this regular interface as keeping in mind that longer
13 term (inaudible).

14 COMMISSIONER BYRON: Just want to make sure I
15 understand what you said. So the ten-year plan is
16 sufficient; is that what you're saying?

17 MS. EDSON: No, I'm saying that we need, we need
18 this longer term target and the ten-year plan is really
19 dealing with what you need to do now. We consider how
20 quickly project, how long it would take a natural project
21 to be permitted and built. The ten-year plan updated
22 annually is pretty much what you've got in place to
23 maintain, to meet your mandatory federal reliability
24 requirements achieve a more immediate objective as part of
25 it.

1 COMMISSIONER BYRON: So, we're asking, ten years
2 is what's required under FERC and that's what the ISO
3 does?

4 MS. EDSON: Yes.

5 COMMISSIONER BYRON: And you're saying that's
6 not enough or it is enough? Because just a second ago,
7 you said that the existing process is adequate.

8 MS. EDSON: Well, the existing process as
9 informed by these other initiatives that we're talking
10 about is, is what gets us there. The RETI, we talked
11 about the RETI process identifying longer term, looking
12 33% in these areas indicated, how we keep 33% -- that's an
13 ongoing objective -- greenhouse gas objectives sitting in
14 2050. So, having these longer term objectives lined up
15 does have real value in this process.

16 MR. NAJARIAN: Okay, let's --

17 COMMISSIONER BYRON: If I could (inaudible) for
18 just a moment. So, just, you know, this will be the first
19 strategic transmission investment plan this Commission's
20 put out and, again, I hearken back to the different
21 interests of all the entities that are involved, the
22 important, the important interest and requirements that,
23 that you all look after.

24 On a statewide basis, I think there are some
25 elements missing without this investment plan. In the

1 past, we all looked forward about five years. I think our
2 '05 only went for about five years. If you remember the
3 projects that were put up earlier, you know, it was kind
4 of like, let's check them off. How are we doing on these?
5 And the problem is, of course, that the further out we go,
6 the more fuzzy the information gets.

7 So this Commission's taken the approach in the
8 past that we want to put real projects in the plan and
9 measure how we're doing in getting them built. But I, I
10 put this in the form of a question to all of you, Chuck,
11 if I may? Just a little bit of feedback. I've assumed
12 the need that we need to continue to do that but we also
13 need to have a longer look. Juan Carlos said we need to
14 look forward 20 years plus. There are some different
15 opinions about it but the crystal ball gets a little
16 fuzzier the further out you go. There's a lot of things
17 that affect that. I'd like a little bit more -- Mr.
18 Najarian, I'll quicken this -- I'd like a little bit more
19 feedback from the panel on maybe what Ms. Ryan has
20 referred to as the short term and long term kind of
21 planning need.

22 MS. BROWN: I'll take the first stab at that. I
23 think we do both. The ten-year plan is really like Karen
24 had said, focusing out on what we're going to build now.
25 Well, in conjunction with that, you're looking at issues

1 such as greenhouse gases, such as once through cooling.
2 And the solutions to those kinds of things cannot be done
3 overnight. We're not going to retire generators up and
4 down the state, every one of them all at the same time.

5 So, you're looking at more, bigger problems,
6 bigger issues and you're coming up with different
7 alternatives. You're looking at it so you're not blind
8 when it hits you but I think that that's the longer term
9 look, the land use, the corridor stuff, the stuff that
10 RETI's looking at, that's, we have to be looking at a
11 longer term on how long those things gel together. But to
12 do more than ten-year details on what we're going to build
13 today is just too hard.

14 MR. NAJARIAN: Oh, let's see. Who -- I think
15 Jen. Go ahead.

16 MR. SHETLER: Maybe I'll just say a little.
17 This is Jim Shetler with SMUD but as much perspective,
18 we've got to look at 2020 as the way station on the trip.
19 We're very focused on how we get to 2050. (inaudible)
20 being here, by the way, that verifies that.

21 COMMISSIONER BYRON: Good for you.

22 MR. SHETLER: Not here though. I do think you
23 need to have a near term, short term vision and a longer
24 term vision. We absolutely need to understand how we're
25 going to get to 2050. I mean, I have several that have

1 told me that our carbon equipment will be 90% less by 2050
2 than it is today. I don't have the slightest idea how
3 they're going to do that but I've been told that's our
4 direction. And I think trying to envision renewables,
5 there's going to be an (inaudible) programs. So maybe
6 keep that in mind but you're right. Other panels have
7 said this. Probably the only detail plan about five to
8 ten years out into the future and then you are
9 continuously updating that every year as new issues come
10 up, as you understand whether our project will deliver
11 that and then you can adjust accordingly.

12 You've got to have a long view of how we're
13 going to get to that 2050 goal. You have to have goals
14 for that.

15 MR. NAJARIAN: Okay, we'll go to Nancy and then
16 to Kevin.

17 MS. RYAN: I would just add that, pardon me,
18 Nancy Ryan, CPUC. I'm sorry. Thinking about the 2050 or
19 longer term, whatever plan, that I would agree that at
20 least, to some extent, there needs to be an effort to
21 count to 2050. But my census makes clear of the case that
22 the further out in the future out in the future you look,
23 the less resolution there is. And I would advocate for
24 perhaps more of a scenario based approach for looking out
25 long term and asking what are some of the possible

1 scenarios that might unfold, that might lead us to getting
2 into a 2050 target and then, you know, using that scenario
3 analysis as a basis to think through.

4 Well, what types of options are we going to want
5 to have in the end in most of these scenarios or are there
6 some that really have, you know, apparently relatively
7 value only in a relatively unlikely outcomes but really,
8 to adopt that kind of approach. Because choices that
9 we'll be making along the way will also foreclose options
10 so it's just a way to adopt the long term planning process
11 that it does provide a basis for planning in the interim.

12 MR. NAJARIAN: Okay, Kevin.

13 MR. DASSO: To give you one of the ways of just
14 summing up what I think everybody is saying here in
15 different ways and that is it's really a matter of a level
16 of detail in terms of what you're talking about, a
17 timeframe.

18 When we think about timeframe, really what we're
19 talking about there are corridors, I guess, of plans. So
20 they're very, you don't know exactly what your lack of
21 configuration is doing. You just know that there is a
22 high possibility of generation development in this area
23 and a high probability of demand developing in this other
24 area. So how do you connect the two?

25 So, as we think about time horizons, we should

1 really look at the specificity of the plan, short term
2 being actual electrical plans, long term being more
3 corridor types of stuff.

4 MR. NAJARIAN: Patricia?

5 MS. ARONS: I think -- this is Pat Arons,
6 Edison. I think it's also important to understand the
7 nature of the difference of the study that's being done.

8 When we're doing short term studies for letting
9 power flows, contingencies, stability analysis, a lot of
10 very technical engineering tools are being run to assess
11 what's actually happening to voltages and currents on the
12 grid. And when we talk about a long term transmission
13 plan of this sort that RETI is contemplating, really it's
14 more judgment talking about where you think a resource
15 might be as a point on the map and then future load is a
16 point on the map. You've got to have something in between
17 the two and where do you put that line? You can call it a
18 transmission corridor which really isn't a project.

19 You don't really know what's going to go inside
20 the space of land, whether it's 230 or it's 500, whether
21 it's AC or DC. In the long term, you don't really know
22 but you are providing for some sort of utilization plan to
23 transport energy and that is a very different kind of
24 study that we're recommending be done in the long term
25 than the sort of usual transmission planning exercise that

1 we run with the ISO on their ten-year planning process.
2 So, I don't think the two are the same. They don't, I
3 wouldn't (inaudible) the techniques from ISO's ten-year
4 planning process to a 50-year transmission plan.

5 COMMISSIONER BYRON: Ms. Arons, wouldn't you
6 agree though that if we had six pieces of federal
7 legislation pending and that, you know, some potential
8 land being set aside for a national monument, that we
9 better figure out these corridors pretty soon?

10 MS. ARONS: Exactly. I think that that's urgent
11 and I think we need to take a very long term view in terms
12 of the amount of energy that we have to move through those
13 various potentials parcels of, you know, energy corridors,
14 whatever we want to call them, transmission corridors. I
15 think it's very urgent that we start making plans in
16 looking at where that's going to go. And then, we secure
17 that for the long term even through a state designation of
18 that as a corridor doesn't provide, prevent any city or
19 county from developing that land.

20 COMMISSIONER BYRON: Right.

21 MS. ARONS: So, we have to figure out the other
22 piece of how do we lock that down. One recommendation has
23 been in the past to allow utilities to go out and acquire
24 property and hold it at rates for the long term for that
25 purpose of transporting renewable energy through that

1 area. And we can come up with, perhaps, a rational means
2 of doing that but our current rules that are pretty
3 (inaudible) for future use don't allow property to be held
4 for such long periods of time. But I think that's an
5 accommodation that we need to make as part of this long
6 term transition.

7 COMMISSIONER BYRON: Sure. And that applies
8 only to investor owned utilities and there is legislation
9 pending on this issue.

10 MS. ARONS: Yes.

11 COMMISSIONER BYRON: Okay.

12 MR. NAJARIAN: Okay, all right. Unless there's
13 any other quick comments on that, I'd like to go on to the
14 next question. The critical question -- are joint IOU or
15 POU transmission projects important to a joint plan, and
16 moving forward, to make an RPS? And I'm going to ask Juan
17 Carlos to start off the answer to that question.

18 MR. SANDOVAL: Juan Carlos Sandoval, IID. Yes,
19 I consider the coordination between the IOUs and POUs as
20 critical in order to, for us to meet the state RPS. If we
21 have had the issues in the past, you know, in terms of a
22 joint project, certain issues that needs to be developed
23 so a certain regulatory framework needs to be developed in
24 order to allow for a joint point between IOUs and --

25 MS. RYAN: -- (inaudible), so I think there's a

1 way to go back to the long-term planning process, that it
2 does provide a basis for slamming in the interim.

3 MR. NAJARIAN: Okay, Kevin.

4 MR. DASSO: To continue one of the ways of just
5 summing what I think what everybody is saying here in
6 different ways, and that is that it's really a matter of
7 the level of details in terms of what you're talking about
8 in time frame. If we think about long-term, really what
9 we're talking about there, are corridor-types of plans.
10 So they're very -- you don't know exactly what the
11 electric configuration is going to be, you just know that
12 there is a high probability of a generation developing
13 in this area, and a high probability of demand developing
14 in this other area, so how do you connect the two? So as
15 we think about time horizons we should really look at
16 specially put together plans: short-term being actual
17 electrical plans, long-term being more corridor types of
18 steps.

19 MR. NAJARIAN: Patricia?

20 MS. ARONS: I think, this is Pat Arons of
21 Edison. I think also it's important to understand the
22 nature of the difference of the study that's being done.
23 When we're doing short-term studies regarding power flows,
24 contingencies, stability analysis, a lot of very technical
25 engineering tools are being run to assess what's actually

1 happening to voltages and currents on the grid. And when
2 we talked about a long-term transmission plan of this sort
3 that RETI is contemplating, really it's more judgment.

4 It's talking about wherever you think a resource
5 might be as a point on a map, and here's your load as a
6 point on a map. You've got to have something in between
7 the two, and where you put that line you can call it a
8 transmission corridor, which really isn't a project. You
9 don't really know what's going to go inside a space of
10 land whether it's 231 or it's 500, whether it's AC or DC.
11 In the long term you don't really know, but you are
12 providing for some sort of utilization of land to
13 transport energy. And that is a very different kind of
14 study that we're recommending be done in the long term,
15 than the sort of usual transmission timing exercise that
16 we run with the ISO on their ten-year planning process.

17 So I don't think the two are the same. I
18 wouldn't apply the techniques from the ISO's ten-year
19 planning process to a 50-year transmission plan.

20 COMMISSIONER BYRON: But Ms. Arons, wouldn't you
21 agree though, if we've got six pieces of federal
22 legislation pending, and some potential land being set
23 aside for a national monument, that we'd better figure out
24 these corridors pretty soon?

25 MS. ARONS: Exactly, and I think that that's

1 urgent. And I think we need to a very long-term view in
2 terms of the amount of the energy that we have to move
3 through those various potential parcels of, you know,
4 energy corridors, whatever you want to call them,
5 transmission corridors. I think it's very urgent that we
6 start making plans and looking at where that's going to
7 go, and then we secure that for the long term. Even
8 through a state designation on that is a corridor, it
9 doesn't prevent any city or county from developing that
10 land.

11 COMMISSIONER BYRON: Right.

12 MS. ARONS: So we have to figure out the other
13 piece, how do we lock that down? And my recommendation
14 has been in the past, to allow the utilities to go out and
15 acquire property and hold it in rates for the long term
16 for that purpose of transporting renewable energy through
17 that area. And we can come up with perhaps, a rational
18 means of doing that, but our current rules that are pre-
19 planned held for future use, don't allow property to be
20 held for such long periods of time. But I think that's an
21 accommodation that we need to make as part of this long-
22 term transmission plan.

23 COMMISSIONER BYRON: Sure, and that applies only
24 to investor-owned utilities and there is legislation
25 pending on this issue.

1 MS. ARONS: Oh, yes.

2 COMMISSIONER BYRON: Okay.

3 MR. NAJARIAN: All right, unless there's any
4 other quick comments on that, I'd like to move on to the
5 next question. It's a critical question, are joint
6 IOU/POU transmissions projects to important to the joined
7 plan, and moving forward to meeting RPS. And I'm going to
8 ask Juan Carlos to start off the answer that question.

9 MR. SANDOVAL: Juan Carlos of the IID. Yes, I
10 consider the coordination between the IOUs and POUs is
11 critical in order for us to meet the state RPS. That when
12 we have had these (inaudible) in the past, you know, in
13 terms of like joint projects, certain issues that need to
14 be available, so certain (inaudible) to allow for a joint
15 plans between IOUs and the publics. But also it is
16 promising that we are working with the IOUs, the ISO. We
17 have a project that we are entertaining. We met with
18 Edison (inaudible) to operate. We are working (inaudible)
19 and there is very good coordination, and very good
20 positive feedback, you know. So this is a good example
21 that we can work and make this project happen between the
22 IOUs and POUs.

23 MR. NAJARIAN: Karen, can you have joint
24 transmission projects without a joint coordinated city-
25 wide plan?

1 MS. EDSON: Excuse me. I think it may be
2 theoretically possible, but I think that what we're
3 envisioning, and what I think is envisioned in the joint
4 planning effort currently underway, is that the
5 opportunities for joint projects come at the end of this.
6 And you begin this process identifying the needs of the
7 state and the reliability and the economic needs of the
8 participating balancing areas, balancing authorities. At
9 the end as you reach your solutions to those objectives
10 and those requirements, the opportunity for joint projects
11 come forth from that. And we would expect this to result
12 in a commercially viable joint project.

13 I think everyone recognizes that we simply can't
14 have reusing different corridors to meet common needs. We
15 absolutely have to develop plans so they're the most
16 sufficient way to do that. And so you do need this
17 coordinating planning effort, and it's why all of us have
18 come together to kick this off and start the planning.

19 MR. NAJARIAN: Linda Brown, do you concur with
20 that? Is (inaudible) Electric on the same page?

21 MS. BROWN: Yes, I want to clarify I think that
22 coordination with the plan is critical to meeting all of
23 our goals. Depending on the results of the plan, it will
24 depend if a joint project is the critical thing. I want
25 to make sure that clarification is there, but coordination

1 is definitely critical.

2 MS. EDSON: Yeah, and I didn't mean to imply
3 that every project will be a joint project. It really
4 depends on what comes out of many processes.

5 MR. NAJARIAN: Thank you, any other comment from
6 the panelists regarding joint projects, Jim?

7 MR. SHETLER: Just that I would hope that we
8 have developed joint projects in the past without the
9 joint plan of the state. Having said that, and as stated
10 before, there's only so much corridor we have left in the
11 state. We have to minimize the environmental impact. We
12 have to minimize the cost impact to our special rate
13 payers. So it isn't (inaudible) to look at where a joint
14 project makes sense, to develop those joint projects. And
15 I think this planning process for an issue will help us
16 get there a lot quicker.

17 MR. NAJARIAN: Okay, and thank you. All right,
18 let's move to the next question.

19 COMMISSIONER BYRON: If I may, Mr. Shetler said
20 something very interesting in my mind -- well, you all
21 have said very many interesting things. And you said
22 there's only so much corridor left in the state. So to me
23 corridor is a critical state resource, then it would seem
24 to me going forward it's essential that we have statewide
25 planning. Otherwise, it's going to be first in, first out

1 kind of problem right?

2 MR. SHETLER: I think that's an issue and that's
3 one we've talked about in our discussions on this joint
4 planning group, that we recognize that there are several
5 rural corridors that others would like to have access to.

6 COMMISSIONER BYRON: Yes?

7 MR. SHELTER: Is there a way for us to figure
8 out how to work together to make that happen? That's a
9 tricky issue, because that whole back corridor would like
10 to preserve it for their own use, but on the other hand
11 there may be a better use for the state if you find out a
12 way to share that corridor. So I think yes, it is
13 imperative. I think our friends in the environmental
14 field are going to demand that we look at minimizing the
15 amount of transmission line that will come down to
16 crossing the state.

17 COMMISSIONER BYRON: I'm glad you said that,
18 that's good.

19 MR. NAJARIAN: Okay, next question. What is the
20 best forum for the statewide plan? Karen, do you want to
21 take a shot at that?

22 MS. EDSON: Look I -- Karen Edson with ISO. I
23 touched on this earlier. The joint planning, transmission
24 planning that we are working with, is in our view the
25 right place for this technical work to occur. It's very

1 important to open the state to focus on the corridor work
2 under adjusting authority, as well as to be the entity
3 that holds this effort accountable of again, a process
4 like this. So I think that the forum is to build on the
5 planning processes that are underway pursuant to Order 890
6 and (inaudible) planning criteria.

7 This effort that we're talking about is really a
8 subregional planning effort that is definitely attuned to
9 that, but there is absolutely important stake hold with
10 regards to corridors, siting, and again holding this
11 effort accountable for the goals of the state (inaudible).

12 COMMISSIONER BYRON: If I may interrupt for a
13 minute here. Ms. Edson, there's a couple of things that
14 you said I want to make sure I understand. The process
15 that I think you're referring to is the ISO's annual state
16 planning process, correct?

17 MS. EDSON: No, I was referring to the joint
18 California transmission planning group that I mentioned
19 earlier. That becomes a subregional group. The
20 California ISO is its own Balancing Area Authority, and so
21 are the investor utilities, IID, you know, transmission --
22 excuse me, (inaudible) irrigation district, it's SMUD,
23 etcetera.

24 So those entities, each of these balancing
25 areas, develop their own plans, and the California plan

1 becomes a subregional plan --

2 COMMISSIONER BYRON: Got you.

3 MS. EDSON: -- under the federal terminology
4 that feeds into the WEC processes (inaudible).

5 COMMISSIONER BYRON: Thank you, so it's the
6 subregional planning group that she's referring to, but
7 that only really address the, what Mr. DASSO referred to
8 as the technical aspects of transmission planning,
9 correct?

10 MS. EDSON: Well, it is taken into account those
11 various components that we talked about earlier. You have
12 the two buckets. You have the land use site of this that
13 has to be a consideration, and yet you also have to have
14 the electrical site which is the technical workings.

15 COMMISSIONER BYRON: But how is the land use
16 planning site incorporated in that plan?

17 MS. EDSON: It's, again in the terms of the
18 corridor work, that's really where the longer-term land
19 use really goes into play. But when you know that you
20 have a wilderness area that you have to plan around that,
21 that needs to be taken into account as well. I want to
22 come back to these two different buckets.

23 You have the reliability issues on the
24 electrical side where the reliability considerations come
25 into play; there are environmental considerations come to

1 into play, regulatory policy matters that come into play
2 as well as operational issues that are important. So
3 those things will be considered in this planning process,
4 these planning studies that we do.

5 Again, this is the, "What do we need to do now?"
6 component of the planning effort. The longer range, I
7 guess conceptual work that we talked about is where I
8 think these bigger long-term planning goals in the
9 corridor kind of work takes place.

10 MR. NAJARIAN: Okay, any other comment on forums
11 existing or otherwise?

12 MS. BROWN: I guess I'll make one. I don't
13 think we need another forum for transmission planning.

14 COMMISSIONER BYRON: Are you fatigued?

15 MS. BROWN: I mean there are so many forums now
16 it's really hard to keep them coordinated and get our jobs
17 done. I think it's really important to trust the
18 processes that are there. You know, if we get back to
19 what the goal on the topic really was of today, of meeting
20 our 33 percent renewable goal, it's really not the
21 transmission planning processes in my opinion that are the
22 impediment.

23 It is -- I think the ways the state can help
24 would be to expedite transmission licensing. I see a
25 great need to educate the generator developers. Many of

1 us get calls, and we've got hundreds of generators in the
2 queue. We can't provide them each the information that
3 they need, because we have to treat them all equally. So
4 I think there's something that could be done to help other
5 processes that feed into the transmission processes such
6 RETI's information with all the environmental work is a
7 great input to the future transmission plans, but really
8 to have another process I think would be going the wrong
9 direction.

10 COMMISSIONER BYRON: The expediting permitting
11 that you mentioned, were you thinking of transmission or
12 generation?

13 MS. BROWN: Well, my experience has been with
14 transmission. I mean, I think we can combine permitting
15 with the generation and the transmission. I think there's
16 -- I mean, we need to look at the bigger picture and say,
17 "It's not just transmission and it's not just generation."
18 The generators have to go and get county permits, city
19 permits, BLM permits. We have to go the PUC; the
20 generators have to come here. I mean, the state could
21 focus on a way to get all of those things put together and
22 that's really how we're going to meet these goals quicker.

23 MR. NAJARIAN: Okay. I'd like to solicit some
24 comment on what you said, Linda. Just the permitting
25 agencies, I think, are getting a lot of pressure within

1 the permitting process, because the projects that are
2 delivered to them in many cases aren't necessarily ideal.
3 And I'd like to hear from Nancy, your reaction to that in
4 terms of -- because here we have the CPUC, they're having
5 difficulty with the projects they're receiving; there's a
6 lot of issues associated with that. Timing is being
7 stretched out, but I'd like to hear from Nancy as to what
8 you said.

9 MS. RYAN: Well, let me start by kind of
10 answering the question that I was going to answer, and
11 then I think I'll segue into addressing the points that
12 Linda just raised and kind of coming back around. So
13 Chuck had put me on notice that I am supposed to answer
14 question seven, or at least he asked me to (inaudible)
15 seven. And although I had written in my notes the very
16 first day, "Don't answer that one," I have jotted down
17 some thoughts, many of which I just heard from Karen on
18 the first part of the question which was, "What actions
19 are necessary to immediately implement a statewide
20 transmission planning process?"

21 So I agree with statements that I've heard that
22 we already of processes in place. I'd like to say it a
23 slightly different way, which is that in order to have an
24 effective statewide transmission planning process there
25 are number of foundational steps which include finding a

1 way to build joint IOU/POU projects, to build a trust that
2 makes it possible to do that as well as to put the
3 regulatory framework in place. We also need to more
4 effectively integrate the electrical planning and the land
5 use planning performance.

6 And I think we've begun to do that we're in, the
7 RETI and Western REZ processes, but those need a home, an
8 institutional home. And therefore, you know, the question
9 of what is that home needs to be addressed. I'm not going
10 to take a crack at answering that question. I think
11 that's kind of a hot potato for me, you know, where I sit.
12 But it's clear whether or not any new process is created,
13 in other words whether we're just integrating existing
14 processes and stitching them together or creating
15 something new, it needs to be clear what the rules and
16 responsibilities are.

17 So let me then come (inaudible). I mean, we do
18 have all these federal bills pending and it would strike
19 me as another kind of foundational task to try to get
20 outcomes out of that federal legislative process, whether
21 it's as favorable as possible to California. And, you
22 know, both promote our ability to plan and develop on a
23 regional basis, but also at the same time preserve as much
24 of our own autonomy over our own lands.

25 So let me turn back to, I think, where Linda

1 was, which is the last comment, the other piece, which is
2 siting. And I strongly agree that siting on both the
3 generation and the transmission side needs to be
4 expedited. Certainly, no matter where you sit, one of the
5 key things that has to happen is streamlining the siting
6 processes, avoiding duplication, achieving parallel
7 processing, unnecessary elements wherever that's possible.

8 My colleague Chloe Lukins will be on the second
9 panel, and if it's (inaudible) to the panel and if asked
10 can address a number of things the PUC as undertaken along
11 those lines. And I'm sure there's similar efforts going
12 on here, but that's something that no matter who is
13 responsible and what exactly the framework is, we clearly
14 need to do those things. There's a certain elemental
15 appeal to having it all under one roof, and while we can't
16 really do anything without significant changes to the law
17 about what's the county's and city's responsibilities
18 there is a proposal on the table, in part of the
19 Governor's reorg to put the state-level functions under
20 one roof. And again, I won't comment on that per se.

21 The last thing I'll talk about, and again I
22 think is essential no matter where those functions reside,
23 is to give the maximum possible standing to the outcomes
24 of the planning process in whatever forum is the siting or
25 licensing forum. And that's something that we started to

1 do at the PUC with the determination of economic needs and
2 issues with a decision a few years back that gave ISO
3 (inaudible) presumption in terms of its determination of
4 economic needs. There's discussions on the table right
5 now about, "Well, perhaps we should do likewise for the
6 other criteria for permitting transmissions, and if it's
7 necessary for renewable or it's necessary for
8 reliability."

9 I think that's an important question to address,
10 because that very much gets to the streamlining issue.
11 And the challenge will be to balance the need to move on
12 an expedited basis with assuring that we really provide
13 due process. And is it due process at every step along
14 the way or is it, you know, how do you like the apple to -
15 - you know, that people get. And you notice there's a big
16 (inaudible) part of the apple, if we reduce the number of
17 times that one gets to take a bite of the apple. So
18 looking at that, I'm sure there's plenty of other people
19 who can add to this (inaudible).

20 MR. NAJARIAN: Thank you Nancy. Thanks for
21 taking on question number seven under the circumstances.
22 I want to play this out a little bit more for a few more
23 minutes, and then I think it's important to get Carl and
24 Arthur and the other stakeholders up here too. So can I
25 have some comment on question seven, the implementation

1 question, Tony?

2 MR. BRAUN: Thanks Chuck. Commissioner, last
3 year at the workshop you asked a point-blank question and
4 that was is it lack of planning, lack of money, or land
5 use and siting issues that are the biggest obstacle to
6 getting transmission built? And everyone said, land use
7 and siting issues. So we start from the nexus of if we're
8 going to have another planning process, what's it going to
9 do to help with that, because if it doesn't help with that
10 then it's not streamlining the process. It's not
11 facilitating building more infrastructure.

12 We had talked at the group here, today on the
13 panel, that we see a real possibility that a RETI-type
14 analysis corridor designation can solve long-term land use
15 issues, or help facilitate perhaps would be a more
16 accurate and realistic term, the ease of building energy
17 infrastructure. But is another transmission planning
18 process going to help solve short-term, "We need to get
19 done the next ten years, if it isn't done the next five
20 years," type of land use and siting or for projects that
21 are already in the contemplative or permitting stage. Is
22 it really going to solve that? And I think I would
23 answer, "No, it's not." It's just going to be another
24 process that really doesn't have the capability of helping
25 get the projects built.

1 So I'd like to build on that dichotomy between,
2 we know what the problem is in siting and land use, we
3 know what the biggest obstacle is, how do we address that?
4 RETI and the corridor designation process seem to hold a
5 lot of promise for helping long-term planning, but another
6 planning process is not likely to help get you facilities
7 built in the near term.

8 MR. NAJARIAN: Okay, thank you Tony. Other
9 comments?

10 COMMISSIONER BYRON: Go right ahead.

11 MR. NAJARIAN: Okay, thank you. Let's move
12 quickly now to getting some feedback from the stakeholders
13 now that they've listened over the last hour or so to what
14 we were discussing. I'd like to call Carl Zichella, of
15 the Sierra Club, up to the podium here Carl. And please
16 provide any comments or ask any comments that you have.

17 MR. ZICHELLA: Sure, thank you Chuck. And
18 thanks everybody for a really interesting discussion here.
19 I come at this from an environmental perspective and how
20 we try to get these projects that we've all been working
21 on for the last couple of years now in RETI to the finish
22 line. It seems to me that the planning process that we're
23 using, or processes that we're using, sort of all suffer
24 from a number of problems including duplication, including
25 sort of from a lay person's perspective, the secret

1 handshakes and poison goblets problem. Is it's hard to
2 figure out what the hell's going on half the time, and for
3 actually public participation, it's extremely difficult to
4 have meaningful input into this. So I think just from a
5 general overall perspective about a comment about
6 statewide planning, I think there's a lot to commend
7 statewide planning.

8 And I think I'd like to address some of things
9 that I've heard, in particular that sort of lead us along
10 that line of thought. It was said that you can't think
11 about renewables in isolation, or California in isolation,
12 and I think that's certainly true. The integration issues
13 of renewable resources are important and difficult issues,
14 but you need to think about them system-wide. I think
15 when you think about statewide planning, you also have to
16 think about the statewide benefits. Why are people going
17 to buy off on transmission lines through places they care
18 about or near their homes if they're not really seeing
19 this real significant public benefit here? And that's one
20 thing that statewide planning gets you, is the opportunity
21 to look at all of these things in combination with each
22 other, not in isolation from each other.

23 You know, I've heard a lot from the
24 participants, from their own sort of perspectives, and I
25 think that's totally fine. It's totally to be expected,

1 but I think from someone who's sitting on, "How do you
2 knit it together to come up with a good result that builds
3 the amount of transmission that you need to accomplish the
4 goals that we have?" I think the comments about building
5 systems that can help us accomplish goals into the future
6 are very, very important. Looking 50 years out, it's
7 important to be able to think about that. It's very
8 difficult to plan, but that doesn't let us off the hook.
9 We do have greenhouse gas emissions reduction standards by
10 the middle of the century, we need to work like hell,
11 pardon the expression, to accomplish those. And I don't
12 think we get there unless we start thinking down the road
13 about how we get there.

14 We need to allow for room for -- consider things
15 like innovation. When Carlos said, "We're going to have
16 this system for 50 years," and I said the same thing this
17 morning, it's very true. The improvements that we make in
18 the next ten to fifteen years we're going to have for half
19 a century or more. And I think it behooves us then to
20 think not just in terms of short-term costs to rate
21 payers, but also the longer-term impacts and benefits of
22 the system that we're going to have. If we just do the
23 cheapest possible thing I think we're going to miss many
24 opportunities to take advantage of innovation, take
25 advantage of solutions that actually avoid controversy and

1 help us build the infrastructure we need sooner.

2 We're looking at super-conducting technologies
3 and undergrounding utilities in certain places. Those
4 things cost a lot more money, generally they do although
5 the cost of undergrounding is going down and has been
6 going down for some time. I don't think it should be off
7 the table because it's too expensive today, if we're
8 looking at a system we're going to have for 50 years. So
9 how do you get to making that a fair way of approaching it
10 if Edison has to underground some of their lines, for
11 example, to comply with the statewide program goal maybe
12 we ought to think about looking at how we allocate the
13 cost for that differently? And I'll give you an example
14 of what I'm talking about.

15 Most of the proposals at the federal level right
16 now for transmission planning acknowledge that there's
17 some federal imperative to reduce greenhouse gas emissions
18 and upgrade the grid. I'm more on the greenhouse gas
19 emissions side of the equation and just upgrade to grid
20 side of the equation, but you can't do one without doing
21 some of the other.

22 In order to accomplish those things though, it's
23 recognized that an individual utility has to get a
24 certificate of public convenience and necessity from six
25 different states in order to build a long-distance line.

1 It's going to have a very difficult time doing that, and
2 it's going to be very difficult for each of those states
3 to justify part of a long-distance line to serve load
4 centers if some of those load centers may not even be in
5 those states. So how do you address that issue? Well,
6 they've addressed it through interconnection-wide cost
7 recovery.

8 And I would suggest that maybe one of the things
9 we ought to suggest and think about here, is for a
10 statewide plan to meet statewide goals, that we might want
11 to think about ways of allocating costs across the state.
12 So that if one way to get unlocked renewable energy
13 potential disproportionately affects one load-serving
14 entity, then some of that cost can be shared across the
15 other load-serving entities. Nobody talks about that. I
16 think it's sort of a barrier that we just can't live with;
17 we have to be able to think outside the box completely
18 here and that's one way to look at it. It's a suggestion
19 some of us made to Senator Reed which he adopted in his
20 senate bill on interconnection-wide cost recovery and I
21 think it's really an important way to look at it.

22 We were told, or it was suggested here that we
23 need to decide where the lines go judging by commercial
24 activity, commercial interests. And speaking from
25 experience in the RETI process I say that's a mixed bag.

1 The commercial activity of today could be different next
2 month. Based upon market conditions, upon other things
3 that change considerably, I think we need to be thinking
4 more along the lines of developing a system that takes
5 advantage of the best resources in the best places. And
6 by best places I mean the best for the resource
7 availability, but also the best in terms of the disturbed
8 sites across the state, the lower controversy places to
9 bring projects, and if we can go that route I think we're
10 going to have a much easier time building the
11 infrastructure that we need.

12 I was really gratified though, to hear a lot of
13 conversation about making the most use of the existing
14 system. There are only so many corridors in California.
15 We aren't going to be willing to plow them through
16 national parks and wilderness areas. That will never fly,
17 it'll never fly. So we have to think creatively about how
18 we make the best use of the corridors that we have, and
19 that argues very, very strongly for joint projects, and I
20 think eliminating the rather arbitrary distinction between
21 POUs and IOUs in terms to transmission projects.

22 It's very difficult for me to explain to
23 environmental stakeholders why we have to have a separate
24 line that was leading to the same exact markets, to wheel
25 renewables from the location-constrained places to the

1 load centers. It's very tough to do that and if you're a
2 rate payer you should be asking why the heck you're doing
3 it too. And I think it's a waste of resources; it's a
4 waste of planning, energy. I understand the reliability
5 concerns that people have about that, but I am not
6 convinced reliability can be best served by having
7 duplicative systems across the landscape when we have such
8 a small availability of places that we might be able to
9 put transmission.

10 When we started the RETI process a year and a
11 half ago, people were saying we had to have seven new
12 major transmission lines; they said it in this room. And
13 some of us said, "I don't think so. I think we're going
14 to wind up using most of our existing infrastructure
15 first." And that is exactly where we wound up so far.
16 And not that there won't be new lines built, but we aren't
17 going to see new, extensive backbone I don't believe,
18 built, although there is some proposed for Northern
19 California. I think that's going to be dramatically
20 reorganized. It will have to be if it's going to be
21 built, because public opposition will be overwhelming if
22 it isn't.

23 I think the need, I mentioned this earlier,
24 about breakthroughs in technologies that we can't see 50
25 years into the future. But there's always going to be a

1 need, just as the IEPR is done by NELE (phonetic) to
2 reassess exactly where the state is with regard to energy
3 usage and needs. Statewide transmission planning is going
4 to need to be updated very regularly. There could be
5 substantial breakthroughs in energy efficiency and
6 distributed generation. Edison Mission is a new company
7 that's really focusing on intermediate-sized renewable
8 energy development on disturbed lands closer to load.
9 Ideas like that are coming at us all the time, and I think
10 ideas like that can help lessen the demand for renewable
11 energy transmission from remote centers. And it gives us
12 a chance then to focus on the areas that are more
13 disturbed, closer to load, that have excellent resource
14 availability.

15 And I think we need to have a mechanism in
16 statewide planning that really takes into account, a
17 really hard-nosed look at those things, and needs to do it
18 fairly regularly. I don't know what the interval is, I
19 don't think it needs to be every two years; it takes
20 seven, eight years to build a transmission line. But we
21 do need to have it regularly so we do not waste resources,
22 create unnecessary controversy building that which we do
23 not need.

24 Let's see, I just have covered a lot of ground
25 and I'm sorry I'm running on here, but there's a lot to

1 respond to. The question was raised about we don't need
2 another process. Well, I'm all for that. I don't want
3 another process layered on top of all the other processes
4 that we have to deal with. But if we're going to have a
5 statewide process it ought to replace some of the planning
6 processes that people have to engage with right now and
7 can integrate perhaps with some of the subregional efforts
8 throughout the West that we participate in and will need
9 to participate in, because California won't stand by
10 itself. Although we will meet most of our own needs this
11 way, we are still part of the regional energy market and
12 we can never forget that.

13 But I do think that if we had statewide plans
14 that had statewide goals, benefits, and cost recovery
15 included in them we would match up pretty well with the
16 direction that national policy seems to be going in right
17 now, which is interconnection-wide plans with national
18 benefits. Because California's goals and benefits are
19 exactly the same as those who've been espoused by the
20 Obama Administration, and those which I believe will be
21 central to the conversation in the Senate and the House of
22 Representatives. But it doesn't hurt us to have a good,
23 statewide planning process that achieves a broad public
24 goal and benefit that can then be woven into an
25 interconnection-wide program with the greatest of ease.

1 In fact, I would argue that it serves California's
2 interests much more to be ready to do that, than to do it
3 in the piece-meal way and through the various subplanning,
4 regional planning entities, which don't by the way, even
5 draft plans for the most part.

6 Siting needs to be expedited, but I think that
7 part of that can be done by reducing the duplication into
8 that which we have to site. I do think what RETI has been
9 doing has been pretty groundbreaking in this area. We've
10 had good guidance from our stakeholder steering committee
11 not to do duplicative things, to try to plan things that
12 are going to make the most use of the existing
13 infrastructure. That's a really good model and we ought
14 to see it through in RETI and utilize those results in
15 whatever kind of planning comes next, because I think it
16 will ultimately result in one of the more efficient
17 transmission plans that we probably could come up with in
18 the state.

19 Streamlining of permitting and these sorts of
20 things I think we need to be really careful when we go
21 there, because they are lightening rod kinds of
22 suggestions. I think we need to think about how we do
23 what we do much more efficiently, much more quickly, make
24 sure there are enough resources to do it and resources at
25 agencies like Fish & Game, frankly, which has a very

1 difficult time with very few staff meeting the needs and
2 the demands of the people like myself are putting on them
3 to help contribute to the outcome here. Because I think
4 their contribution is very central to the public's
5 acceptance of what we produce at the end of the day.

6 I'm probably overlooking a bunch of things, but
7 that was a wide-ranging conversation. I think statewide
8 planning is a very useful idea. I'd like to see it go
9 forward. I'd like to see it go forward in a way that was
10 efficient for the load-serving entities so people don't
11 have to go crazy on ten different plans. And also to see
12 it done in a way that makes the largest contribution
13 possible to renewable on the most disturbed and least
14 environmentally-sensitive lands. Thanks.

15 MR. NAJARIAN: Thank you, Carl. Okay, I know
16 we're pressed for time; we have three other stakeholders I
17 would like to get up here, so please keep that in mind.
18 Arthur, could you come up now, please?

19 MR. HAUBENSTOCK: Sure, Arthur Haubenstock of
20 BrightSource Energy, and thank you Commissioner and thank
21 you panelists for the opportunity. It has been a very,
22 very interesting conversation and I think we would
23 certainly join the crowd in saying that we need fewer
24 processes not more processes. And the question is, "How
25 do we make the processes we have more effective and make

1 sure they're asking the right questions?"

2 One question that I don't know was discussed in
3 great depth today, and I think would be interesting to
4 hear more about are what the panelists think about how to
5 consider California -- not just the ISO, not just the POU's
6 and not just the state, but the West as not an electrical
7 island or series of electrical islands but an integrated
8 system across the West. When we start talking about how
9 to maximize renewable integration, at least cost with
10 reliability, while minimizing carbon and other emissions,
11 it's increasingly clear that we need to be thinking about
12 how to balance a true diversity of technologies,
13 locations, and operational characteristics in order to
14 make sure that we're actually giving to the rate payers
15 what they're trying to get, which is least cost energy
16 that is reliable that is achieving all those environmental
17 benefits and economic benefits we've been promising for a
18 while now.

19 Now, I was very taken with a grid operator who
20 was testifying at a PUC workshop who said that, you know,
21 they could operate the grid reliably with whatever
22 resources are brought to them. The problem is you might
23 not be very happy with the costs, and you may not be very
24 happy with the carbon emissions. That's absolutely true
25 when we start thinking about transmission planning as

1 well. I absolutely agree that, you know, right now the
2 transmission planning process, especially from the
3 interconnection perspective, is driven by what is in the
4 queue. But what's in the queue is driven in large part by
5 market signals, and it's not clear that we really have
6 sophistication enough on the market signals to be making
7 sure that we're bringing that diversity of technology and
8 areas and operational characteristics that we're really
9 going to need to achieve that maximum renewable
10 integration. And I would love to hear more about how the
11 transmission planning process is starting to think about
12 what Doug Larson at the Western Energy -- what is it,
13 Interstate Energy Board?

14 AUDIENCE MEMBER: Yeah (inaudible).

15 MR. HAUBENSTOCK: I always get, yeah thank you,
16 and he also works for the Western Governor's Association
17 which is much easier to remember. But he starts talking
18 about a different type of pyramid, instead of talking
19 about base load and intermediate and peaking, he starts
20 looking at how you start to play various renewable
21 intermittents against each other so that you can provide
22 that kind of system that we currently depend on. Again, I
23 would love to hear all of your thoughts about how we move
24 into that future, because if we don't plan for that future
25 in 2020 it's not clear that economics or the systems that

1 we have in place will get us there.

2 MR. NAJARIAN: Okay, real quickly, any reaction
3 to Arthur's questions? Karen.

4 MS. EDSON: Well, I'll just note that at the
5 California ISO we have a very extensive renewable
6 integration study project under way, which is identifying
7 what operating characteristics have to be there, what
8 perhaps the role of new technologies might be in being
9 those operator characteristics. And we'll begin
10 publishing the results of that work this summer. I do
11 think it's important not to lock too much down now,
12 because you're making decisions that will -- you don't
13 want to lock into specific solutions to the challenges you
14 face, because you don't really know exactly what
15 technologies might develop and become the most viable.

16 So it's a matter of developing the confidence
17 that you can meet these renewable energy goals, and we
18 think these reports will document that, but also making
19 sure that you don't plan the system out so precisely that
20 you can't be responsive to technology innovation. And
21 I'll note that this is related to transmission planning,
22 but it's really going to the resource side of the
23 equation, which is kind of a different consideration. I
24 think it's important to keep these, you know, separate.

25 MR. NAJARIAN: Okay, Nancy?

1 MS. RYAN: I'm sorry, I'd like to respond. Just
2 real quickly, I absolutely agree with you Karen. I guess
3 the real difference when you start talking about
4 renewables is because we're largely location constrained,
5 and because we want to avoid the kinds of problems that
6 Texas had a year ago with wind, it really does change
7 transmission planning. And that's where the studies that
8 the ISO is doing are so important and we're really looking
9 forward to seeing how those studies translate into
10 transmission planning, not just with the ISO but at the
11 POUs as well.

12 MS. EDSON: And you could end up with results
13 that suggest, for example, pulling utilized line in a wind
14 area where you have overall, you know, 30 percent capacity
15 factors. You may be want to collocate certain things, but
16 again that's the -- it does get more efficient utilization
17 of the line, but it's really a resource site decision
18 that's (inaudible) for one another.

19 MR. HAUBENSTOCK: Arthur, as far as not really
20 getting any different angles of the topic we've been
21 discussing today, in his remarks I found an interesting --
22 I'll just highlight one that struck me, which is as I was
23 thinking about coming today, I was thinking about it in
24 the context of this very long-term capital investment
25 program that we have to undertake in order to be say

1 relying on these reliable and clean electricity at the
2 lowest possible cost when is the appropriate -- you know,
3 how do we appropriately combine market forces or
4 alternatively take advantage of competitive forces to
5 drive cost of considerers down while in the context of
6 what is essentially a centralized planning framework? Are
7 these two approaches really, can they be effectively
8 integrated, or are they really fundamentally incompatible.
9 And the challenge to us, I think, is to find ways to
10 integrate it effectively.

11 You know, Karen sort of talked about and this is
12 sort of one, the transmission planning perspective, is how
13 do we integrate a lot of renewable resources into the
14 grid? Another dimension of integration, that I think is
15 more addressed in the PUC's long-term procurement process,
16 at least as the IOUs are concerned, is how do we come up
17 with a portfolio for renewable resources or a portfolio
18 for renewable and possible resources to meet electricity
19 demands going forward within all these constraints that we
20 have, and what are the implications for what the
21 transmission build-on has to be. So in other words
22 looking at the resource side and the transmission side
23 simultaneous, and with costs clearly being taken into
24 account and so I think that's another angle at which we
25 can address this question. But there is a fundamental

1 session, I think, between a civilized planning approach
2 and taking advantage of (inaudible).

3 MR. BRAUN: And Chuck, this is Tony Braun for
4 CMUA. I think if I heard Arthur correctly, I would say
5 simply, "Yes." I mean, in the POU end we're not real shy
6 about vertical integration and integrated planning, and
7 actually this is a state law that we have (inaudible).
8 And so we have to take into account this is not about
9 building a line from the load center out to a renewable
10 area. This is about taking into account the various
11 factors that are going to build up to the overall costs of
12 surveying the customer and meeting the energy goals. And
13 so I think, Arthur, we agree with you a hundred percent on
14 all these things, operational characteristics, costs,
15 location, etcetera, must be taken into account.

16 MR. NAJARIAN: Thank you Tony. All right, let's
17 hear from the military in terms of potential issues that
18 they see. Gary Munsterman, Air Force Western Region.

19 MR. MUNSTERMAN: Thank you, I'm also speaking
20 for sister services. We have a group called the
21 Department of Defense Regional Environmental Coordinator,
22 and between the various services we try to stay engaged in
23 a number of these forums. We're really coming at this
24 question from the land use planning perspective. And I
25 think most of you know that we have a fairly significant

1 testing and training mission, particularly in the Southern
2 California desert region. Fortunately, the core of those
3 test and training assets are either on our installations
4 or on public lands surrounding our installations. We have
5 representatives that have been engaged in RETI. We're
6 also participating in REZ, the BLM solar PEIS.

7 We try to stay engaged, because we want to be
8 certain that we'll have the ability to continue that
9 testing and training mission into the foreseeable future.
10 What my question is for the panel is where does the --
11 what slot energy corridors factor into this? The DOD as
12 well as the Public Land Management Agencies for Service
13 BLM were partners with the Department of Energy on the
14 development of that PEIS. And I'd like to hear from the
15 panel, where do those corridors, those designated
16 corridors, do those work for the requirements that you're
17 looking at now and the ones that you would foresee into
18 the future?

19 MR. NAJARIAN: Okay, Kevin?

20 MR. DASSO: I'll just take a quick shot that. I
21 won't be able to -- this is Kevin Dasso at PG&E. I won't
22 be able to answer the details per se, but I think one of
23 the key things is that we've been talking about is the
24 land use planning, and the importance of that component.
25 As it relates to the federal corridors, really for those

1 to work you need to match up with what we're doing in the
2 state, so the state corridor planning process is critical.
3 At least from my reading of the documents show that it's
4 really a patchwork right now, and for us to really build
5 the energy infrastructure it needs to be coordinated
6 across the federal management areas as well as the state
7 lands and the private property.

8 So that (inaudible) can do better job of maybe
9 integrating all of that together into a single plan, which
10 again I think the Energy Commission is working on and is
11 in a good position to enhance involvement.

12 MR. NAJARIAN: (Inaudible) Patricia?

13 MS. ARONS: If you look at the comments that
14 Edison had filed on March 16th of 2009 what you'll see is
15 the discussion of some of the requested corridors that we
16 got put into a couple of the processes that were
17 mentioned. And included in our comments was the need to
18 mesh up or align the federal corridor components that we
19 were requesting with the state corridors. And so we
20 talked a little bit about that and I think that the point
21 being that these things do have to align, because the
22 transmission line travels, you know, potentially a couple
23 of hundred miles through lots of different types of lands,
24 federal, state, private and so on. And so a corridor
25 planning process isn't just in one arena, it's in a lot of

1 different arenas and that's the challenge of being in
2 transmission. You have to have a grid if you're going to
3 build a transmission these days.

4 MR. NAJARIAN: I think we're going to hear a lot
5 about the linkage on the federal corridor and the state
6 transmission with that corridor program in the next panel.
7 Okay, is Rich Bayless still here?

8 MR. BAYLESS: I'm here.

9 MR. NAJARIAN: Rich, come on up.

10 MR. BAYLESS: Just a couple of brief comments.
11 I think your neighboring utility systems agree with most
12 that I've heard from the panel; at least I do agree we
13 need a long-range energy corridor sort of plan, especially
14 if it has deference with both the fed, state and local
15 would be great. But it needs to be West-wide. We have
16 farmers, we have landowners. Oregon right now is trying
17 to pass legislation to push Right-Of-Way all onto federal
18 lands by all means, considering trying because of the
19 permitting time frame, trying to push all the Right-Of-Way
20 onto private lands because it can be permitted faster.
21 Anyway we don't like big lines going through our areas
22 anymore than anybody else does, and all those worms up
23 there suggest that there are a lot heading for California.

24 We need a West-wide plan bottoms up, top down,
25 with deference. The problem we've got now is commitment:

1 this two-year versus ten-year planning stand between when
2 renewables can go in and transmission can be built. We
3 need to start ahead of time, so we need somebody to make
4 some sort of commitment. And the resource, the generators
5 aren't willing to do it. We're very hesitant about making
6 big investments that might or may not be recovered across
7 our states getting to California.

8 The thing there that us planners always go back
9 to when we do a transmission plan is you start with a load
10 forecast. And it seems to me if we have long-range
11 resource adequacy standards that the LSEs need to somehow
12 show how they meet, and in the IRP processes the states
13 can have some sort of commitment to those plans, we can at
14 least get going on some planning because we know how it's
15 going to end up and who needs what. Especially if that
16 plan has a delineation of what sort of resources are
17 needed for the LSE to meet that set of requirements. We
18 need a level playing field for how we do go through
19 planning permitting and all of this, so that non-
20 jurisdictionals, jurisdictionals merchants all go through
21 the same sort of process and timing so we don't have
22 people trying to jump over portions of the process.

23 One of the biggest things I didn't hear anybody
24 except Carl touch on, is we do need an agreement multi-
25 state on how you do cost allocation. I don't know that we

1 necessarily need a region-wide tariff, but we do need the
2 states to agree on what portion of cost for some project
3 that goes multi-state goes into which states. We're in
4 seven, eight, nine states, eight states anyway, and we've
5 got a cost allocation committee in Northern Tier that's
6 bringing the states together. We're going to see how that
7 works, but it's going to need to be West-wide at some
8 point.

9 And the last thing is given a lot of these lines
10 that are AC and DC and they're bringing in wind from
11 remote locations, and wind has the characteristics we've
12 talked about where they ramp up and down in capacity
13 factor and operation issues. We're not about to get to
14 markets we wish we could for ancillary services. Some are
15 thinking about that now, but in lieu of not having markets
16 like you do we do need to have some multi-state agreement
17 on how we're going to treat reserves in ancillary services
18 for some of these renewables. So that's what we think.

19 MR. NAJARIAN: Good. Thank you, Rich. All
20 right, is there any panelists who would like to make a
21 brief closing comment? Karen.

22 MS. EDSON: I want to say three quick things.
23 One goes to the cost recovery issues in California that is
24 important enough that in the California ISO's balancing
25 area cost recovery is spread across the entire ISO

1 footprint, which is about 80 percent of the state.
2 Second, I think that also -- I also want to note that I
3 think the interstate cost recovery issue is absolutely
4 critical. I think we're completely aligned with the
5 comments that have come in on that regarding it. I don't
6 have a solution to it, but it is a big problem that needs
7 to be resolved. California is such a significant portion
8 of the load in the West it's not surprising that a lot of
9 these lines are coming into California.

10 Second, I think it's also important to note the
11 importance of the ISO market with regard to wind
12 integration. Our five-minute dispatch system allows us to
13 fill these lines up to a greater extent than previously
14 was possible, and I think that that's a great value to the
15 entire renewable energy goals of the state. As well as
16 the market that we have now is important, it's important
17 forming many of the transmission decisions that have to be
18 made because the cost of this redispatch, the cost of
19 congestion on the system, is now transparent. It's
20 something that people can see and use to reform these
21 matters.

22 And the last thing I want to note is just to
23 reiterate what I think all of us here have been saying for
24 the last hour and a half or so, which is we have taken the
25 state's urging to come together around joint planning very

1 seriously. We've taken the Federal Energy Regulatory
2 Commission's efforts to encourage us in that direction as
3 well, taking that very seriously. We've made very
4 significant progress, and have now launched that
5 coordinated planning effort. I think that's a very
6 important step and one that, I think, we all here are
7 committed to. And I think the Energy Commission does have
8 an important role in holding us accountable to make that
9 process work.

10 MR. NAJARIAN: Thank you Karen, good point.
11 Tony, did you have a closing comment?

12 MR. BRAUN: Well, I was just going to, I guess,
13 hit on some things that Karen touched on and very quickly.
14 We have statewide planning for new high-voltage facilities
15 and statewide cost recovery, virtually statewide cost
16 recovery. Because of the usage patterns across the state,
17 I would say we need flexible cost recovery going forward
18 and I say that as someone who pushed very, very hard for
19 statewide cost recovery for new high-voltage transmission.
20 I think experience will show that it's very good in
21 certain instances and we need flexible and creative
22 arrangements in other instances. We shouldn't just
23 automatically default to the broadest socialization of
24 costs that we can think of. So statewide or
25 interconnection wide might be very helpful, it might be

1 very beneficial, it might not work for other projects so
2 we're going to need a case-by-case analysis on how that
3 works.

4 And with respect to why go to 1,500 megawatt
5 transfer capability lines instead of one 3,000 we agree
6 and I think we've had quite a bit of good, constructive
7 discussions on that (inaudible) in the last several
8 months. And I think we're well on the road to addressing
9 the operational and economic issues of how that would
10 work. So I think that we shouldn't overlook the
11 tremendous strides that have been made in some of those
12 solutions that were already presented to ourselves,
13 they're not just problems.

14 MR. NAJARIAN: Thank you.

15 MS. BROWN: I just want to add two things. One
16 is I think one of the things that RETI has done is really
17 made us all aware of how important it is to coordinate
18 with the environmental community and the land use
19 community. And I hope that on the other side of it, they
20 see how complex our processes are. So we, you know, as
21 transmission planners doing really technical analysis the
22 input that comes from those processes is really
23 invaluable. And the second thing I'd like to close with
24 is I think in some of the comments that we'll file you'll
25 see probably an updated diagram, because I think that's

1 really out of date based on recent activities over the
2 past several months. Where I think you'll see arrows
3 going to a statewide transmission plan.

4 MR. NAJARIAN: Thank you, Linda. Kevin?

5 MR. DASSO: I just want to add one point and
6 that is to really emphasize the notion of leveraging the
7 existing processes as much as possible, I think in the
8 same way we've talked about utilizing rights-of-way. We
9 also want to utilize the existing processes that we have,
10 and kind of the counter to that is to avoid creating
11 additional duplicative processes and work on how we can
12 streamline and work with the infrastructure that we've put
13 in place already. And again, as Karen mentioned, we've
14 made a lot of process and I think we can continue to make
15 progress and that progress is accelerating. It's just
16 your focus and commitment to use those processes, I think,
17 is where we need to go.

18 MR. NAJARIAN: Thank you Kevin. Others, any
19 others? Okay, well thank you very much. I think we built
20 the kind of record we were seeking. We didn't get the
21 arguments that we were hoping, but I think the record is
22 sound and I appreciate your participation.

23 COMMISSIONER BYRON: And Judy, are you going to
24 excuse this panel at this time?

25 MS. GRAU: I am, and I wanted to know if you'd

1 like to take a five-minute break before we head into the
2 next, or would you like to just keep going.

3 COMMISSIONER BYRON: I think you're right, we
4 probably should. I want to thank you all very much, not
5 just for being here today and the valuable input that you
6 provided, but so many of you have been working on this for
7 a long time. Please hang in there, we need your
8 expertise. And I just can't thank you enough on behalf of
9 the state. You know, you each represent different
10 interests as I said earlier, some investor-owned and
11 private utilities, some public, the ISO. And you all
12 bring in unique perspective. We continue to think of this
13 on a statewide basis, because that's really who we're
14 trying to serve here but in the context of a regional
15 basis. And I thank you again. Please don't give up the
16 ship; we're going to stay on this. Okay, so we'll take a
17 five-minute break.

18 MS. GRAU: If you are still left in the room at
19 this very long day, we appreciate your participation. And
20 especially we appreciate all the panelists for Session Two
21 for also sticking through this long day, and we hope that
22 despite the hour we can still get a very thorough
23 discussion and give you the opportunity due you. So with
24 that, I would like to introduce Roger Johnson who will be
25 the moderator for this panel, as well as double duty as

1 one of the panelists. Roger is the lead for the Energy
2 Commission's Transmission Corridor Designation Program.
3 And just to refresh -- he will introduce the people on his
4 panel, but and then I will leave the slide up that has the
5 questions for Session Two.

6 MR. JOHNSON: Thank you Judy, (inaudible). Is
7 this on?

8 MS. GRAU: Um-hmm.

9 MR. JOHNSON: Okay, now is it on? Yes, okay
10 thank you Judy, thank you Commissioner. I'm very pleased
11 today to introduce this panel. We have some very talented
12 and knowledgeable people who are going to work with us
13 this afternoon to talk about corridor designation. I'd
14 like to say that I'm really impressed that so many people
15 know so much about corridors. I've heard a lot about it
16 today, and I thought maybe we should have a joint session
17 but this is great. I think we're going to have a great
18 discussion.

19 With us today is Juan Carlos Sandoval, who is
20 the lead transmission planner for the Imperial Irrigation
21 District. And to his right is Johanna Wald, she's the
22 senior attorney for the Natural Resources Defense Council.
23 Chloe Lukins, sitting next to Johanna, she's the manager
24 of the Transmission Permitting Office of the California
25 Public Utilities Commission. And Pat Arons is here from

1 Southern California Edison, she is the -- I wrote it down
2 Pat -- manager of the Transmission and Interconnection for
3 Southern California Edison. She works with high-voltage
4 systems. And then to her right is Jurg Hueberger, he's
5 the Director of Planning and Development for Imperial
6 County. And Jurg just told me that they've also added
7 Parks and Recreation to his list of things that he's
8 responsible for in Imperial County. So I thank you all
9 for agreeing to be here this afternoon.

10 So as a way of just opening up this discussion
11 on corridors, we've heard a lot about it today, and Chris
12 Tucker gave us a presentation this morning on briefly what
13 the corridor designation process is. But the designation
14 process is an -- we call it the interface between planning
15 and permitting. The idea was you plan for a project. You
16 identify that it's needed sometime in the future, but
17 before you get to permitting is there an appropriate
18 process for designating a future corridor for any
19 transition line that's been identified in the strategic
20 investment plan, as being essentially needed for
21 California?

22 So the legislature provided that process for the
23 Energy Commission to designate corridors, that the filing
24 of a transmission (inaudible) utility, or by the
25 Commission's own motion but to this date we haven't

1 received an application. And we've been asking questions
2 about, "Well, who is thinking about designating and asking
3 for a corridor designation, and if not why not?" So those
4 are the questions that we had in our -- questions that we
5 asked the utilities in our forms and instructions.

6 So the idea of a corridor designation was let's
7 talk about working with local land use agencies, with
8 tribes, with utilities, and with the public to identify
9 potential corridors and designate those before we actually
10 need them some day to put a transmission line. And the
11 one thing that we've all been wondering about is, so you
12 designate a corridor, how are we going to keep that
13 corridor available for transmission in the future? Right
14 now, I mean it's really a handshake between departments
15 that we all identified that these corridors would be
16 appropriate, would be necessary and they should be
17 designated. But then there's nothing to prevent them for
18 being utilized for some other use in the future with just
19 a notification that they're going to be affected by future
20 development.

21 So we have a set of questions today that we'd
22 like to go through. And the first question is, "What do
23 the panel members see as the benefits and current
24 impediments to proposing transmission projects (inaudible)
25 potential future corridors (inaudible), and what are some

1 of the recommended solutions to any of the (inaudible).
2 And I'd like to start with Pat Arons since Southern
3 California Edison did file some recommended corridor
4 suggestions under response.

5 MS. ARONS: Let me address the question about
6 benefits first. I think there's great benefit for the
7 long term, and that comes from the process that you go
8 through to designate a state corridor working with cities
9 and counties that are process that help site or place the
10 corridor. But the ongoing -- the real value is ongoing
11 that your expectation that cities and counties will plan
12 their jurisdictions around that state-designated corridor.
13 That's the hope. How do you cement that? I think that
14 you have to cement it through acquisition of property.
15 It's only through the ownership of that property with the
16 intent of eventually dumping a transmission facility that
17 really puts legs to the whole proposition of the value of
18 the state designation.

19 I think impediments, the first impediment I
20 think that we're faced with is, it's a long-term
21 proposition. So what we're talking about is something
22 that have to have enduring value as time goes by, and
23 right now we're watching the RETI process identify many,
24 many, many, many options for designating corridors and for
25 struggling with in trying to put some framework around

1 what we think is a rational set of corridors that we might
2 proceed to lock in for the long term. I believe that it's
3 really a question of really looking at what the right RETI
4 products are, and how many actually of the transmission
5 options are in our service area, which should go forward
6 as a transmission. Corridor designation is that bridge
7 that we have to cross, but one that we do intend to cross
8 and one that we intend work with federal agencies as well
9 in lining up corridors. That things make sense.

10 MR. JOHNSON: Okay thank you Pat. Pat mentioned
11 something that this corridor should be something that the
12 cities and counties plan around. Do you have a response
13 to that suggestion?

14 MR. HUEBERGER: Yes, Jurg Hueberger, Imperial
15 County. I guess my first task as Lou Parks (inaudible).

16 COMMISSIONER BYRON: Mr. Hueberger, is your --
17 forgive me, is your green light on?

18 MR. HUEBERGER: Yes, it is.

19 COMMISSIONER BYRON: Okay, go ahead sir.

20 MR. HUEBERGER: I speak softly, so I'll just
21 speak up.

22 COMMISSIONER BYRON: So yeah, you can't put a
23 power line through our parks either, but our parks are
24 small so we can around them pretty easily. I guess the
25 thing that has caught my attention listening pretty much

1 all day, is the what I look at is an opportunity here in
2 terms of a benefit, and that is to have better
3 coordination over the statewide corridor planning effort
4 to assist the CEC in working with local jurisdictions to
5 do the land use planning. Because as you know from a
6 local perspective, we are responsible for planning and
7 maintaining the general plan which have several mandatory
8 elements, and then (inaudible) including the
9 geothermal/transmission of Imperial County.

10 And I think this process that we're talking
11 about today affords us an opportunity to really do some
12 things that enhance the improvement of a better system in
13 the state. That was talked about all day today. Pat just
14 mentioned one way, of course, to preserve or protect that
15 corridor is for the utility or (inaudible). Certainly
16 land use planning could also assist in that, because we
17 can find projects where we plan long range developments in
18 the county. In our case we have the advantage that we're
19 not urbanized like a lot of counties, so we still have
20 some open areas although there are lots of restrictions
21 already in place anyway. But we have that opportunity to
22 pick some corridors that can work, (inaudible) and still
23 give us the opportunity to find developments around it.

24 MR. JOHNSON: Thank you, Juan Carlos is the
25 principle transition planner for Imperial County for the

1 Irrigation District. How do you see the benefits or
2 impediments to corridor designation?

3 MR. SANDOVAL: I mean, IID has the benefit of
4 having several high-voltage transmission lines
5 infrastructure in place. And our plan basically called
6 for the expansion of those existing (inaudible) operating
7 to a higher voltage. So far we haven't seen the need for
8 the submission of a transmission corridor, even though we
9 are looking at one. Where we are serving one of those
10 facilities for a higher voltage in the future, so that's
11 what we are considering right now. That's a potential
12 designation of that as a transmission corridor. Our plan
13 called for having two of the very heavy corridors North to
14 South in the creation of loops.

15 So fortunately again, we don't have the need for
16 transmission corridor designations other than the sharing
17 of our transmission expansion plan with the county for the
18 reservation of the (inaudible) right away that will be
19 required. So again we have seen that it has been very
20 helpful, you know, to have this coordination with the
21 county and the sharing of our plans. And the county plans
22 are long term, 20 years, so at that point I was mentioning
23 that at least 20 years because we need to plan for those
24 facilities long term. As we mentioned before,
25 electrically we planned the system for a singular horizon,

1 but for the transmission side and land use, you know, we
2 need to do that 20-year horizon and beyond.

3 MR. JOHNSON: As I mentioned the corridor
4 designation, is does it have to be this bridging, if you
5 would, process between planning and permitting. And
6 Chloe, I was wondering if you could speak to that from the
7 POC's point of view. Do you think corridor designation
8 would be a benefit to the POC permitting projects in the
9 future? And if yes, what kind of benefits do you perceive
10 that it might be?

11 MS. LUKINS: Yeah, I think that the corridors
12 designation would be a benefit to some (inaudible)
13 projects in permitting, and specifically if there are
14 corridors that are just needed for allocation (inaudible).
15 In addition, if you are designating corridors for a new
16 (inaudible) corridors where's there's existing (inaudible)
17 can be expanded. Also, if you're programming I&R is
18 specific enough where specific approaches could share all
19 of it that would be really helpful.

20 I'd like to suggest that you stick with the
21 (inaudible) studies for biological and cultural issues and
22 (inaudible). And I only say that because if you're
23 looking at a lot of plus years for project specific
24 functions, biologically things could change. And you'll
25 need to maybe go out -- you will need to go out and

1 actually do specific surveys. (Inaudible). So I'm just
2 thinking of maybe cost saving things that are efficient in
3 cost in there. Also, you should leverage (inaudible)
4 federal corridors I think, and they're (inaudible), and
5 try to maybe connect them. Then you'll have statewide
6 connections to those federal corridors. (Inaudible). And
7 those sort of are some of the answers that can cover
8 (inaudible) in the corridor transmission process.

9 COMMISSIONER BYRON: If I may Ms. Lukins, I
10 didn't quite catch all that. "If the PEIR is specific
11 enough," and then I missed the tail end of that. What
12 benefit does it provide you?

13 MS. LUKINS: (Inaudible) tear off and
14 (inaudible) use that information.

15 COMMISSIONER BYRON: Does it help you in
16 reducing the, and I always get this acronym wrong, but the
17 certificate of public need?

18 MS. LUKINS: The CPCN.

19 COMMISSIONER BYRON: CPCN, does it reduce that
20 process or shorten that process for you?

21 MS. LUKINS: Well, the (inaudible) process is
22 part of the CPCN processing, yes it may or would.

23 COMMISSIONER BYRON: But you would still, of
24 course, need to do your own evidentiary hearings and
25 everything?

1 MS. LUKINS: That wouldn't change at all.

2 COMMISSIONER BYRON: But do you think it would
3 shorten that process?

4 MS. LUKINS: It would shorten the environmental
5 portion of CPCN process.

6 MR. JOHNSON: Well, one thing that was mentioned
7 earlier, I think Pat you brought it up in the previous
8 session, was the length of time that land can be held. Do
9 you want to summarize your comments there about the
10 current situation and what's needed there as far as
11 change?

12 MS. ARONS: The current situation is best
13 described as a five plus five plus five. So if you have
14 something in mind conceptually, you can put it into rates
15 for five years after which you have to have a firm project
16 and you can hold it for another five years. And if the
17 project is delayed you can extend it for five years, and
18 then that's it. So 15 years would be about the limit that
19 you could hold a piece of property in rates without
20 actually having to put it into operations.

21 In what we're talking about with designated
22 corridors is a much longer proposition potentially before
23 we actually use the property. And the whole point of
24 owning it is because it is perhaps in the developing area.
25 I'm not proposing that we go out and apply our (inaudible)

1 for a corridor in terms of right away, but it would be
2 some sort of surgical identification that you've got,
3 development in an area where there is something going on
4 that potentially threatens to change that land use
5 designation. And so buying it is the only way to lock
6 that in, so that you can at least have an option for
7 (inaudible) a new transmission line.

8 It may not be that the preferred route at the
9 end of the CPCN licensing proceeding, but what you've got
10 is a lot of entities that are building that, building that
11 and ownership is something that again secures it from
12 somebody building a house there, speculating on that
13 property and whatnot.

14 MR. JOHNSON: I understand there's legislation
15 being considered right now, maybe forwarded to you right?
16 Senator Fuentes addressing this issue of land held for
17 future use, and then pretty much I would ask the PUC to
18 consider looking into this matter. Because if you see --
19 Chloe do you know if the PUC is taking any actions at this
20 time on this whole motion, or are you just waiting for
21 legislation to see if there will be any need to look at
22 this issue of land-held future use.

23 MS. LUKINS: I'm not sure about that one right
24 now, but I think (inaudible).

25 MR. JOHNSON: Okay.

1 MS. ARONS: The other comment I would think is
2 that we've got the (inaudible) jurisdictional land issues
3 to deal with as well, so we need to line up both the PUC
4 and the BERC as far as our regulators go on plans held for
5 future use rules.

6 MR. JOHNSON: Okay, thank you. Johanna, we
7 haven't heard from the environmental community on this
8 question about PUC benefits or entitlements to using a
9 corridor designation process.

10 MS. WALD: The short answer is yes. I think let
11 me expand upon that answer. There are huge potential
12 benefits to the corridor designation process provided it's
13 done correctly. The advantage of corridor designation
14 from our perspective is that it's a way to link the
15 electrical planning that was talked about in the previous
16 panel, the generation and land use considerations.
17 Parenthetically, if I may, I just want to take a minute to
18 say that I disagreed with the previous panel, which seemed
19 to think that the current planning processes were
20 basically okay and we just needed to keep going down the
21 route that we were already on.

22 It seems to me that you can argue, and there's a
23 lot of evidence to argue, that the current planning
24 processes are totally broken. That we need a
25 fundamentally new way of thinking about this, not just

1 because we're using or we're dealing with a fundamentally
2 different energy/power, but because -- and Jurg referred
3 to it -- we have examples like sunrise. And we had
4 sunrise, I would argue in electrical planning, planners
5 don't really consider land use. They don't really link
6 transmission and generation, and they are sort of totally
7 siloed. Every one of us is more or less totally siloed in
8 the way that we look at these issues, and so what we
9 really do need is a process that will allow us to look
10 forward and hard at how we're going to link these three
11 fundamentally inter-related issues into a whole.

12 To go back to the basic benefits, I mean what my
13 environmental colleagues say, the first question they ask
14 when they hear about a new transmission whether conceptual
15 or real is, "Is it in a corridor?" If it's in a corridor,
16 by which they usually are talking about the federal
17 corridor designation system but that is equally applicable
18 here, they know it's been through a process where the
19 environmental costs and the environmental benefits were
20 assessed. There was public participation. There was a
21 decision. There were lines drawn.

22 And they may not like, necessarily, all of the
23 places that those lines are on, but it provides an
24 assurance to them and to me and to others that when
25 transmission are proposed there will be an effort and

1 there will an advantage and there will be an incentive to
2 going in those corridors. Which means they will usually
3 be the least conflict, you know, least controversial
4 areas, which is where those projects enter (inaudible).

5 COMMISSIONER BYRON: Ms. Wald, if I may
6 interrupt for a moment, it's a pleasure to have you here
7 today and to finally get to meet you. Although we were on
8 a conference once awhile back, it's great to meet you.
9 And I think was that Mr. DeCalo (phonetic) would probably
10 agree with most of the comments. I think his comments are
11 very consistent with yours --

12 MS. WALD: Yes.

13 COMMISSIONER BYRON: -- and this notion that the
14 environmental community is comfortable is if it's in a
15 corridor. I think part of the difficulty is what does
16 corridor mean? You know, as Roger pointed out we're not
17 seeing the applications for state corridors under the
18 legislation that authorized it, possibly because it
19 doesn't quite have the value to those that might apply for
20 those corridors. In other words it just -- Roger could
21 you clarify so I don't say it incorrectly, what the
22 corridor designation provides so I could ask Ms. Wald to
23 respond to why maybe we're not seeing these?

24 MR. JOHNSON: Well, the designation provides for
25 an agreement between the land use agency and the land

1 owners, a few of the public, and the utility and the
2 state, of what is agreed upon as a useful corridor for a
3 future transition project that after going to through a
4 public process it was determined that that was the
5 preferred, if you would, alignment for a future
6 transmission line.

7 COMMISSIONER BYRON: And what does that obligate
8 them to?

9 MR. JOHNSON: It obligates them to respect that
10 as long as they can.

11 COMMISSIONER BYRON: And notify us if there's
12 any changes?

13 MR. JOHNSON: Correct.

14 COMMISSIONER BYRON: So it doesn't quite have
15 the set-aside if you will, of the land that I think the
16 potential applicants would be looking for. Does that make
17 sense?

18 MS. WALD: Well, yes but it's much more like
19 hearing that description, it sounds more to me like the
20 federal designation than what Pat was referring to,
21 because in the federal corridor designations they can
22 actually allow activities that would be inconsistent with
23 the corridor if they determined to. So it's not
24 necessarily a guarantee that all of the land within the
25 corridor will be used for that process, but what it is is

1 it's a guarantee that people who want to go to that place
2 for a corridor will have a far easier time than people who
3 want to go to some other place will have.

4 COMMISSIONER BYRON: Um-hmm.

5 MS. WALD: And since we are all here trying to
6 get renewable energy online faster, which means with less
7 controversy that is a real advantage to the goal that
8 we're trying to achieve.

9 COMMISSIONER BYRON: So do you think we should
10 be proceeding with these corridor designations post-haste?

11 MS. WALD: Absolutely! And I think another -- I
12 think that people are going to see some of the potential
13 advantages of the designations in the RETI process,
14 because what the stakeholders steering committee in RETI
15 instructed the conceptual transmitter planners was to use
16 the existing infrastructure, the existing rights of way,
17 and the existing corridors to the extent that they could.
18 And the result of that, to me at least, has been fairly
19 amazing and very comforting because more than 85 percent
20 of the lines that we are talking about conceptually, and I
21 would agree there are way too many of them, are in or
22 immediately adjacent existing corridors in existing rights
23 of way. So that while there might need to be some
24 expansions we are using the land allocations that we ought
25 to be using, and that people will welcome us using, and

1 reward us for using.

2 COMMISSIONER BYRON: Good, thank you.

3 MR. HUEBERGER: Yeah, having to as you just
4 said, I think going back to the emphasis on land use and
5 planning, I think that's one place we can be helpful by
6 kind of focusing more on the land use planning side is,
7 number one as Juan Carlos indicated earlier there are
8 already at least locally corridors that they have set
9 aside for certain power lines and certain sets and
10 capacities. What we're seeing right now is just an
11 immense amount of applications for say solar private, but
12 if you took our map it's like a shotgun approach, they're
13 all over the county because obviously the sun is pretty
14 much all over the county. The argument is made it's
15 better in the West than it is in the East, but I can'
16 figure out why.

17 But one of the things that the county and the
18 IID just did is they signed an agreement to work together
19 on promoting that industry, but also to do basically an
20 overlay of land use zoning type of overlays similar to
21 what we did on the geothermal with the KGRAs, except
22 obviously with the KGRAs the resources were (inaudible).
23 We focused the projects and we somewhat concentrated in
24 one region of the county, which would then minimize say
25 the number of corridors or maybe the corridor could be

1 upgraded to accommodate more of those plans at the same
2 time.

3 So I think there's ways that the land use
4 planning process can enhance and it --

5 MS. WALD: -- and that is a real advantage to
6 the goal that we're trying to achieve.

7 COMMISSIONER BYRON: So do you think we should
8 be proceeding with these corridor designations post-haste?

9 MS. WALD: Absolutely. And I think another, I
10 think that people are going to see some of the potential
11 advantages of the designation in the RETI process, because
12 the, what the Stakeholders Steering Committee in RETI
13 instructed the conceptual transmission plans was to use
14 the existing infrastructure, existing rights of way and
15 existing corridors to the extent that they could, and the
16 result of that, to me it was just, it has been fairly
17 amazing and very comforting, because more than 85 percent
18 of the alliance that we are talking about conceptually,
19 and I would agree, there are way too many of them, are in
20 or immediately adjacent to existing corridors and existing
21 rights of way.

22 So that while there might need to be some
23 expansions, we are using the land allocations that we
24 ought to be using, and that the, that people will welcome
25 us using and reward us for using.

1 COMMISSIONER BYRON: Good. Thank you.

2 MR. HUEBERGER: Here. Yeah. I'm kind of having
3 to, what was just said, I think, you know, going back to
4 the emphasis on land use planning, I think this, once
5 that's where we can be helpful by my kind of focusing more on
6 the land use planning side is, you know, as Juan Carlos
7 indicated earlier, there are already, at least locally,
8 corridors that they have set aside for certain (inaudible)
9 and certain (inaudible).

10 What we're seeing right now is just an immense
11 amount of applications for, say, solar projects, but if
12 you took our map, it's like a shark (inaudible), they're
13 all over the county, because obviously the sun is pretty
14 much all over the county, although the argument is made
15 it's better on the west than it is on the east,
16 (inaudible), I don't know why. But one of the things that
17 the county and the IID just did is they signed an
18 agreement to work together on promoting that industry, but
19 also to do basically no early land use zoning type of
20 overlays similar to what we did on the geothermal, the
21 KGRAs (inaudible).

22 COMMISSIONER BYRON: Do you know what KGRA is?

23 MS. GRAU: Um-umm.

24 MR. HUEBERGER: Here what we're looking at is,
25 can we focus the projects to be somewhat concentrated in

1 one region of the county, which would then, you know,
2 minimize, say, the number of corridors or maybe more of
3 them can then be upgraded to accommodate more of those
4 plans at the same time.

5 So I think there's ways that the land use
6 planning process can enhance and at the same time protect
7 the environment, because as far as -- it pretty much
8 already exists, and there be a need for a new one, but it
9 would be limited.

10 COMMISSIONER BYRON: Mr. Hueberger, would you
11 please tell us what a KGRA is?

12 MR. HUEBERGER: Known geothermal resource area.

13 COMMISSIONER BYRON: Of course, of course.

14 MR. HUEBERGER: (Inaudible).

15 MS. WALD: Roger, could I just answer that?
16 That that's a perfect example of what I was referring to
17 when I spoke of the need to link the transmission and the
18 generations together. You know, you can't have somebody,
19 we cannot have, if we really care about our landscapes and
20 our environment, we can't have these projects dotted
21 willy-nilly across those landscapes with just the market
22 determining where they're going to go, that especially not
23 if it means we're going to have to go transmission to all
24 of those projects that are littered willy-nilly across the
25 landscape.

1 We need to take, I would argue, an affirmative,
2 proactive approach that guides the projects, the
3 generations to the most appropriate places considering
4 where the generation already is, and then guides the
5 generation to the areas that are most appropriate for
6 development. They go together.

7 COMMISSIONER BYRON: It sounds to me like you're
8 describing a process you've been involved with for the
9 last 18 months.

10 MS. WALD: We've been trying.

11 MS. ARONS: If I could add on to what Johanna
12 has said. I think that, you know, historically
13 transmission has been kind of a 'not in my backyard'
14 phenomenon, and where the RETI process kind of began was
15 to try to lay out sensitive areas, not here, not here.
16 And they ended up, I thought it was kind of a revelation
17 as it was described to me, there was no place to build
18 transmission.

19 And then what began was the really valuable part
20 of the exercise at RETI, and that was the discussion of
21 the tradeoffs of, 'If you put it here,' versus, 'If you
22 put it there.' And we all agree that we have to achieve
23 33 percent. We all are agreed that we're trying to do
24 that in the least environmentally impactful way, and so it
25 began the process of trying to whittle down where you can

1 build transmission. It was extremely valuable and
2 continues to be very valuable, and I think it's going to
3 actually come up with a lot of potential transmission
4 options that we want to proceed with state designation on
5 it.

6 And so I think this process that Johanna has
7 described of, you know, trying to move the projects around
8 so that you can in a land use discussion decide how the
9 land is going to be used, manage your environmental
10 impacts, and get transmission built is kind of a little
11 three-ring circus that you have going on.

12 But what RETI has shown is, you take interests
13 that are typically on opposite sides, polar opposites, and
14 you find ways of being able to work together, and it's
15 this trade-off discussion that I think is, has been so
16 valuable in the whole RETI process, that I find it very
17 remarkable.

18 MR. JOHNSON: Thank you. Chloe has mentioned
19 about what a program EIR would be, what it could do and
20 might need to be could refresh, when it comes time to
21 using it, for a transition project in the CPCN.

22 My question to Juan Carlos, since IID is a
23 municipal agency and they do their own transition line
24 permitting, what do you think would, what, how could you
25 use a corridor designation program EIR to be most useful

1 when you go to do your permitting for a transition
2 project?

3 The program EIR, if a corridor designation is
4 performed, the Energy Commission would work with the
5 developer to develop a program EIR for that older
6 designation, and then the hope is that they, whoever uses
7 that to permit the facility, the transition line, would be
8 able to use the program EIR, tier off of it, and
9 essentially save time and effort, if you would, permitting
10 the, doing the CEQA work for the project.

11 So if you were to have a program EIR developed
12 by the Energy Commission for a corridor, how would it be
13 most useful to you? What would (inaudible) --

14 MR. SANDOVAL: I thank the issue of, you know,
15 that (inaudible) had the benefit that back in 2004 our
16 area was selected together with Tehachapi for an effort,
17 the Imperial Valley study work group, and this was an open
18 process. Interests groups, local entities, everybody
19 participated in coming up with this conservation plan for
20 renewables when we (inaudible).

21 As a result of that, we have identified the
22 (inaudible) of the system, and IID initiated the
23 problematic EIR for some of those transmission
24 (inaudible). So we are at about 30 percent of that
25 process, but (inaudible) started doing all the work, you

1 know, working with me (inaudible) in trying to do the work
2 ahead of time and trying to do this problematic EIR study
3 and then pick up the pieces, individual transmission
4 operates, and taking it to (inaudible) for its completion.
5 But yeah, we have done some (inaudible).

6 COMMISSIONER BYRON: Chloe?

7 MS. LUKINS: Yeah. I was just saying that when
8 you do the corridor designation and a project-specific
9 project comes in within that corridor designation, we
10 would still have to go through our process, our
11 environmental process, because now when it's a specific
12 project, people will know, 'Oh, it's a 500 (inaudible)
13 line or an (inaudible) line, these are exactly where the
14 footings of the (inaudible) are located at.' We'll have
15 to actually do service to see is there any environmental
16 impact. We want to make sure that we get input from the
17 public. We really need that public input (inaudible)
18 consultation. We have to go through that important part
19 of the (inaudible) process.

20 So for the corridor designation, it still helps
21 us, but it's not replacing the project-specific process.
22 I just wanted to clarify that.

23 MR. JOHNSON: Well, what would you recommend we
24 could do to improve that program EIR so it would be more
25 comfortable as far as -- my suggestion and the question

1 was, would it be helpful if the PUC collaborated with the
2 Energy Commission and identified the alternatives in the
3 scope analysis for the program EIR so it would be more
4 understood what you needed and how you would be able use
5 it?

6 MS. LUKINS: Well, I also think it's really
7 important, you have to consult with the cities and
8 counties and agencies also, especially because it's going
9 through their communities. You'll want to know if certain
10 areas are zoned a certain way.

11 But one other thing they need is to kind of help
12 with the designation of the corridors, is cities have
13 their general plan, and as part of the general plan they
14 have it amended every often, and I think in this general
15 area, each district to actually have energy zones
16 designated in the general plan in their amendment, and
17 also energy corridors. I mean, maybe, you know, that
18 would be helpful to actually signal to the city and
19 developers, 'Hey, we want to save this area or corridor
20 for transmission corridors in the future.

21 MR. JOHNSON: I think it was Mr. Hueberger's
22 comment what Imperial County has done.

23 MS. LUKINS: That's right.

24 MR. JOHNSON: I know we're running short on
25 time. I know that (inaudible) has a cab waiting for her

1 in a few minutes. So let's just jump to the last question
2 here, and I appreciate you all hanging in there 'til the
3 end.

4 But what actions could be taken to better
5 preserve designated corridors for their intended use?
6 We've had some suggestions. Any final comments on what we
7 should be thinking about for ensuring these designated
8 corridors will be around when we need them? Jurg?

9 MR. HUEBERGER: Well, I go back to what I
10 started to say earlier, and that is if these corridors can
11 be planned out and scoped out from, say, a operative
12 record between the CEC and local agency and incorporated
13 into the general plan, I might even go as far as saying
14 maybe there should be some effort at the state planning
15 level that makes it mandatory that we (inaudible)
16 circulate, or a, transmission elements and what we have
17 for, say, the circulation element for highways, although I
18 think (inaudible) probably looking like (inaudible) that
19 suggestion.

20 Anyway, at least the corridors would be laid out
21 in a document that most of the developing community
22 utilizes when they come in for a project. So a lot of
23 times -- and I'll use the schools for examples. Schools
24 don't have to generally comply with the land use zoning
25 issues either, but when we work with them and identify

1 where their facilities are going to be (inaudible), then
2 they know this is what they have to look at, this is what
3 they have to plan for.

4 So if the general plan reflects these corridors
5 and identifies them, to a large extent the planning agency
6 has a lot of say-so in terms of protecting those corridors
7 or those areas, and we have to be careful that we don't do
8 it so that it becomes a takings issue, but that it
9 certainly is, it's indicated, you know, potentially by at
10 least that section of when it per se (inaudible) comes in,
11 whereas (inaudible) or taking (inaudible), perhaps. But I
12 think that's one way to help the state achieve its goals
13 by appropriating it into the planning documents.

14 MS. WALD: I would endorse that too, Roger. It
15 seems to me providing incentives for maintaining those
16 corridors once they have been designated is really
17 important, because if you are saying to people, 'This is
18 the best place that we've found for a corridor in this
19 particular location,' given thought to that, the future
20 growth and development of the area -- I mean, I thought
21 that Pat's point about allowing the county and the
22 communities to grow around those corridors is critically
23 important. But if you've decided that if these are the
24 best places, then we ought to do more to make sure that
25 they are retained for that purpose, which isn't just a,

1 there might not be good reasons to change them, but it
2 should be harder to change them once we've actually gone
3 through the kind of process that we're talking about, that
4 it might be (inaudible).

5 MR. JOHNSON: And if anybody thinks it's
6 questionable whether or not communities can grow around
7 the corridors, just take a short drive to Folsom,
8 California and you'll see that what once used to be cow
9 pastures and a large transition substation with lines
10 coming in from all directions is now a community where you
11 really can't, you really can't see it. It's, they've
12 completing built in between and under those transition
13 lines. It's truly remarkable. Johanna, you mentioned
14 that incentive. What kind of incentive are you thinking
15 about for allowing these corridors to remain available?

16 MS. WALD: Well, I don't really have at this
17 moment, I'm not sure I have any good ideas for what the
18 incentives might be, but --

19 MR. JOHNSON: Okay.

20 MS. WALD: But I'll think about it, Roger.

21 MS. ARONS: I think from Edison's perspective,
22 you know, there really is some meaning to streamlining and
23 licensing, that what we hope to accomplish with corridor
24 designation is to deal with the issue of opposition
25 potentially ruling in such a way that it isn't necessarily

1 allowed to go to litigation, but rather, try to find
2 accommodation on what people need, what communities need,
3 and then begin to work together to allow this to happen.

4 So I think the real incentive comes out of the
5 (inaudible) of avoiding litigation, of streamlining
6 licensing, and, you know, having communities understand
7 the eventuality of a transmission project there is the
8 real incentive. That, and holding property in rates. And
9 with that, I need to excuse myself. Thank you.

10 MR. JOHNSON: Thank you, Pat.

11 COMMISSIONER BYRON: Thank you for coming.

12 MS. WALD: Thanks, Pat.

13 MS. ARONS: Thank you.

14 MR. JOHNSON: Does anybody else have any --

15 MR. HUEBERGER: Yeah. In addition to what she
16 just said, I think there's some other opportunities,
17 again, from the land use standpoint.

18 The local agency can provide distance
19 (inaudible) monitorings, and, for example, the density
20 bonuses. that for those willing to work with us to come up
21 with a project that we think and that they think and the
22 community thinks makes a lot more sense, maybe because
23 they have to give up a certain amount of rights or right
24 of ways or distances, things like that, that they get some
25 advantages elsewhere, either through the (inaudible)

1 streamline, you know, when the local agency finds suitable
2 projects that the community wants, there's usually way to
3 get it done a lot easier when it's kind of a (inaudible)
4 position too.

5 So there's those kinds of incentives to show,
6 you know.

7 COMMISSIONER BYRON: Mr. Johnson, you're on this
8 panel too, aren't you?

9 MR. JOHNSON: I am, sir.

10 COMMISSIONER BYRON: Good. I have a question
11 for you. How long does this process take?

12 MR. JOHNSON: It's a 12-month process by
13 legislation, and we, although developing an application
14 will definitely take longer than, it'll take about 12
15 months to develop a good application, we were able to
16 develop regulations for this process, and there are some
17 significant information requirements associated with
18 developing a corridor designation application. So but the
19 process is designed to be 12 months. There's a lot of
20 coordination that's expected to occur with local agencies.

21 And just to expand on that a little bit, we're
22 (inaudible) that if you're thinking about developing a
23 corridor application to file here at the Energy
24 Commission, either the staff developing it for our motion
25 or for a utility, we expect that you're going to spend

1 some time out in the community ahead of that development
2 of that application, spending time working with local
3 agencies asking them to assist you in identifying
4 alternative routes.

5 I understand the issue of what's needed as far
6 as transition and what are the issues associated with that
7 particular community, and what would they be recommending
8 as far as looking at alternatives?

9 And then with that information, you would then
10 develop your application and then file something here.
11 But you've already been in the community ahead of coming
12 here, and it wouldn't be the first time the community
13 would see it when you bring in an application to the
14 Energy Commission. That's our plan.

15 COMMISSIONER BYRON: Yes. And, of course, we,
16 at the Commission, we happen to think that's the right way
17 to proceeding with transition planning, is to go to the
18 community first.

19 But Mr. Johnson, if we're going to use state
20 resources to put together applications and review
21 applications, I should say limited and critical state
22 resources, I'd like to get some sense, and maybe we've
23 lost some of the participation particularly of our
24 investor-owned utilities, unless there's someone, some
25 others that are here, I'd like to get a sense from the

1 Panel of whether or not you think that's a good use of
2 state resources. I think I know how Ms. Wald feels about
3 that. You should be able to say, 'Yes, it is.'

4 MS. WALD: I would say yes, sir.

5 COMMISSIONER BYRON: Yes.

6 MS. WALD: I'll let somebody else (inaudible).

7 COMMISSIONER BYRON: But I'd be curious,
8 Mr. Sandoval, and others, and others in the audience that
9 would care to answer that, is that a good use of state
10 resources? Because it's going to take a couple years for
11 each corridor.

12 MR. SANDOVAL: You know, we haven't seen the
13 need for it right now, but we're looking closely into the
14 designation of transmission corridors. There's apro pro
15 reason that, you know, (inaudible) is one of the biggest
16 issues that we have against what could be, I think, the
17 corridors, you know, there's right of ways, you know, the
18 growth pretty much surrounding our existing facilities and
19 ways to create these buffers, even if it is additional
20 right of ways.

21 So yes, there will be costs into this
22 transmission corridor designation.

23 MR. JOHNSON: Anybody else want to respond to
24 that question?

25 MR. HUEBERGER: I think it's a good use, and I

1 think it's a necessary use. I think it's something we
2 have to do, because it's not going to get any easier to
3 put in these corridors.

4 MS. LUKINS: I think it's especially helpful if
5 it's for corridors that are not in -- that are in use,
6 that are in new right of ways. If there's already a line
7 that gives you a right of way, I don't think you should
8 (inaudible) unless it becomes a corridor. But it's only
9 for new right of ways if this (inaudible).

10 MR. JOHNSON: Commissioner, I have all my notes
11 here, that I'm going to open the other commentators and
12 the people here in the room, if they have any questions of
13 this Panel.

14 So with that, does anybody have any questions
15 for myself or the Panel members? If not, I return it back
16 to you.

17 MS. GRAU: And one more thing, Donna. Do we
18 have anyone on the phone who would care to make a comment?

19 MS. PARROW: No.

20 MS. GRAU: Okay. All right. Thank you.

21 At this time, then, we do have time for general
22 public comments on anything you have heard today, if
23 there's anyone who would like to say one last thing before
24 we adjourn in the room or on the phone.

25 Okay. I guess everyone's about at their limit,

1 Commissioner Byron. So I'll turn it back to you, if
2 there's anything like you'd to say.

3 COMMISSIONER BYRON: Well, let's do -- thank you
4 very much. Let's -- I do have closing remarks, but let's
5 do this as well.

6 Panelists, is there anything else that you
7 wanted to add? We certainly value you being here today,
8 and this topic was not, didn't require quite the length
9 that the earlier Panel did, but I want to make sure that
10 if there was anything else you wanted to add, you could.
11 This would be the time to do so. Ms. Lukins?

12 MS. LUKINS: Yeah. And this is just about the
13 (inaudible) corridor of (inaudible). You know,
14 (inaudible) an IOU, a developer, a merchant or
15 (inaudible), and maybe the (inaudible) the utility is
16 ready to use it. I know we sprung that as an idea. And
17 then how to pay for it, I mean, would they actually own
18 the property, or (inaudible)? And maybe have a public
19 (inaudible) charge to pay for it. If that, of course,
20 happened, how would we, you know, how can you apply that
21 to the whole state? I don't know.

22 And then, is that pay not just for the
23 purchasing of the land or the easement corridor, but also,
24 does that pay for the environmental (inaudible)? And
25 those are just questions to add in there (inaudible) some

1 ideas.

2 COMMISSIONER BYRON: Good.

3 MS. GRAU: Thank you. Just one more thing,
4 then. The due date for written comments on today's
5 workshop is next Friday, May 15th, and then we hope to see
6 some or all of you back for our next joint IEPR Siting
7 Committee workshop on June 15th to continue this dialogue.

8 And I'll turn it back to you.

9 COMMISSIONER BYRON: Thank you. And if I may, I
10 would just like to close with a couple of comments, maybe
11 take-aways.

12 This was very informative, and it's unfortunate
13 that some of my fellow commissioners could not be here
14 this morning to hear all of this. But just so you'll all
15 know where we're headed, we're going to obviously take
16 this input and input from the other transmission plan
17 workshops, we're going to take that input forward in terms
18 of our (inaudible) policy report and the recommendations
19 we plan to make.

20 But I think it would be helpful for me to tell
21 you a couple of things that we know for sure. One is, we
22 know for sure that 33 percent renewals is not the ceiling,
23 it's the floor.

24 So we're really thinking in terms of long-term
25 planning here, and we're struggling with taking a

1 transitional investment plan forward in some way that's
2 meaningful so there's longer-term goals, to 2020 and maybe
3 beyond. And that's challenging, because we do take
4 information from all of the utilities that's been provided
5 to us, we're counting on the input from the renewable
6 energy transmission initiative, and the work that the ISO
7 does, the PUC's work as well. But we really need to have
8 a statewide investment, strategic investment plan, and
9 that's very challenging for our staff.

10 And the second thing is, I'm always struck,
11 there's a, being a, trained as a structural engineer,
12 transmission lines are easy, right, in terms of
13 structures, in terms of technically knowing what we need
14 on the system, where we need to build and how much we need
15 to build, and -- it's generally pretty easy to do.
16 However, there's a lot of groups involved. But we can all
17 get together and do that technical planning, and I think
18 we do that quite well. But what I'm really struck by are
19 the comments of those like Ms. Wald and Mr. Zacala here,
20 that the input and the public participation early on is
21 really, I think, maybe where we have not done as good as a
22 job as we could going forward, and that's where we need to
23 think a little bit differently than we have in the past.
24 It's not clear to me that we can do transmission planning
25 the same way we've done it in the past. It's a limited

1 resource -- I'm sorry, it is not a limited resource; the
2 land is becoming a much more limited resource.

3 So that leads me to the third point, and that is
4 it's become clear to me in the past and here today as well
5 of the importance of the renewable energy transmission
6 initiative.

7 Again, I think everyone that's here, members of
8 the Public Utilities Commission, the ISO, all the
9 stakeholders that have participated in that process, the
10 consensus-building, stakeholder process that's taken place
11 there I think has been very valuable. I don't know how
12 we're ever going to thank the participants of that enough.

13 However, I did point out, we need that
14 information. We need that Phase 2A report to proceed in
15 order to fulfill our obligations under law here to get
16 these plans together. And there is an executive order, as
17 you all know. Ms. Wald --

18 MS. WALD: I'm going home to work on it tonight.

19 COMMISSIONER BYRON: Ms. Wald, and also the
20 coach here is one of the working groups. And I know
21 you'll all under a tremendous amount of pressure. We're
22 just trying to add to it. So we certainly need those
23 results.

24 I guess the fourth point that comes to mind, and
25 we didn't talk about this much today, but there's the

1 federal corridor designation that's going to come into
2 play here, how that meets and meshes with the state's
3 process. Our corridor designation, Mr. Johnson has led
4 this last Panel on, etcetera.

5 I feel very strong that we cannot ignore the
6 state's interests and needs, and even our own laws when it
7 comes to dealing with the federal corridor process. And
8 we're going to have to work on that, that's going to
9 continue to be a problem, and the state is going to have
10 to be engaged and be a party to whatever our federal
11 government comes up with.

12 So we're paying a lot more attention now to
13 what's going on at the federal level than we have in the
14 past, and that's going to be necessary going forward.

15 The need to do planning with all stakeholders.
16 I think Ms. Zacala drove this home in his comments at the
17 end of the first Panel. You know, it's, like I said, we
18 do the technical work well. Mr. Bayless (phonetic)
19 indicated all these lines are creating a lot of
20 excitement, but not amongst everyone, and we've got to be
21 mindful of that. That's the impediment that we're not
22 dealing with on the planning side very well.

23 The big issue is the land use and environmental
24 considerations. Are we going to continue to use the same
25 old process that we've done? Is it going to work going

1 forward? Is it going to be as effective? I have my
2 doubts that it will be. And will, for instance, publicly
3 owned utilities be able to build their own lines, or do
4 they all need to be joint projects going forward? These
5 are difficult decisions, particularly for some of our
6 larger publicly owned utilities in the state. And, of
7 course, as we talked about, the limited number of
8 corridors that have, that are left.

9 So it reminds me, if you'll indulge me, of an
10 old saying, 'Everybody wants to go to heaven, but nobody
11 wants to die.' We all use and love electricity. We want
12 to see increased electrification in the state. It's the
13 right thing to do going forward for our transportation
14 sector and others. Everybody wants electricity, but
15 nobody wants the transmission.

16 And, you know, it's interesting, I think
17 traditionally, in fact, Ms. Arons talked about, she used a
18 comment which I hadn't heard all day essentially about
19 opposition, meaningful streamlining so we can deal with
20 the opposition early on. That characterization is a
21 mindset that I think we need to change. The environmental
22 groups have traditionally been seen as obstructionists to
23 transmission development, primarily because of the way we
24 go about doing this. And so we have something different
25 going on right now, as Mr. Zacala pointed out. The RETI

1 process is something new, we haven't done this before, and
2 we're giving the environmental community thanks to folks
3 like Ms. Wald and Mr. Zacala who are participating in
4 these processes on behalf of their organizations, NRDC and
5 the Sierra Club, we're giving them an opportunity to be
6 for something. That's an extraordinary change, and we
7 need to take full advantage of that.

8 The PUC I know is relying upon, says they're
9 going to be relying upon those RETI results. We are. We
10 know the ISO's relying upon their RETI results for their
11 cue, transmission cue work. The Governor's executive
12 order calls out RETI. The, I think we may even see it in
13 some federal legislation at some point as well.

14 So I can't thank you enough, Ms. Wald, for your
15 involvement in this process and the level of effort that
16 you've put forward. And like I said about wanting to get
17 to heaven, which would be the 33 percent renewables, yet
18 not willing to die, we need to realize and support the
19 need for the infrastructure that we're going to have to
20 build in order to get to that high percentage.

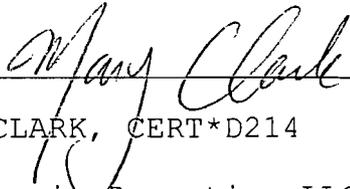
21 So I fully recognize this is a difficult road
22 that we've put you on, and pointing to Ms. Wald, because
23 we're going to certainly count on you and others to go to
24 the environmental communities where these transition lines
25 are and make the case for why these are going to be

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4 CERTIFICATE OF REPORTER

5 I, MARY CLARK, an electronic reporter, do hereby
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